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SITE CHARACTERIZATION REPORT FOR SITES 100 AND 102 OUTLYING LANDING FIELD BRONSON NAS PENSACOLA FL

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TETRA TECH

Site Characterization Report
for
Sites 100 and 102

Outlying Landing Field Bronson
Pensacola, Florida

Southern Division
Naval Facilities Engineering Command
Contract Number N62467-94-D-0888
Contract Task Order 0086

May 2001

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SITE CHARACTERIZATION REPORT
FOR
SITES 100 AND 102

OUTLYING LANDING FIELD BRONSON
PENSACOLA, FLORIDA

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT

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ACRONYMS AND ABBREVIATIONS

bls	below land surface
CQAP	Comprehensive Quality Assurance Plan
DPT	direct push technology
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FID	flame ionization detector
GCTLs	Groundwater Cleanup Target Levels
GPS	Global Positioning System
ID	inside diameter
ug/L	micrograms per liter
NAD	North American Datum
NAS	Naval Air Station
NAVD	North American Vertical Datum
Navy	U.S. Navy
NEESA	Naval Energy and Environmental Support Activity
OD	outside diameter
OLF	Outlying Landing Field
OVA	organic vapor analyzer
PCB	polychlorinated biphenyl
PVC	polyvinyl chloride
SARA	Superfund Amendments Reauthorization Act of 1986
SCR	Site Characterization Report
SCTLs	Soil Cleanup Target Levels
SOUTHNAV-FACENGCOM	Southern Division, Naval Facilities Engineering Command
SPLP	synthetic precipitation leaching procedure
SVOC	semivolatile organic compound
TtNUS	Tetra Tech NUS, Inc.
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

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TtNUS	Tetra Tech NUS, Inc.
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

EXECUTIVE SUMMARY

Tetra Tech NUS, Inc. (TtNUS) has completed a Site Characterization Report (SCR) for Sites 100 and 102 at Outlying Landing Field (OLF) Bronson. Soil and groundwater quality data collected during the SCR investigation were evaluated and compared to the groundwater and soil cleanup level requirements established in Chapter 62-777, Florida Administrative Code (F.A.C.). The SCR was submitted to the Florida Department of Environmental Protection (FDEP) for approval.

TtNUS performed the following actions during the SA:

- Reviewed the Preliminary Assessment Report and Phase I Environmental Report prepared for the facility to determine appropriate boring locations and monitoring well placements, and to identify the nearby surface hydrology and drainage;
- Conducted a site survey to identify utilities and to construct a site plan;
- Performed six direct push soil borings and collected soil samples for field screening of total petroleum hydrocarbons using an organic vapor analyzer;
- Installed six shallow permanent monitoring wells at depths ranging from approximately 5 to 12 feet below land surface (bls); and installed two temporary monitoring wells to approximately 5 feet bls.
- Collected groundwater samples from the monitoring wells for laboratory analysis of by United States Environmental Protection Agency (U.S. EPA) Method SW-846 8260B for volatile organic compounds (VOCs), Method SW- 846 8270C for semivolatile organic compounds SVOCs, Methods SW-846 6010, SW-846 7471, SW-846 7470, SW-846 9010, SW-846 9066 for inorganic analysis (metals and cyanide), and Method SW-846 8081 for pesticides and polychlorinated biphenys (PCBs).
- Collected nine surface soil samples and two subsurface soil samples for laboratory analysis for VOCs, for inorganic analysis (metals and cyanide), and for pesticides and PCBs.
- Surveyed monitoring well top of casing elevations and collected depth to groundwater measurements to evaluate the groundwater flow direction.
- Reviewed the validity of sample data and provided evaluation and interpretation in support of conclusions and recommendations.

Conclusions

A shallow water table is present beneath Site 100 and Site 102, with groundwater encountered within 2 feet of the ground surface. At Site 102, the land surface is prone to flooding from the wetland area located adjacent to the Site.

No organic vapor concentrations were detected in the soil samples collected from the Sites. Surface soil samples analyzed from Sites 100 and 102, and the background sample location, identfied VOCs, SVOCs, and metal parameters at concentrations below their FDEP Soil Cleanup Target Levels (SCTLs). Subsurface soil samples collected from the background sample location reported all tested parameters below laboratory method detection limits and below their FDEP SCTLs. No visual evidence of stained soils or chemical odors were detected during soil sampling activities.

Groundwater samples analyzed for Sites 100 and 102 and from the background sample location, reported all tested parameters below their laboratory method detection limits and below their respective FDEP Groundwater Cleanup Target Levels (GCTLs). Groundwater samples analyzed for Site 102 detected aluminum and iron at concentrations above their FDEP Groundwater Cleanup Target Levels. However, the inorganic sample analysis may not be a representative sample of the aquifer and may reflect turbidity of the water sample.

Recommendations

Based on the findings of the SCR investigation, A No Further Action is recommended for Site 100. At Site 102 additional groundwater sampling is proposed to evaluate the groundwater aluminum and iron concentrations. It is recommended that two replacement monitoring wells be installed and sampled. The new wells should be designed with filter packs to minimize turbidity in the groundwater samples. The new wells should result in a more representative groundwater sample. The groundwater samples should be analyzed for inorganics only.

Surface soil samples and subsurface soil samples (if depth to groundwater permit) should be collected and analyzed for aluminum and iron by Synthetic Precipitation Leaching Procedure (SPLP). The proposed sampling activities will provide additional data to evaluate the aluminum and iron concentrations detected in the groundwater at Site 102 during the SCR investigation.

1.0 INTRODUCTION

Tetra Tech NUS, Inc. (TtNUS), under contract to the Department of Navy, Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) is submitting this Site Characterization Report (SCR) for Sites 100 and 102 at Outlying Landing Field (OLF) Bronson (the facility) located west of Pensacola, Florida (Figure 1). The SCR presents the results of a preliminary site characterization investigation prepared on behalf of the Navy at Naval Air Station (NAS) Pensacola under contract No. N62467-94-D-0888.

1.1 PURPOSE OF REPORT

The purpose of the SCR is to document field investigation activities and to report the findings from soil and groundwater testing conducted at Sites 100 and 102 during September and October 1999 at OLF Bronson. The results of the investigation were evaluated to determine if additional soil and groundwater testing should be conducted at the Sites.

1.2 PHYSICAL DESCRIPTIONS OF SITES

1.2.1 Site Description

1.2.1.1 Site 100 – Former Fire-Figher Training Area

Site 100 is a former fire-fighter training area located approximately 600 feet east of the taxiway, as shown on Figure 2. The OLF Bronson Fire Department conducted practice burns at the training area during the period that OLF Bronson was active (1942–1958). Typical fire-fighting drills consisted of filling a shallow pit with water then pouring flammable material on top of the water and igniting it. Typically, material burned during the training exercises consisted of readily available flammable products such as waste aviation gasoline. Other flammable liquids consisting of kerosene, chlorinated solvents, diesel fuel, hydraulic fluid, and automobile gas may have been burned (Law Engineering and Environmental Services, Inc., 1997).

1.2.1.2 Site 102 – Former Machine Gun Butt

Site 102 is a former machine gun butt located approximately 800 feet east of the taxiway and 400 feet southeast of Site 100, as shown on Figure 2. The machine gun butt measures approximately 100 feet by 40 feet by 30 feet high. The mound was used by aircraft mechanics to calibrate 30- and

50-caliber aircraft machine guns. Bullets from aircraft guns were aimed at the machine gun butt to test and align aircraft gun sites. Remnants of bullets were discovered embedded in the machine gun butt (Law Engineering and Environmental Services, Inc., 1997).

1.2.2 Previous Investigations

1.2.2.1 Preliminary Assessment Report

OLF Bronson was listed on the Federal Facilities Hazardous Waste Compliance Docket. In accordance with the Superfund Amendments and Reauthorization Act (SARA) Part 120, Naval Facilities Engineering Command tasked the Naval Energy and Environmental Support Activity (NEESA) to conduct a preliminary assessment on OLF Bronson. The preliminary assessment was conducted to evaluate if a potential threat to human health or the environment exists as a result of past or present operations conducted at the facility. The preliminary assessment included (1) the investigation of available records at NEESA and the Naval Facilities Engineering Command, (2) performance of a facility site inspection to complete documentation of past and present operations and disposal practices, and (3) interviewing employees at the facility with the assistance of NAS Pensacola representatives. Results of the investigation identified the fire fighting and machine gun butt training areas as areas of potential environmental concern with further site investigation recommended (Law Engineering and Environmental Services, Inc., 1997).

1.2.2.2 Phase I Environmental Site Assessment, 1997

In October 1997, Law Engineering and Environmental Services, under contract to the School District of Escambia County Florida Facilities Planning Department, initiated a Phase I Environmental Site Assessment at OLF Bronson. The objective of the assessment was to characterize the facility and adjacent properties with respect to actual and potential recognized environmental conditions. The assessment included review of the facilities location, present and past land uses, topography, soils, geology and hydrogeology, historical setting and document review, interviews, and site reconnaissance for environmental concerns.

Findings from the Phase I Environmental Site Assessment identified the former fire-fighter training area, Site 100, and the former machine gun butt, Site 102, as areas of environmental concern. The assessment results reported surface staining and petroleum-like odors at Site 100 and the potential for heavy metal contamination at Site 102. Heavy metal contamination was identified as a potential concern by association of metal particulates typically associated with firing ranges. The assessment recommended the collection of soil and groundwater samples at each of the Sites (Law Engineering and Environmental Services, Inc., 1997).

1.3 REPORT ORGANIZATION

The Site Characterization Report is organized into eight chapters (Chapters 1.0 to 8.0). Chapter 1.0 presents the purpose of the SCR and includes, site descriptions, previous investigations at OLF Bronson, and the report organization. Chapter 2.0 contains information on the site background. Chapter 3.0 presents the physiographical and hydrological conditions. Chapter 4.0 identifies the investigative methodologies and equipment used during the investigation. Chapter 5.0 addresses the results of the analytical data. Chapter 6.0 contains the summary and conclusions based on the results of the investigation. Chapter 7.0 presents the professional review certification. Chapter 8 identifies references used in preparing the document. Supporting data are provided in the Appendices.

2.0 SITE BACKGROUND

Sites 100 and 102 at OLF Bronson (Figure 2) are located in Escambia County, in Florida's northwest coastal area, approximately 5 miles west of the Pensacola City limits. The 950-acre installation was constructed in the early 1940s. Prior to construction, the Sites were undeveloped and sparsely vegetated. Areas to the south, east, and north of the facility are undeveloped with the exception of some residential properties along U.S. Highway 98 and Perdido Bay located approximately 0.5 miles to the north (Law Engineering and Environmental Services, Inc., 1997).

The original name of the airfield, Tarklin Field, was changed to OLF Bronson during the installation construction activities. The base was used as training base for naval aviators during World War II and the Korean War. The western portion of the facility was used to maintain sea planes and train sea plane pilots. OLF Bronson was closed as an active airfield in 1950, but the runways were still used for touch-and-go landing for helicopter training. After 1950, base dismantling activities were conducted and by 1968, all buildings located at OLF Bronson were raised (Law Engineering and Environmental Services, Inc., 1997). Today, several unpaved roads or airstrips are present leading to a circular paved area.

3.0 SITE CONDITIONS

3.1 PHYSIOGRHAPHY

The facility consists of generally flat terrain with surface drainage flowing by way of sheet flow towards a large wetland area located to the south and southeast. The wetlands area drains into Perdido Bay located approximately 0.5 miles to the west. The land surface at Sites 100 and 102 is primarily vegetated with grass and mature trees. The land surface soils are generally composed of a fine-grained sand. The Sites are bordered to the north by an asphalt paved landing mat, to the west by a runway, to the south by wetlands and undeveloped wooded properties, and to the east by wetlands located adjacent to residential properties (Figure 2).

3.2 HYDROGEOLOGY

3.2.1 Regional

Sites 100 and 102 are located in the Coastal Plain Province which is a major physiographic division of the United States primarily consisting of unconsolidated sands, silts and clays. The Sites lie within the topographic subdivision of the Coastal Lowlands which consists of nearly level plains lying less than 100 feet above sea level. Pleistocene terrace deposits and Citronelle Formation, undifferentiated, comprise the surface deposits in the region. At Perdido Bay, the Pleistocene deposits are approximately 400 in thickness and consist of fine to coarse-grained sand with lenses of clay and gravel. The deposits, are underlain by Miocene coarse clastics comprised of fossiliferous sands with lenses of gravel and clay. The Miocene coarse clastics have a thickness of approximately 500 feet at Perdido Bay (Marsh 1966).

Groundwater is the principal source for domestic, agricultural, and industrial use in Escambia County. The Sand and Gravel Aquifer is the primary aquifer in Escambia County and the majority of the wells in the county draw water from this aquifer. The Sand and Gravel Aquifer is generally consists of quartz sand and contains numerous lenses and layers of clay and gravel. This aquifer extends from the water table down to various depths ranging from approximately 200 to 1000 feet. (Law Engineering and Environmental Services, Inc., 1997).

3.2.2 Site Specific

Lithologic descriptions of soil samples collected from borings advanced during the SCR investigation, are used to evaluate the site-specific geology for Sites 100 and 102. Since the deepest borings were advanced to approximately 12 feet bls to facilitate monitoring well installations, discussion on sediment textures is limited to the upper 12 feet of sediments in the study area. The lithology of the sediments at Site 100 and 102 are composed of brown-to-tan and white fine-grained sands. Beneath Sites 100 and 102 the depth to the water table ranged from approximately 0.5 to 2 feet bls. Background borings, BRO-102-1S and BRO-102-2S, installed approximately 3,800 feet to the north of the study area, intersected the water table at approximately 6 feet bls. The land surface elevation ranges from approximately 14 feet above mean sea level (msl) at the Sites, to approximately 26 feet above msl at a distance of approximately 3,800 feet north of the study area. Boring logs are presented in Appendix A.

4.0 METHODOLOGIES AND EQUIPMENT

4.1 SOIL BORING ADVANCEMENT, SOIL SAMPLING AND ORGANIC VAPOR ANALYZER HEADSPACE ANALYSIS

4.1.1 Soil Sampling

TtNUS conducted a soil assessment during September and October 1999 at Sites 100 and 102, and from a background location situated approximately 3,800 feet north-northwest of the study area along Bronson Road. Four soil borings BRO-100-1S, BRO-100-2S, BRO-100-3S, and BRO-100-4S were installed at Site 100 and two soil borings, 102-SS-01 and 102-SS-02 were installed at the background location. In addition to the soil borings, four surface soil samples 100-SS-01, 100-SS-02, 100-SS-03, and 100-SS-04 were collected at Site 100, three surface soil samples, 102-SS-03, 102-SS-04, and 102-SS-05 were collected at Site 102, and two surface soil samples, 102-SS-01 and 102-SS-02, were collected at the background boring locations. The soil boring locations for Sites 100 and 102 are provided on Figures 3 and 4, respectively. The locations of the background borings are shown on Figure 5. The soil boring logs are provided in Appendix A, and the soil field sampling forms are included in Appendix B.

Soil samples from vadose zone soils were collected from the monitoring well installation borings. Samples from these borings were collected for purposes of organic vapor screening and lithologic description. The soil samples which exhibited the highest vapor concentration were retained for laboratory analysis by United States Environmental Protection Agency (U.S. EPA) Method SW-846 8260B for volatile organic compounds (VOCs), Method SW- 846 8270C for semivolatile organic compounds (SVOCs), Methods SW-846 6010, SW-846 7471, SW-846 7470, SW-846 9010, SW-846 9066 for inorganic analysis (metals and cyanide), and Method SW-846 8081 for pesticides and polychlorinated biphenys (PCBs). The soil borings were advanced using direct push technology (DPT) utilizing a truck mounted direct-push, hydraulic soil probe using a 4-foot long stainless steel split-spoon barrel sampler. The DPT soil sampling technology allowed for the collection of samples from a discrete depth interval with minimal disturbance to the sample. Soil samples were collected for vapor screening from approximately ground surface to the water table. The DPT borings ranged in depth from approximately 6 to 12 feet bls to facilitate the monitoring well installations. The soil samples for laboratory analysis were collected using a stainless steel split spoon sampler (DPT), stainless steel spatula, and T-Handle Encore sampler.

Subsurface soil grab samples at the background locations were collected from soils lying just above the water table (sample collected 4 to 5 feet bls at 102-SU-01) and from 5 to 6 feet bls at 102-SU-02) since no organic vapors were detected in vadose zone soils at Sites 100 and 102. Since groundwater was present within 2 feet of the ground surface at Sites 100 and 102, no soil samples were collected from the vadose zone. Surface soil grab samples were collected at Sites 100 and 102 from the ground surface to approximately 0.5 feet bls. At Site 100, four surface soil samples were collected within an area that had been disturbed during previous site operations (former fire fighting training pit). That area is now identified by visual observation growth patterns. At Site 102, three surface soil grab samples were collected from the surface to approximately 0.5 feet bls. These samples were collected from locations aligned with the firing range to the machine gun butt..

4.1.2 Soil Headspace Analysis

Subsurface soil samples were collected from 2-foot intervals and screened using an organic vapor analyzer (OVA) with a Flame Ionizing Detector (FID). The method used to screen headspace samples included placing the soil sample in two 16 ounce jars; once half full, the jars were sealed with aluminum foil using a threaded metal ring and were allowed to equilibrate for approximately 5 minutes. The reading was obtained by piercing the foil with the FID probe. If organic vapors were detected, the same procedure was used on the second jar using a carbon filter to determine if methane was present. If present, the methane vapor concentration was subtracted from the unfiltered soil vapor measurement and an organic vapor concentration was reported for the sample. The sample with the highest reading was submitted to the laboratory for analysis. If no readings were detected, then the sample was collected from the vadose zone approximately 2 feet above the water table. The soil vapor concentration measurements are provided on the boring logs and on the soil field sampling logs included in Appendices A and B.

4.1.3 Sampling and Decontamination Procedures

Soil sampling protocols were performed in accordance with TtNUS Comprehensive Quality Assurance Plan (CQAP) No. 980038 (1999), approved by the FDEP on August 25, 1999. The TtNUS CQAP incorporates FDEPs' Quality Assurance Section's Standard Operating Procedures for Laboratory Operations and Sample Collection (DER-001/92), and USEPA Investigations Standard Operating Procedures Quality Assurance Manual (1996b). During the soil sampling, an equipment blank sample was inadvertently not collected. Proper equipment decontamination procedures were followed and the absence of significant (< SCTLs) levels of contaminants in any of the soil samples suggests little potential for equipment contamination. A trip blank sample

(sample TB090899-1), and a duplicate sample (sample 100-SS-DD) from soil sample 100-SS-02 was collected for laboratory analysis. All samples were iced immediately after collection and chilled to 4°C. Chain-of-Custody was maintained by Tetra Tech NUS until the samples were submitted to Ceimic Corporation, Rhode Island for analyses.

All equipment used in the collection of soil samples and downhole equipment used in the installation of the boreholes was decontaminated using the following procedures:

- Wash and scrub the equipment with a solution of Liquinox (or equivalent) and potable water.
- Rinse with potable water.
- Rinse with analyte-free water.
- Rinse twice with isopropanol.
- Rinse thoroughly with analyte-free water.
- Air dry (if possible).
- Wrap in oil-free aluminum foil (if appropriate).

4.2 WATER TABLE ELEVATION MEASUREMENTS

Depth to groundwater measurements were collected from monitoring wells BRO-100-1S, BRO-100-2S, BRO-100-3S, and BRO-100-4S at Site 100 on September 10, 1999, and from monitoring wells BRO-102-3S and BRO-102-4S at Site 102 on September 9, 1999. Depth to groundwater measurements were collected from background monitoring wells BRO-102-1S and BRO-102-2S on October 27, 1999. Measurements were collected from the rim of the top of well casing using an electronic water level indicator. The water level measurements were collected to determine the depth to water in the surficial aquifer and to evaluate the groundwater flow direction. The depth to groundwater measurements are provided in Table 1.

4.3 MONITORING WELL CONSTRUCTION AND INSTALLATION

On September 9, 1999, monitoring wells were installed at Sites 100 and 102 using the DPT drilling method. At Site 100, four permanent monitoring wells, BRO-100-1S through BRO-100-4S, were installed. Due to intermittent flooding at Site 102, two temporary monitoring wells, BRO-102-3S and BRO-102-4S were installed. Each of the wells installed at Sites 100 and 102 were constructed of 1.25-inch inside diameter (ID) schedule 40 poly vinyl chloride (PVC) riser and 0.01-inch slot well screen with silt trap and well bottom cap. The wells were completed at approximately 6 feet bls and were screened from 1 foot to 6 feet bls to bracket the water table. The annulus between the well casing and borehole was packed with medium sand within 6-

inches of the ground surface. The remaining annular space was sealed with bentonite. Each well was completed with approximately 2.5 feet of riser sticking up above the ground surface with the top of the well secured with a well cap. A steel casing set within a 4-inch thick, 2 foot by 2 foot concrete pad secures the casing stickup. Due to flooding in the Site 102 area, the temporary wells were removed and the boreholes sealed with bentonite after groundwater samples were collected from the wells. The locations of the monitoring wells are shown on Figures 6 and 7.

On October 12, 1999, two monitoring wells, BRO-102-1S and BRO-102-2S, were installed to provide background sampling points to assess groundwater quality hydraulically upgradient to Sites 100 and 102. The locations of the monitoring wells are shown on Figure 8. Each of the background monitoring wells were installed using DPT drilling method and were completed at a depth of approximately 12 feet bls. Each well was constructed of 1-inch ID schedule 40 PVC riser with 10 feet of 0.01-inch slot prepacked well screen set within a 2.5-inch outside diameter (OD) screened casing filled with medium sand. Medium sand was placed between the borehole annulus and the well screen OD casing from the bottom of the boring to approximately 6 inches above the screen. Fine sand was placed on top of the medium sand to within 6-inches of the ground surface. A bentonite seal was installed from the top of the fine sand to the ground surface. Approximately 2.5 feet of PVC riser pipe extended above the ground surface. A 4-inch thick, 2 foot by 2 foot concrete pad and steel protective casing for the well casing stickup was installed to complete the well installation. Monitoring well construction details are included in Appendix C.

Each well was developed using a peristaltic pump. During well development, field measurements of pH, temperature, specific conductance, and turbidity were monitored from the purge water generated. The wells were developed up to a maximum of one hour or until the field measurements became stable and purge water clear. Well development records are included in the groundwater field forms provided in Appendix D

Upon completion of the well installations, the horizontal and vertical surveys were performed by a Florida registered surveyor and mapper to determine the locations and elevations of groundwater monitoring wells and environmental sample locations. The horizontal locations were referenced to the Florida State Plane Coordinate System, North Zone, North American Datum (NAD) of 1983, 1990 adjustment (NAD 83/90), by ties to existing published monuments in the vicinity. Elevations were referenced to Mean Sea Level, North American Vertical Datum, 1988 Adjustment (NAVD 88) by ties to existing survey benchmarks in the vicinity. Control points and site features were established at each site from exiting monuments and benchmarks using differentially corrected Global Positioning Systems (GPS) Surveys.

4.4 GROUNDWATER SAMPLING

Groundwater sampling of monitoring wells at Sites 100 and 102 was performed by TtNUS on September 9 and September 10, 1999. Background monitoring wells were sampled on October 27, 1999. Groundwater samples were collected for analysis by U.S. EPA Method SW-846 8260B for VOCs, Method SW-846 8270C for SVOCs, Methods SW-846 6010, SW-846 7471, SW-846 7470, SW-846 9010, SW-846 9066 for inorganic analysis (metals and cyanide), and Method SW-846 8081 for pesticides and PCBs. Groundwater samples were collected using teflon tubing and peristaltic pump.

Prior to sample collection, each well was purged of at least three well volumes. Temperature, pH, and conductivity readings were recorded at the time of sampling. Groundwater samples were iced immediately after collection and chilled to 4°C and shipped to Ceimic Corporation, for analysis. Chain of Custody was maintained by TtNUS until the samples were submitted to the laboratory for analysis. The groundwater sampling field forms are presented in Appendix D

Groundwater sampling activities were performed following procedures prescribed in TtNUS' CQAP with the exception; an organic trap bottles were not used during the collection of samples for extractable organics, pesticides, and PCBs. Quality control samples including a field blank (sample FB091099-01), equipment rinsate sample (sample ER091099-01), duplicate sample (sample 100-MW-DD-010 collected from monitoring well BRO-100-1S, matrix spike, and trip blank (samples TB091099-01) were collected and submitted to the laboratory for analysis.

5.0 SITE CHARACTERIZATION RESULTS

5.1 GROUNDWATER FLOW DIRECTION

Groundwater elevation measurements collected September 10 and October 27, 1999, from monitoring wells installed for the SCR investigation, indicates the general trend of the water table flow direction is southwest, discharging towards a wetlands area. This flow direction corresponds to the general slope of the site. The groundwater flow direction is depicted on Figure 9, and groundwater elevation measurements are provided in Table 1.

5.2 CHEMICAL COMPONENTS AND CONTAMINANTS

5.2.1 Soil Samples

The evaluation of soil quality for Sites 100 and 102 is based on the parameter concentrations from soil samples collected during the SCR investigation. The soil parameter concentrations were compared to their Soil Cleanup Target Levels (SCTLs) for Direct Exposure for Residential Area, as establsihed in Chapter 62-777 of the Florida Administrative Code (FAC) to determine if further assessment actions are necessary to address potential soil contamination.

5.2.1.1 Site 100 - Former Fire-Fighter Training Pit

Soil laboratory analytical results identified VOCs, SVOCs and inorganics (metals) in each of the four surface soil samples. All detected soil parameters were reported at concentrations less than the SCTLs for Direct Exposure for Residential Area. A summary of the detected soil parameters is presented in Table 2, and the soil laboratory analytical data sheets are included in Appendix E.

5.2.1.2 Site 102 - Former Machine Gun Butt

Soil laboratory analytical results detected VOCs, SVOCs, and inorganics (metals) in each of the three surface soil samples. All detected parameters were at concentrations less than the SCTLs for Direct Exposure for Residential Area. A summary of the detected soil parameters is presented in Table 2, and the soil laboratory analytical data sheets are included in Appendix E.

5.2.1.3 Background Samples

Subsurface soil analysis detected VOCs, SVOCs, and inorganics (metals) in each of the background subsurface soil samples. The laboratory results indicate the concentrations of VOCs, SVOCs, and metals in the subsurface soils are less than the SCTLs for Direct Exposure for Residential Area. Analysis of surface soils identified VOCs, SVOCs, and inorganic (metals) in one of two samples collected at the background location; however, the concentrations of VOCs, SVOCs, and inorganics are less than the SCTLs for Direct Exposure for Residential Area. A summary of the detected soil parameters is presented in Table 2, and the soil laboratory analytical data sheets are included in Appendix E.

5.2.2 Groundwater Samples

Groundwater quality at Sites 100 and 102 is based on parameter concentrations from groundwater samples collected during the SCR investigation. The groundwater parameter concentrations were compared to their FDEP Groundwater Cleanup Target Levels (GCTLs), as established in Chapter 62-777 FAC to determine if further assessment actions are necessary to address potential groundwater contamination.

5.2.2.1 Site 100 - Former Fire-Fighter Training Pit

The groundwater laboratory analysis of groundwater samples collected from the monitoring wells at Site 100 reported all VOCs, SVOCs, and inorganics (PCBs, pesticides, metals, and cyanide) are below laboratory detection limits and below their FDEP GCTLs. A summary of the detected groundwater parameters is presented in Table 2, and the groundwater laboratory analytical data sheets are included in Appendix E.

5.2.2.2 Site 102 - Former Machine Gun Butt

Groundwater laboratory analysis collected from two temporary monitoring wells installed at the Site 102 reported all SVOCs, PCBs, and pesticides below laboratory detection limits and below their FDEP Groundwater Cleanup Target Levels. Acetone was the only VOC parameter detected in the groundwater. Acetone was detected at 6 micrograms per liter (ug/L) in the sample collected from temporary monitoring well BRO-102-3S. The acetone concentration is less than the FDEP Groundwater Cleanup Target Level of 700 ug/L for acetone. Metal analytes: aluminum; zinc; iron; and lead were detected in the groundwater sample from BRO-102-3S. The aluminum concentration of 1,230 ug/L and iron concentration of 1,860 ug/L exceeds the FDEP

Groundwater Cleanup Target Level of 200 ug/L for aluminum and 300 ug/L for iron. Aluminum (318 ug/L) and zinc (22.1 ug/L) were also detected in the groundwater sample collected from temporary monitoring well BRO-102-4S. The Aluminum concentration in BRO-102-4S exceeds the FDEP Groundwater Cleanup Target Level for aluminum. A summary of the detected groundwater parameters is presented in Table 2, and the groundwater laboratory analytical data sheets are included in Appendix E.

5.2.2.3 Background Samples

Groundwater laboratory analysis of groundwater samples collected from background monitoring wells BRO-102-1S and BRO-102-2S reported all VOCs, SVOCs, pesticides, and metals below laboratory detection limits and below FDEP Groundwater Cleanup Target Levels. A summary of the detected groundwater parameters is presented in Table 2, and the groundwater laboratory analytical data sheets are included in Appendix E.

5.2.2.4 Quality Assurance Samples

Acetone was detected at 8 ug/L in the field blank (sample FB091099-01) and at 10 ug/L in the trip blank (sample TB091099-01). Acetone is a common laboratory contaminant and is likely the source for the acetone detected in the groundwater sample from BRO-102-1S. Toluene was detected in the equipment rinsate (sample ER091099-01) at 2 ug/L but was below the laboratory method detection limits in all other groundwater samples.

6.0 SUMMARY AND CONCLUSIONS

6.1 SUMMARY

6.1.1 Site 100 - Former Fire-Fighter Training Pit

Four surface soil samples and four groundwater samples were collected at Site 100. Groundwater was encountered within 2 feet of the ground surface which prohibited the collection of subsurface soil samples for laboratory analysis. The groundwater and soil samples for Site 100 were analyzed for VOCs, SVOCs, and inorganics (pesticides, PCBs, metals and cyanide). The results of the soil analysis identified VOCs, SVOCs and inorganic parameters in the soil; however, all detected parameters were reported at concentrations less than their FDEP SCTLs for Direct Exposure Limits for Residential Area as establsihed in Chapter 62-777, F.A.C. The FDEP SCTLs are risk-based cleanup target levels for chemicals of concern based on direct human contact. Groundwater samples analyzed at Site 100 identified no VOCs, SVOCs, or inorganics in the groundwater above the laboratory method detection limit or above the FDEP GCTLs.

6.1.2 Site 102 - Former Machine Gun Butt

Three surface soil samples and two groundwater samples were collected at Site 102. The samples were analyzed for VOCs, SVOCs, and inorganics. Groundwater encountered within 2 feet below ground surface, prohibited the collection of subsurface soil samples for laboratory analysis. Flooding at Site 102 also restricted access to the area for collecting samples during the sampling events. Surface soil samples collected at the Site 102 detected VOCs, SVOCs, and metal parameters in each of the surface soil samples; however, all detected parameters were at concentrations less than their FDEP SCTLs. Groundwater samples analyzed from two temporary monitoring wells detected no VOCs above FDEP GCTLs. Acetone was detected in one groundwater sample below the FDEP GCTL and is attributed to a laboratory artifact since the parameter was detected in both the field blank and trip blank quality assurance samples. The acetone concentration detected in the groundwater was less than the FDEP Groundwater Cleanup Target Level. Iron and aluminum were identified in the groundwater samples at approximately 6 times their respective FDEP GCTL.

6.1.3 Background Locations

Two surface soil samples and two subsurface soil samples were collected at a background monitoring well locations. Analysis of the background samples indicated VOCs, SVOCs, and inorganics were reported below the laboratory method detection limits and less than their FDEP SCTLs. The analysis of groundwater samples collected from the background monitoring wells inicated VOCs, SVOCs, and inorganics were below laboratory method detection limits and less than their FDEP GCTL.

6.2 CONCLUSIONS

Findings from the SCR investigation identified a shallow water table present beneath Sites 100 and 102, with ground water encountered within 2 feet of the ground surface. At Site 102, the land surface is prone to flooding from wetlands located adjacent to the Site. Water level measurements collected from site monitoring wells indicate the water table flow direction is generally toward the south-southwest across the study area. No visual evidence of stained soils or chemical odors were detected during soil and groundwater sampling activities.

Results from surface soil samples analyzed at Sites 100 and 102, and the background sample location for VOCs, SVOCs, and metal parameters were below their FDEP SCTLs. Subsurface soil samples collected at the background location reported all tested parameters below laboratory method detection limits and below their FDEP SCTLs. The soil analytical results indicates the soil at Site 100 and 102 do not pose a human risk-base health concern from residential land use as identified in Chapter 62-777, FAC.

Results from groundwater samples analyzed at Site 100 and the background sample location for VOCs, SVOCs, and metal parameters were below laboratory method detection limits and below their respective FDEP GCTLs. Groundwater samples analyzed at Site 102 for VOCs and SVOCs were below their respective FDEP GCTLs. Aluminum and iron concentrations were detected in the groundwater at Site 102 at concentrations above their respective FDEP GCTLs. However, the inorganic sample analyses may not be a representative sample of the aquifer, since aluminum and iron concentrations may reflect the increased turbidity of the water samples associated with temporary monitoring wells installed by hand-auger methods.

6.3 RECOMMENDATIONS

Based on the findings of the SCR investigation, a No Further Action is recommended for Site 100. At Site 102, it is proposed that additional groundwater sampling be conducted to evaluate the groundwater aluminum and iron concentrations. It is recommended that two replacement monitoring wells be installed with a filter pack designed for the formation and installed into a larger diameter borehole. This should result in a more representative groundwater sample. The groundwater samples should be analyzed for inorganics only. Surface soil samples, and subsurface soil samples (if depth to groundwater levels permit), should be collected and analyzed for aluminum and iron by Synthetic Precipitation Leaching Procedure (SPLP). The proposed sampling activities will provide additional data to characterize the aluminum and iron concentrations detected in the groundwater at Site 102 during the SCR investigation.

7.0 PROFESSIONAL REVIEW CERTIFICATION

Site Charaterization Report
Outlying Landing Field Bronson
Naval Air Station, Pensacola, Florida

This Site Assessment Report was prepared under the direct supervision of the undersigned geologist using geologic and hydrogeologic principles standard to the profession at the time the report was prepared. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of additional information on the assessment described in this report. This report was developed specifically for the referenced site and should not be construed to apply to any other site.

Terry Hansen, P.G.
Florida License No. 234

09 MAY 01
Date

8.0 REFERENCES

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TABLES

TABLE 1

GROUNDWATER ELEVATIONS
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA
SITES 100 AND 102

Well No.	Total Depth of Well (ft)	Top of Casing Elevation, ft (MSL)	Date Measured	Depth to Free Product (BTOC)	Depth to Water, ft (BTOC)	Groundwater Elevation, ft (MSL)
BRO-100-1S	5	14.66	9/10/99	ND	1.46	13.20
BRO-100-2S	5	17.99	9/10/99	ND	0.81	17.18
BRO-100-3S	5	16.04	9/10/99	ND	0.80	15.24
BRO-100-4S	5	16.19	9/10/99	ND	0.75	15.44
BRO-102-1S	12	27.76	10/27/99	ND	6.30	21.46
BRO-102-2S	12	28.32	10/27/99	ND	6.61	21.71
BRO-102-3S	3	NS	9/9/99	ND	0.50	NA
BRO-102-4S	5	NS	9/9/99	ND	0.66	NA

Notes:
MSL - Mean Sea Level
BTOC - Below Top of Casing
ft - feet
ND - Not Detected
NS - Not Surveyed (Temporary Monitoring Wells)
NA - Not Available

Table 2

Summary of Compounds and Analytes Detected in Soils

Outlying Landing Field Bronson, Pensacola, Florida

Sites 100 and 102

Sample No.		100-SS-01	100-SS-02	100-SS-03	100-SS-04	100-SS-DD
Sample Location		100-SS-01	100-SS-02	100-SS-03	100-SS-04	100-SS-02
Collect Date		9/8/99	9/8/99	9/8/99	9/8/99	9/9/99
Sample Depth (bls)		0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.
	DE1[1]/DE2[2]/LE[3] (mg/kg)					
Volatile[4] (mg/kg)						
Methylene Chloride	16/23/0.02	0.011	0.012	0.018	0.011	0.013
Acetone	780/5,500/2.8	0.13	0.11	0.52	0.11	0.079
2-Hexanone	5.1/34/1.4	0.017	--	--	--	--
Semi-Volatile[5] (mg/kg)						
Di-n-Butylphthalate	7,300/140,000/47	--	--	0.048[J]	0.039	--
bis (2-Ethylhexyl) Phthalate	76/280/3,600	1.5[J]	--	0.040[J]	0.058[J]	0.25[J]
Benzoic Acid	150,000/ * /110	--	--	0.061[J]	--	--
Pesticides[6] (ug/kg)						
None detected						
PCBs[6] (ug/kg)						
None detected						
Metals[7] (mg/kg)						
Aluminum	72,000/ * / ***	1,930	3,450	2,080	2,580	2,950
Iron	23,000/480,000/ ***	802	1,210	840	872	953
Lead	400/920/ ***	4.7	3.9	2.9	3.4	2.3
Manganese	1,600/22,000/ ***	2.1	3.4	2.0	2.3	2.5
Zinc	3,400/53,000/19	3.4	3.9	3.1	3.4	3.5

[1] DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.

[2] DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.

[3] LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.

[4] SW-846 8260B, [5] SW-846 8270C, [6] SW-846 8080, [7] SW-846 6010B

[J] Indicates the presence of a chemical at a concentration less than the reporting limit and greater than the method detection limit.

* Contaminant is not a health concern for this default exposure scenario.

** Direct exposure value based on acute toxicity considerations.

*** Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

Table 2 (Continued)

Summary of Conpounds and Analytes Detected in Soils

Outlying Landing Field Bronson, Pensacola, Florida

Sites 100 and 102

Sample No.		102-SU-01	102-SU-02	TB090899-01	TB090999-01	TB101299-01
Sample Location		BRO-102-1S	BRO-102-2S	--	--	--
Collect Date		9/8/99	10/12/99	9/8/99	9/9/99	10/12/99
Sample Depth		4 to 5 ft.	5 to 6 ft.	--	--	--
	DE1[1]/DE2[2]/LE[3] (mg/kg)					
Volatile[4] (mg/kg)						
Methylene Chloride	16/23/0.02	0.011	0.009	0.002	0.002	--
Acetone	780/5,500/2.8	0.054	0.011	0.023	0.039	--
2-Butanone		--	--	0.006	0.015	--
Semi-Volatile[5] (mg/kg)						
bis (2-Ethylhexyl) Phthalate	76/280/3,600	3.6	--	NA	NA	NA
bis (2-Ethylhexyl) Phthalate	76/280/3,600	3.6	--	NA	NA	NA
Pesticides[6] (ug/kg)						
None detected						
PCBs[7] (ug/kg)						
ne detected						
Metals[8] (mg/kg)						
Aluminum	72,000/ * / ***	2,710	533	NA	NA	NA
Iron	23,000/480,000/ ***	1,490	109	NA	NA	NA
Lead	400/920/ ***	1.3	0.6	NA	NA	NA
Manganese	1,600/22,000/ ***	2.1	--	NA	NA	NA
Zinc	3,400/53,000/19	3.3	--	NA	NA	NA
Chromium		3.2	--	NA	NA	NA
Vanadium		5.1	--	NA	NA	NA
Barium		--	1.4	NA	NA	NA

[1] DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.

[2] DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.

[3] LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.

[4] SW-846 8260B, [5] SW-846 8270C, [6] SW-846 8081A, [7] SW-846 8082, [8] SW-846 6010B

[J] Indicates the presence of a chemical at a concentration less than the reporting limit and greater than the method detection limit.

* Contaminant is not a health concern for this default exposure scenario.

** Direct exposure value based on acute toxicity considerations.

*** Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

NA Not Analyzed

Table 2 (Continued)

Summary of Compounds and Analytes Detected in Soils

Outlying Landing Field Bronson, Pensacola, Florida

Sites 100 and 102

Sample No.		102-SS-01	102-SS-02	102-SS-03	102-SS-04	102-SS-05
Sample Location		102-SS-01	102-SS-02	102-SS-03	102-SS-04	102-SS-05
Collect Date		9/8/99	9/8/99	9/9/99	9/9/99	9/9/99
Sample Depth (bls)		0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.
	DE1[1]/DE2[2]/LE[3] (mg/kg)					
Volatile[4] (mg/kg)						
Methylene Chloride	16/23/0.02	0.012	0.013	0.009	0.009	0.009
Acetone	780/5,500/2.8	0.12	0.19	0.099	0.072	0.15
2-Hexanone	5.1/34/1.4	--	--	--	--	0.024
Semi-Volatile[5] (mg/kg)						
Di-n-Butylphthalate	7,300/140,000/47	0.077[J]	0.043[J]	0.083[J]	0.038[J]	0.047[J]
Fluoranthene	2,900/48,000/1,200	0.048[J]	--	--	--	--
Pyrene	2,200/37,000/880	0.04[J]	--	--	--	--
bis (2-Ethylhexyl) Phthalate	76/280/3,600	0.071[J]	--	0.68[J]	0.091[J]	--
Benzoic Acid	150,000/ * /110	--	0.12[J]	0.086	--	0.036[J]
Pesticides[6] (ug/kg)						
None detected						
PCBs[6] (ug/kg)						
None detected						
Metals[7] (mg/kg)						
Aluminum	72,000/ * / ***	2,440	1,220	666	718	889
Iron	23,000/480,000/ ***	363	444	358	287	541
Lead	400/920/ ***	5.1	3.3	2.2	0.64	3.8
Manganese	1,600/22,000/ ***	--	2.4	1.7	--	--
Zinc	3,400/53,000/19	2.8	2.8	2.6	--	2.2
Chromium	210/420/38	1	--	--	--	--
Selenium	390/10,000/5	0.46	--	--	--	--

[1] DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.

[2] DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.

[3] LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.

[4] SW-846 8260B, [5] SW-846 8270C, [6] SW-846 8080, [7] SW-846 6010B

[J] Indicates the presence of a chemical at a concentration less than the reporting limit and greater than the method detection limit.

* Contaminant is not a health concern for this default exposure scenario.

** Direct exposure value based on acute toxicity considerations.

*** Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

Table 3

Summary of Compounds and Analytes Detected in Aqueous Samples

Outlying Landing Field Bronson, Pensacola, Florida

Sites 100 and 102

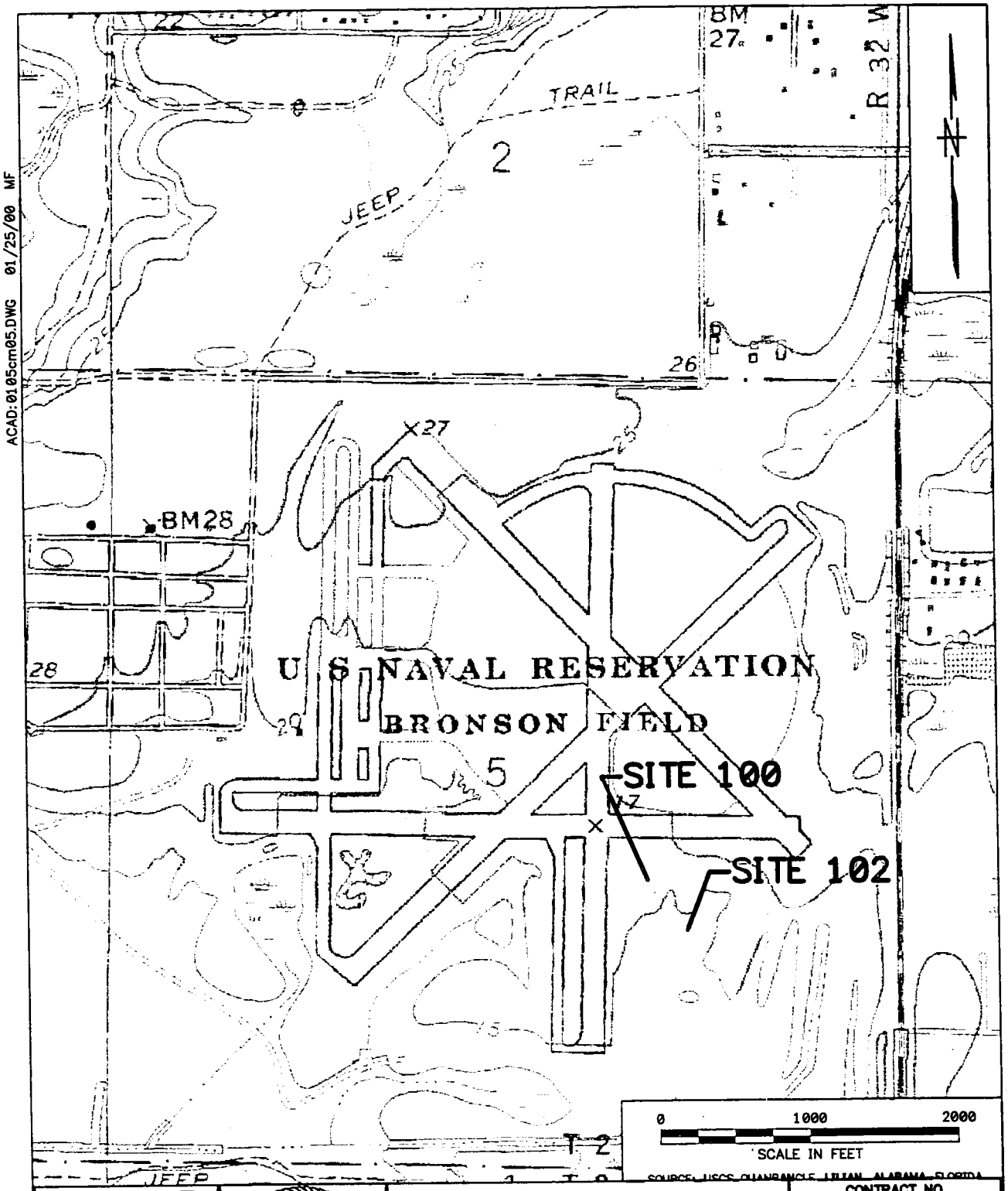
Sample No.		FB091099-01	ER091099-01	TB091099-01	102-MW-003-01	102-MW-004-01
Sample Location		--	--	--	BRO-102-3S	BRO-102-4S
Collect Date		9/10/99	9/10/99	9/10/99	9/9/99	9/9/99
	FDEP Groundwater Criteria (ug/L)*					
Volatile[1] (ug/L)						
Acetone	700.00	8	--	10	6	--
Toluene	40.00	--	2	--	--	--
Semi-Volatile[2] (ug/L)						
None detected		NA	NA	NA		
Pesticides[3] (ug/L)						
None detected		NA	NA	NA		
PCBs[3] (ug/L)						
None detected		NA	NA	NA		
Metals[4] (mg/L)						
Aluminum	200.00	NA	NA	NA	1,230	318
Zinc	5000.00	NA	NA	NA	21.2	22.1
ר	300.00	NA	NA	NA	1,860	--
ead	15.00	NA	NA	NA	10.5	--

[1] SW-846 8260B, [2] SW-846 8270C, [3] SW-846 8080, [4] SW-846 6010B

NA Not Analyzed

* As provided in Chapter 62-777, F.A.C.

FIGURES



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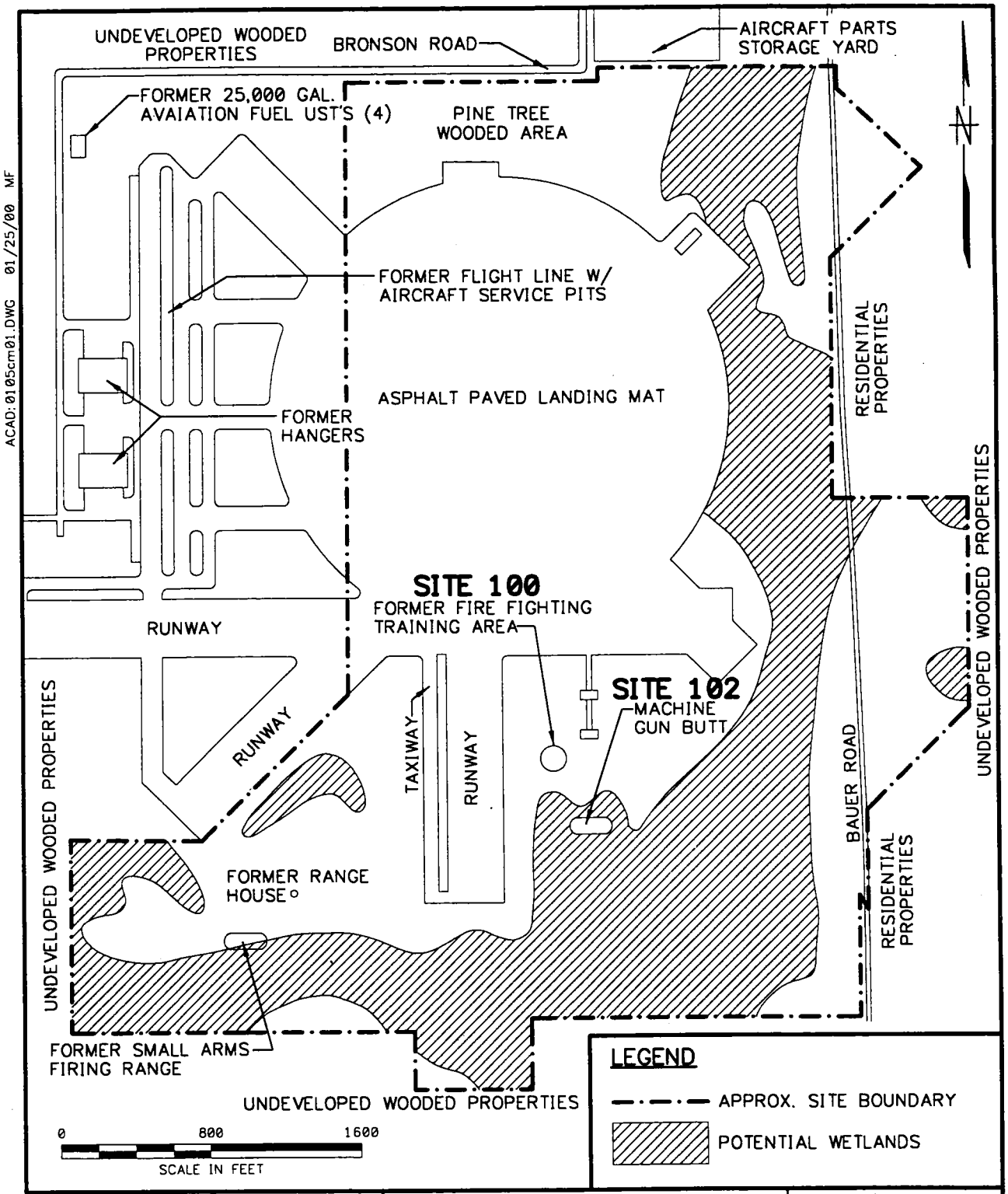
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 1 / REV. 0

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



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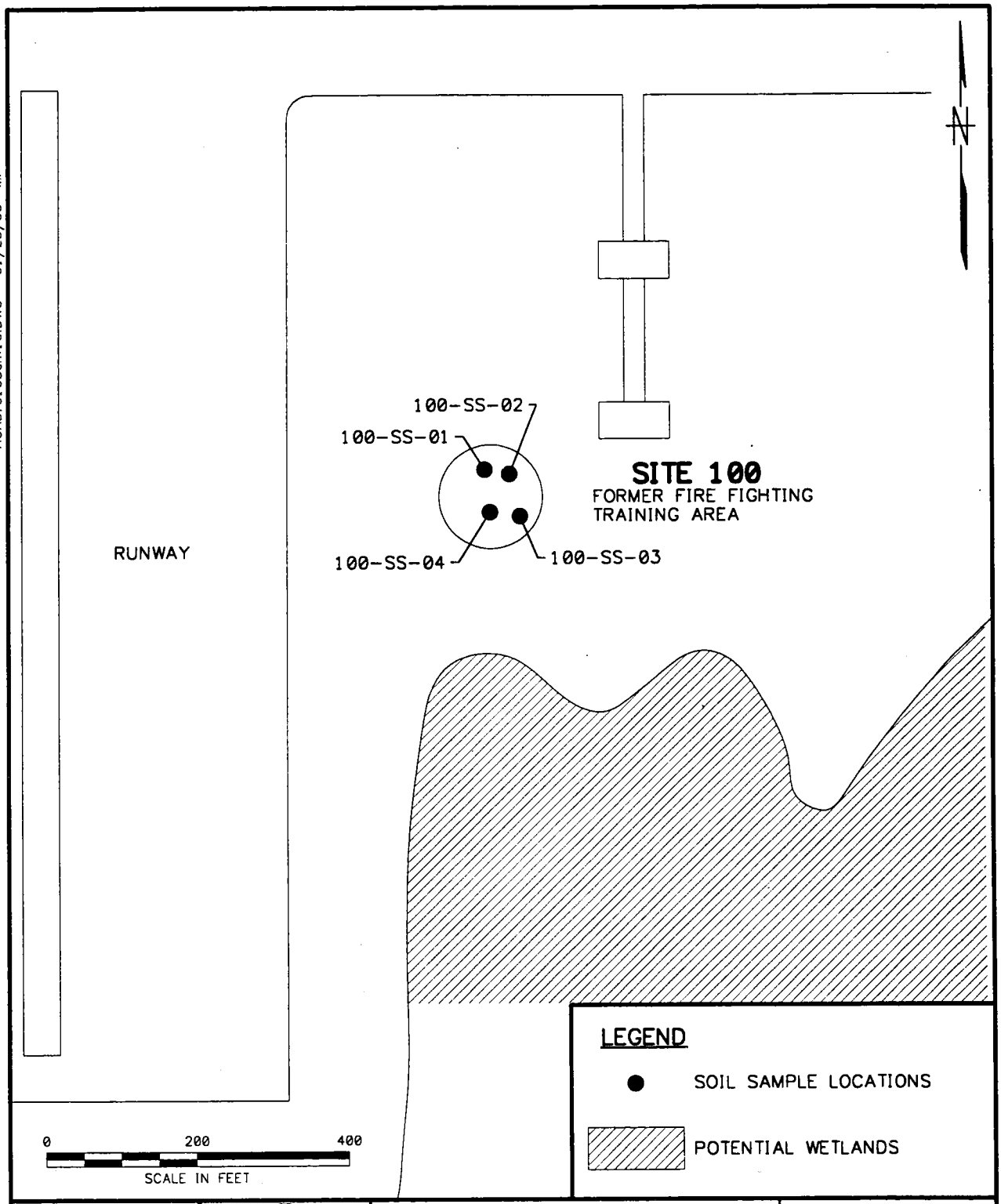
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 2 / REV. 0

DEPARTMENT OF THE NAVY · SOUTHERN DIV FACILITIES ENGINEERING COMD

LOCATION OF SITES 100 AND 102
OLF BRONSON
NAVAL AIR STATION
PENSACOLA, FLORIDA

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



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CHECKED BY DATE			APPROVED BY DATE
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 3 / REV. 0

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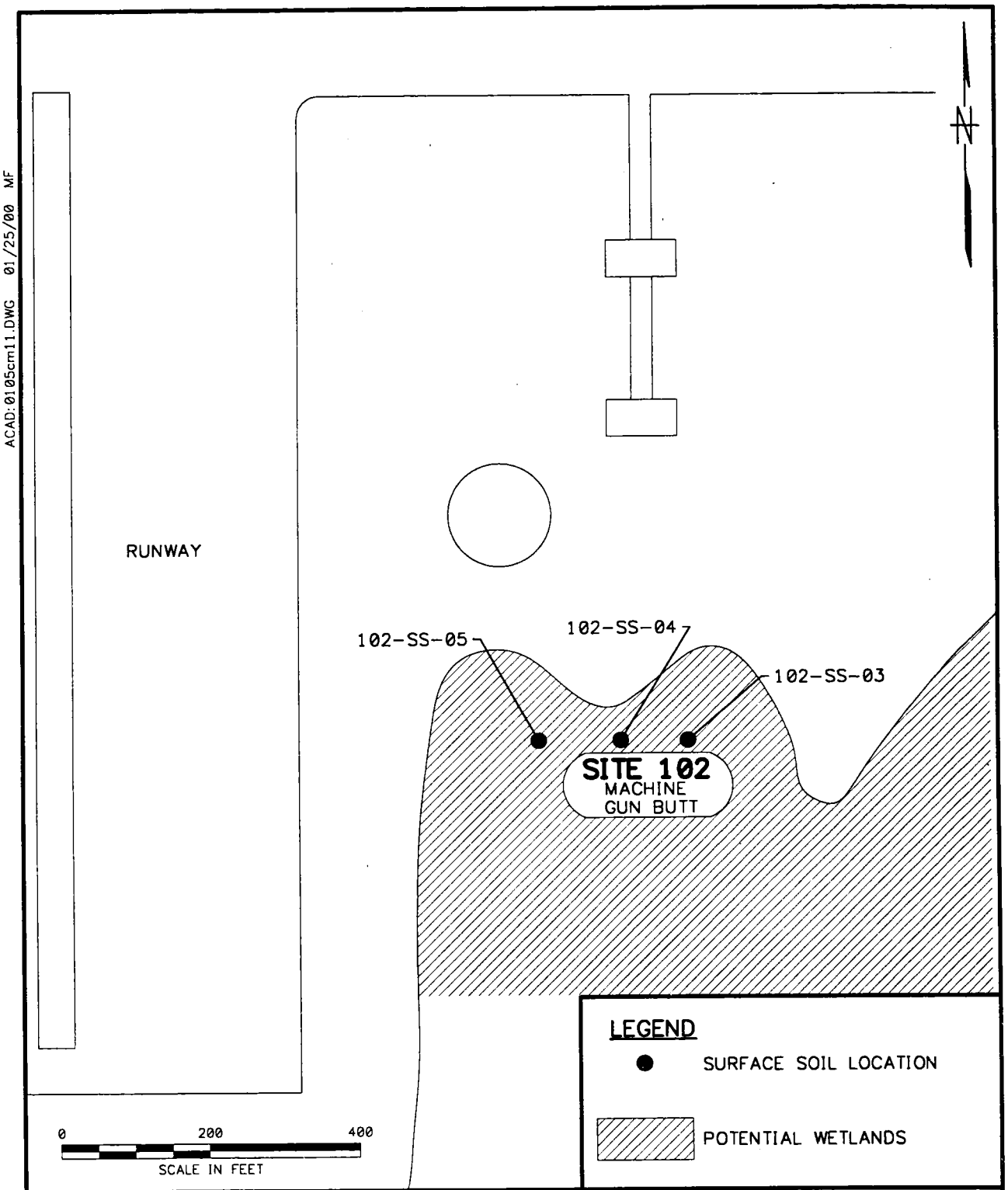

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CHECKED BY DATE			APPROVED BY DATE
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 4 / REV. 0

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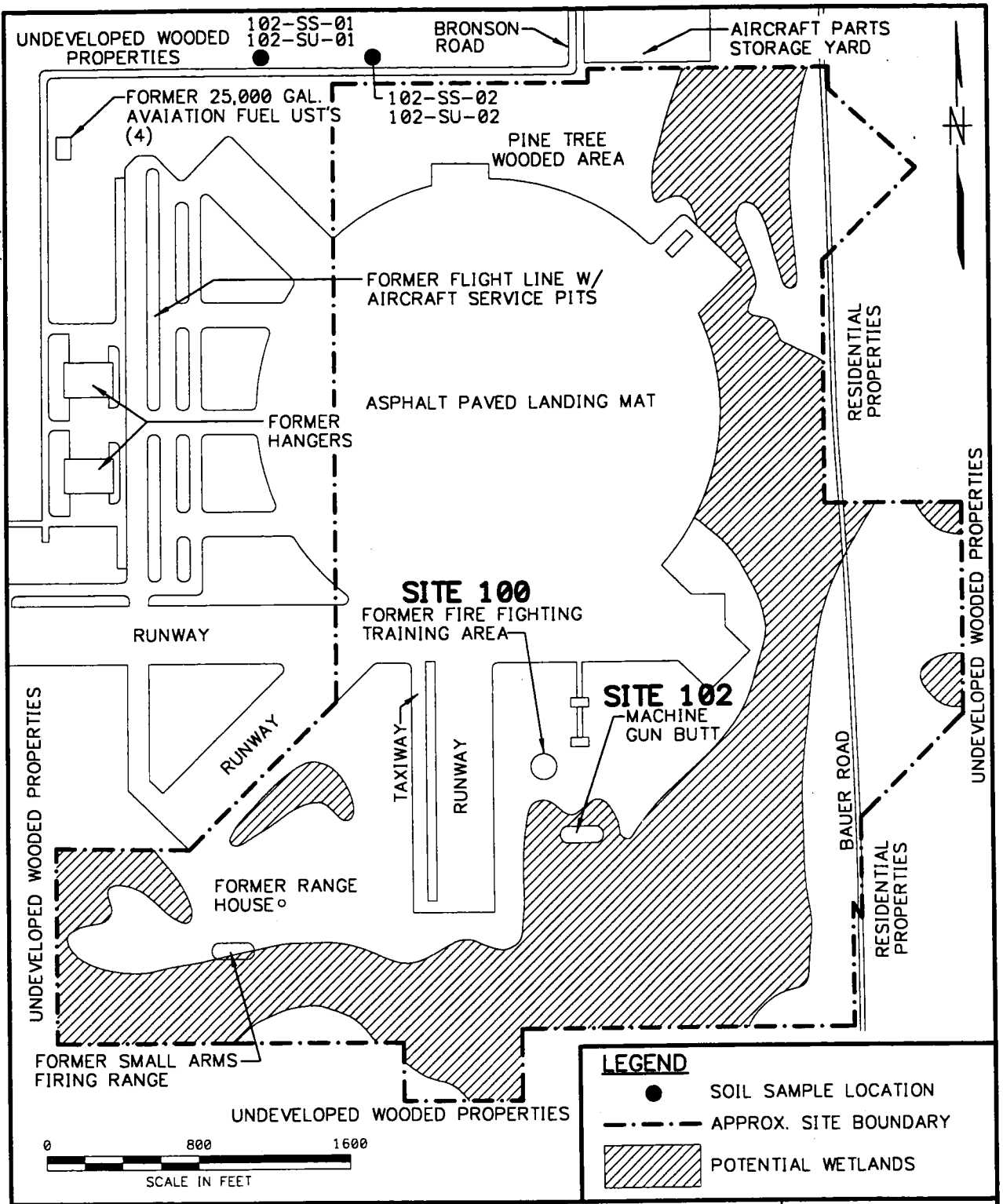

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CHECKED BY DATE			APPROVED BY DATE
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 5 REV. 0

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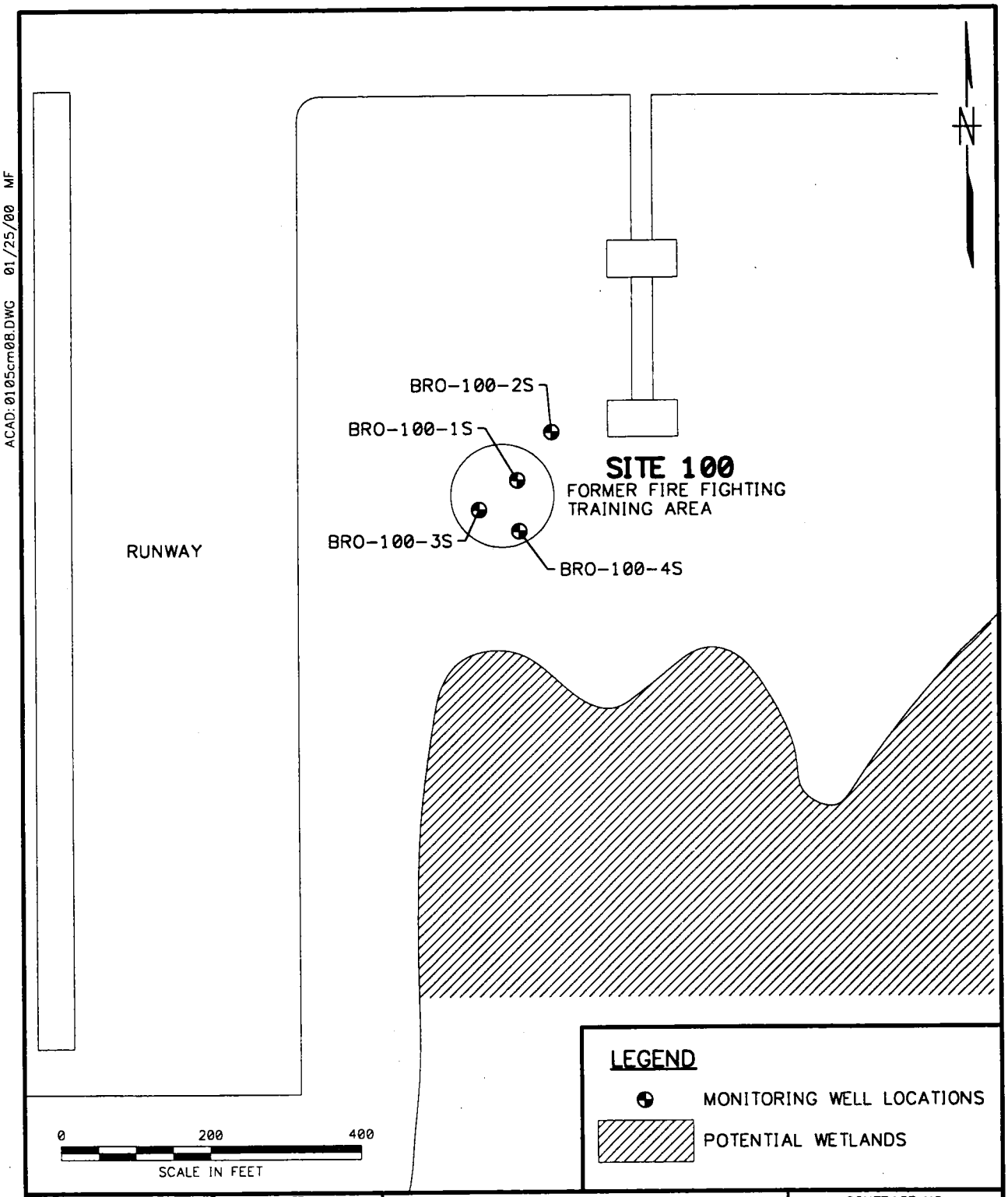

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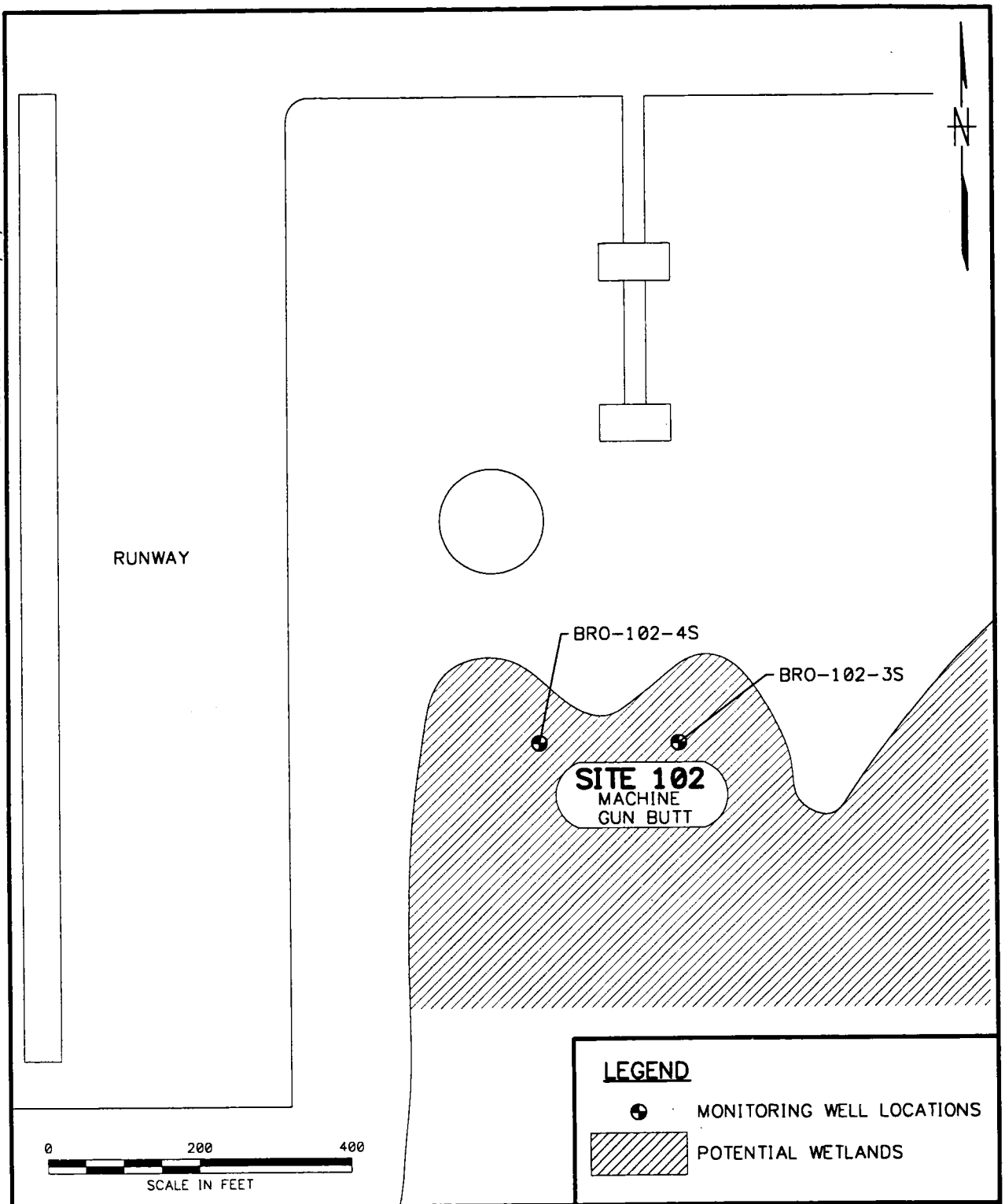
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 6 / REV. 0

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



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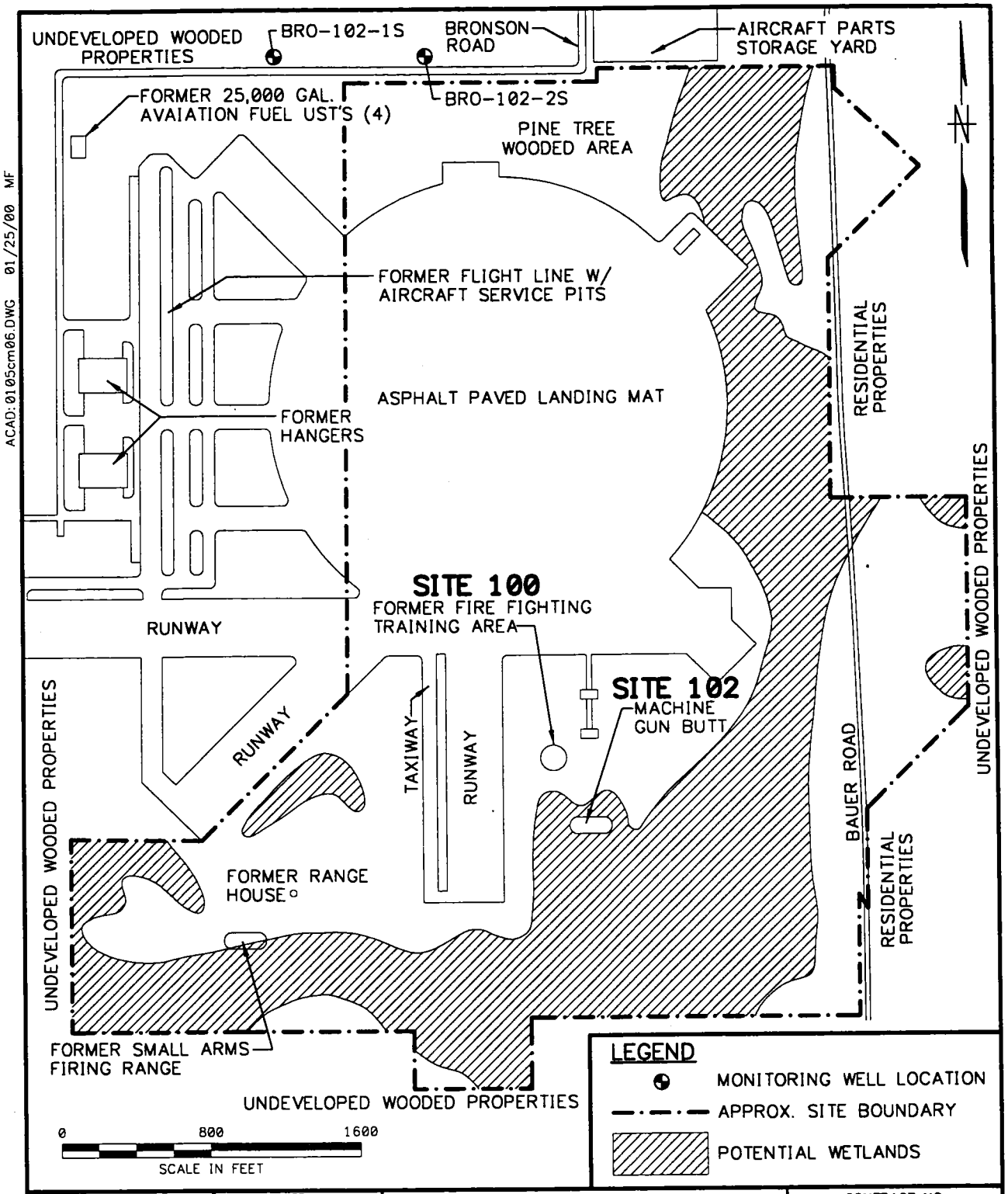
CHECKED BY DATE			APPROVED BY DATE
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 7 / REV. 0

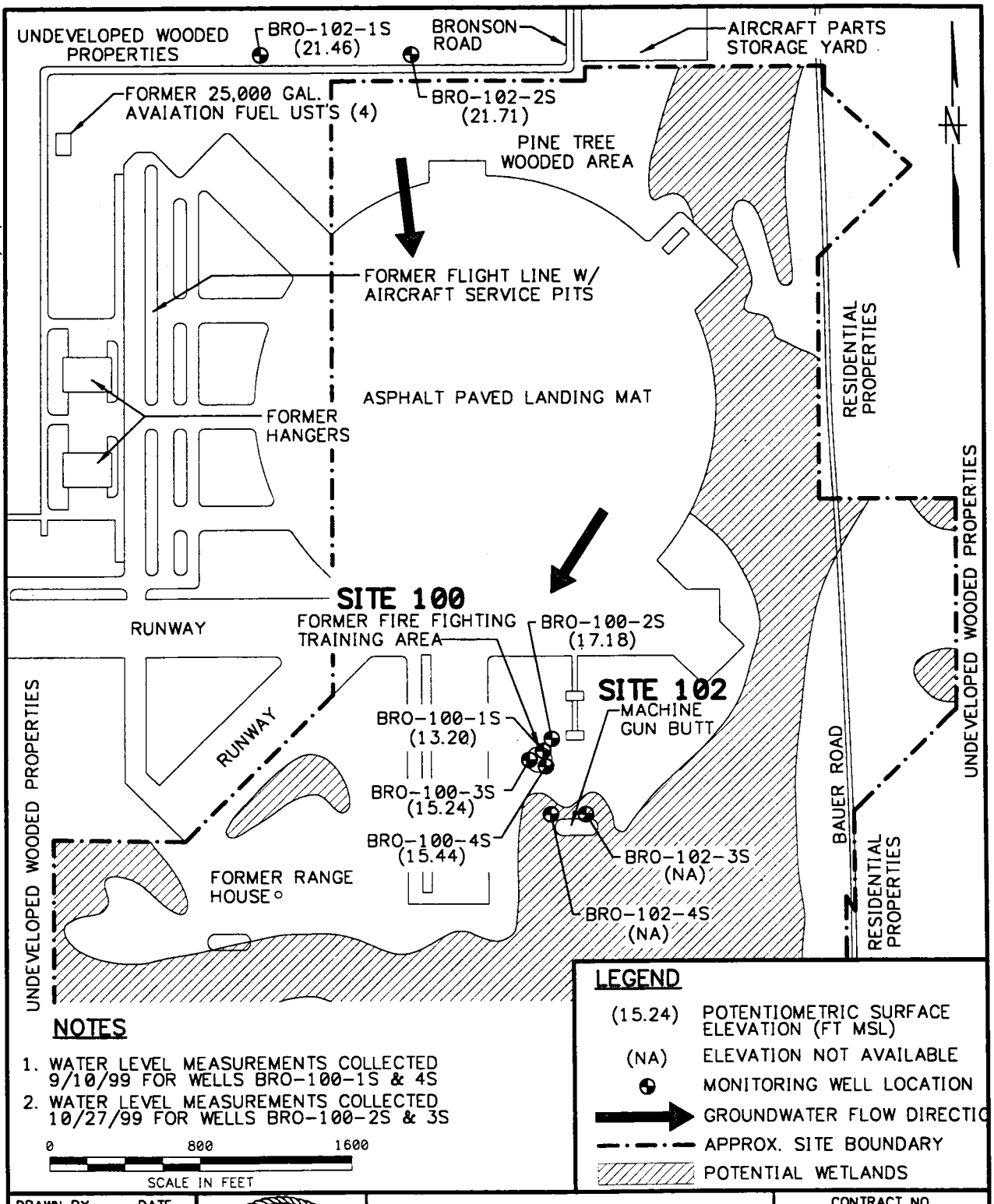
FORM CADD NO. SDIV_AV.DWG - REV 0 - 1/20/98



ACAD: 0105cm06.DWG 01/25/00 MF

DRAWN BY MF DATE 1/24/00	DEPARTMENT OF THE NAVY SOUTHERN DIV FACILITIES ENGINEERING COMD	BACKGROUND GROUNDWATER SAMPLE LOCATIONS OLF BRONSON NAVAL AIR STATION PENSACOLA, FLORIDA	CONTRACT NO. 0105
CHECKED BY DATE			APPROVED BY DATE
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. FIGURE 8 REV. 0

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



ACAD: 0105cm12.DWG 01/25/00 MF

NOTES

1. WATER LEVEL MEASUREMENTS COLLECTED 9/10/99 FOR WELLS BRO-100-1S & 4S
2. WATER LEVEL MEASUREMENTS COLLECTED 10/27/99 FOR WELLS BRO-100-2S & 3S

LEGEND

(15.24)	POTENTIOMETRIC SURFACE ELEVATION (FT MSL)
(NA)	ELEVATION NOT AVAILABLE
⊕	MONITORING WELL LOCATION
➡	GROUNDWATER FLOW DIRECTIO
-·-·-	APPROX. SITE BOUNDARY
▨	POTENTIAL WETLANDS

DRAWN BY MF	DATE 1/24/00	CONTRACT NO. 0105
CHECKED BY	DATE	APPROVED BY DATE
COST/SCHED-AREA		APPROVED BY DATE
SCALE AS NOTED		DRAWING NO. FIGURE 9 / REV. 0

DEPARTMENT OF THE NAVY ★ SOUTHERN DIV FACILITIES ENGINEERING COMMAND ★

GROUNDWATER FLOW MAP
OLF BRONSON
NAVAL AIR STATION
PENSACOLA, FLORIDA

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

APPENDIX A

BORING LOGS

BORING LOG

PROJECT NAME: NASP OLF Bronson
PROJECT NUMBER:
DRILLING COMPANY: TEG
DRILLING RIG: DPT
BORING NUMBER: BRO-100-15
DATE: 9/9/99
GEOLOGIST:
DRILLER: J. Stevenson

Sample No. and Type or RQD	Depth (FL) or Run No.	Blows / 6" or RQD (%)	Sample Recovery / Sample Length	Lithology Change (Depth/Ft.) or Screened Interval	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	1					Lt Brn	Fine Sand		Dry				
	2					↓	↓		Saturated				
	3					↓	↓		↓	0	0	0	0
	4					↓	↓		↓				
	5					↓	↓		↓				
	6					↓	↓		↓				

* When rock coring, enter rock brokeness.

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

Drilling Area Background (ppm): 0

Remarks:

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

BORING LOG

PROJECT NAME: NHSP OLF Bronson
PROJECT NUMBER: CTO 0086
DRILLING COMPANY: TEG
DRILLING RIG: DPT
BORING NUMBER: BRO-100-025
DATE: 9/9/99
GEOLOGIST:
DRILLER: J. Stevenson

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 or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	1					Lt. Brown	Fine Sand		Dry				
	2								Saturated				
	3									0	0	0	0
	4												
	5												
	6												

* When rock coring, enter rock brokeness.

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

Drilling Area Background (ppm): 0

Remarks:

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

BORING LOG

PROJECT NAME: NAS P OLF Bronson
PROJECT NUMBER: CTO 0086
DRILLING COMPANY: TEG
DRILLING RIG: DPT
BORING NUMBER: BRO-100-035
DATE: 9/9/99
GEOLOGIST:
DRILLER: J. Stevenson

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 or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	1					Lt Brown	Fine Sand		Dry				
	2								Saturated				
	3												
	4												
	5												
	6												
	7												

* When rock coring, enter rock brokeness.

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

Drilling Area Background (ppm): [ ]

Remarks:

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

BORING LOG

PROJECT NAME: NASP OLF Bronson
PROJECT NUMBER: CTO 0486
DRILLING COMPANY: TEG
DRILLING RIG: DPT
BORING NUMBER: BRO-100-45
DATE: 9/9/99
GEOLOGIST:
DRILLER: J. Stevenser

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 or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS*	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	1					Lt Brown	Fine Sand		Moist Saturated				
	2									0	0	0	0
	3												
	4												
	5												
	6												

* When rock coring, enter rock brokeness.

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

Drilling Area Background (ppm): 0

Remarks:

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

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: NAS Pensacola / OLF Bronson
PROJECT NUMBER: CTO 86
DRILLING COMPANY: TEG
DRILLING RIG: DPT

BORING No.: BRO-102-15
DATE: 10/12/94
GEOLOGIST:
DRILLER: Joe Stenensen

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 or Rock Hardness	MATERIAL DESCRIPTION: Color	MATERIAL DESCRIPTION: Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	1					Brn	Fine Sand		Dry				
	2					↓	↓		↓				
	3					Tan	↓		Moist				
	4		4/4			Wh-Tan	↓						
	5						↓						
X	6						—						
	7					DK Brn	↓		Saturated				
	8		2/4			↓	↓		↓				
	9					↓	—		↓				
	10					↓	↓		↓				
	11					↓	↓		↓				
	12		3/4			↓	↓		↓				

* When rock coring, enter rock brokeness.

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

Remarks:

Drilling Area Background (ppm): 0

BORING LOG

PROJECT NAME: NASP, OLF Bronson
PROJECT NUMBER: CTO 86
DRILLING COMPANY: TEG
DRILLING RIG: DPT
BORING NUMBER: BRO-102-25
DATE: 10/12/99
GEOLOGIST:
DRILLER: J. Stevenson

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	MATERIAL DESCRIPTION: Soil Density/ Consistency or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
	1					Brn	Fine Sand		Dry				
	2					↓	↓		↓				
	3					Tan			Moist				
	4		4/4			White	↓		↓				
	5						—						
X	6					↓	↓		↓				
	7					DK Brn			Saturated				
	8		3/4			↓	↓		↓				
	9												
	10												
	11												
	12		4/4			↓	↓		↓				

* When rock coring, enter rock brokeness.

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

Drilling Area Background (ppm): 0

Remarks:

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

APPENDIX B

SOIL SAMPLING FIELD FORMS

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NASP OLF Bronson
Project No.: CTO 0086

[] Surface Soil
[X] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 102SU01
Sample Location: BRO-102-1S
Sampled By: [illegible]
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/8/99 Time: 1120 Method: DPT Monitor Reading (ppm): 0	4-5'	Lt. Brn.	Sand - Moist

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	5g Encore X3	✓	
SVOC, Pest, PCB, Metals, CN	1602	✓	

OBSERVATIONS / NOTES:

Borehole for background well
BRO-102-1S

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NAS Pensacola/OLF Bronson
Project No.: C70066

Sample ID No.: 102SS01
Sample Location: Upgradient Site 102
Sampled By: M. Franklin
C.O.C. No.:

[X] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date: 9/6/99	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1030	0-6"	Greyish	Sand
Method: SS Spoon			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	5 g Encore x 3	✓	
SVOC, Pest, PCB, Metals, CN	16 oz G	✓	

OBSERVATIONS / NOTES:

Background Location - same as well BRO-102-12S

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NASP OLF Bronson
Project No.: CTO 0086

Sample ID No.: 102552
Sample Location: Background
Sampled By: K. Franklin
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

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

GRAB SAMPLE DATA:

Date: 9/8/94	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1155	0-6"	Lt. Brown	Sand
Method: SS Spoon			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

Same location as borehole BRO-102-25

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NASP OLF Bronson
Project No.: CTO 0086

Sample ID No.: 100-SS-04
Sample Location: FFTA Site 100
Sampled By: K. Franklin
C.O.C. No.:

[X] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date: KS 9/8/99	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1520	0-6"	Brown	Sand
Method: SS Spoon			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NASP OLF Bronson
Project No.: CTO 0086

Sample ID No.: 100-SS-03
Sample Location: IF-TA Grid 100
Sampled By: A. Franklin
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

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

GRAB SAMPLE DATA:

Date: 9/8/99	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1510	0-6"	Brown	Sand
Method: SS Spoon			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NASP OLF Bronson
Project No.: CTO 0086

Sample ID No.: 100-SS-01
Sample Location: Fire Fighting Training Site 100
Sampled By: L. Franklin
C.O.C. No.:

- [x] Surface Soil
- [ ] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

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

GRAB SAMPLE DATA:

Date: 9/8/99	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1440	0-6"	Brown	Sand
Method: SS Spoon			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	5 g Encore x3	✓	
TCL SVOC, Pest. PCB, Metals, CN	16 oz	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD ✓ | Duplicate ID No.:

Signature(s):

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NASP OLF Bronson
Project No.: CTO 0086

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 100-SS-02
Sample Location: FFTA Site 100
Sampled By: R. Franklin
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/8/99 Time: 1455 Method: SS Spoon Monitor Reading (ppm): 0	0-6"	Brown	Sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	5g Encore X3	✓	
TCL SVOC, Pest, PCB,	16 OZ		
Metals, CN			

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:
	100-SS-DD

Signature(s):

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NHSP OLF Brunswick
Project No.: CTO 0086

Sample ID No.: 102-SS-04
Sample Location: MCB Site 102
Sampled By: R. Franklin
C.O.C. No.:

[X] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date: 9/9/99	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1030	0-6"	Lt. Brown	Sand
Method: SS Spoon			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	5 9 Encore	✓	
TCL SVOC, Pest, PCB	16 oz	✓	
TAL Metals, CN			

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NASP OLP Bronson
Project No.: CTO 0086

[X] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: 102-SS-03
Sample Location: MGB Site 102
Sampled By: L. Fuhl
C.O.C. No.:

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 9/9/99 Time: 1015 Method: SS Spoon Monitor Reading (ppm): Ø	0-6"	Lt. Brown	Sand

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	5 g Encore x 3	—	
TCL Pest, PCB, SVOC	16 oz	—	
TAL Metals, CN			

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NASP OLF Brunson
Project No.: CTO 0086

Sample ID No.: 102-SS-05
Sample Location: MCB Site 102
Sampled By: A. Fuhl
C.O.C. No.:

[X] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Type of Sample:
[X] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

Date: 9/9/98	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1045	0-6"	Lt. Brown	Sand
Method: SS Spoon			
Monitor Reading (ppm): 0			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	5 g Encore x 3	✓	
TCL SVOC, Pest. PCB	16 oz	✓	
TAL Metals, CN			

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): A. Fuhl

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: NASI OLF Bronson
Project No.: CTO 86

Sample ID No.: 1025u02
Sample Location: BKO-102-25
Sampled By: T. Trumkin
C.O.C. No.:

- [ ] Surface Soil
- [x] Subsurface Soil
- [ ] Sediment
- [ ] Other:
- [ ] QA Sample Type:

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

GRAB SAMPLE DATA:

Date: 10/12/99	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1305	5-6'	Brown	Fine Sand, Moist
Method: DPT			
Monitor Reading (ppm):			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	3 x 5G Encore	✓	
TCL SVOC, pest. PCB, TAL metals	16 oz Ge	✓	

OBSERVATIONS / NOTES:

MAP:

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

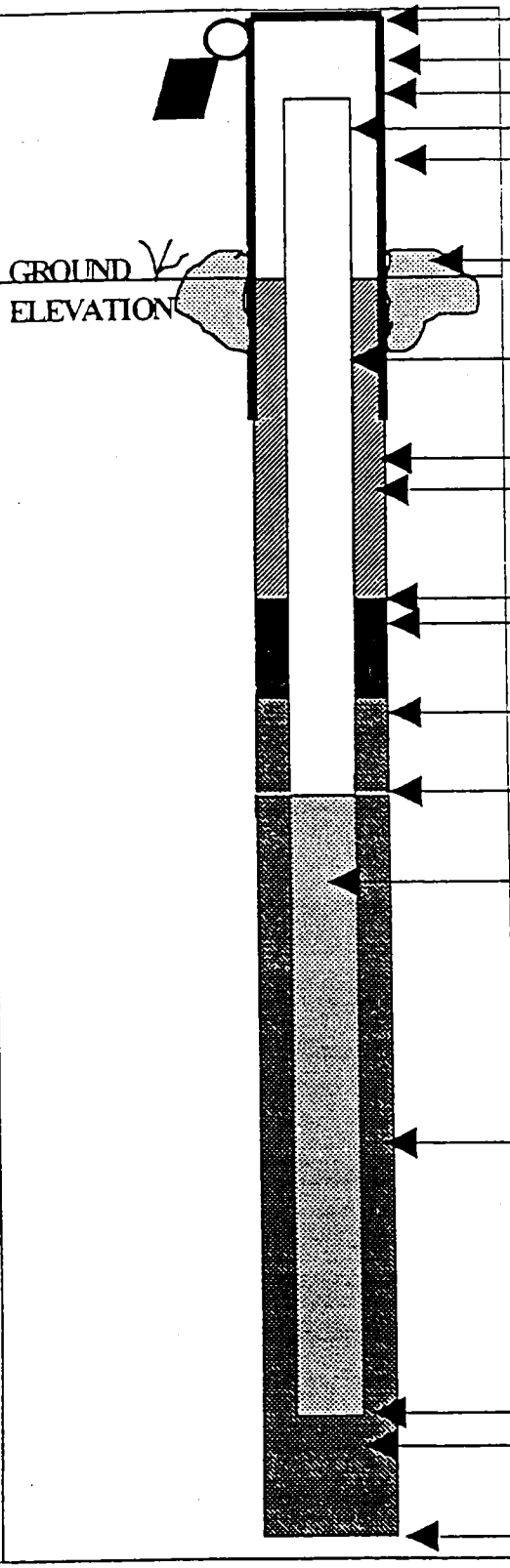
APPENDIX C

MONITORING WELL CONSTRUCTION DETAILS

BORING NO.: BRO-102-15

OVERBURDEN MONITORING WELL SHEET

PROJECT: NAS Pensacola, OLF Bronson	LOCATION: ~~NAS~~ OLF Bronson	DRILLER: TEG
PROJECT NO.: CTO	BORING: BRO-102-15	METHOD: DPT
ELEVATION:	DATE: 10/12/99	DRILLING:
FIELD GEOLOGIST:		DEVELOPMENT: NA



ELEVATION OF TOP OF SURFACE CASING: _____

ELEVATION OF TOP OF RISER PIPE: _____

STICK-UP TOP OF SURFACE CASING: _____

STICK-UP RISER PIPE: _____

I.D. OF SURFACE CASING: _____

TYPE OF SURFACE CASING: _____

TYPE OF SURFACE SEAL: Concrete

RISER PIPE I.D.: 1"

TYPE OF RISER PIPE: PVC 40

BOREHOLE DIAMETER: 3"

TYPE OF SEAL: Bentonite

ELEVATION / DEPTH OF SEAL: 11.0'

TYPE OS SEAL: Fine Sand

DEPTH TOP OF SAND PACK: _____

ELEVATION / DEPTH TOP OF SCREEN: 11.6'

TYPE OF SCREEN: 40 PVC

SLOT SIZE X LENGTH: _____

I.D. OF SCREEN: 1"

TYPE OF SAND PACK: Medium

ELEVATION / DEPTHBOTTOM OF SCREEN: 111.6

ELEVATION / DEPTH BOTTOM OF SAND PACK: 111.6

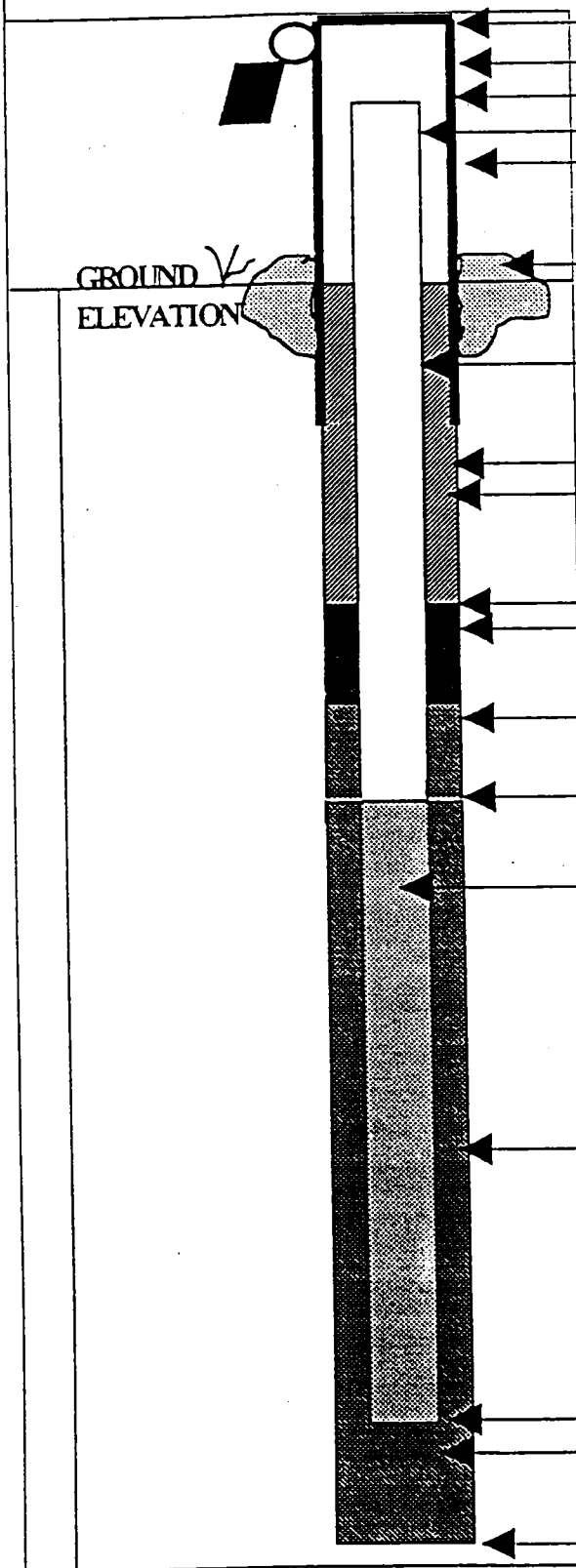
TYPE OF BACKFILL BELOW OBSERVATION WELL: _____

ELEVATION / DEPTH OF HOLE: 1

BORING NO.: BRO-102-25

OVERBURDEN MONITORING WELL SHEET

PROJECT UASP	LOCATION: OLF Brookhaven	DRILLER TEC	
PROJECT NO. C7086	BORING BRO-102-25	METHOD: DPT	
ELEVATION	DATE 10/12/94	DRILLING	
FIELD GEOLOGIST		DEVELOPMENT: NA	



ELEVATION OF TOP OF SURFACE CASING: _____

ELEVATION OF TOP OF RISER PIPE: _____

STICK-UP TOP OF SURFACE CASING: _____

STICK-UP RISER PIPE: _____

I.D. OF SURFACE CASING: _____

TYPE OF SURFACE CASING: _____

TYPE OF SURFACE SEAL: Concrete

RISER PIPE I.D.: 1"

TYPE OF RISER PIPE: PVC 40

BOREHOLE DIAMETER: 3"

TYPE OF SEAL: Bentonite

ELEVATION / DEPTH OF SEAL: 10.3'

TYPE OS SEAL: Fine Sand

DEPTH TOP OF SAND PACK: 0.4'

ELEVATION / DEPTH TOP OF SCREEN: 10.4'

TYPE OF SCREEN: PVC 40

SLOT SIZE X LENGTH: 0.01"

I.D. OF SCREEN: 1"

TYPE OF SAND PACK: Medium

ELEVATION / DEPTHBOTTOM OF SCREEN: 110.4'

ELEVATION / DEPTH BOTTOM OF SAND PACK: 1

TYPE OF BACKFILL BELOW OBSERVATION WELL: _____

ELEVATION / DEPTH OF HOLE: 111'

APPENDIX D

GROUNDWATER SAMPLING FIELD FORMS

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola OLF Bronson
Project No.: CTO 0086

Sample ID No.: 102-MW-003-0 ~~BRO-102-35~~
Sample Location: Site 102
Sampled By: J. Franklin
C.O.C. No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 9/9/99	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1215	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PERISTALTIC								

PURGE DATA:

Date: 9/9/99	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTALTIC	1143	4.46	0.51	28.0	352	1.62	0	
Monitor Reading (ppm):	1149	4.67	0.038	28.2	191	1.66	0	
Well Casing Diameter & Material	1151	4.95	0.039	28.2	158	1.54	0	
Type: 2" PVC	SEE LOW FLOW PURGE DATA SHEET							
Total Well Depth (TD): 25'	1154	4.66	0.035	28.1	109	0.84	0	
Static Water Level (WL): 6'	1205	4.67	0.036	28.2	72	0.84	0	
One Casing Volume(gal/L):	1213	4.64	0.035	28.2	51	0.84	0	
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOC	HCL	2 40 ml vials	—
TCL SVOC	4°C	2 1 ltr amb	—
TCL Pest PCB	4°C	2 1 ltr amb	—
TAL Metals	HNO_3	500 ml plastic	—
TAL CN	~~HCL~~ NaOH	1 ltr plastic	—

OBSERVATIONS / NOTES:

Some location as surface soil
102-SS-03

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola OLF Bronson
Project No.: CTO 0086

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: 102-MW-004-01 ~~BRO-102-4SN~~
Sample Location: Site 102
Sampled By: A. Franklin
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 9/9/99	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Time: 1315								
Method: PERISTALTIC								

PURGE DATA:

Date: 9/9/99	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTALTIC	1302	4.57	0.039	27.0	56	3.84	0	
Monitor Reading (ppm):	1307	4.56	0.040	27.0	30	3.24	0	
Well Casing Diameter & Material	1311	4.56	0.041	27.0	18	3.51	0	
Type: 2" PVC		SEE LOW FLOW PURGE DATA SHEET						
Total Well Depth (TD): 2.5'	1315	4.51	0.041	27.1	12	3.68	0	
Static Water Level (WL): 8"								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOC		2 40 vial	
TCL SVOC		2 1 ltr. amb	
Pest/PCB		2 1 ltr. amb	
TAL Metals		500ml ~~1 ltr.~~ plastic	
CW		1 ltr. plastic	

OBSERVATIONS / NOTES:

Same location as 102-SS-05

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): [signature]

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: C70 086

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BRO-102-15-01
Sample Location: BRO-102-15
Sampled By: R. Trunkline
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 10/27/99	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1555	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	~~NA~~
Method: PERISTALTIC	Clear							H_2S odor

PURGE DATA:

Date: 10/27/99	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other ORP
Method: PERISTALTIC	1520	5.71	0.129	22.2	86	0.43	0.0	6.61
Monitor Reading (ppm):	1537	5.45	0.094	22.1	49	0.19	0.0	6.56
Well Casing Diameter & Material	1550	5.28	0.04	22.0	2	0.21	0.0	6.54
Type: ~~4~~ 2" PVC	SEE LOW FLOW PURGE DATA SHEET							
Total Well Depth (TD): 11.6'								
Static Water Level (WL): 6.30								
One Casing Volume(gal/L): 0.62								
Start Purge (hrs): 1510								
End Purge (hrs): 1551								
Total Purge Time (min): 41								
Total Vol. Purged (gal/L): 4.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
VOC	HCl	2 x 40 ml	
SVOC	-	2 x 1 ltr amber	
Pest/PCB	-	2 x 1 ltr amber	
Metals	HNO_3	1 ltr Plastic	
CN	NaOH	2 x 1 to 500ml Plastic	

OBSERVATIONS / NOTES:

11.6
6.3
5.3

Tubing set @ 8.5'

5.3 x 1.0408 = 0.62

Circle if Applicable:

MS/MSD	Duplicate ID No.:
X	

Signature(s):

BRO-102-15-01m

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: [illegible]

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BRO-102-25-01
Sample Location: BRO
Sampled By: JE
C.O.C. No.:
Type of Sample:
[] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 10-27-99 / Time: 1620 / Method: PERISTALTIC	Color Visual	pH Standard	S.C. mS/cm	Temp. Degrees C	Turbidity NTU	DO mg/l	Salinity %	Other NA
	brown	4.94	0.084	23.0	>1000	0.20	—	—

PURGE DATA:

Date: 10-27-99 / Method: PERISTALTIC / Monitor Reading (ppm): —	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Water Level / Salinity	Flow Rate / Other
	1517	5.34	0.102	23.4	>1000	1.88	6.61'	~500mL/min
	1530	5.34	0.092	23.1	>1000	0.20	6.70'	~200
Well Casing Diameter & Material Type: ~~2" PVC~~ 1" PVC		SEE LOW FLOW PURGE DATA SHEET						
Total Well Depth (TD): 10.4'	1545	5.05	0.086	22.9	>1000	0.21	6.69'	~200
Static Water Level (WL): 6.61	1556	4.90	0.085	22.9	>1000	0.19	6.69'	~100
One Casing Volume(gal/L): 0.15 gal	1603	4.94	0.084	23.0	>1000	0.20	6.69'	~100
Start Purge (hrs): 1517								
End Purge (hrs): 1603								
Total Purge Time (min): 46 min								
Total Vol. Purged (gal/L): 2.1 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Volatiles	HCl	(2) 40 mL Vials	yes
SVOC	—	(2) 1L Amber	↓
Pest/PCBs	—	(2) 1L Amber	
Cyanide	NaOH	(2) ~~500mL~~ 500mL Plastic	
Metals	HNO_3	(1) 1L Plastic	

OBSERVATIONS / NOTES:

Note: During well development, 25 gals were pumped out of the well & the ~~###~~ turbidity never went below 999 (the max reading of the Horiba U-10)

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola OLF Bronson
Project No.: CTO 0086

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: 100-MW-001-01
Sample Location: Site 100
Sampled By: [illegible]
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 9/10/99	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Time: 1245								
Method: PERISTALTIC								

PURGE DATA:

Date: 9/10/99	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTALTIC	1209	5.42	0.070	28.4	288	2.69	0	
Monitor Reading (ppm): 0	1214	5.20	0.060	28.2	69	2.09	0	
Well Casing Diameter & Material	1224	5.06	0.057	28.2	25	1.97	0	
Type: ~~2" PVC~~ 1 1/4" PVC	~~1230~~	SEE LOW FLOW PURGE DATA SHEET						
Total Well Depth (TD): 4.5'	1230	5.03	0.057	28.2	18	1.63	0	
Static Water Level (WL): 1.46'	1236	5.06	0.056	28.1	14	2.20	0	
One Casing Volume(gal/L): 0.20	1240	5.07	0.056	28.1	11	2.19	0	
Start Purge (hrs): 1157	1245	5.03	0.055	28.1	10	2.61	0	
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOC	HCl	2 x 40 ml vial	✓
TCL SVOC	4°C	2 x 1 ltr. amber	✓
Pest/PCB	4°C	" "	✓
TAL Metals	HNO3	500 ml plastic	✓
CN	NaOH	1 ltr. plastic	✓

OBSERVATIONS / NOTES:

Well BRO-100-015

Circle if Applicable:

MS/MSD	Duplicate ID No.:
	100-MW-DD-01

Signature(s): [signature]

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola OLF Bronson
Project No.: CTO 0086

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: 100-MW-002-01
Sample Location: Site 100
Sampled By: R. Franklin
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

Date: 09/09/99	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: 1420	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PERISTALTIC	clear						0	

PURGE DATA:

Date: 9/10/99	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTALTIC	1334	5.50	.061	28.6	445	0.96	0	
Monitor Reading (ppm):	1340	5.38	.060	28.7	101	0.89	0	
Well Casing Diameter & Material	1345	5.32	.057	28.6	80	1.24	0	
Type: ~~2" PVC~~ 1¼" PVC	~~1350~~	SEE LOW FLOW PURGE DATA SHEET						
Total Well Depth (TD): 4.5'	1350	5.30	.055	28.6	63	1.33	0	
Static Water Level (WL): 0.81	1355	5.36	.054	28.6	37	1.35	0	
One Casing Volume(gal/L): 0.23G	1400	5.21	.054	28.7	25	1.93	0	
Start Purge (hrs): 1315	1405	5.34	.053	28.7	19	2.07	0	
End Purge (hrs):	1413	5.17	.052	29.1	24	2.30	0	
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOC	HCL	2 x 40 ml vial	X
TCL SVOC	4°C	2 x 1 ltr. amber	Y
Pest / PCB	4°C	1 l	Y
TAL Metals	HNO_3	500 ml plastic	Y
CN	NaOH	1 ltr. plastic	Y

OBSERVATIONS / NOTES:

MW BRO-100-02S

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola
Project No.: CTO 0086

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: 100-MW-003-01
Sample Location: Site 100
Sampled By: T. Franklin
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 9/10/99	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Time: 1130								
Method: PERISTALTIC								

PURGE DATA:

	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Date: 9/10/99								
Method: PERISTALTIC	0955	5.56	0.054	27.4	723	1.50	0	
Monitor Reading (ppm):	1020	5.54	0.052	27.8	999	1.44	0	
Well Casing Diameter & Material	1040	5.17	0.042	27.6	77	1.49	0	
Type: 2" PVC		~~5.22~~	SEE LOW FLOW PURGE DATA SHEET					
Total Well Depth (TD): 4.5'	1058	5.20	0.045	27.8	24	1.54	0	
Static Water Level (WL): 0.8'	1105	5.16	0.044	27.9	32	1.51	0	
One Casing Volume(gal/L): 0.24	1110	5.18	0.043	27.8	15	1.69	0	
Start Purge (hrs): 0944	1114	5.10	0.043	27.9	31	0.72	0	
End Purge (hrs): 1131	1125	5.21	0.044	28.1	~~502~~	0.54	0	
Total Purge Time (min): 148	1131	4.43	0.043	27.9	~~2033~~	1.55	0	
Total Vol. Purged (gal/L): 13.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOC	HCL	2 x 40 ml vial	X
TCL SVOC	4°C	2 x 1 ltr amber	X
Pest/PCB	4°C	1	
TAL Metal	HNO3	50 ml plastic	
CN	NaOH	1 ltr. plastic	

OBSERVATIONS / NOTES:

MW BRO-100-35

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NAS Pensacola OLF Blossom
Project No.:

[] Domestic Well Data
[X] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: 100-MW-004-01
Sample Location: Site 100
Sampled By: M. Franklin
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Date: 9/10/99	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Time: 0920								
Method: PERISTALTIC								

PURGE DATA:

	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Date: 9/10/99								
Method: PERISTALTIC	0903	5.29	0.055	~~77.1~~ 27.1	10	1.87	0	
Monitor Reading (ppm):	0916	5.27	0.055	27.2	6	1.93	0	
Well Casing Diameter & Material								
Type: 2" PVC	SEE LOW FLOW PURGE DATA SHEET							
Total Well Depth (TD): 5'								
Static Water Level (WL): .75'								
One Casing Volume(gal/L): 0.27								
Start Purge (hrs): 0838								
End Purge (hrs): 0917								
Total Purge Time (min): 39								
Total Vol. Purged (gal/L): 4.5								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
TCL VOC	HCl	2 x 40 ml vial	✓
TCL SVOC		2 x 1 ltr. amber	✓
TCL Pest/PCB		2 x 1 ltr. amber	✓
TAL Metals	HNO_3	500ml ~~1 ltr~~ plastic	✓
CN	NaOH	1 ltr. plastic	✓

OBSERVATIONS / NOTES:

MW - ~~100 M~~ BRO-100-4S

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s):

MONITORING WELL DEVELOPMENT RECORD

Well: BRO-102-1.5
Site:
Date Installed: 10.12.99
Date Developed: 10.16.99
Dev. Method: 1
Pump Type: peristaltic

Depth to Bottom (ft.): 11.74
Static Water Level Before (ft.): 6.35
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 1"

Responsible Personnel: Jeff Alexander
Drilling Co.: teg
Project Name: OLF Bronson
Project Number:

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.) D.O.
~~1615~~	1515	~.5 ltr.		23.3	5.68	.145	999	0.73
~~1625~~	1525	1.5 gal		23.1	5.77	.117	999	0.57
~~1633~~	1533	2.5 gal		22.7	5.53	.093	999	1.04
~~1635~~	1535	3 gal		22.6	5.32	.080	870	1.61
~~1638~~	1538	~~3~~ 3.5		22.6	5.04	.075	264	1.65
~~1640~~	1540	4 gal		22.6	4.81	.072	138	0.35
~~1645~~	1545	5 gal		22.6	4.74	.067	75	0.31

MONITORING WELL DEVELOPMENT RECORD

Well: BRO - 102 - 25
Site:
Date Installed: 10·12·99
Date Developed: 10·16·99
Dev. Method:
Pump Type: peristaltic

Depth to Bottom (ft.): 10.40
Static Water Level Before (ft.): 6.90
Static Water Level After (ft.):
Screen Length (ft.): 10'
Specific Capacity:
Casing ID (in.): 1"

Responsible Personnel: Jeff Alexander
Drilling Co.: teg
Project Name: OLF Bronson
Project Number:

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ____)	Turbidity (NTU)	Remarks (odor, color, etc.)
or								PO
16 ~~17~~ 05		~.5 gal		23.7	4.60	.106	999	5.45
16 ~~17~~ 15		~ 1.5		23.7	4.67	.089	999	3.45
16 ~~17~~ 22		~ 2.5		23.7	4.74	.083	999	3.08
16 ~~17~~ 35		~ 6		23.6	4.75	.077	999	5.34
1655		~ 12		23.7	4.67	.074	999	3.26
17 05	STOP	* over	25 gallons	purged, no	drop	in turbidity,		abort development

APPENDIX E

SOIL AND GROUNDWATER LABORATORY ANALYTICAL DATA SHEETS

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

October 8, 1999

Ms. Lee Leck
Tetra Tech NUS
Foster Plaza VII
661 Andersen Dr.
Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlaying Landing Field Bronson Pensacola, FL Project, Project No. CTO086, SDG No. 02SS02. The 9 aqueous and 11 soil samples were taken from the field on September 8th, 9th and 10th, 1999 and received at Ceimic Corporation on September 9th and 11th, 1999.

These samples are reported under Ceimic Project Number 990799 which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,

Neil Pothier, Ph.D
Laboratory Manager

NP/djj

Enclosures

cc: Mr. Terry Hansen
Tetra Tech NUS
1311 Executive Center Dr.
Ellis Bldg.
Suite 220
Tallahassee, FL 32301

Mr. Arnold Lamb
Tetra Tech NUS
794 S. Military Trail
Deerfield Beach, FL 33442

CHAIN OF CUSTODY

(3)

Chain of Custody

Original Chain of Cust[ody] goes to Laboratory

990799

Page 1 of 1

Project #	Project Name	Cooler Temp.
CTO 0056	NASP OLF Building	4°C
Samplers (please print)		Cooler # 1

Lab ID	Date	Time	Comp. / Grab	Sample Identification	Sample Matrix	No. of Containers	Analyses: TCL VOC	pH	TCL SVOC	pH	TCL Pest/PCB	pH	TAL Metals	pH	Cyanide	pH		pH		pH	Remarks
-01	9/8	1155	G	102-SS-02	S	4	X		X		X		X		X						
-02	9/8	1070	G	102-SS-01	S	4	X		X		X		X		X						
03	9/8	1120	G	102-SU-01	S	4	X		X		X		X		X						
-04	9/8	1455	G	100-SS-02	S	4	X		X		X		X		X						
05	9/8	1440	G	100-SS-01	S	8	X		X		X		X		X						MS/MSD
06	9/8	—	G	100-SS-DD	S	4	X		X		X		X		X						Dup.
07	9/8	1510	G	100-SS-03	S	4	X		X		X		X		X						
08	9/8	1520	G	100-SS-04	S	4	X		X		X		X		X						
09	9/8	1400	G	TB090899-1	W	2	X														Trip Blank

Celmic Project #	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
990799	[signature]	9/8/99 / 1700	Fed Ex	
Storage Location	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
#3	Relinquished by (signature)	Date/Time	Received by Celmic (signature) [signature] Amy St. John	Date/Time 9.9.99 11:00

Remarks:

[ ] = Lab Use Only

Celmic Corporation, 10 Dean Knauss Drive, Narragansett, RI 02882 - Tel: (401) 782-8900, Fax: (401) 782-8905

(15)

Chain of Custody

Original Chain of Custody goes to Laboratory

190799

Page 1 of 1

Project #	Project Name	Cooler Temp.
CTO 0086	NAS Pensacola OLF Bronson	4

Samplers (please print): [signature] Bobby R. Bobo

Cooler #: 1

Lab ID	1999 Date	Time	Comp. / Grab	Sample Identification	Sample Matrix	No. of Containers	TCL VOC	pH	TCL SVOC	pH	TCL Pest/PCB	pH	TAL Metals	pH	Cyanide	pH		pH		pH	Remarks
10	9/9	1315	G	102-MW-004-01	W	8	X		X		X		X		X						
11	9/9	1215	G	102 MW-003-01	W	8	X		X		X		X		X						
12	9/9	1045	G	102-SS-05	S	4	X		X		X		X		X						
13	9/9	1015	G	102-SS-03	S	4	X		X		X		X		X						
14	9/9	1030	G	102-SS-04	S	4	X		X		X		X		X						
15	9/9	1100	W	TB 090999-01	W	2	X														

Celmic Project #	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
990799	[signature]	9/9/99 1900	Fed Ex	
	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
Storage Location #15	Relinquished by (signature)	Date/Time	Received by Celmic (signature) Amy Al John	Date/Time 9.10.99 11:00

Remarks:

= Lab Use Only

Celmic Corporation, 10 Dean Knauss Drive, Narragansett, RI 02882 - Tel: (401) 782-8900, Fax: (401) 782-8905

(12)

Chain of Custody

Original Chain of Custody Goes to Laboratory

Page 1 1

Project #	Project Name	Cooler Temp.
CTO Ø086	NAS Pensacola OLF Bronson	4°C

Samplers (please print): [signature] Bobby R. Bobo

Cooler #: 1-3

Lab ID	1999 Date	Time	Comp. / Grab	Sample Identification	Sample Matrix	No. of Containers	TCL VOC	pH	TCL SVOC	pH	Pest/PCB	pH	TAL Metals	pH	Cyanide	pH		pH		pH	Remarks
16	9/10	1245	G	100-MW-001-01	W	8	X		X		X		X		X						
17	9/10	1420	G	100-MW-002-01	W	8	X		X		X		X		X						
18	9/10	1130	G	100-MW-003-01	W	8	X		X		X		X		X						
19	9/10	—	G	100-MW-DD-01	W	8	X		X		X		X		X						Dup
20	9/10	0920	G	100-MW-004-01	W	8	X		X		X		X		X						
	9/10	1210	G	10FB Ø91Ø99-01	W	8	X		X		X		X		X						Field Blank
	9/10	1435	G	ER Ø91Ø99-01	W	8	X		X		X		X		X						Equip Rinse
	9/10	0900	G	TB Ø91Ø99-01	W	2	X														Trip Blank

Celmic Project #	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
990799	[signature]	9/10/99 1800	Fed Ex	
	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
Storage Location	Relinquished by (signature)	Date/Time	Received by Celmic (signature)	Date/Time
#12			Amy St. John	9/10/99 11:00

Remarks:

☐ = Lab Use Only

Celmic Corporation, 10 Dean Knauss Drive, Narragansett, RI 02882 - Tel: (401) 782-8900, Fax: (401) 782-8905

CEDIC CORPORATION
Sample Receiving Checklist

LIMS # 990799 Cooler Number: 1

Client: Tetra Tech NUS Number of Coolers: 1

Project: NASP OLF Branson Date Received: 9,9,99

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9,9,99

1. Have designated person initial here to acknowledge receipt of cooler: AS (date): 9,9,99

2. Did cooler come with a shipping slip (airbill, etc.)? (YES) NO

If YES, enter carrier name & airbill number here: FedEx 810789127430

3. Were custody seals on outside of cooler? YES (NO)

How many & where: NA seal date: / / seal name:

4. Were custody seals unbroken and intact at the date and time of arrival NA YES NO

5. Did you screen samples for radioactivity using a Geiger Counter? Reading: ND (YES) NO

6. Chain of Custody #: 0460

7. Were custody papers sealed in a plastic bag & taped inside to the lid? (YES) NO

8. Were custody papers filled out properly (ink, signed, etc.)? (YES) NO

9. Did you sign custody papers in the appropriate place? (YES) NO

10. Was project identifiable from custody papers? (YES) NO

11. If required, was enough ice used? Cooler Temperature: 4 °C Type of ice: Wet (YES) NO

B. LOG-IN PHASE: Date samples were logged-in: 9,9,99

by (print): Amy St. John (sign): Amy St John

12. Describe type of packing in cooler:

13. Were all bottles sealed in separate plastic bags? (YES) NO

14. Did all bottles arrive unbroken and were labels in good condition? (YES) NO

15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? (YES) NO

16. Did all bottle labels agree with custody papers? (YES) NO

17. Were correct containers used for the tests indicated? (YES) NO

18. Were samples received at the correct pH? (YES) NO

19. Was a sufficient amount of sample sent for tests indicated? (YES) NO

20. Were bubbles absent in VOA samples? If NO, list by sample#: (YES) NO

21. Laboratory labelling verified by: (Initials): (date): / /

CEIMIC CORPORATION
Sample Receiving Checklist

LIMS #: 90799
Client: Tetra Tech
Project: NAS Pensacola

Cooler Number: 1-3
Number of Coolers: 3
Date Received: 9,11,99

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9,11,99

1. Have designated person initial here to acknowledge receipt of cooler: AS (date): 9,11,99

2. Did cooler come with a shipping slip (airbill, etc.)? ..... (YES) NO

If YES, enter carrier name & airbill number here: Fedex 810789127451

3. Were custody seals on outside of cooler? ..... YES NO

How many & where: 1, front seal date: 9,10,99 seal name: EnCO

4. Were custody seals unbroken and intact at the date and time of arrival ..... (YES) NO

5. Did you screen samples for radioactivity using a Geiger Counter? ..... Reading: ND (YES) NO

6. Chain of Custody #: 0464

7. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... (YES) NO

8. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO

9. Did you sign custody papers in the appropriate place? ..... (YES) NO

10. Was project identifiable from custody papers? ..... YES (NO)

11. If required, was enough ice used? ..... Cooler Temperature: 4 °C Type of ice: blue (YES) NO

B. LOG-IN PHASE: Date samples were logged-in: 9,13,99

by (print): Amy St. John (sign): Amy St. John

12. Describe type of packing in cooler: _____

13. Were all bottles sealed in separate plastic bags? ..... (YES) NO

14. Did all bottles arrive unbroken and were labels in good condition? ..... (YES) NO

15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... (YES) NO

16. Did all bottle labels agree with custody papers? ..... YES (NO)

17. Were correct containers used for the tests indicated? ..... (YES) NO

18. Were samples received at the correct pH? ..... (YES) NO

19. Was a sufficient amount of sample sent for tests indicated? ..... (YES) NO

20. Were bubbles absent in VOA samples? If NO, list by sample#: 1 21 (YES) NO

21. Laboratory labelling verified by: (Initials): _____ (date): ____/____/____

QAT0261

CEMIC CORPORATION
Sample Receiving Checklist

LIMS # 990799
Client: Tetra Tech NUS
Project: CTO 0086

Cooler Number: 1
Number of Coolers: 1
Date Received: 9,10,99

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9,10,99

1. Have designated person initial here to acknowledge receipt of cooler: AS (date): 9,10,99

2. Did cooler come with a shipping slip (airbill, etc.)? ..... (YES) NO

If YES, enter carrier name & airbill number here: FedEx 810789127440

3. Were custody seals on outside of cooler? ..... (YES) NO

How many & where: 1, front seal date: 9,9,99 seal name: _____

4. Were custody seals unbroken and intact at the date and time of arrival ..... (YES) NO

5. Did you screen samples for radioactivity using a Geiger Counter? ..... Reading: ND (YES) NO

6. Chain of Custody #: 0461

7. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... (YES) NO

8. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO

9. Did you sign custody papers in the appropriate place? ..... (YES) NO

10. Was project identifiable from custody papers? ..... (YES) NO

11. If required, was enough ice used? ..... Cooler Temperature: 4 °C Type of ice: cube (YES) NO

B. LOG-IN PHASE: Date samples were logged-in: 9,10,99

by (print): Amy St. John (sign): Amy St John

12. Describe type of packing in cooler: _____

13. Were all bottles sealed in separate plastic bags? ..... (YES) NO

14. Did all bottles arrive unbroken and were labels in good condition? ..... (YES) NO

15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... (YES) NO

15. Did all bottle labels agree with custody papers? See corrective Action ..... YES (NO)

17. Were correct containers used for the tests indicated? ..... (YES) NO

18. Were samples received at the correct pH? ..... (YES) NO

19. Was a sufficient amount of sample sent for tests indicated? ..... (YES) NO

20. Were bubbles absent in VOA samples? If NO, list by sample#: _____ YES NO

21. Laboratory labelling verified by: (Initials): _____ (date): ___/___/___

CEIMIC

Corporation

"Analytical Chemistry for Environmental Management"

Corrective Action Form

Name: Amy St. John Date: 9/10/99

Out of Control Situation : Label on sample didn't agree with custody paper

(describe what happened, when, where and how, and who discovered the problem)

Triplicate samples packaged together contained one sample with a slightly different Sample I.D. This sample was labeled with an X to Identify it.

Client(s): Tetra tech

Samples Affected: client ID: 102-SS-03

(reference both Ceimic and client IDs) ceimic ID: 990799-13

Action Taken:

(if client contacted, reference client contact name and date)

Name: _____ Date: _____

Proof of Return to Control:

Supervisor: _____ QA/QC Officer: _____

Date: _____ Date: _____

Corrective Action Tracking # _____

QAT0237 Page # _____

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CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

Corrective Action Form

Name: Amy St. John Date: 9.13.99

Out of Control Situation: mislabeled samples
(describe what happened, when, where and how, and who discovered the problem)
According to the chain, there should have been 8 containers of sample ID# 100-mw-002-01 and 8 containers of sample ID# 100-mw-003-01. The cooler contained 16 containers of sample ID# 100-mw-003-01 and no containers with the 100-mw-002-01 ID. A difference between these samples was the Time sampled and they were separated according to that, ie; samples labeled 100-mw-003 with a sample Time of 14:20 were given the Ceimic for sample # 100-mw-002-01

Client(s): Tetra Tech
Samples Affected:
(reference both Ceimic and client IDs)
Ceimic IDs: 100mw-002-01 & 100mw-003-01 Ceimic: 990799-17 & 990799-18

Action Taken:
(if client contacted, reference client contact name and date)
Called + Faxed Terry Hansen - Lee Leck

Name: Amy Leibovitz Date: 9-14-99

Proof of Return to Control:

Supervisor: _____ QA/QC Officer: _____
Date: _____ Date: _____

Corrective Action Tracking # _____

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"Analytical Chemistry for Environmental Management"

Corrective Action Form

Name: Amy St. John Date: 9.13.99

Out of Control Situation : Sample ID missing last two numbers.
(describe what happened, when, where and how, and who discovered the problem)

A container marked for TAL metals analysis was labeled wi ID# 100-mw-001-. This sample most closely matches sample ID# 100-mw-001-01 on the chain and was assig the ceimic ID# that was given to that sample.

Client(s): Tetra Tech

Samples Affected:
(reference both Ceimic and client IDs)
ceimic ID: 990799-16
client ID: 100-mw-001-01

Action Taken:
(if client contacted, reference client contact name and date)

Called + faxed Terry Hansen + Leeteck

Name: Harry Leibovitz Date: 9-14-99

Proof of Return to Control:

Supervisor: _____ QA/QC Officer: _____
Date: _____ Date: _____

Corrective Action Tracking # _____

QAT0237 Page # _____

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850-656-5458
385-9899
Terry Hansen
Tallahassee

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

Fax Cover Sheet

To: Tetra Tech NUS
~~Lee Leck~~ Terry Hansen

Fax #: ~~412-921-4040~~ / (850) 385-9860

From: Henry Leibovitz

Date: 9-13-99

Re: CTO 0086 NAS Pensacola

# of Pages: 1
(includes cover sheet)

1) Sample container labelled ID# 100-MW-001- should be ID# 100-MW-001-01 according to COC. Ceimic will assign ID according to COC.

2) Ceimic received 16 samples labelled ID# 100-MW-003-01 and none labelled ID# 100-MW-002-01. The chain of custody indicated there should be eight containers for each ID. Ceimic assigned 100-MW-002-01 ID#'s according to the sample collection time which was specific to each sample. Time 1420 = 100-MW-002-01
1130 = 100-MW-003-01

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Telephone Log

Client: Tetra Tech NUS

Telephone: 770 413 0965 FAX x6733

Contact: Roger Franklin

Project: CTO 86

Date & Time: 2:15pm 9-14-99

Ceimic's Contact: Henry

Summary:

1) ID's corrected properly by Ceimic 990799.

2) Next sampling in October (later)

3) Contact in field during sampling is Ron Joyner (850) 452 4611 x122

VOLATILE ANALYSES

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Blank ID: V120922-B1

Matrix: Soil

Ceimic Project: 990799

Date Sample Analyzed: 09/22/99

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
oroethane	ND	5
Methylene Chloride	ND	5
Acetone	ND	10
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10

Reported by: _____ Approved by: _____

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CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V120922-B1

Date Sample Analyzed: 09/22/99

Matrix: Soil

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	113	52 - 149
Dibromofluoromethane	106	65 - 135
Toluene-d8	69	65 - 135
Bromofluorobenzene	76	65 - 135

Reported by: _____ Approved by: _____

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150919-B1

Date Sample Analyzed: 09/19/99

Matrix: Aqueous

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150919-B1

Date Sample Analyzed: 09/19/99

Matrix: Aqueous

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	76	62 - 139
Dibromofluoromethane	78	75 - 125
Toluene-d8	85	75 - 125
Bromofluorobenzene	87	75 - 125

Reported by: _____ Approved by: _____

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150922-B1

Date Sample Analyzed: 09/22/99

Matrix: Aqueous

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150922-B1

Date Sample Analyzed: 09/22/99

Matrix: Aqueous

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	97	62 - 139
Dibromofluoromethane	96	75 - 125
Toluene-d8	99	75 - 125
Bromofluorobenzene	108	75 - 125

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-02

Laboratory ID: 990799-01

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 88

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
Vinyl Chloride	ND	7
Chloroethane	ND	7
Methylene Chloride	13	7
Acetone	190	14
Carbon Disulfide	ND	7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7
2-Butanone	ND	14
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone	ND	14
4-Methyl-2-Pentanone	ND	14

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-02

Laboratory ID: 990799-01

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 88

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	7
1,1,2,2-Tetrachloroethane	ND	7
Toluene	ND	7
Chlorobenzene	ND	7
Ethylbenzene	ND	7
Styrene	ND	7
Total Xylenes	ND	7

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	88	52 - 149
Dibromofluoromethane	91	65 - 135
Toluene-d8	76	65 - 135
Bromofluorobenzene	82	65 - 135

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-01

Laboratory ID: 990799-02

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 87

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
Vinyl Chloride	ND	7
Chloroethane	ND	7
Methylene Chloride	12	7
Acetone	120	14
Carbon Disulfide	ND	7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7
2-Butanone	ND	14
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone	ND	14
4-Methyl-2-Pentanone	ND	14

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-01

Laboratory ID: 990799-02

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 87

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	7
1,1,2,2-Tetrachloroethane	ND	7
Toluene	ND	7
Chlorobenzene	ND	7
Ethylbenzene	ND	7
Styrene	ND	7
Total Xylenes	ND	7

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	90	52 - 149
Dibromofluoromethane	91	65 - 135
Toluene-d8	75	65 - 135
Bromofluorobenzene	80	65 - 135

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SU-01

Laboratory ID: 990799-03

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 93

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	11	5
Acetone	54	11
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	11
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	11
4-Methyl-2-Pentanone	ND	11

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SU-01

Laboratory ID: 990799-03

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 93

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	89	52 - 149
Dibromofluoromethane	85	65 - 135
Toluene-d8	74	65 - 135
Bromofluorobenzene	81	65 - 135

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-SS-02

Laboratory ID: 990799-04

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 83

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
[illegible]yl Chloride	ND	6
[illegible]oroethane	ND	6
Methylene Chloride	12	6
Acetone	110	12
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	12
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	ND	12
4-Methyl-2-Pentanone	ND	12

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-SS-02

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 83

Laboratory ID: 990799-04

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
Toluene	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	89	52 - 149
Dibromofluoromethane	93	65 - 135
Toluene-d8	79	65 - 135
Bromofluorobenzene	86	65 - 135

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-SS-01

Laboratory ID: 990799-05

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 88

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
Vinyl Chloride	ND	6
Chloroethane	ND	6
Methylene Chloride	11	6
Acetone	130	13
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	13
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	17	13
4-Methyl-2-Pentanone	ND	13

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-SS-01

Laboratory ID: 990799-05

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 88

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
Toluene	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	84	52 - 149
Dibromofluoromethane	87	65 - 135
Toluene-d8	80	65 - 135
Bromofluorobenzene	96	65 - 135

Reported by: _____ Approved by: _____

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-SS-01

Matrix Spike ID: 990799-05

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 88

Concentration in: ug/Kg (ppb)+

Spike Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)* RPD	QC Limits(%)* Recovery
1,1-Dichloroethene	151	166	9	20	60 - 128
Trichloroethene	135	141	4	20	57 - 145
[illegible]zene	148	162	9	20	72 - 124
[illegible]ene	141	149	6	20	71 - 135
Chlorobenzene	136	149	9	20	72 - 135

+ Dry weight basis.
* These limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	88	89	52 - 149
Dibromofluoromethane	94	94	65 - 135
Toluene-d8	74	79	65 - 135
Bromofluorobenzene	78	91	65 - 135

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-22-DD

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 84

Laboratory ID: 990799-06

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
Vinyl Chloride	ND	6
Chloroethane	ND	6
Methylene Chloride	13	6
Acetone	79	12
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	12
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	ND	12
4-Methyl-2-Pentanone	ND	12

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-22-DD

Laboratory ID: 990799-06

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 84

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
T[illegible]ene	ND	6
[illegible]robenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	92	52 - 149
Dibromofluoromethane	92	65 - 135
Toluene-d8	78	65 - 135
Bromofluorobenzene	89	65 - 135

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-SS-03

Laboratory ID: 990799-07

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 94

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	8
Bromomethane	ND	8
Vinyl Chloride	ND	8
Chloroethane	ND	8
Methylene Chloride	18	8
Acetone	520	16
Carbon Disulfide	ND	8
1,1-Dichloroethene	ND	8
1,1-Dichloroethane	ND	8
1,2-Dichloroethene (total)	ND	8
Chloroform	ND	8
1,2-Dichloroethane	ND	8
2-Butanone	ND	16
1,1,1-Trichloroethane	ND	8
Carbon Tetrachloride	ND	8
Bromodichloromethane	ND	8
1,2-Dichloropropane	ND	8
trans-1,3-Dichloropropene	ND	8
Trichloroethene	ND	8
Dibromochloromethane	ND	8
1,1,2-Trichloroethane	ND	8
Benzene	ND	8
cis-1,3-Dichloropropene	ND	8
Bromoform	ND	8
2-Hexanone	ND	16
4-Methyl-2-Pentanone	ND	16

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-SS-03

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 94

Laboratory ID: 990799-07

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	8
1,1,2,2-Tetrachloroethane	ND	8
ıene	ND	8
...orobenzene	ND	8
Ethylbenzene	ND	8
Styrene	ND	8
Total Xylenes	ND	8

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	88	52 - 149
Dibromofluoromethane	94	65 - 135
Toluene-d8	83	65 - 135
Bromofluorobenzene	92	65 - 135

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-SS-04

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 86

Laboratory ID: 990799-08

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
Vinyl Chloride	ND	6
Chloroethane	ND	6
Methylene Chloride	11	6
Acetone	110	13
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	13
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	ND	13
4-Methyl-2-Pentanone	ND	13

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-SS-04

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 86

Laboratory ID: 990799-08

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
[illegible]ene	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	90	52 - 149
Dibromofluoromethane	91	65 - 135
Toluene-d8	76	65 - 135
Bromofluorobenzene	81	65 - 135

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB090899-1

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-09

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	2	1
Acetone	23	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	6	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB090899-1

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-09

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	85	62 - 139
Dibromofluoromethane	90	75 - 125
Toluene-d8	95	75 - 125
Bromofluorobenzene	96	75 - 125

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-MW-004-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-10

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-MW-004-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-10

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
'uene	ND	1
.orobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	89	62 - 139
Dibromofluoromethane	90	75 - 125
Toluene-d8	99	75 - 125
Bromofluorobenzene	97	75 - 125

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-MW-003-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-11

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	6	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-MW-003-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-11

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	90	62 - 139
Dibromofluoromethane	91	75 - 125
Toluene-d8	102	75 - 125
Bromofluorobenzene	104	75 - 125

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-05

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Soil

Percent Solids: 93

Laboratory ID: 990799-12

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
Vinyl Chloride	ND	6
Chloroethane	ND	6
Methylene Chloride	9	6
Acetone	150	13
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	13
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	24	13
4-Methyl-2-Pentanone	15	13

Reported by: _____ Approved by: _____

10 Dean Knauss Drive, Narragansett, RI 02882 Tel: (401) 782-8900 Fax: (401) 782-8905

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-05

Laboratory ID: 990799-12

Date Sampled: 09/09/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 93

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
Toluene	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	92	52 - 149
Dibromofluoromethane	91	65 - 135
Toluene-d8	77	65 - 135
Bromofluorobenzene	88	65 - 135

Reported by: _____ Approved by: _____

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-03

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Soil

Percent Solids: 79

Laboratory ID: 990799-13

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
Vinyl Chloride	ND	7
Chloroethane	ND	7
Methylene Chloride	9	7
Acetone	99	14
Carbon Disulfide	ND	7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7
2-Butanone	ND	14
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone	ND	14
4-Methyl-2-Pentanone	ND	14

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TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-03

Laboratory ID: 990799-13

Date Sampled: 09/09/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 79

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	7
1,1,2,2-Tetrachloroethane	ND	7
Toluene	ND	7
robenzene	ND	7
Ethylbenzene	ND	7
Styrene	ND	7
Total Xylenes	ND	7

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	89	52 - 149
Dibromofluoromethane	92	65 - 135
Toluene-d8	79	65 - 135
Bromofluorobenzene	92	65 - 135

Reported by: _____ Approved by: _____

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Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-04

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Soil

Percent Solids: 92

Laboratory ID: 990799-14

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
Vinyl Chloride	ND	7
Chloroethane	ND	7
Methylene Chloride	9	7
Acetone	72	13
Carbon Disulfide	ND	7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7
2-Butanone	ND	13
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone	ND	13
4-Methyl-2-Pentanone	ND	13

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102-SS-04

Laboratory ID: 990799-14

Date Sampled: 09/09/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V120922-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 92

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	7
1,1,2,2-Tetrachloroethane	ND	7
[illegible]uene	ND	7
[illegible]orobenzene	ND	7
Ethylbenzene	ND	7
Styrene	ND	7
Total Xylenes	ND	7

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	88	52 - 149
Dibromofluoromethane	92	65 - 135
Toluene-d8	75	65 - 135
Bromofluorobenzene	85	65 - 135

Reported by: _____ Approved by: _____

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB090999-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-15

Date Sample Analyzed: 09/20/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	2	1
Acetone	39	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	15	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB090999-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-15

Date Sample Analyzed: 09/20/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
'uene	1	1
.orobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	101	62 - 139
Dibromofluoromethane	104	75 - 125
Toluene-d8	107	75 - 125
Bromofluorobenzene	108	75 - 125

Reported by: _____ Approved by: _____

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-001-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-16

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-001-01

Laboratory ID: 990799-16

Date Sampled: 09/10/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V150922-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	106	62 - 139
Dibromofluoromethane	101	75 - 125
Toluene-d8	106	75 - 125
Bromofluorobenzene	108	75 - 125

Reported by: _____ Approved by: _____

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TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-002-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-17

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-002-01

Laboratory ID: 990799-17

Date Sampled: 09/10/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V150922-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
T luene	ND	1
orobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	100	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	111	75 - 125

Reported by: _____ Approved by: _____

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TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-003-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-18

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

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Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-003-01

Laboratory ID: 990799-18

Date Sampled: 09/10/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/11/99

Associated Method Blank: V150922-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	97	62 - 139
Dibromofluoromethane	96	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-DD-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-19

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-DD-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-19

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	98	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	107	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: _____ Approved by: _____

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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-004-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-20

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-004-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-20

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	98	62 - 139
Dibromofluoromethane	96	75 - 125
Toluene-d8	105	75 - 125
Bromofluorobenzene	111	75 - 125

Reported by: _____ Approved by: _____

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY
VOLATILE BLANK SPIKE
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank Spike ID: V120922-LCS

Date Sample Analyzed: 09/22/99

Matrix: Soil

Associated Method Blank: V120922-B1

Concentration: ug/Kg (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	50	43	86	60 - 128
Trichloroethene	50	41	82	57 - 145
Benzene	50	43	87	72 - 124
Toluene	50	43	86	71 - 135
Chlorobenzene	50	44	87	72 - 135

* These limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	82	52 - 149
Dibromofluoromethane	94	65 - 135
Toluene-d8	88	65 - 135
Bromofluorobenzene	91	65 - 135

Reported by: _____ Approved by: _____

10 Dean Knauss Drive, Narragansett, RI 02882 Tel: (401) 782-8900 Fax: (401) 782-8905

LABORATORY CONTROL SAMPLE SUMMARY
VOLATILE BLANK SPIKE
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank Spike ID: V150919-LCS

Date Sample Analyzed: 09/19/99

Matrix: Aqueous

Associated Method Blank: V150919-B1

Concentration: µg/L (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	5	5	93	68 - 124
Trichloroethene	5	5	104	75 - 120
Benzene	5	5	96	78 - 127
Toluene	5	5	100	71 - 132
Chlorobenzene	5	5	104	77 - 128

hese limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoromethane	96	75 - 125
Toluene-d8	102	75 - 125
Bromofluorobenzene	99	75 - 125

Reported by: _____ Approved by: _____

SEMIVOLATILE ORGANIC ANALYSES

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-22-DD

La Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-06

Sample wt/vol: 30.4 (g/mL) G Lab File ID: JY713

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 16 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/30/99

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	940	U
111-44-4	bis(2-Chloroethyl)Ether	940	U
95-57-8	2-Chlorophenol	940	U
541-73-1	1,3-Dichlorobenzene	940	U
106-46-7	1,4-Dichlorobenzene	940	U
100-51-6	Benzyl Alcohol	940	U
95-50-1	1,2-Dichlorobenzene	940	U
95-48-7	2-Methylphenol	940	U
108-60-1	2,2'-oxybis(1-Chloropropane)	940	U
106-44-5	4-Methylphenol	940	U
621-64-7	N-Nitroso-Di-n-Propylamine	940	U
67-72-1	Hexachloroethane	940	U
98-95-3	Nitrobenzene	940	U
78-59-1	Isophorone	940	U
88-75-5	2-Nitrophenol	940	U
105-67-9	2,4-Dimethylphenol	940	U
65-85-0	Benzoic Acid	1900	U
111-91-1	bis(2-Chloroethoxy)Methane	940	U
120-83-2	2,4-Dichlorophenol	940	U
120-82-1	1,2,4-Trichlorobenzene	940	U
91-20-3	Naphthalene	940	U
106-47-8	4-Chloroaniline	940	U
87-68-3	Hexachlorobutadiene	940	U
59-50-7	4-Chloro-3-Methylphenol	940	U
91-57-6	2-Methylnaphthalene	940	U
77-47-4	Hexachlorocyclopentadiene	940	U
88-06-2	2,4,6-Trichlorophenol	940	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	940	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	940	U
208-96-8	Acenaphthylene	940	U
606-20-2	2,6-Dinitrotoluene	940	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-22-DD

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-06

Sample wt/vol: 30.4 (g/mL) G Lab File ID: JY713

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 16 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/30/99

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	940	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	940	U
121-14-2	2,4-Dinitrotoluene	940	U
84-66-2	Diethylphthalate	940	U
7005-72-3	4-Chlorophenyl-phenylether	940	U
86-73-7	Fluorene	940	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-Methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	940	U
101-55-3	4-Bromophenyl-phenylether	940	U
118-74-1	Hexachlorobenzene	940	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	940	U
120-12-7	Anthracene	940	U
86-74-8	Carbazole	940	U
84-74-2	Di-n-Butylphthalate	940	U
206-44-0	Fluoranthene	940	U
129-00-0	Pyrene	940	U
85-68-7	Butylbenzylphthalate	940	U
91-94-1	3,3'-Dichlorobenzidine	940	U
56-55-3	Benzo(a)Anthracene	940	U
218-01-9	Chrysene	940	U
117-81-7	bis(2-Ethylhexyl)Phthalate	250	J
117-84-0	Di-n-Octyl Phthalate	940	U
205-99-2	Benzo(b)Fluoranthene	940	U
207-08-9	Benzo(k)Fluoranthene	940	U
50-32-8	Benzo(a)Pyrene	940	U
193-39-5	Indeno(1,2,3-cd)Pyrene	940	U
53-70-3	Dibenzo(a,h)Anthracene	940	U
191-24-2	Benzo(g,h,i)Perylene	940	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-001-01

La Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW986

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-001-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW986

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-002-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-17

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW987

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-002-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-17

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW987

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	BJ
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-003-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-18

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW998

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-003-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-18

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW998

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-004-01

b Name: CEIMIC CORP Contract: TETRA_TECH

b Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

trix: (soil/water) WATER Lab Sample ID: 990799-20

mple wt/vol: 1000 (g/mL) ML Lab File ID: DX000

vel: (low/med) LOW Date Received: 09/11/99

Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

oncentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

njection Volume: 2.0(uL) Dilution Factor: 1.0

PC Cleanup: (Y/N) N pH: _____ CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	5	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	5	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene		

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-004-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-20

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DX000

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	BJ
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-DD-01

ab ame: CEIMIC CORP Contract: TETRA_TECH

ab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

atrix: (soil/water) WATER Lab Sample ID: 990799-19

ample wt/vol: 1000 (g/mL) ML Lab File ID: DW999

evel: (low/med) LOW Date Received: 09/11/99

Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

oncentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

njection Volume: 2.0(uL) Dilution Factor: 1.0

PC Cleanup: (Y/N) N pH: ____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-DD-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-19

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW999

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01

La ame: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX022

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99

Injection Volume: 2.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1800	U
111-44-4	bis(2-Chloroethyl)Ether	1800	U
95-57-8	2-Chlorophenol	1800	U
541-73-1	1,3-Dichlorobenzene	1800	U
106-46-7	1,4-Dichlorobenzene	1800	U
100-51-6	Benzyl Alcohol	1800	U
95-50-1	1,2-Dichlorobenzene	1800	U
95-48-7	2-Methylphenol	1800	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1800	U
106-44-5	4-Methylphenol	1800	U
621-64-7	N-Nitroso-Di-n-Propylamine	1800	U
67-72-1	Hexachloroethane	1800	U
98-95-3	Nitrobenzene	1800	U
78-59-1	Isophorone	1800	U
88-75-5	2-Nitrophenol	1800	U
105-67-9	2,4-Dimethylphenol	1800	U
65-85-0	Benzoic Acid	3700	U
111-91-1	bis(2-Chloroethoxy)Methane	1800	U
120-83-2	2,4-Dichlorophenol	1800	U
120-82-1	1,2,4-Trichlorobenzene	1800	U
91-20-3	Naphthalene	1800	U
106-47-8	4-Chloroaniline	1800	U
87-68-3	Hexachlorobutadiene	1800	U
59-50-7	4-Chloro-3-Methylphenol	1800	U
91-57-6	2-Methylnaphthalene	1800	U
77-47-4	Hexachlorocyclopentadiene	1800	U
88-06-2	2,4,6-Trichlorophenol	1800	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	1800	U
88-74-4	2-Nitroaniline	3700	U
131-11-3	Dimethyl Phthalate	1800	U
208-96-8	Acenaphthylene	1800	U
606-20-2	2,6-Dinitrotoluene	1800	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX022

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3700	U
83-32-9	Acenaphthene	1800	U
51-28-5	2,4-Dinitrophenol	3700	U
100-02-7	4-Nitrophenol	3700	U
132-64-9	Dibenzofuran	1800	U
121-14-2	2,4-Dinitrotoluene	1800	U
84-66-2	Diethylphthalate	1800	U
7005-72-3	4-Chlorophenyl-phenylether	1800	U
86-73-7	Fluorene	1800	U
100-01-6	4-Nitroaniline	3700	U
534-52-1	4,6-Dinitro-2-Methylphenol	3700	U
86-30-6	N-Nitrosodiphenylamine (1)	1800	U
101-55-3	4-Bromophenyl-phenylether	1800	U
118-74-1	Hexachlorobenzene	1800	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	1800	U
120-12-7	Anthracene	1800	U
86-74-8	Carbazole	1800	U
84-74-2	Di-n-Butylphthalate	1800	U
206-44-0	Fluoranthene	1800	U
129-00-0	Pyrene	1800	U
85-68-7	Butylbenzylphthalate	1800	U
91-94-1	3,3'-Dichlorobenzidine	1800	U
56-55-3	Benzo(a)Anthracene	1800	U
218-01-9	Chrysene	1800	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1500	J
117-84-0	Di-n-Octyl Phthalate	1800	U
205-99-2	Benzo(b)Fluoranthene	1800	U
207-08-9	Benzo(k)Fluoranthene	1800	U
50-32-8	Benzo(a)Pyrene	1800	U
193-39-5	Indeno(1,2,3-cd)Pyrene	1800	U
53-70-3	Dibenzo(a,h)Anthracene	1800	U
191-24-2	Benzo(g,h,i)Perylene	1800	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-02

La ame: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-04

Sample wt/vol: 30.2 (g/mL) G Lab File ID: JY711

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/30/99

Injection Volume: 2.0(uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	960	U
111-44-4	bis(2-Chloroethyl)Ether	960	U
95-57-8	2-Chlorophenol	960	U
541-73-1	1,3-Dichlorobenzene	960	U
106-46-7	1,4-Dichlorobenzene	960	U
100-51-6	Benzyl Alcohol	960	U
95-50-1	1,2-Dichlorobenzene	960	U
95-48-7	2-Methylphenol	960	U
108-60-1	2,2'-oxybis(1-Chloropropane)	960	U
106-44-5	4-Methylphenol	960	U
621-64-7	N-Nitroso-Di-n-Propylamine	960	U
67-72-1	Hexachloroethane	960	U
98-95-3	Nitrobenzene	960	U
78-59-1	Isophorone	960	U
88-75-5	2-Nitrophenol	960	U
105-67-9	2,4-Dimethylphenol	960	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(2-Chloroethoxy)Methane	960	U
120-83-2	2,4-Dichlorophenol	960	U
120-82-1	1,2,4-Trichlorobenzene	960	U
91-20-3	Naphthalene	960	U
106-47-8	4-Chloroaniline	960	U
87-68-3	Hexachlorobutadiene	960	U
59-50-7	4-Chloro-3-Methylphenol	960	U
91-57-6	2-Methylnaphthalene	960	U
77-47-4	Hexachlorocyclopentadiene	960	U
88-06-2	2,4,6-Trichlorophenol	960	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	960	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	960	U
208-96-8	Acenaphthylene	960	U
606-20-2	2,6-Dinitrotoluene	960	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-02

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-04

Sample wt/vol: 30.2 (g/mL) G Lab File ID: JY711

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/30/99

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	960	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	960	U
121-14-2	2,4-Dinitrotoluene	960	U
84-66-2	Diethylphthalate	960	U
7005-72-3	4-Chlorophenyl-phenylether	960	U
86-73-7	Fluorene	960	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	960	U
101-55-3	4-Bromophenyl-phenylether	960	U
118-74-1	Hexachlorobenzene	960	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	960	U
120-12-7	Anthracene	960	U
86-74-8	Carbazole	960	U
84-74-2	Di-n-Butylphthalate	960	U
206-44-0	Fluoranthene	960	U
129-00-0	Pyrene	960	U
85-68-7	Butylbenzylphthalate	960	U
91-94-1	3,3'-Dichlorobenzidine	960	U
56-55-3	Benzo(a)Anthracene	960	U
218-01-9	Chrysene	960	U
117-81-7	bis(2-Ethylhexyl)Phthalate	960	U
117-84-0	Di-n-Octyl Phthalate	960	U
205-99-2	Benzo(b)Fluoranthene	960	U
207-08-9	Benzo(k)Fluoranthene	960	U
50-32-8	Benzo(a)Pyrene	960	U
193-39-5	Indeno(1,2,3-cd)Pyrene	960	U
53-70-3	Dibenzo(a,h)Anthracene	960	U
191-24-2	Benzo(g,h,i)Perylene	960	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-03

La Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-07

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX017

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 6 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/28/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	170	U
111-44-4	bis(2-Chloroethyl)Ether	170	U
95-57-8	2-Chlorophenol	170	U
541-73-1	1,3-Dichlorobenzene	170	U
106-46-7	1,4-Dichlorobenzene	170	U
100-51-6	Benzyl Alcohol	170	U
95-50-1	1,2-Dichlorobenzene	170	U
95-48-7	2-Methylphenol	170	U
108-60-1	2,2'-oxybis(1-Chloropropane)	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-Di-n-Propylamine	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
65-85-0	Benzoic Acid	61	J
111-91-1	bis(2-Chloroethoxy)Methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
120-82-1	1,2,4-Trichlorobenzene	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
59-50-7	4-Chloro-3-Methylphenol	170	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	350	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	350	U
131-11-3	Dimethyl Phthalate	170	U
208-96-8	Acenaphthylene	170	U
606-20-2	2,6-Dinitrotoluene	170	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-03

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-07

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX017

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 6 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/28/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	350	U
83-32-9	Acenaphthene	170	U
51-28-5	2,4-Dinitrophenol	350	U
100-02-7	4-Nitrophenol	350	U
132-64-9	Dibenzofuran	170	U
121-14-2	2,4-Dinitrotoluene	170	U
84-66-2	Diethylphthalate	170	U
7005-72-3	4-Chlorophenyl-phenylether	170	U
86-73-7	Fluorene	170	U
100-01-6	4-Nitroaniline	350	U
534-52-1	4,6-Dinitro-2-Methylphenol	350	U
86-30-6	N-Nitrosodiphenylamine (1)	170	U
101-55-3	4-Bromophenyl-phenylether	170	U
118-74-1	Hexachlorobenzene	170	U
87-86-5	Pentachlorophenol	350	U
85-01-8	Phenanthrene	170	U
120-12-7	Anthracene	170	U
86-74-8	Carbazole	170	U
84-74-2	Di-n-Butylphthalate	48	J
206-44-0	Fluoranthene	170	U
129-00-0	Pyrene	170	U
85-68-7	Butylbenzylphthalate	170	U
91-94-1	3,3'-Dichlorobenzidine	170	U
56-55-3	Benzo(a)Anthracene	170	U
218-01-9	Chrysene	170	U
117-81-7	bis(2-Ethylhexyl)Phthalate	40	J
117-84-0	Di-n-Octyl Phthalate	170	U
205-99-2	Benzo(b)Fluoranthene	170	U
207-08-9	Benzo(k)Fluoranthene	170	U
50-32-8	Benzo(a)Pyrene	170	U
193-39-5	Indeno(1,2,3-cd)Pyrene	170	U
53-70-3	Dibenzo(a,h)Anthracene	170	U
191-24-2	Benzo(g,h,i)Perylene	170	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-04

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-08

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX018

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	180	U
111-44-4	bis(2-Chloroethyl)Ether	180	U
95-57-8	2-Chlorophenol	180	U
541-73-1	1,3-Dichlorobenzene	180	U
106-46-7	1,4-Dichlorobenzene	180	U
100-51-6	Benzyl Alcohol	180	U
95-50-1	1,2-Dichlorobenzene	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	2,2'-oxybis(1-Chloropropane)	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-Di-n-Propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
65-85-0	Benzoic Acid	380	U
111-91-1	bis(2-Chloroethoxy)Methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
120-82-1	1,2,4-Trichlorobenzene	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
59-50-7	4-Chloro-3-Methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	380	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	380	U
131-11-3	Dimethyl Phthalate	180	U
208-96-8	Acenaphthylene	180	U
606-20-2	2,6-Dinitrotoluene	180	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-04

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-08

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX018

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	380	U
83-32-9	Acenaphthene	180	U
51-28-5	2,4-Dinitrophenol	380	U
100-02-7	4-Nitrophenol	380	U
132-64-9	Dibenzofuran	180	U
121-14-2	2,4-Dinitrotoluene	180	U
84-66-2	Diethylphthalate	180	U
7005-72-3	4-Chlorophenyl-phenylether	180	U
86-73-7	Fluorene	180	U
100-01-6	4-Nitroaniline	380	U
534-52-1	4,6-Dinitro-2-Methylphenol	380	U
86-30-6	N-Nitrosodiphenylamine (1)	180	U
101-55-3	4-Bromophenyl-phenylether	180	U
118-74-1	Hexachlorobenzene	180	U
87-86-5	Pentachlorophenol	380	U
85-01-8	Phenanthrene	180	U
120-12-7	Anthracene	180	U
86-74-8	Carbazole	180	U
84-74-2	Di-n-Butylphthalate	39	J
206-44-0	Fluoranthene	180	U
129-00-0	Pyrene	180	U
85-68-7	Butylbenzylphthalate	180	U
91-94-1	3,3'-Dichlorobenzidine	180	U
56-55-3	Benzo(a)Anthracene	180	U
218-01-9	Chrysene	180	U
117-81-7	bis(2-Ethylhexyl)Phthalate	58	J
117-84-0	Di-n-Octyl Phthalate	180	U
205-99-2	Benzo(b)Fluoranthene	180	U
207-08-9	Benzo(k)Fluoranthene	180	U
50-32-8	Benzo(a)Pyrene	180	U
193-39-5	Indeno(1,2,3-cd)Pyrene	180	U
53-70-3	Dibenzo(a,h)Anthracene	180	U
191-24-2	Benzo(g,h,i)Perylene	180	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-003-01

La Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-11

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW985

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	1	J
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-003-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-11

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW985

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-004-01

L Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW984

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-004-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW984

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3	BJ
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-01

L Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-02

Sample wt/vol: 30.3 (g/mL) G Lab File ID: JY648

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 13 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	180	U
111-44-4	bis(2-Chloroethyl)Ether	180	U
95-57-8	2-Chlorophenol	180	U
541-73-1	1,3-Dichlorobenzene	180	U
106-46-7	1,4-Dichlorobenzene	180	U
100-51-6	Benzyl Alcohol	180	U
95-50-1	1,2-Dichlorobenzene	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	2,2'-oxybis(1-Chloropropane)	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-Di-n-Propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
65-85-0	Benzoic Acid	380	U
111-91-1	bis(2-Chloroethoxy)Methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
120-82-1	1,2,4-Trichlorobenzene	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
59-50-7	4-Chloro-3-Methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	380	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	380	U
131-11-3	Dimethyl Phthalate	180	U
208-96-8	Acenaphthylene	180	U
606-20-2	2,6-Dinitrotoluene	180	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-02

Sample wt/vol: 30.3 (g/mL) G Lab File ID: JY648

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 13 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	380	U
83-32-9	Acenaphthene	180	U
51-28-5	2,4-Dinitrophenol	380	U
100-02-7	4-Nitrophenol	380	U
132-64-9	Dibenzofuran	180	U
121-14-2	2,4-Dinitrotoluene	180	U
84-66-2	Diethylphthalate	180	U
7005-72-3	4-Chlorophenyl-phenylether	180	U
86-73-7	Fluorene	180	U
100-01-6	4-Nitroaniline	380	U
534-52-1	4,6-Dinitro-2-Methylphenol	380	U
86-30-6	N-Nitrosodiphenylamine (1)	180	U
101-55-3	4-Bromophenyl-phenylether	180	U
118-74-1	Hexachlorobenzene	180	U
87-86-5	Pentachlorophenol	380	U
85-01-8	Phenanthrene	180	U
120-12-7	Anthracene	180	U
86-74-8	Carbazole	180	U
84-74-2	Di-n-Butylphthalate	77	J
206-44-0	Fluoranthene	48	J
129-00-0	Pyrene	40	J
85-68-7	Butylbenzylphthalate	180	U
91-94-1	3,3'-Dichlorobenzidine	180	U
56-55-3	Benzo(a)Anthracene	180	U
218-01-9	Chrysene	180	U
117-81-7	bis(2-Ethylhexyl)Phthalate	71	J
117-84-0	Di-n-Octyl Phthalate	180	U
205-99-2	Benzo(b)Fluoranthene	180	U
207-08-9	Benzo(k)Fluoranthene	180	U
50-32-8	Benzo(a)Pyrene	180	U
193-39-5	Indeno(1,2,3-cd)Pyrene	180	U
53-70-3	Dibenzo(a,h)Anthracene	180	U
191-24-2	Benzo(g,h,i)Perylene	180	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-02

La Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-01

Sample wt/vol: 30.4 (g/mL) G Lab File ID: JY694

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	180	U
111-44-4	bis(2-Chloroethyl)Ether	180	U
95-57-8	2-Chlorophenol	180	U
541-73-1	1,3-Dichlorobenzene	180	U
106-46-7	1,4-Dichlorobenzene	180	U
100-51-6	Benzyl Alcohol	180	U
95-50-1	1,2-Dichlorobenzene	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	2,2'-oxybis(1-Chloropropane)	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-Di-n-Propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
65-85-0	Benzoic Acid	120	J
111-91-1	bis(2-Chloroethoxy)Methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
120-82-1	1,2,4-Trichlorobenzene	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
59-50-7	4-Chloro-3-Methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	370	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	370	U
131-11-3	Dimethyl Phthalate	180	U
208-96-8	Acenaphthylene	180	U
606-20-2	2,6-Dinitrotoluene	180	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-02

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-01

Sample wt/vol: 30.4 (g/mL) G Lab File ID: JY694

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	370	U
83-32-9	Acenaphthene	180	U
51-28-5	2,4-Dinitrophenol	370	U
100-02-7	4-Nitrophenol	370	U
132-64-9	Dibenzofuran	180	U
121-14-2	2,4-Dinitrotoluene	180	U
84-66-2	Diethylphthalate	180	U
7005-72-3	4-Chlorophenyl-phenylether	180	U
86-73-7	Fluorene	180	U
100-01-6	4-Nitroaniline	370	U
534-52-1	4,6-Dinitro-2-Methylphenol	370	U
86-30-6	N-Nitrosodiphenylamine (1)	180	U
101-55-3	4-Bromophenyl-phenylether	180	U
118-74-1	Hexachlorobenzene	180	U
87-86-5	Pentachlorophenol	370	U
85-01-8	Phenanthrene	180	U
120-12-7	Anthracene	180	U
86-74-8	Carbazole	180	U
84-74-2	Di-n-Butylphthalate	43	J
206-44-0	Fluoranthene	180	U
129-00-0	Pyrene	180	U
85-68-7	Butylbenzylphthalate	180	U
91-94-1	3,3'-Dichlorobenzidine	180	U
56-55-3	Benzo(a)Anthracene	180	U
218-01-9	Chrysene	180	U
117-81-7	bis(2-Ethylhexyl)Phthalate	180	U
117-84-0	Di-n-Octyl Phthalate	180	U
205-99-2	Benzo(b)Fluoranthene	180	U
207-08-9	Benzo(k)Fluoranthene	180	U
50-32-8	Benzo(a)Pyrene	180	U
193-39-5	Indeno(1,2,3-cd)Pyrene	180	U
53-70-3	Dibenzo(a,h)Anthracene	180	U
191-24-2	Benzo(g,h,i)Perylene	180	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-03

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-13

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX020

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	200	U
111-44-4	bis(2-Chloroethyl)Ether	200	U
95-57-8	2-Chlorophenol	200	U
541-73-1	1,3-Dichlorobenzene	200	U
106-46-7	1,4-Dichlorobenzene	200	U
100-51-6	Benzyl Alcohol	200	U
95-50-1	1,2-Dichlorobenzene	200	U
95-48-7	2-Methylphenol	200	U
108-60-1	2,2'-oxybis(1-Chloropropane)	200	U
106-44-5	4-Methylphenol	200	U
621-64-7	N-Nitroso-Di-n-Propylamine	200	U
67-72-1	Hexachloroethane	200	U
98-95-3	Nitrobenzene	200	U
78-59-1	Isophorone	200	U
88-75-5	2-Nitrophenol	200	U
105-67-9	2,4-Dimethylphenol	200	U
65-85-0	Benzoic Acid	86	J
111-91-1	bis(2-Chloroethoxy)Methane	200	U
120-83-2	2,4-Dichlorophenol	200	U
120-82-1	1,2,4-Trichlorobenzene	200	U
91-20-3	Naphthalene	200	U
106-47-8	4-Chloroaniline	200	U
87-68-3	Hexachlorobutadiene	200	U
59-50-7	4-Chloro-3-Methylphenol	200	U
91-57-6	2-Methylnaphthalene	200	U
77-47-4	Hexachlorocyclopentadiene	200	U
88-06-2	2,4,6-Trichlorophenol	200	U
95-95-4	2,4,5-Trichlorophenol	410	U
91-58-7	2-Chloronaphthalene	200	U
88-74-4	2-Nitroaniline	410	U
131-11-3	Dimethyl Phthalate	200	U
208-96-8	Acenaphthylene	200	U
606-20-2	2,6-Dinitrotoluene	200	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-03

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-13

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX020

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	410	U
83-32-9	Acenaphthene	200	U
51-28-5	2,4-Dinitrophenol	410	U
100-02-7	4-Nitrophenol	410	U
132-64-9	Dibenzofuran	200	U
121-14-2	2,4-Dinitrotoluene	200	U
84-66-2	Diethylphthalate	200	U
7005-72-3	4-Chlorophenyl-phenylether	200	U
86-73-7	Fluorene	200	U
100-01-6	4-Nitroaniline	410	U
534-52-1	4,6-Dinitro-2-Methylphenol	410	U
86-30-6	N-Nitrosodiphenylamine (1)	200	U
101-55-3	4-Bromophenyl-phenylether	200	U
118-74-1	Hexachlorobenzene	200	U
87-86-5	Pentachlorophenol	410	U
85-01-8	Phenanthrene	200	U
120-12-7	Anthracene	200	U
86-74-8	Carbazole	200	U
84-74-2	Di-n-Butylphthalate	83	J
206-44-0	Fluoranthene	200	U
129-00-0	Pyrene	200	U
85-68-7	Butylbenzylphthalate	200	U
91-94-1	3,3'-Dichlorobenzidine	200	U
56-55-3	Benzo(a)Anthracene	200	U
218-01-9	Chrysene	200	U
117-81-7	bis(2-Ethylhexyl)Phthalate	680	
117-84-0	Di-n-Octyl Phthalate	200	U
205-99-2	Benzo(b)Fluoranthene	200	U
207-08-9	Benzo(k)Fluoranthene	200	U
50-32-8	Benzo(a)Pyrene	200	U
193-39-5	Indeno(1,2,3-cd)Pyrene	200	U
53-70-3	Dibenzo(a,h)Anthracene	200	U
191-24-2	Benzo(g,h,i)Perylene	200	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-04

I Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-14

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX021

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 8 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	170	U
111-44-4	bis(2-Chloroethyl)Ether	170	U
95-57-8	2-Chlorophenol	170	U
541-73-1	1,3-Dichlorobenzene	170	U
106-46-7	1,4-Dichlorobenzene	170	U
100-51-6	Benzyl Alcohol	170	U
95-50-1	1,2-Dichlorobenzene	170	U
95-48-7	2-Methylphenol	170	U
108-60-1	2,2'-oxybis(1-Chloropropane)	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-Di-n-Propylamine	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
65-85-0	Benzoic Acid	350	U
111-91-1	bis(2-Chloroethoxy)Methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
120-82-1	1,2,4-Trichlorobenzene	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
59-50-7	4-Chloro-3-Methylphenol	170	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	350	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	350	U
131-11-3	Dimethyl Phthalate	170	U
208-96-8	Acenaphthylene	170	U
606-20-2	2,6-Dinitrotoluene	170	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-04

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-14

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX021

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 8 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	350	U
83-32-9	Acenaphthene	170	U
51-28-5	2,4-Dinitrophenol	350	U
100-02-7	4-Nitrophenol	350	U
132-64-9	Dibenzofuran	170	U
121-14-2	2,4-Dinitrotoluene	170	U
84-66-2	Diethylphthalate	170	U
7005-72-3	4-Chlorophenyl-phenylether	170	U
86-73-7	Fluorene	170	U
100-01-6	4-Nitroaniline	350	U
534-52-1	4,6-Dinitro-2-Methylphenol	350	U
86-30-6	N-Nitrosodiphenylamine (1)	170	U
101-55-3	4-Bromophenyl-phenylether	170	U
118-74-1	Hexachlorobenzene	170	U
87-86-5	Pentachlorophenol	350	U
85-01-8	Phenanthrene	170	U
120-12-7	Anthracene	170	U
86-74-8	Carbazole	170	U
84-74-2	Di-n-Butylphthalate	38	J
206-44-0	Fluoranthene	170	U
129-00-0	Pyrene	170	U
85-68-7	Butylbenzylphthalate	170	U
91-94-1	3,3'-Dichlorobenzidine	170	U
56-55-3	Benzo(a)Anthracene	170	U
218-01-9	Chrysene	170	U
117-81-7	bis(2-Ethylhexyl)Phthalate	91	J
117-84-0	Di-n-Octyl Phthalate	170	U
205-99-2	Benzo(b)Fluoranthene	170	U
207-08-9	Benzo(k)Fluoranthene	170	U
50-32-8	Benzo(a)Pyrene	170	U
193-39-5	Indeno(1,2,3-cd)Pyrene	170	U
53-70-3	Dibenzo(a,h)Anthracene	170	U
191-24-2	Benzo(g,h,i)Perylene	170	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-05

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-12

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX019

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/28/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	170	U
111-44-4	bis(2-Chloroethyl)Ether	170	U
95-57-8	2-Chlorophenol	170	U
541-73-1	1,3-Dichlorobenzene	170	U
106-46-7	1,4-Dichlorobenzene	170	U
100-51-6	Benzyl Alcohol	170	U
95-50-1	1,2-Dichlorobenzene	170	U
95-48-7	2-Methylphenol	170	U
108-60-1	2,2'-oxybis(1-Chloropropane)	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-Di-n-Propylamine	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
65-85-0	Benzoic Acid	36	J
111-91-1	bis(2-Chloroethoxy)Methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
120-82-1	1,2,4-Trichlorobenzene	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
59-50-7	4-Chloro-3-Methylphenol	170	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	350	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	350	U
131-11-3	Dimethyl Phthalate	170	U
208-96-8	Acenaphthylene	170	U
606-20-2	2,6-Dinitrotoluene	170	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-05

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-12

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX019

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	350	U
83-32-9	Acenaphthene	170	U
51-28-5	2,4-Dinitrophenol	350	U
100-02-7	4-Nitrophenol	350	U
132-64-9	Dibenzofuran	170	U
121-14-2	2,4-Dinitrotoluene	170	U
84-66-2	Diethylphthalate	170	U
7005-72-3	4-Chlorophenyl-phenylether	170	U
86-73-7	Fluorene	170	U
100-01-6	4-Nitroaniline	350	U
534-52-1	4,6-Dinitro-2-Methylphenol	350	U
86-30-6	N-Nitrosodiphenylamine (1)	170	U
101-55-3	4-Bromophenyl-phenylether	170	U
118-74-1	Hexachlorobenzene	170	U
87-86-5	Pentachlorophenol	350	U
85-01-8	Phenanthrene	170	U
120-12-7	Anthracene	170	U
86-74-8	Carbazole	170	U
84-74-2	Di-n-Butylphthalate	47	J
206-44-0	Fluoranthene	170	U
129-00-0	Pyrene	170	U
85-68-7	Butylbenzylphthalate	170	U
91-94-1	3,3'-Dichlorobenzidine	170	U
56-55-3	Benzo(a)Anthracene	170	U
218-01-9	Chrysene	170	U
117-81-7	bis(2-Ethylhexyl)Phthalate	170	U
117-84-0	Di-n-Octyl Phthalate	170	U
205-99-2	Benzo(b)Fluoranthene	170	U
207-08-9	Benzo(k)Fluoranthene	170	U
50-32-8	Benzo(a)Pyrene	170	U
193-39-5	Indeno(1,2,3-cd)Pyrene	170	U
53-70-3	Dibenzo(a,h)Anthracene	170	U
191-24-2	Benzo(g,h,i)Perylene	170	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SU-01

La ame: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-03

Sample wt/vol: 30.1 (g/mL) G Lab File ID: IX025

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99

Injection Volume: 2.0(uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	3400	U
111-44-4	bis(2-Chloroethyl)Ether	3400	U
95-57-8	2-Chlorophenol	3400	U
541-73-1	1,3-Dichlorobenzene	3400	U
106-46-7	1,4-Dichlorobenzene	3400	U
100-51-6	Benzyl Alcohol	3400	U
95-50-1	1,2-Dichlorobenzene	3400	U
95-48-7	2-Methylphenol	3400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	3400	U
106-44-5	4-Methylphenol	3400	U
621-64-7	N-Nitroso-Di-n-Propylamine	3400	U
67-72-1	Hexachloroethane	3400	U
98-95-3	Nitrobenzene	3400	U
78-59-1	Isophorone	3400	U
88-75-5	2-Nitrophenol	3400	U
105-67-9	2,4-Dimethylphenol	3400	U
65-85-0	Benzoic Acid	7100	U
111-91-1	bis(2-Chloroethoxy)Methane	3400	U
120-83-2	2,4-Dichlorophenol	3400	U
120-82-1	1,2,4-Trichlorobenzene	3400	U
91-20-3	Naphthalene	3400	U
106-47-8	4-Chloroaniline	3400	U
87-68-3	Hexachlorobutadiene	3400	U
59-50-7	4-Chloro-3-Methylphenol	3400	U
91-57-6	2-Methylnaphthalene	3400	U
77-47-4	Hexachlorocyclopentadiene	3400	U
88-06-2	2,4,6-Trichlorophenol	3400	U
95-95-4	2,4,5-Trichlorophenol	7100	U
91-58-7	2-Chloronaphthalene	3400	U
88-74-4	2-Nitroaniline	7100	U
131-11-3	Dimethyl Phthalate	3400	U
208-96-8	Acenaphthylene	3400	U
606-20-2	2,6-Dinitrotoluene	3400	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SU-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-03

Sample wt/vol: 30.1 (g/mL) G Lab File ID: IX025

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	7100	U
83-32-9	Acenaphthene	3400	U
51-28-5	2,4-Dinitrophenol	7100	U
100-02-7	4-Nitrophenol	7100	U
132-64-9	Dibenzofuran	3400	U
121-14-2	2,4-Dinitrotoluene	3400	U
84-66-2	Diethylphthalate	3400	U
7005-72-3	4-Chlorophenyl-phenylether	3400	U
86-73-7	Fluorene	3400	U
100-01-6	4-Nitroaniline	7100	U
534-52-1	4,6-Dinitro-2-Methylphenol	7100	U
86-30-6	N-Nitrosodiphenylamine (1)	3400	U
101-55-3	4-Bromophenyl-phenylether	3400	U
118-74-1	Hexachlorobenzene	3400	U
87-86-5	Pentachlorophenol	7100	U
85-01-8	Phenanthrene	3400	U
120-12-7	Anthracene	3400	U
86-74-8	Carbazole	3400	U
84-74-2	Di-n-Butylphthalate	3400	U
206-44-0	Fluoranthene	3400	U
129-00-0	Pyrene	3400	U
85-68-7	Butylbenzylphthalate	3400	U
91-94-1	3,3'-Dichlorobenzidine	3400	U
56-55-3	Benzo(a)Anthracene	3400	U
218-01-9	Chrysene	3400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	3600	
117-84-0	Di-n-Octyl Phthalate	3400	U
205-99-2	Benzo(b)Fluoranthene	3400	U
207-08-9	Benzo(k)Fluoranthene	3400	U
50-32-8	Benzo(a)Pyrene	3400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	3400	U
53-70-3	Dibenzo(a,h)Anthracene	3400	U
191-24-2	Benzo(g,h,i)Perylene	3400	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	18	
111-44-4	bis(2-Chloroethyl)Ether	27	
95-57-8	2-Chlorophenol	27	
541-73-1	1,3-Dichlorobenzene	25	
106-46-7	1,4-Dichlorobenzene	24	
100-51-6	Benzyl Alcohol	32	
95-50-1	1,2-Dichlorobenzene	25	
95-48-7	2-Methylphenol	27	
108-60-1	2,2'-oxybis(1-Chloropropane)	29	
106-44-5	4-Methylphenol	28	
621-64-7	N-Nitroso-Di-n-Propylamine	29	
67-72-1	Hexachloroethane	24	
98-95-3	Nitrobenzene	30	
78-59-1	Isophorone	31	
88-75-5	2-Nitrophenol	32	
105-67-9	2,4-Dimethylphenol	22	
65-85-0	Benzoic Acid	29	
111-91-1	bis(2-Chloroethoxy)Methane	32	
120-83-2	2,4-Dichlorophenol	31	
120-82-1	1,2,4-Trichlorobenzene	27	
91-20-3	Naphthalene	29	
106-47-8	4-Chloroaniline	26	
87-68-3	Hexachlorobutadiene	28	
59-50-7	4-Chloro-3-Methylphenol	34	
91-57-6	2-Methylnaphthalene	32	
77-47-4	Hexachlorocyclopentadiene	25	
88-06-2	2,4,6-Trichlorophenol	35	
95-95-4	2,4,5-Trichlorophenol	34	
91-58-7	2-Chloronaphthalene	32	
88-74-4	2-Nitroaniline	35	
131-11-3	Dimethyl Phthalate	34	
208-96-8	Acenaphthylene	33	
606-20-2	2,6-Dinitrotoluene	37	

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	34	
83-32-9	Acenaphthene	33	
51-28-5	2,4-Dinitrophenol	33	
100-02-7	4-Nitrophenol	22	
132-64-9	Dibenzofuran	34	
121-14-2	2,4-Dinitrotoluene	38	
84-66-2	Diethylphthalate	34	
7005-72-3	4-Chlorophenyl-phenylether	35	
86-73-7	Fluorene	35	
100-01-6	4-Nitroaniline	35	
534-52-1	4,6-Dinitro-2-Methylphenol	39	
86-30-6	N-Nitrosodiphenylamine (1)	37	
101-55-3	4-Bromophenyl-phenylether	37	
118-74-1	Hexachlorobenzene	38	
87-86-5	Pentachlorophenol	33	
85-01-8	Phenanthrene	37	
120-12-7	Anthracene	37	
86-74-8	Carbazole	38	
84-74-2	Di-n-Butylphthalate	39	B
206-44-0	Fluoranthene	39	
129-00-0	Pyrene	36	
85-68-7	Butylbenzylphthalate	36	
91-94-1	3,3'-Dichlorobenzidine	30	
56-55-3	Benzo(a)Anthracene	38	
218-01-9	Chrysene	37	
117-81-7	bis(2-Ethylhexyl)Phthalate	37	B
117-84-0	Di-n-Octyl Phthalate	38	
205-99-2	Benzo(b)Fluoranthene	36	
207-08-9	Benzo(k)Fluoranthene	40	
50-32-8	Benzo(a)Pyrene	37	
193-39-5	Indeno(1,2,3-cd)Pyrene	34	
53-70-3	Dibenzo(a,h)Anthracene	34	
191-24-2	Benzo(g,h,i)Perylene	33	

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSJI

L. Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0914-LCS5

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY638

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1000	
111-44-4	bis(2-Chloroethyl)Ether	1000	
95-57-8	2-Chlorophenol	1000	
541-73-1	1,3-Dichlorobenzene	1000	
106-46-7	1,4-Dichlorobenzene	950	
100-51-6	Benzyl Alcohol	1400	
95-50-1	1,2-Dichlorobenzene	1100	
95-48-7	2-Methylphenol	1100	
108-60-1	2,2'-oxybis(1-Chloropropane)	1100	
106-44-5	4-Methylphenol	1100	
621-64-7	N-Nitroso-Di-n-Propylamine	1100	
67-72-1	Hexachloroethane	980	
98-95-3	Nitrobenzene	1100	
78-59-1	Isophorone	1200	
88-75-5	2-Nitrophenol	1200	
105-67-9	2,4-Dimethylphenol	1000	
65-85-0	Benzoic Acid	2600	
111-91-1	bis(2-Chloroethoxy)Methane	1100	
120-83-2	2,4-Dichlorophenol	1200	
120-82-1	1,2,4-Trichlorobenzene	1100	
91-20-3	Naphthalene	1100	
106-47-8	4-Chloroaniline	630	
87-68-3	Hexachlorobutadiene	1200	
59-50-7	4-Chloro-3-Methylphenol	1200	
91-57-6	2-Methylnaphthalene	1200	
77-47-4	Hexachlorocyclopentadiene	1000	
88-06-2	2,4,6-Trichlorophenol	1100	
95-95-4	2,4,5-Trichlorophenol	1200	
91-58-7	2-Chloronaphthalene	1200	
88-74-4	2-Nitroaniline	1200	
131-11-3	Dimethyl Phthalate	1200	
208-96-8	Acenaphthylene	1200	
606-20-2	2,6-Dinitrotoluene	1300	

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSJI

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0914-LCS5

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY638

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	1000	
83-32-9	Acenaphthene	1200	
51-28-5	2,4-Dinitrophenol	1200	
100-02-7	4-Nitrophenol	1400	
132-64-9	Dibenzofuran	1200	
121-14-2	2,4-Dinitrotoluene	1600	
84-66-2	Diethylphthalate	1400	
7005-72-3	4-Chlorophenyl-phenylether	1200	
86-73-7	Fluorene	1200	
100-01-6	4-Nitroaniline	1300	
534-52-1	4,6-Dinitro-2-Methylphenol	1800	
86-30-6	N-Nitrosodiphenylamine (1)	1300	
101-55-3	4-Bromophenyl-phenylether	1300	
118-74-1	Hexachlorobenzene	1400	
87-86-5	Pentachlorophenol	500	
85-01-8	Phenanthrene	1400	
120-12-7	Anthracene	1400	
86-74-8	Carbazole	1600	
84-74-2	Di-n-Butylphthalate	1700	
206-44-0	Fluoranthene	1700	
129-00-0	Pyrene	1800	
85-68-7	Butylbenzylphthalate	1900	
91-94-1	3,3'-Dichlorobenzidine	1100	
56-55-3	Benzo(a)Anthracene	1800	
218-01-9	Chrysene	1900	
117-81-7	bis(2-Ethylhexyl)Phthalate	1900	
117-84-0	Di-n-Octyl Phthalate	2100	
205-99-2	Benzo(b)Fluoranthene	1700	
207-08-9	Benzo(k)Fluoranthene	2100	
50-32-8	Benzo(a)Pyrene	1900	
193-39-5	Indeno(1,2,3-cd)Pyrene	1900	
53-70-3	Dibenzo(a,h)Anthracene	1900	
191-24-2	Benzo(g,h,i)Perylene	1700	

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSJQ

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0922-LCS7

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY681

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1200	
111-44-4	bis(2-Chloroethyl)Ether	1100	
95-57-8	2-Chlorophenol	1200	
541-73-1	1,3-Dichlorobenzene	1200	
106-46-7	1,4-Dichlorobenzene	1100	
100-51-6	Benzyl Alcohol	1800	
95-50-1	1,2-Dichlorobenzene	1200	
95-48-7	2-Methylphenol	1200	
108-60-1	2,2'-oxybis(1-Chloropropane)	1100	
106-44-5	4-Methylphenol	1300	
621-64-7	N-Nitroso-Di-n-Propylamine	1300	
67-72-1	Hexachloroethane	1200	
98-95-3	Nitrobenzene	1200	
78-59-1	Isophorone	1300	
88-75-5	2-Nitrophenol	1400	
105-67-9	2,4-Dimethylphenol	1300	
65-85-0	Benzoic Acid	2100	
111-91-1	bis(2-Chloroethoxy)Methane	1300	
120-83-2	2,4-Dichlorophenol	1400	
120-82-1	1,2,4-Trichlorobenzene	1300	
91-20-3	Naphthalene	1200	
106-47-8	4-Chloroaniline	1300	
87-68-3	Hexachlorobutadiene	1300	
59-50-7	4-Chloro-3-Methylphenol	1500	
91-57-6	2-Methylnaphthalene	1400	
77-47-4	Hexachlorocyclopentadiene	1300	
88-06-2	2,4,6-Trichlorophenol	1400	
95-95-4	2,4,5-Trichlorophenol	1500	
91-58-7	2-Chloronaphthalene	1400	
88-74-4	2-Nitroaniline	1600	
131-11-3	Dimethyl Phthalate	1600	
208-96-8	Acenaphthylene	1400	
606-20-2	2,6-Dinitrotoluene	1700	

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSJQ

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0922-LCS7

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY681

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1400	
83-32-9	Acenaphthene	1400	
51-28-5	2,4-Dinitrophenol	1300	
100-02-7	4-Nitrophenol	1700	
132-64-9	Dibenzofuran	1400	
121-14-2	2,4-Dinitrotoluene	1800	
84-66-2	Diethylphthalate	1600	
7005-72-3	4-Chlorophenyl-phenylether	1500	
86-73-7	Fluorene	1500	
100-01-6	4-Nitroaniline	1600	
534-52-1	4,6-Dinitro-2-Methylphenol	1700	
86-30-6	N-Nitrosodiphenylamine (1)	1600	
101-55-3	4-Bromophenyl-phenylether	1500	
118-74-1	Hexachlorobenzene	1500	
87-86-5	Pentachlorophenol	390	
85-01-8	Phenanthrene	1500	
120-12-7	Anthracene	1500	
86-74-8	Carbazole	1500	
84-74-2	Di-n-Butylphthalate	1500	
206-44-0	Fluoranthene	1600	
129-00-0	Pyrene	1500	
85-68-7	Butylbenzylphthalate	1700	
91-94-1	3,3'-Dichlorobenzidine	1500	
56-55-3	Benzo(a)Anthracene	1600	
218-01-9	Chrysene	1600	
117-81-7	bis(2-Ethylhexyl)Phthalate	1700	
117-84-0	Di-n-Octyl Phthalate	1800	
205-99-2	Benzo(b)Fluoranthene	1600	
207-08-9	Benzo(k)Fluoranthene	1700	
50-32-8	Benzo(a)Pyrene	1600	
193-39-5	Indeno(1,2,3-cd)Pyrene	1600	
53-70-3	Dibenzo(a,h)Anthracene	1100	
191-24-2	Benzo(g,h,i)Perylene	1600	

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

I Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	1	J
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	J
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKJI

La ame: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0914-B5J

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY635

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	160	U
111-44-4	bis(2-Chloroethyl)Ether	160	U
95-57-8	2-Chlorophenol	160	U
541-73-1	1,3-Dichlorobenzene	160	U
106-46-7	1,4-Dichlorobenzene	160	U
100-51-6	Benzyl Alcohol	160	U
95-50-1	1,2-Dichlorobenzene	160	U
95-48-7	2-Methylphenol	160	U
108-60-1	2,2'-oxybis(1-Chloropropane)	160	U
106-44-5	4-Methylphenol	160	U
621-64-7	N-Nitroso-Di-n-Propylamine	160	U
67-72-1	Hexachloroethane	160	U
98-95-3	Nitrobenzene	160	U
78-59-1	Isophorone	160	U
88-75-5	2-Nitrophenol	160	U
105-67-9	2,4-Dimethylphenol	160	U
65-85-0	Benzoic Acid	330	U
111-91-1	bis(2-Chloroethoxy)Methane	160	U
120-83-2	2,4-Dichlorophenol	160	U
120-82-1	1,2,4-Trichlorobenzene	160	U
91-20-3	Naphthalene	160	U
106-47-8	4-Chloroaniline	160	U
87-68-3	Hexachlorobutadiene	160	U
59-50-7	4-Chloro-3-Methylphenol	160	U
91-57-6	2-Methylnaphthalene	160	U
77-47-4	Hexachlorocyclopentadiene	160	U
88-06-2	2,4,6-Trichlorophenol	160	U
95-95-4	2,4,5-Trichlorophenol	330	U
91-58-7	2-Chloronaphthalene	160	U
88-74-4	2-Nitroaniline	330	U
131-11-3	Dimethyl Phthalate	160	U
208-96-8	Acenaphthylene	160	U
606-20-2	2,6-Dinitrotoluene	160	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKJI

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0914-B5J

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY635

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	330	U
83-32-9	Acenaphthene	160	U
51-28-5	2,4-Dinitrophenol	330	U
100-02-7	4-Nitrophenol	330	U
132-64-9	Dibenzofuran	160	U
121-14-2	2,4-Dinitrotoluene	160	U
84-66-2	Diethylphthalate	160	U
7005-72-3	4-Chlorophenyl-phenylether	160	U
86-73-7	Fluorene	160	U
100-01-6	4-Nitroaniline	330	U
534-52-1	4,6-Dinitro-2-Methylphenol	330	U
86-30-6	N-Nitrosodiphenylamine (1)	160	U
101-55-3	4-Bromophenyl-phenylether	160	U
118-74-1	Hexachlorobenzene	160	U
87-86-5	Pentachlorophenol	330	U
85-01-8	Phenanthrene	160	U
120-12-7	Anthracene	160	U
86-74-8	Carbazole	160	U
84-74-2	Di-n-Butylphthalate	160	U
206-44-0	Fluoranthene	160	U
129-00-0	Pyrene	160	U
85-68-7	Butylbenzylphthalate	160	U
91-94-1	3,3'-Dichlorobenzidine	160	U
56-55-3	Benzo(a)Anthracene	160	U
218-01-9	Chrysene	160	U
117-81-7	bis(2-Ethylhexyl)Phthalate	160	U
117-84-0	Di-n-Octyl Phthalate	160	U
205-99-2	Benzo(b)Fluoranthene	160	U
207-08-9	Benzo(k)Fluoranthene	160	U
50-32-8	Benzo(a)Pyrene	160	U
193-39-5	Indeno(1,2,3-cd)Pyrene	160	U
53-70-3	Dibenzo(a,h)Anthracene	160	U
191-24-2	Benzo(g,h,i)Perylene	160	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKJQ

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0922-B7J

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY678

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	160	U
111-44-4	bis(2-Chloroethyl)Ether	160	U
95-57-8	2-Chlorophenol	160	U
541-73-1	1,3-Dichlorobenzene	160	U
106-46-7	1,4-Dichlorobenzene	160	U
100-51-6	Benzyl Alcohol	160	U
95-50-1	1,2-Dichlorobenzene	160	U
95-48-7	2-Methylphenol	160	U
108-60-1	2,2'-oxybis(1-Chloropropane)	160	U
106-44-5	4-Methylphenol	160	U
621-64-7	N-Nitroso-Di-n-Propylamine	160	U
67-72-1	Hexachloroethane	160	U
98-95-3	Nitrobenzene	160	U
78-59-1	Isophorone	160	U
88-75-5	2-Nitrophenol	160	U
105-67-9	2,4-Dimethylphenol	160	U
65-85-0	Benzoic Acid	330	U
111-91-1	bis(2-Chloroethoxy)Methane	160	U
120-83-2	2,4-Dichlorophenol	160	U
120-82-1	1,2,4-Trichlorobenzene	160	U
91-20-3	Naphthalene	160	U
106-47-8	4-Chloroaniline	160	U
87-68-3	Hexachlorobutadiene	160	U
59-50-7	4-Chloro-3-Methylphenol	160	U
91-57-6	2-Methylnaphthalene	160	U
77-47-4	Hexachlorocyclopentadiene	160	U
88-06-2	2,4,6-Trichlorophenol	160	U
95-95-4	2,4,5-Trichlorophenol	330	U
91-58-7	2-Chloronaphthalene	160	U
88-74-4	2-Nitroaniline	330	U
131-11-3	Dimethyl Phthalate	160	U
208-96-8	Acenaphthylene	160	U
606-20-2	2,6-Dinitrotoluene	160	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKJQ

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0922-B7J

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY678

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	330	U
83-32-9	Acenaphthene	160	U
51-28-5	2,4-Dinitrophenol	330	U
100-02-7	4-Nitrophenol	330	U
132-64-9	Dibenzofuran	160	U
121-14-2	2,4-Dinitrotoluene	160	U
84-66-2	Diethylphthalate	160	U
7005-72-3	4-Chlorophenyl-phenylether	160	U
86-73-7	Fluorene	160	U
100-01-6	4-Nitroaniline	330	U
534-52-1	4,6-Dinitro-2-Methylphenol	330	U
86-30-6	N-Nitrosodiphenylamine (1)	160	U
101-55-3	4-Bromophenyl-phenylether	160	U
118-74-1	Hexachlorobenzene	160	U
87-86-5	Pentachlorophenol	330	U
85-01-8	Phenanthrene	160	U
120-12-7	Anthracene	160	U
86-74-8	Carbazole	160	U
84-74-2	Di-n-Butylphthalate	160	U
206-44-0	Fluoranthene	160	U
129-00-0	Pyrene	160	U
85-68-7	Butylbenzylphthalate	160	U
91-94-1	3,3'-Dichlorobenzidine	160	U
56-55-3	Benzo(a)Anthracene	160	U
218-01-9	Chrysene	160	U
117-81-7	bis(2-Ethylhexyl)Phthalate	160	U
117-84-0	Di-n-Octyl Phthalate	160	U
205-99-2	Benzo(b)Fluoranthene	160	U
207-08-9	Benzo(k)Fluoranthene	160	U
50-32-8	Benzo(a)Pyrene	160	U
193-39-5	Indeno(1,2,3-cd)Pyrene	160	U
53-70-3	Dibenzo(a,h)Anthracene	160	U
191-24-2	Benzo(g,h,i)Perylene	160	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01MS

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05MS

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX023

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99

Injection Volume: 2.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	920	J
111-44-4	bis(2-Chloroethyl)Ether	960	J
95-57-8	2-Chlorophenol	970	J
541-73-1	1,3-Dichlorobenzene	830	J
106-46-7	1,4-Dichlorobenzene	790	J
100-51-6	Benzyl Alcohol	1300	J
95-50-1	1,2-Dichlorobenzene	900	J
95-48-7	2-Methylphenol	1100	J
108-60-1	2,2'-oxybis(1-Chloropropane)	1100	J
106-44-5	4-Methylphenol	920	J
621-64-7	N-Nitroso-Di-n-Propylamine	1100	J
67-72-1	Hexachloroethane	980	J
98-95-3	Nitrobenzene	990	J
78-59-1	Isophorone	1100	J
88-75-5	2-Nitrophenol	1100	J
105-67-9	2,4-Dimethylphenol	1400	J
65-85-0	Benzoic Acid	2000	J
111-91-1	bis(2-Chloroethoxy)Methane	1200	J
120-83-2	2,4-Dichlorophenol	1300	J
120-82-1	1,2,4-Trichlorobenzene	910	J
91-20-3	Naphthalene	1100	J
106-47-8	4-Chloroaniline	380	J
87-68-3	Hexachlorobutadiene	1100	J
59-50-7	4-Chloro-3-Methylphenol	1400	J
91-57-6	2-Methylnaphthalene	1100	J
77-47-4	Hexachlorocyclopentadiene	820	J
88-06-2	2,4,6-Trichlorophenol	1200	J
95-95-4	2,4,5-Trichlorophenol	1000	J
91-58-7	2-Chloronaphthalene	1100	J
88-74-4	2-Nitroaniline	1100	J
131-11-3	Dimethyl Phthalate	1300	J
208-96-8	Acenaphthylene	1100	J
606-20-2	2,6-Dinitrotoluene	1100	J

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01MS

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05MS

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX023

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3700	U
83-32-9	Acenaphthene	1300	J
51-28-5	2,4-Dinitrophenol	750	J
100-02-7	4-Nitrophenol	1100	J
132-64-9	Dibenzofuran	1300	J
121-14-2	2,4-Dinitrotoluene	1000	J
84-66-2	Diethylphthalate	1400	J
7005-72-3	4-Chlorophenyl-phenylether	1500	J
86-73-7	Fluorene	1400	J
100-01-6	4-Nitroaniline	670	J
534-52-1	4,6-Dinitro-2-Methylphenol	1000	J
86-30-6	N-Nitrosodiphenylamine (1)	1500	J
101-55-3	4-Bromophenyl-phenylether	1700	J
118-74-1	Hexachlorobenzene	1700	J
87-86-5	Pentachlorophenol	1300	J
85-01-8	Phenanthrene	1500	J
120-12-7	Anthracene	1300	J
86-74-8	Carbazole	1500	J
84-74-2	Di-n-Butylphthalate	1400	J
206-44-0	Fluoranthene	1500	J
129-00-0	Pyrene	1500	J
85-68-7	Butylbenzylphthalate	1300	J
91-94-1	3,3'-Dichlorobenzidine	1800	U
56-55-3	Benzo(a)Anthracene	1500	J
218-01-9	Chrysene	1600	J
117-81-7	bis(2-Ethylhexyl)Phthalate	1500	J
117-84-0	Di-n-Octyl Phthalate	1100	J
205-99-2	Benzo(b)Fluoranthene	1300	J
207-08-9	Benzo(k)Fluoranthene	1700	J
50-32-8	Benzo(a)Pyrene	1500	J
193-39-5	Indeno(1,2,3-cd)Pyrene	1500	J
53-70-3	Dibenzo(a,h)Anthracene	1400	J
191-24-2	Benzo(g,h,i)Perylene	1500	J

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01MSD

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05MSD

Sample wt/vol: 30.1 (g/mL) G Lab File ID: IX024

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1200	J
111-44-4	bis(2-Chloroethyl)Ether	1300	J
95-57-8	2-Chlorophenol	1300	J
541-73-1	1,3-Dichlorobenzene	1100	J
106-46-7	1,4-Dichlorobenzene	1100	J
100-51-6	Benzyl Alcohol	1600	J
95-50-1	1,2-Dichlorobenzene	1200	J
95-48-7	2-Methylphenol	1500	J
108-60-1	2,2'-oxybis(1-Chloropropane)	1500	J
106-44-5	4-Methylphenol	1400	J
621-64-7	N-Nitroso-Di-n-Propylamine	1200	J
67-72-1	Hexachloroethane	1100	J
98-95-3	Nitrobenzene	1600	J
78-59-1	Isophorone	1400	J
88-75-5	2-Nitrophenol	1300	J
105-67-9	2,4-Dimethylphenol	1800	J
65-85-0	Benzoic Acid	3000	J
111-91-1	bis(2-Chloroethoxy)Methane	1300	J
120-83-2	2,4-Dichlorophenol	1400	J
120-82-1	1,2,4-Trichlorobenzene	1300	J
91-20-3	Naphthalene	1200	J
106-47-8	4-Chloroaniline	1800	U
87-68-3	Hexachlorobutadiene	1500	J
59-50-7	4-Chloro-3-Methylphenol	1700	J
91-57-6	2-Methylnaphthalene	1300	J
77-47-4	Hexachlorocyclopentadiene	1300	J
88-06-2	2,4,6-Trichlorophenol	1800	J
95-95-4	2,4,5-Trichlorophenol	1800	J
91-58-7	2-Chloronaphthalene	1700	J
88-74-4	2-Nitroaniline	1700	J
131-11-3	Dimethyl Phthalate	1800	J
208-96-8	Acenaphthylene	1400	J
606-20-2	2,6-Dinitrotoluene	1600	J

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01MSD

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05MSD

Sample wt/vol: 30.1 (g/mL) G Lab File ID: IX024

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500(uL) Date Analyzed: 09/29/99

Injection Volume: 2.0(uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	490	J
83-32-9	Acenaphthene	1800	J
51-28-5	2,4-Dinitrophenol	1100	J
100-02-7	4-Nitrophenol	2100	J
132-64-9	Dibenzofuran	1800	J
121-14-2	2,4-Dinitrotoluene	1500	J
84-66-2	Diethylphthalate	2100	
7005-72-3	4-Chlorophenyl-phenylether	1800	J
86-73-7	Fluorene	1900	
100-01-6	4-Nitroaniline	820	J
534-52-1	4,6-Dinitro-2-Methylphenol	1300	J
86-30-6	N-Nitrosodiphenylamine (1)	1800	J
101-55-3	4-Bromophenyl-phenylether	1900	
118-74-1	Hexachlorobenzene	2400	
87-86-5	Pentachlorophenol	1500	J
85-01-8	Phenanthrene	2200	
120-12-7	Anthracene	1800	J
86-74-8	Carbazole	2100	
84-74-2	Di-n-Butylphthalate	1900	
206-44-0	Fluoranthene	2300	
129-00-0	Pyrene	1700	J
85-68-7	Butylbenzylphthalate	1800	J
91-94-1	3,3'-Dichlorobenzidine	1800	U
56-55-3	Benzo(a)Anthracene	1900	
218-01-9	Chrysene	2200	
117-81-7	bis(2-Ethylhexyl)Phthalate	1700	J
117-84-0	Di-n-Octyl Phthalate	1400	J
205-99-2	Benzo(b)Fluoranthene	2000	
207-08-9	Benzo(k)Fluoranthene	1800	J
50-32-8	Benzo(a)Pyrene	1800	J
193-39-5	Indeno(1,2,3-cd)Pyrene	2000	
53-70-3	Dibenzo(a,h)Anthracene	2100	
191-24-2	Benzo(g,h,i)Perylene	2000	

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	100-MW-001-0	81	76	80	41	57	82	67	73	0
02	100-MW-002-0	64	64	81	24	35	73	52	56	0
03	100-MW-003-0	79	78	89	39	52	84	64	71	0
04	100-MW-004-0	85	84	85	20	28	89	55	76	0
05	100-MW-DD-01	75	75	76	18	29	77	51	70	0
06	102-MW-003-0	77	74	88	19	32	77	53	68	0
07	102-MW-004-0	83	76	95	41	56	84	69	72	0
08	SLCSDH	64	67	76	35	44	77	52	52	0
09	SBLKDH	65	66	81	26	39	72	54	58	0

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-100)	
S5 (2FP)	= 2-Fluorophenol	(21-125)	
S6 (TBP)	= 2,4,6-Tribromophenol	(25-134)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	100-22-DD	44 D	65 D	81 D	54 D	51 D	58 D	55 D	51 D	0
02	100-SS-01	52 D	61 D	106 D	56 D	60 D	91 D	55 D	48 D	0
03	100-SS-02	33 D	53 D	68 D	41 D	39 D	45 D	41 D	39 D	0
04	100-SS-03	53	57	108	42	44	107	44	46	0
05	100-SS-04	64	69	81	56	54	96	55	59	0
06	102-SS-01	76	84	103	71	69	97	67	69	0
07	102-SS-02	73	82	106	70	72	96	69	71	0
08	102-SS-03	80	85	91	72	68	143 *	73	68	1
09	102-SS-04	94	97	107	82	84	135 *	80	87	1
10	102-SS-05	74	81	89	62	59	108	63	60	0
11	102-SU-01	40 D	57 D	60 D	43 D	47 D	52 D	45 D	57 D	0
12	SLCSJI	68	72	111	61	63	79	62	62	0
13	SLCSJQ	81	88	101	74	77	95	74	75	0
14	100-SS-01MS	58 D	62 D	91 D	47 D	45 D	84 D	49 D	47 D	0
15	100-SS-01MSD	74 D	82 D	92 D	55 D	65 D	110 D	64 D	59 D	0
16	SBLKJI	68	78	99	69	65	59	66	68	0
17	SBLKJQ	78	80	105	75	73	66	72	77	0

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

Matrix Spike Summary

CASE NO CTO086
SAS NO

LABORATORY CEIMIC CORP
REPORTED 10/06/99 15:10

CONTRACT TETRA TECH
CUSTOMER PENSACOLA

FILE NAME IX022
SPIKE IX023
DUP SPIKE IX024

SAMPLE ID 100-SS-01
LAB SAMP ID 990799-05
ANALYZED 09/29/99 01:38

LEVEL LOW
MATRIX SOIL
UNITS ug/Kg

COMPOUND	TYPES	CONC SAMPLE	CONC SPIKED	CONC MS	% REC	CONC MSD	% REC	RPD
Phenol	A		50.00	24.30	49	32.08	64	-28
bis(2-Chloroethyl)Ether	B		50.00	25.37	51	34.98	70	-32
2-Chlorophenol	A		50.00	25.56	51	33.03	66	-25
1,3-Dichlorobenzene	B		50.00	22.00	44	30.24	60	-32
1,4-Dichlorobenzene	B		50.00	20.88	42	29.80	60	-35
Benzyl Alcohol	A		50.00	33.39	67	40.95	82	-20
1,2-Dichlorobenzene	B		50.00	23.75	48	31.22	62	-27
2-Methylphenol	A		50.00	28.06	56	39.61	79	-34
2,2'-oxybis(1-Chloropropane)			50.00	28.11	56	39.63	79	-34
4-Methylphenol	A		50.00	24.29	49	35.78	72	-38
N-[illegible]roso-Di-n-Propylamine	B		50.00	29.61	59	32.19	64	-8
He[illegible]chloroethane	B		50.00	25.99	52	29.46	59	-13
Nitrobenzene	B		50.00	26.09	52	43.10	86	-49
Isophorone	B		50.00	28.12	56	37.92	76	-30
2-Nitrophenol	A		50.00	28.92	58	35.32	71	-20
2,4-Dimethylphenol	A		50.00	36.78	74	46.86	94	-24
Benzoic Acid	A		100.00	51.70	52	79.01	79	-42
bis(2-Chloroethoxy)Methane	B		50.00	31.52	63	34.07	68	-8
2,4-Dichlorophenol	A		50.00	33.27	67	37.21	74	-11
1,2,4-Trichlorobenzene	B		50.00	24.08	48	33.23	66	-32
Naphthalene	B		50.00	29.21	58	32.19	64	-10
4-Chloroaniline	B		50.00	9.94	20			
Hexachlorobutadiene	B		50.00	28.36	57	40.19	80	-35
4-Chloro-3-Methylphenol	A		50.00	36.11	72	43.85	88	-19
2-Methylnaphthalene	B		50.00	29.46	59	34.44	69	-16
Hexachlorocyclopentadiene	B		50.00	21.69	43	33.88	68	-44
2,4,6-Trichlorophenol	A		50.00	32.66	65	47.86	96	-38
2,4,5-Trichlorophenol	A		50.00	27.58	55	47.02	94	-52
2-Chloronaphthalene	B		50.00	29.29	59	43.87	88	-40
2-Nitroaniline	B		50.00	28.03	56	44.19	88	-45
Dimethyl Phthalate	B		50.00	33.12	66	46.37	93	-33
Acenaphthylene	B		50.00	28.97	58	37.36	75	-25
2,6-Dinitrotoluene	B		50.00	29.00	58	42.42	85	-38
3-Nitroaniline	B		50.00			12.97	26	
Acenaphthene	B		50.00	33.23	66	47.40	95	-35
2,[illegible] Dinitrophenol	A		50.00	19.74	39	29.98	60	-41
4-[illegible]rophenol	A		50.00	28.85	58	56.25	112	-64
Dibenzofuran	B		50.00	34.24	68	47.99	96	-33
2,4-Dinitrotoluene	B		50.00	27.21	54	40.68	81	-40
Diethylphthalate	B		50.00	37.70	75	56.16	112	-39
4-Chlorophenyl-phenylether	B		50.00	39.94	80	48.77	98	-20

Matrix Spike Summary

CASE NO CTO086
SAS NO

LABORATORY CEIMIC CORP
REPORTED 10/06/99 15:10

CONTRACT TETRA TECH
CUSTOMER PENSACOLA

COMPOUND	TYPES	CONC SAMPLE	CONC SPIKED	CONC MS	% REC	CONC MSD	% REC	RPD
Fluorene	B		50.00	35.78	72	51.43	103	-36
4-Nitroaniline	B		50.00	17.68	35	21.60	43	-20
4,6-Dinitro-2-Methylphenol	A		50.00	27.10	54	33.72	67	-22
N-Nitrosodiphenylamine (1)	B		50.00	38.83	78	48.63	97	-22
4-Bromophenyl-phenylether	B		50.00	45.11	90	50.21	100	-11
Hexachlorobenzene	B		50.00	44.04	88	63.17	126	-36
Pentachlorophenol	A		50.00	34.86	70	39.33	79	-12
Phenanthrene	B		50.00	39.50	79	56.84	114	-36
Anthracene	B		50.00	33.33	67	48.16	96	-36
Carbazole	B		50.00	39.58	79	54.31	109	-31
Di-n-Butylphthalate	B		50.00	36.78	74	51.00	102	-32
Fluoranthene	B		50.00	40.81	82	60.99	122	-40
Pyrene	B		50.00	39.58	79	43.71	87	-10
Butylbenzylphthalate	B		50.00	34.92	70	46.45	93	-28
3,3'-Dichlorobenzidine	B		50.00					
Benzo(a)Anthracene	B		50.00	39.55	79	50.08	100	-23
Chrysene	B		50.00	43.12	86	57.93	116	-29
bis(2-Ethylhexyl)Phthalate	B	38.32	50.00	39.79	3	43.71	11	-114
Di-n-Octyl Phthalate	B		50.00	29.99	60	37.50	75	-
Benzo(b)Fluoranthene	B		50.00	35.07	70	53.11	106	-4
Benzo(k)Fluoranthene	B		50.00	44.54	89	46.48	93	-4
Benzo(a)Pyrene	B		50.00	39.30	79	48.35	97	-21
Indeno(1,2,3-cd)Pyrene	B		50.00	40.24	80	52.79	106	-27
Dibenzo(a,h)Anthracene	B		50.00	37.73	75	55.22	110	-38
Benzo(g,h,i)Perylene	B		50.00	39.42	79	52.76	106	-29

Notes and summary data for this report.
% REC = (MS - SAMPLE) / SPIKE * 100
RPD = (MS - MSD) / ((MS + MSD) / 2 - SAMPLE) * 100

Laboratory Control Spike Summary

LAB SAMP ID S0915-LCS6 SAMPLE ID SLCSDH
LAB QC ID _____ TYPE EPA
DATA RELEASE AUTHORIZED BY

FILE NAME DW976 RECEIVED _____ METHOD CLP
TUNE DW967 EXTRACTED 09/15/99 FRACTION BNA
STANDARD DW968 ANALYZED 09/22/99 20:05 INST MS4
BLANK DW975 VERIFIED _____ ANALYST _____
TAPE/POS _____ BOTTLE _____

% MOISTURE _____ pH _____ LEVEL LOW
(DECANTED) _____ CLEANUP _____ MATRIX WATER
DIL FACTOR 1.000 EXTRACT METHOD CLL UNITS ug/L

SAMPLE:
CONDITIONS:

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
C325	108-95-2	Phenol	50.00	18.36	36.72	
C325	111-44-4	bis(2-Chloroethyl)Ether	50.00	27.04	54.08	
C330	95-57-8	2-Chlorophenol	50.00	27.06	54.12	
C335	541-73-1	1,3-Dichlorobenzene	50.00	25.03	50.06	
C340	106-46-7	1,4-Dichlorobenzene	50.00	23.81	47.62	
C345	100-51-6	Benzyl Alcohol	50.00	31.77	63.54	
C350	95-50-1	1,2-Dichlorobenzene	50.00	25.09	50.18	
C355	95-48-7	2-Methylphenol	50.00	27.15	54.30	
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	29.28	58.56	
C365	106-44-5	4-Methylphenol	50.00	28.22	56.44	
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	29.38	58.76	
C375	67-72-1	Hexachloroethane	50.00	23.88	47.76	
C410	98-95-3	Nitrobenzene	50.00	29.59	59.18	
C415	78-59-1	Isophorone	50.00	31.44	62.88	
C420	88-75-5	2-Nitrophenol	50.00	31.66	63.32	
C425	105-67-9	2,4-Dimethylphenol	50.00	21.65	43.30	
C430	65-85-0	Benzoic Acid	100.0	29.25	29.25	
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	32.44	64.88	
C440	120-83-2	2,4-Dichlorophenol	50.00	30.81	61.62	
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	27.29	54.58	
C450	91-20-3	Naphthalene	50.00	29.16	58.32	
C455	106-47-8	4-Chloroaniline	50.00	25.87	51.74	
C460	87-68-3	Hexachlorobutadiene	50.00	27.54	55.08	
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	34.45	68.90	
C470	91-57-6	2-Methylnaphthalene	50.00	32.25	64.50	
C510	77-47-4	Hexachlorocyclopentadiene	50.00	25.25	50.50	
C515	88-06-2	2,4,6-Trichlorophenol	50.00	34.76	69.52	
C520	95-95-4	2,4,5-Trichlorophenol	50.00	33.85	67.70	
C525	91-58-7	2-Chloronaphthalene	50.00	32.26	64.52	
C530	88-74-4	2-Nitroaniline	50.00	34.98	69.96	
C535	131-11-3	Dimethyl Phthalate	50.00	34.19	68.38	

Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
C540	208-96-8	Acenaphthylene	50.00	32.78	65.56	
C543	606-20-2	2,6-Dinitrotoluene	50.00	36.77	73.54	
C545	99-09-2	3-Nitroaniline	50.00	34.16	68.32	
C550	83-32-9	Acenaphthene	50.00	33.32	66.64	
C555	51-28-5	2,4-Dinitrophenol	50.00	32.69	65.38	
C560	100-02-7	4-Nitrophenol	50.00	22.39	44.78	
C565	132-64-9	Dibenzofuran	50.00	34.42	68.84	
C570	121-14-2	2,4-Dinitrotoluene	50.00	38.31	76.62	
C580	84-66-2	Diethylphthalate	50.00	34.16	68.32	
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	34.63	69.26	
C590	86-73-7	Fluorene	50.00	34.85	69.70	
C595	100-01-6	4-Nitroaniline	50.00	34.62	69.24	
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	38.99	77.98	
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	36.69	73.38	
C625	101-55-3	4-Bromophenyl-phenylether	50.00	36.63	73.26	
C630	118-74-1	Hexachlorobenzene	50.00	37.54	75.08	
C635	87-86-5	Pentachlorophenol	50.00	32.96	65.92	
C640	85-01-8	Phenanthrene	50.00	36.90	73.80	
C645	120-12-7	Anthracene	50.00	36.51	73.02	
C646	86-74-8	Carbazole	50.00	37.84	75.68	
C650	84-74-2	Di-n-Butylphthalate	50.00	38.56	77.12	
C655	206-44-0	Fluoranthene	50.00	38.99	77.98	
C715	129-00-0	Pyrene	50.00	36.00	72.00	
C720	85-68-7	Butylbenzylphthalate	50.00	35.96	71.92	
C725	91-94-1	3,3'-Dichlorobenzidine	50.00	29.56	59.12	
C730	56-55-3	Benzo(a)Anthracene	50.00	37.52	75.04	
C740	218-01-9	Chrysene	50.00	37.05	74.10	
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	36.58	73.16	
C760	117-84-0	Di-n-Octyl Phthalate	50.00	38.23	76.46	
C765	205-99-2	Benzo(b)Fluoranthene	50.00	35.63	71.26	
C770	207-08-9	Benzo(k)Fluoranthene	50.00	39.94	79.88	
C775	50-32-8	Benzo(a)Pyrene	50.00	36.68	73.36	
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	33.85	67.70	
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	34.15	68.30	
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	33.41	66.82	

Laboratory Control Spike Summary

LAB SAMP ID S0914-LCS5 SAMPLE ID SLCSJI
LAB QC ID _____ TYPE EPA
DATA RELEASE AUTHORIZED BY

FILE NAME JY638 RECEIVED _____ METHOD CLP
TUNE JY630 EXTRACTED 09/14/99 FRACTION BNA
STANDARD JY631 ANALYZED 09/27/99 18:16 INST MS10
BLANK JY635 VERIFIED _____ ANALYST _____
TAPE/POS _____ BOTTLE _____

% MOISTURE _____ pH _____ LEVEL LOW
(DECANTED) _____ CLEANUP GPC MATRIX SOIL
DIL FACTOR 1.000 EXTRACT METHOD SONC UNITS ug/Kg

SAMPLE:
CONDITIONS:

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
5	108-95-2	Phenol	50.00	30.34	60.68	
25	111-44-4	bis(2-Chloroethyl)Ether	50.00	31.44	62.88	
C330	95-57-8	2-Chlorophenol	50.00	30.64	61.28	
C335	541-73-1	1,3-Dichlorobenzene	50.00	30.74	61.48	
C340	106-46-7	1,4-Dichlorobenzene	50.00	28.47	56.94	
C345	100-51-6	Benzyl Alcohol	50.00	42.98	85.96	
C350	95-50-1	1,2-Dichlorobenzene	50.00	31.74	63.48	
C355	95-48-7	2-Methylphenol	50.00	31.82	63.64	
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	31.56	63.12	
C365	106-44-5	4-Methylphenol	50.00	32.19	64.38	
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	34.19	68.38	
C375	67-72-1	Hexachloroethane	50.00	29.43	58.86	
C410	98-95-3	Nitrobenzene	50.00	34.09	68.18	
C415	78-59-1	Isophorone	50.00	35.07	70.14	
C420	88-75-5	2-Nitrophenol	50.00	35.79	71.58	
C425	105-67-9	2,4-Dimethylphenol	50.00	30.32	60.64	
C430	65-85-0	Benzoic Acid	100.0	76.75	76.75	
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	33.51	67.02	
C440	120-83-2	2,4-Dichlorophenol	50.00	34.83	69.66	
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	34.25	68.50	
C450	91-20-3	Naphthalene	50.00	33.62	67.24	
C455	106-47-8	4-Chloroaniline	50.00	18.87	37.74	
C460	87-68-3	Hexachlorobutadiene	50.00	34.71	69.42	
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	35.22	70.44	
C470	91-57-6	2-Methylnaphthalene	50.00	36.02	72.04	
10	77-47-4	Hexachlorocyclopentadiene	50.00	30.83	61.66	
15	88-06-2	2,4,6-Trichlorophenol	50.00	34.16	68.32	
C520	95-95-4	2,4,5-Trichlorophenol	50.00	34.94	69.88	
C525	91-58-7	2-Chloronaphthalene	50.00	36.31	72.62	
C530	88-74-4	2-Nitroaniline	50.00	35.78	71.56	
C535	131-11-3	Dimethyl Phthalate	50.00	37.34	74.68	

Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
C540	208-96-8	Acenaphthylene	50.00	35.40	70.80	
C543	606-20-2	2,6-Dinitrotoluene	50.00	38.94	77.88	
C545	99-09-2	3-Nitroaniline	50.00	30.86	61.72	
C550	83-32-9	Acenaphthene	50.00	35.14	70.28	
C555	51-28-5	2,4-Dinitrophenol	50.00	37.19	74.38	
C560	100-02-7	4-Nitrophenol	50.00	43.22	86.44	
C565	132-64-9	Dibenzofuran	50.00	35.02	70.04	
C570	121-14-2	2,4-Dinitrotoluene	50.00	47.22	94.44	
C580	84-66-2	Diethylphthalate	50.00	40.60	81.20	
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	35.07	70.14	
C590	86-73-7	Fluorene	50.00	35.06	70.12	
C595	100-01-6	4-Nitroaniline	50.00	39.82	79.64	
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	55.23	110.5	
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	39.72	79.44	
C625	101-55-3	4-Bromophenyl-phenylether	50.00	37.69	75.38	
C630	118-74-1	Hexachlorobenzene	50.00	41.56	83.12	
C635	87-86-5	Pentachlorophenol	50.00	15.13	30.26	
C640	85-01-8	Phenanthrene	50.00	41.72	83.44	
C645	120-12-7	Anthracene	50.00	41.74	83.48	
C646	86-74-8	Carbazole	50.00	48.05	96.10	
C650	84-74-2	Di-n-Butylphthalate	50.00	52.19	104.4	
C655	206-44-0	Fluoranthene	50.00	52.31	104.6	
C715	129-00-0	Pyrene	50.00	53.74	107.5	
C720	85-68-7	Butylbenzylphthalate	50.00	55.74	111.5	
C725	91-94-1	3,3'-Dichlorobenzidine	50.00	33.56	67.12	
C730	56-55-3	Benzo(a)Anthracene	50.00	55.28	110.6	
C740	218-01-9	Chrysene	50.00	58.13	116.3	
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	57.83	115.7	
C760	117-84-0	Di-n-Octyl Phthalate	50.00	64.26	128.5	
C765	205-99-2	Benzo(b)Fluoranthene	50.00	52.25	104.5	
C770	207-08-9	Benzo(k)Fluoranthene	50.00	63.76	127.5	
C775	50-32-8	Benzo(a)Pyrene	50.00	56.17	112.3	
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	56.34	112.7	
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	57.10	114.2	
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	50.62	101.2	

Laboratory Control Spike Summary

LAB SAMP ID S0922-LCS7 SAMPLE ID SLCSJQ
LAB QC ID _____ TYPE EPA

DATA RELEASE AUTHORIZED BY

FILE NAME JY681 RECEIVED _____ METHOD CLP
TUNE JY676 EXTRACTED 09/22/99 FRACTION BNA
STANDARD JY677 ANALYZED 09/29/99 13:10 INST MS10
BLANK JY678 VERIFIED _____ ANALYST _____
TAPE/POS _____ BOTTLE _____

% MOISTURE _____ pH _____ LEVEL LOW
(DECANTED) _____ CLEANUP GPC MATRIX SOIL
DIL FACTOR 1.000 EXTRACT METHOD SONC UNITS ug/Kg

SAMPLE:
CONDITIONS:

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
5	108-95-2	Phenol	50.00	36.48	72.96	
C325	111-44-4	bis(2-Chloroethyl)Ether	50.00	33.94	67.88	
C330	95-57-8	2-Chlorophenol	50.00	36.72	73.44	
C335	541-73-1	1,3-Dichlorobenzene	50.00	35.06	70.12	
C340	106-46-7	1,4-Dichlorobenzene	50.00	33.81	67.62	
C345	100-51-6	Benzyl Alcohol	50.00	53.79	107.6	
C350	95-50-1	1,2-Dichlorobenzene	50.00	35.47	70.94	
C355	95-48-7	2-Methylphenol	50.00	37.40	74.80	
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	34.30	68.60	
C365	106-44-5	4-Methylphenol	50.00	39.95	79.90	
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	37.68	75.36	
C375	67-72-1	Hexachloroethane	50.00	34.55	69.10	
C410	98-95-3	Nitrobenzene	50.00	37.12	74.24	
C415	78-59-1	Isophorone	50.00	39.20	78.40	
C420	88-75-5	2-Nitrophenol	50.00	42.03	84.06	
C425	105-67-9	2,4-Dimethylphenol	50.00	39.59	79.18	
C430	65-85-0	Benzoic Acid	100.0	64.14	64.14	
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	37.88	75.76	
C440	120-83-2	2,4-Dichlorophenol	50.00	41.68	83.36	
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	37.99	75.98	
C450	91-20-3	Naphthalene	50.00	36.89	73.78	
C455	106-47-8	4-Chloroaniline	50.00	38.11	76.22	
C460	87-68-3	Hexachlorobutadiene	50.00	38.42	76.84	
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	44.92	89.84	
C470	91-57-6	2-Methylnaphthalene	50.00	40.84	81.68	
0	77-47-4	Hexachlorocyclopentadiene	50.00	40.22	80.44	
C485	88-06-2	2,4,6-Trichlorophenol	50.00	42.74	85.48	
C520	95-95-4	2,4,5-Trichlorophenol	50.00	43.78	87.56	
C525	91-58-7	2-Chloronaphthalene	50.00	41.35	82.70	
C530	88-74-4	2-Nitroaniline	50.00	47.58	95.16	
C535	131-11-3	Dimethyl Phthalate	50.00	47.25	94.50	

Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
C540	208-96-8	Acenaphthylene	50.00	43.13	86.26	
C543	606-20-2	2,6-Dinitrotoluene	50.00	50.24	100.5	
C545	99-09-2	3-Nitroaniline	50.00	43.33	86.66	
C550	83-32-9	Acenaphthene	50.00	43.16	86.32	
C555	51-28-5	2,4-Dinitrophenol	50.00	38.32	76.64	
C560	100-02-7	4-Nitrophenol	50.00	50.88	101.8	
C565	132-64-9	Dibenzofuran	50.00	41.92	83.84	
C570	121-14-2	2,4-Dinitrotoluene	50.00	53.79	107.6	
C580	84-66-2	Diethylphthalate	50.00	47.64	95.28	
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	43.97	87.94	
C590	86-73-7	Fluorene	50.00	45.45	90.90	
C595	100-01-6	4-Nitroaniline	50.00	46.56	93.12	
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	52.26	104.5	
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	47.13	94.26	
C625	101-55-3	4-Bromophenyl-phenylether	50.00	43.86	87.72	
C630	118-74-1	Hexachlorobenzene	50.00	44.56	89.12	
C635	87-86-5	Pentachlorophenol	50.00	11.78	23.56	
C640	85-01-8	Phenanthrene	50.00	44.74	89.48	
C645	120-12-7	Anthracene	50.00	45.24	90.48	
C646	86-74-8	Carbazole	50.00	46.39	92.78	
C650	84-74-2	Di-n-Butylphthalate	50.00	45.98	91.96	
C655	206-44-0	Fluoranthene	50.00	46.52	93.04	
C715	129-00-0	Pyrene	50.00	46.41	92.82	
C720	85-68-7	Butylbenzylphthalate	50.00	50.93	101.9	
C725	91-94-1	3,3'-Dichlorobenzidine	50.00	43.86	87.72	
C730	56-55-3	Benzo(a)Anthracene	50.00	48.11	96.22	
C740	218-01-9	Chrysene	50.00	46.75	93.50	
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	50.44	100.9	
C760	117-84-0	Di-n-Octyl Phthalate	50.00	53.44	106.9	
C765	205-99-2	Benzo(b)Fluoranthene	50.00	46.99	93.98	
C770	207-08-9	Benzo(k)Fluoranthene	50.00	50.68	101.4	
C775	50-32-8	Benzo(a)Pyrene	50.00	48.21	96.42	
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	47.86	95.72	
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	31.75	63.50	
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	48.49	96.98	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKDH

La Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Lab File ID: DW975 Lab Sample ID: S0915-B6

Instrument ID: MS4 Date Extracted: 09/15/99

Matrix: (soil/water) WATER Date Analyzed: 09/22/99

Level: (low/med) LOW Time Analyzed: 1931

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	100-MW-001-0	990799-16	DW986	09/23/99
02	100-MW-002-0	990799-17	DW987	09/23/99
03	100-MW-003-0	990799-18	DW998	09/23/99
04	100-MW-004-0	990799-20	DX000	09/23/99
05	100-MW-DD-01	990799-19	DW999	09/23/99
06	102-MW-003-0	990799-11	DW985	09/23/99
07	102-MW-004-0	990799-10	DW984	09/23/99
08	SLCSDH	S0915-LCS6	DW976	09/22/99

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKJI

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Lab File ID: JY635 Lab Sample ID: S0914-B5J

Instrument ID: MS10 Date Extracted: 09/14/99

Matrix: (soil/water) SOIL Date Analyzed: 09/27/99

Level: (low/med) LOW Time Analyzed: 1640

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	100-22-DD	990799-06	JY713	09/30/99
02	100-SS-01	990799-05	IX022	09/29/99
03	100-SS-02	990799-04	JY711	09/30/99
04	100-SS-03	990799-07	IX017	09/28/99
05	100-SS-04	990799-08	IX018	09/28/99
06	102-SS-01	990799-02	JY648	09/27/99
07	102-SS-03	990799-13	IX020	09/29/99
08	102-SS-04	990799-14	IX021	09/29/99
09	102-SS-05	990799-12	IX019	09/28/99
10	102-SU-01	990799-03	IX025	09/29/99
11	SLCSJI	S0914-LCS5	JY638	09/27/99
12	100-SS-01MS	990799-05MS	IX023	09/29/99
13	100-SS-01MSD	990799-05MSD	IX024	09/29/99

COMMENTS:

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKJQ

b e: CEIMIC CORP Contract: TETRA TECH

b Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

b File ID: JY678 Lab Sample ID: S0922-B7J

strument ID: MS10 Date Extracted: 09/22/99

trix: (soil/water) SOIL Date Analyzed: 09/29/99

vel:(low/med) LOW Time Analyzed: 1134

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	102-SS-02	990799-01	JY694	09/29/99
02	SLCSJQ	S0922-LCS7	JY681	09/29/99

MMENTS:

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ab Name: CEIMIC CORP Contract: TETRA TECH

ab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

ab File ID (Standard): DW968 Date Analyzed: 09/22/99

nstrument ID: MS4 Time Analyzed: 1533

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	548821		4.65		1854821		5.83		1063350		8.54	
	UPPER LIMIT	1097642		5.15		3709642		6.33		2126700		9.04	
	LOWER LIMIT	274410		4.15		927410		5.33		531675		8.04	
	EPA SAMPLE NO.												
01	100-MW-001-0	308700		4.64		1040187		5.81		587388		8.53	
02	100-MW-002-0	346400		4.64		1178671		5.81		640489		8.53	
03	102-MW-003-0	404920		4.64		1352439		5.82		747938		8.53	
04	102-MW-004-0	540155		4.64		1841921		5.82		1001111		8.53	
05	SLCSDH	468717		4.63		1669235		5.80		972577		8.53	
06	SBLKDH	688381		4.64		2304712		5.81		1202037		8.53	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ab me: CEIMIC CORP Contract: TETRA_TECH

ab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

ab File ID (Standard): DW968 Date Analyzed: 09/22/99

nstrument ID: MS4 Time Analyzed: 1533

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	1851481		10.36		1392163		13.14		1330537		15.33	
	UPPER LIMIT	3702962		10.86		2784326		13.64		2661074		15.83	
	LOWER LIMIT	925740		9.86		696082		12.64		665268		14.83	
	EPA SAMPLE NO.												
01	100-MW-001-0	978129		10.36		824918		13.14		867133		15.33	
02	100-MW-002-0	1023590		10.36		765396		13.14		840120		15.33	
03	102-MW-003-0	1154558		10.36		756181		13.13		763712		15.33	
04	102-MW-004-0	1584802		10.36		955704		13.13		990772		15.33	
05	SLCSDH	1667254		10.36		1398697		13.14		1318354		15.33	
06	SBLKDH	1970726		10.36		1312192		13.13		1325168		15.33	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ab Name: CEIMIC CORP Contract: TETRA_TECH

ab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

ab File ID (Standard): DW992 Date Analyzed: 09/23/99

nstrument ID: MS4 Time Analyzed: 1228

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	439195		4.62		1400076		5.78		802809		8.49	
	UPPER LIMIT	878390		5.12		2800152		6.28		1605618		8.99	
	LOWER LIMIT	219598		4.12		700038		5.28		401404		7.99	
	EPA SAMPLE NO.												
01	100-MW-003-0	644932		4.61		2133667		5.78		1185668		8.49	
02	100-MW-004-0	728425		4.62		2478928		5.78		1359869		8.48	
03	100-MW-DD-01	661335		4.61		2187010		5.78		1191457		8.49	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Lab File ID (Standard): DW992 Date Analyzed: 09/23/99

Instrument ID: MS4 Time Analyzed: 1228

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	1568654		10.32		1174332		13.08		1169876		15.25	
	UPPER LIMIT	3137308		10.82		2348664		13.58		2339752		15.75	
	LOWER LIMIT	784327		9.82		587166		12.58		584938		14.75	
	EPA SAMPLE NO.												
01	100-MW-003-0	2084337		10.31		1543900		13.08		1543484		15.23	
02	100-MW-004-0	2249002		10.32		1604756		13.08		1721613		15.24	
03	100-MW-DD-01	2073561		10.32		1612144		13.07		1674981		15.24	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

b Name: CEIMIC CORP Contract: TETRA TECH

b Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

b File ID (Standard): IX013 Date Analyzed: 09/28/99

strument ID: MS9 Time Analyzed: 2015

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	76145	4.87	244089	6.08	110304	8.71
	UPPER LIMIT	152290	5.37	488178	6.58	220608	9.21
	LOWER LIMIT	38072	4.37	122044	5.58	55152	8.21
	EPA SAMPLE NO.						
01	100-SS-01	55942	4.86	180894	6.07	81015	8.71
02	100-SS-03	47453	4.86	138360	6.07	62809	8.70
03	100-SS-04	54632	4.86	167507	6.08	70359	8.71
04	102-SS-03	47105	4.86	151041	6.07	74039	8.71
05	102-SS-04	55280	4.86	176200	6.07	76596	8.70
06	102-SS-05	55381	4.88	164757	6.08	67602	8.71
07	102-SU-01	50437	4.86	159884	6.07	72340	8.71
08	100-SS-01MS	51660	4.87	151804	6.08	72845	8.71
09	100-SS-01MSD	40367	4.86	124739	6.07	53649 *	8.70

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

3C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Lab File ID (Standard): IX013 Date Analyzed: 09/28/99

Instrument ID: MS9 Time Analyzed: 2015

		IS4 (PHN) AREA	#	RT	#	IS5 (CRY) AREA	#	RT	#	IS6 (PRY) AREA	#	RT	#
	12 HOUR STD	164927		10.40		133129		12.93		135953		14.98	
	UPPER LIMIT	329854		10.90		266258		13.43		271906		15.48	
	LOWER LIMIT	82464		9.90		66564		12.43		67976		14.48	
	EPA SAMPLE NO.												
01	100-SS-01	115324		10.39		87514		12.93		88799		14.96	
02	100-SS-03	93389		10.39		80406		12.92		83249		14.96	
03	100-SS-04	98800		10.39		81241		12.94		81801		14.97	
04	102-SS-03	123189		10.39		137631		12.94		152826		14.97	
05	102-SS-04	113359		10.39		98327		12.93		103385		14.97	
06	102-SS-05	106258		10.40		88615		12.93		93690		14.97	
0	02-SU-01	109379		10.39		86459		12.94		94913		14.97	
0	100-SS-01MS	112515		10.40		81455		12.93		85149		14.97	
09	100-SS-01MSD	91675		10.39		87843		12.93		105015		14.97	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

b Name: CEIMIC CORP Contract: TETRA TECH

b Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

b File ID (Standard): JY631 Date Analyzed: 09/27/99

strument ID: MS10 Time Analyzed: 1420

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	552176		5.12		1847650		6.53		1295396		9.12	
	UPPER LIMIT	1104352		5.62		3695300		7.03		2590792		9.62	
	LOWER LIMIT	276088		4.62		923825		6.03		647698		8.62	
	EPA SAMPLE NO.												
01	102-SS-01	583607		5.10		1937551		6.50		1330733		9.10	
02	SLCSJI	586704		5.10		1894629		6.50		1269879		9.10	
03	SBLKJI	643285		5.11		2143523		6.51		1412961		9.10	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ab Name: CEIMIC CORP Contract: TETRA TECH

ab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

ab File ID (Standard): JY631 Date Analyzed: 09/27/99

nstrument ID: MS10 Time Analyzed: 1420

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	2627600		10.87		2649852		13.81		2933915		16.45	
	UPPER LIMIT	5255200		11.37		5299704		14.31		5867830		16.95	
	LOWER LIMIT	1313800		10.37		1324926		13.31		1466958		15.95	
	EPA SAMPLE NO.												
01	102-SS-01	2769147		10.87		2603633		13.79		2566974		16.43	
02	SLCSJI	2445580		10.87		2306670		13.80		2308295		16.43	
03	SBLKJI	2849869		10.87		2634113		13.79		2828309		16.42	

IS4 (PHN) = Phenanthrene-d10
(CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Lab File ID (Standard): JY677 Date Analyzed: 09/29/99

Instrument ID: MS10 Time Analyzed: 1036

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	553802		5.08		1397901		6.47		832392		9.08	
	UPPER LIMIT	1107604		5.58		2795802		6.97		1664784		9.58	
	LOWER LIMIT	276901		4.58		698950		5.97		416196		8.58	
	EPA SAMPLE NO.												
01	102-SS-02	709023		5.04		2347310		6.42		1522739		9.06	
02	SLCSJQ	692983		5.05		2335472		6.43		1533407		9.06	
03	SBLKJQ	523580		5.10		1803460		6.50		1232212		9.10	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

b Name: CEIMIC CORP Contract: TETRA TECH

b Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

b File ID (Standard): JY677 Date Analyzed: 09/29/99

strument ID: MS10 Time Analyzed: 1036

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	1535833		10.84		1535231		13.75		1555437		16.37	
	UPPER LIMIT	3071666		11.34		3070462		14.25		3110874		16.87	
	LOWER LIMIT	767916		10.34		767616		13.25		777718		15.87	
	EPA SAMPLE NO.												
01	102-SS-02	3067450		10.83		2625724		13.74		2478365		16.35	
02	SLCSJQ	3186286	*	10.83		3043291		13.73		2887521		16.35	
03	SBLKJQ	2385773		10.86		2373933		13.77		2394939		16.40	

IS4 (PHN) = Phenanthrene-d10
I (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

b Name: CEIMIC CORP Contract: TETRA TECH

b Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

b File ID (Standard): JY702 Date Analyzed: 09/30/99

strument ID: MS10 Time Analyzed: 1023

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	413890		5.11		1403401		6.51		957464		9.08	
	UPPER LIMIT	827780		5.61		2806802		7.01		1914928		9.58	
	LOWER LIMIT	206945		4.61		701700		6.01		478732		8.58	
	EPA SAMPLE NO.												
01	100-22-DD	685960		5.05		2255938		6.43		1520361		9.04	
02	100-SS-02	772171		5.04		2567906		6.41		1648457		9.03	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 02SS02

Lab File ID (Standard): JY702 Date Analyzed: 09/30/99

Instrument ID: MS10 Time Analyzed: 1023

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	1977231		10.83		1848295		13.76		1707054		16.36	
	UPPER LIMIT	3954462		11.33		3696590		14.26		3414108		16.86	
	LOWER LIMIT	988616		10.33		924148		13.26		853527		15.86	
	EPA SAMPLE NO.												
01	100-22-DD	3098981		10.81		3113579		13.71		2994598		16.28	
02	100-SS-02	3251346		10.81		2822447		13.70		2671373		16.28	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

PESTICIDE ANALYSES

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank ID: V150923-B1

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
ene	ND	1
orobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	107	75 - 125

Reported by: _____ Approved by: _____

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Blank ID: V150923-B1

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Analyzed: 09/23/99

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	5
2-Hexanone	ND	5
4-Methyl-2-Pentanone		

Reported by: _____ Approved by: _____

10 Dean Knauss Drive, Narragansett, RI 02882 Tel: (401) 782-8900 Fax: (401) 782-8905

VOLATILE ANALYSES

CEMIC CORPORATION
Sample Receiving Checklist

LIMS # 990807
Client: Tetra Tech
Project: NAS Pensacola

Cooler Number: 1-3
Number of Coolers: 3
Date Received: 9/11/99

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9/11/99

1. Have designated person initial here to acknowledge receipt of cooler: AS (date): 9/11/99

2. Did cooler come with a shipping slip (airbill, etc.)? ..... (YES) NO
   If YES, enter carrier name & airbill number here: FedEx 810789127451

3. Were custody seals on outside of cooler? ..... YES NO
   How many & where: 1, front seal date: 9/10/99 seal name: ENCO

4. Were custody seals unbroken and intact at the date and time of arrival ..... (YES) NO

5. Did you screen samples for radioactivity using a Geiger Counter? ..... Reading: ND (YES) NO

6. Chain of Custody #: 0464

7. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... (YES) NO

8. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO

9. Did you sign custody papers in the appropriate place? ..... (YES) NO

10. Was project identifiable from custody papers? ..... YES (NO)

11. If required, was enough ice used? ..... Cooler Temperature: 4 °C Type of ice: Wet (YES) NO

B. LOG-IN PHASE: Date samples were logged-in: 9/13/99
   by (print): Amy St. John (sign): Amy St. John

12. Describe type of packing in cooler: _____

13. Were all bottles sealed in separate plastic bags? ..... (YES) NO

14. Did all bottles arrive unbroken and were labels in good condition? ..... (YES) NO

15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... (YES) NO

16. Did all bottle labels agree with custody papers? ..... YES (NO)

17. Were correct containers used for the tests indicated? ..... (YES) NO

18. Were samples received at the correct pH? ..... (YES) NO

19. Was a sufficient amount of sample sent for tests indicated? ..... (YES) NO

20. Were bubbles absent in VOA samples? If NO, list by sample#: FB091099-01 (990801-01) & TB091099-01 (990801-03) YES NO

21. Laboratory labelling verified by: (Initials): _____ (date): / /

(12)

Chain of Custody

Original Chain of Custody goes to Laboratory

990807

0044

Page 1 of 1

Project #	Project Name	Cooler Temp.
CTO 0086	NAS Pensacola OLF Bronson	4°C

Samplers (please print) M. Tuhl Bobby R. Bobo

Cooler # 1-3

Lab ID	Date	Time	Comp. / Grab	Sample Identification	Sample Matrix	No. of Containers	TCL VOC	pH	TCL SVOC	pH	Pest/PCB	pH	TAL Metals	pH	Cyanide	pH		pH		pH	Remarks
-16	9/10	1245	G	100-MW-001-01	W	8	X		X		X		X		X						
-17	9/10	1420	G	100-MW-002-01	W	8	X		X		X		X		X						
-18	9/10	1130	G	100-MW-003-01	W	8	X		X		X		X		X						
-19	9/10	—	G	100-MW-DD-01	W	8	X		X		X		X		X						Dup.
-20	9/10	0920	G	100-MW-004-01	W	8	X		X		X		X		X						
-01	9/10	1210	G	FB 091099-01	W	8	X		X		X		X		X						Field Blank
-02	9/10	1435	G	ER 091099-01	W	8	X		X		X		X		X						Equip. Rinse
-03	9/10	0900	G	TB 091099-01	W	2	X														Trip Blank

Celmic Project #	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
990807	M. Tuhl	9/10/99 1800	Fed Ex	
Storage Location (10)	Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
	Relinquished by (signature)	Date/Time	Received by Celmic (signature) Amy St. John	Date/Time

Remarks:

= Lab Use Only

Celmic Corporation, 10 Dean Knauss Drive, Narragansett, RI 02882 - Tel: (401) 782-8900, Fax: (401) 782-8905

CHAIN OF CUSTODY

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

October 8, 1999

Ms. Lee Leck
Tetra Tech NUS
Foster Plaza VII
661 Andersen Dr.
Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlaying Landing Field Bronson Pensacola, FL Project, Project No. CTO086, SDG No. 091099. The 3 aqueous samples were taken from the field on September 10, 1999 and received at Ceimic Corporation on September 11, 1999.

These samples are reported under Ceimic Project Number 990807, which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,

Neil Pothier, Ph.D
Laboratory Manager

NP/djj

Enclosures

cc: Mr. Terry Hansen
Tetra Tech NUS
1311 Executive Center Dr.
Ellis Bldg.
Suite 220
Tallahassee, FL 32301

Mr. Arnold Lamb
Tetra Tech NUS
794 S. Military Trail
Deerfield Beach, FL 33442

TOTAL METALS AND CYANIDE

-7-

LABORATORY CONTROL SAMPLE

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Solid LCS Source:

Aqueous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Antimony	500.0	453.52	90.7						
Arsenic	200.0	181.71	90.9						
Cadmium	100.0	85.84	85.8						
Lead	200.0	175.02	87.5						
Selenium	200.0	185.06	92.5						
Silver	1250.0	1138.50	91.1						
Thallium	200.0	175.64	87.8						

TOTAL METALS AND CYANIDE

-7-

LABORATORY CONTROL SAMPLE

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Solid LCS Source:

Aqueous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits	%R
Aluminum	10000.0	9660.60	96.6					
Barium	10000.0	8989.20	89.9					
Beryllium	250.0	241.13	96.5					
Calcium	25000.0	24334.00	97.3					
Chromium	1000.0	923.29	92.3					
Cobalt	2500.0	2266.90	90.7					
Copper	1250.0	1104.50	88.4					
Iron	5000.0	4833.20	96.7					
Magnesium	25000.0	24312.00	97.2					
Manganese	2500.0	2280.20	91.2					
Nickel	2500.0	2234.90	89.4					
[illegible]assium	25000.0	22620.00	90.5					
[illegible]ium	25000.0	24776.00	99.1					
Vanadium	2500.0	2377.40	95.1					
Zinc	2500.0	2240.30	89.6					
Cyanide	800	77.99	97.5					

TOTAL METALS AND CYANIDE
- 3 -
BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Cyanide	10.0	U	10.0	U	10.0	U			5.000	U	C

TOTAL METALS AND CYANIDE
- 3 -
BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Antimony	2.6	U	2.6	U	2.6	U	2.6	U	2.600	U	P
Arsenic	3.6	U	3.6	U	3.6	U	3.6	U	3.600	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.430	U	P
Lead	2.7	U	2.7	U	2.7	U	2.7	U	2.700	U	P
Mercury			0.14	U	0.14	U	0.14	U	0.140	U	AV
Selenium	3.3	B	2.1	U	2.1	U	2.8	B	2.100	U	P
Silver	3.7	U	3.7	U	3.7	U	3.7	U	3.700	U	P
Thallium	4.4	U	4.4	U	4.4	U	4.4	U	4.400	U	P

TOTAL METALS AND CYANIDE
- 3 -
BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			41.0	U	41.0	U	42.3	B	141.000	B	P
Barium			16.4	B	12.4	B	17.4	B	9.910	B	P
Beryllium			0.4	U	-0.4	B	0.4	U	0.430	B	P
Calcium			-127.3	B	170.1	B	-254.8	B	495.000	B	P
Chromium			-10.9	B	-11.8	B	-9.9	B	5.710	B	P
Cobalt			7.1	B	5.7	B	8.5	B	15.600	B	P
Copper			-4.7	B	-6.6	B	-4.7	B	13.000	B	P
Iron			40.0	U	40.0	U	40.0	U	40.000	U	P
Magnesium			119.0	U	133.7	B	119.0	U	551.000	B	P
Manganese			3.0	U	3.0	U	3.0	U	3.000	U	P
Nickel			-24.4	B	-31.9	B	-23.9	B	-11.960	B	P
Potassium			222.0	U	314.8	B	286.8	B	620.000	B	P
Sodium			57.0	U	133.2	B	57.0	U	570.000	B	P
Vanadium			5.3	B	2.8	U	2.8	U	18.500	B	P
Zinc			5.5	U	5.5	U	5.5	U	16.800	B	P

CEIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Matrix (soil/water): WATER Lab Sample ID: 990807-02

Level (low/med): LOW Date Received: 09/11/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	4.5	U		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	333	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U		C
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.7	U		P
7439-95-4	Magnesium	119	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.18	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	222	U		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	293	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	18.5	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: Approved: Donald Tortorelli

CEIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Matrix (soil/water): WATER Lab Sample ID: 990807-01

Level (low/med): LOW Date Received: 09/11/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	12.9	B		P
7440-41-7	Beryllium	0.64	B		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	333	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U		C
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.7	U		P
7439-95-4	Magnesium	119	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.18	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	246	B		P
7782-49-2	Selenium	2.3	B		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	385	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	3.8	B		P
7440-66-6	Zinc	14.0	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: Approved: David Tortorelli

Form I - IN

TOTAL METALS AND CYANIDE
- Cover Page -
INORGANIC ANALYSIS DATA PACKAGE

Contract: Outlaying Landing Field Bronson Pensacola, FL SDG No.: 091099

Lab Code: CEIMIC Case No.: 990807 SAS No.:

SOW No.: ILM04.0

Sample No.	Lab Sample ID.
FB091099-01	990807-01
ER091099-01	990807-02

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Donald Tortorelli Name: DONALD TORTORELLI

Date: 10/1/97 Title: INORGANIC LAB MGR

METAL ANALYSES

LIMS = 9908029

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990807 | Analytical Method: 8082 | Surr. Sol. ID: PW990915B | Prep Date/Time: 09/15/99

Client: XtraTech Nuy | Extraction Method: Sep funnel | MS Sol. ID: PW990701B | Analysis: PCB only

Blank ID: P0091584 | LCS ID: P0091SLCS4 | Addt'l Spike ID: — | Matrix: aqueous

9/11/99

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
—	P0091584	1000	100	—					10ml								1ml	✓	9/21/99 ✓	
—	P0091SBBD			—																
—	LCS1			100																
FB091099-0	P0807-01			—																
EB091099-0	02			—																

jm 09/15/99

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: NO20263 | Sodium Sulfate Lot #: — | Reagents IDs:

Final Solvent ID: — | Supervisor Init: [illegible]

Container Lot #: — | Surrogate Added By: jm

Prepar : jm | Witnessed By: [illegible]

☐ GPC X Y Z ☐ Silica ☐ Florisil Lot #: ____

Comment Codes:

RE = Reextract

AL 2nd Aliquot

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990807
Client: Tetra Tech Nus
Blank ID: P00915B1

Analytical Method: 8081 A
Extraction Method: Sep. funnel
LCS ID: P00915LCS1

Surr. Sol. ID: PW990830B
MS Sol. ID: PW990701B
Addt'l Spike ID: —

Prep Date/Time: 09/15/99
Analysis: Pest
Matrix: aqueous

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
FBC91099-0	7080701	1 ml	1 ml	—					10 ml								1 ml		NB 09/21/99	
ER091099-0	02	↓	↓	—					↓								↓	↓	↓	

JM 09/14/99

JM 09/15/99

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: N070763
Final Solvent ID: —
Container Lot #: —
Prepared by: JM

Sodium Sulfate Lot #: —
Supervisor Init: JA
Surrogate Added By: JM
Witnessed By: JA

Reagents IDs:

☐ GPC X Y Z
☐ Silica
☐ Florisil
Lot #:

Comment Codes:

RE = Reextract
AL 2nd Aliquot

LABORATORY CONTROL SUMMARY
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank Spike ID: P0915-LCS4

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Analyzed: 09/27/99

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B4

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	5.0	5.2	104	30 - 150
Aroclor-1260	5.0	5.3	106	47 - 127

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	95	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

METHOD BLANK
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P0915-B4

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	85	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

Form I PCB

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: ER091099-01
Date Sampled: 09/10/99
Date Sample Received: 09/11/99
Matrix: Aqueous

Laboratory ID: 990807-02
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/27/99
Associated Method Blank: P0915-B4
Final Extract Volume (mL): 10.0
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
.or-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	90	56 - 111
Decachlorobiphenyl	65	34 - 129

* These limits are provided for advisory purposes.

Reviewed by: _____ Approved by: _____

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: FB091099-01
Date Sampled: 09/10/99
Date Sample Received: 09/11/99
Matrix: Aqueous

Laboratory ID: 990807-01
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/27/99
Associated Method Blank: P0915-B4
Final Extract Volume (mL): 10.0
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	105	56 - 111
Decachlorobiphenyl	75	34 - 129

* These limits are provided for advisory purposes.

Reported by: JS

Approved by: [illegible]

PCB ANALYSES

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990807
Client: Tetra Tech Nus
Blank ID: P00915B1

Analytical Method: 8081 A
Extraction Method: Sep. funnel
LCS ID: P00915LCS1

Surr. Sol. ID: PW990830B
MS Sol. ID: PW990701B
Addt'l Spike ID: —

Prep Date/Time: 09/15/99
Analysis: Pest
Matrix: aqueous

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
FBC01099-0	7080701	100ml	1ml	—					10ml								1ml		NB 09/21/99	
ER091099-0	02	↓	↓	—					↓								↓	↓	↓	

JM 09/15/99

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: NU70763
Final Solvent ID: —
Container Lot #: —
Prepared by: JM

Sodium Sulfate Lot #: —
Supervisor Init: JA
Surrogate Added By: JM
Witnessed By: JA

Reagents IDs:

☐ GPC X Y Z
☐ Silica
☐ Florisil
Lot #:

Comment Codes:

RE = Reextract
AL 2nd Aliquot

LABORATORY CONTROL SUMMARY
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Blank Spike ID: P0915-LCS1
Matrix: Aqueous

Ceimic Project: 990807
Date Sample Analyzed: 09/29/99
Date Sample Prepared: 09/15/99
Associated Method Blank: P0915-B1
Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
alpha-BHC	0.50	0.39	78	49 - 150
beta-BHC	0.50	0.39	78	60 - 135
delta-BHC	0.50	0.40	80	32 - 140
gamma-BHC	0.50	0.40	80	54 - 144
Heptachlor	0.50	0.38	76	54 - 134
Aldrin	0.50	0.41	82	58 - 132
Heptachlor Epoxide	0.50	0.41	82	60 - 130
Endosulfan I	0.50	0.27	54	46 - 131
Dieldrin	0.50	0.41	82	64 - 135
4,4'-DDE	0.50	0.46	92	57 - 141
Endrin	0.50	0.45	90	63 - 147
Endosulfan II	0.50	0.35	70	69 - 137
4,4'-DDD	0.50	0.43	86	49 - 141
Endosulfan Sulfate	0.50	0.44	88	51 - 144
DDT	0.50	0.43	86	64 - 146
Methoxychlor	0.50	0.49	98	64 - 152
Endrin Ketone	0.50	0.45	90	62 - 150
Endrin Aldehyde	0.50	0.50	100	56 - 129

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	70	56 - 111
Decachlorobiphenyl	80	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

Form IIIA PEST

METHOD BLANK
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Blank ID: P0915-B1
Matrix: Aqueous

Ceimic Project: 990807
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/29/99
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	75	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: ER091099-01
Date Sampled: 09/10/99
Date Sample Received: 09/11/99
Matrix: Aqueous

Laboratory ID: 990807-02
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 10/04/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
[illegible] sulfan Sulfate	ND	0.10
[illegible]DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	60	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

Form I PEST

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: FB091099-01
Date Sampled: 09/10/99
Date Sample Received: 09/11/99
Matrix: Aqueous

Laboratory ID: 990807-01
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 10/04/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL): 10.0
Dilution Factor: 1
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	55	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

PESTICIDE ANALYSES

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Lab File ID (Standard): DW992 Date Analyzed: 09/23/99

Instrument ID: MS4 Time Analyzed: 1228

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	1568654		10.32		1174332		13.08		1169876		15.25	
	UPPER LIMIT	3137308		10.82		2348664		13.58		2339752		15.75	
	LOWER LIMIT	784327		9.82		587166		12.58		584938		14.75	
	EPA SAMPLE NO.												
01	ER091099-01	2180804		10.32		1422919		13.08		1395791		15.24	
02	FB091099-01	3276900	*	10.32		2598391	*	13.08		2742870	*	15.24	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Lab File ID (Standard): DW992 Date Analyzed: 09/23/99

Instrument ID: MS4 Time Analyzed: 1228

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	439195		4.62		1400076		5.78		802809		8.49	
	UPPER LIMIT	878390		5.12		2800152		6.28		1605618		8.99	
	LOWER LIMIT	219598		4.12		700038		5.28		401404		7.99	
	EPA SAMPLE NO.												
01	ER091099-01	697849		4.62		2415481		5.79		1331022		8.49	
02	FB091099-01	964450	*	4.62		3435530	*	5.79		1932269	*	8.49	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Lab File ID (Standard): DW968 Date Analyzed: 09/22/99

Instrument ID: MS4 Time Analyzed: 1533

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	1851481		10.36		1392163		13.14		1330537		15.33	
	UPPER LIMIT	3702962		10.86		2784326		13.64		2661074		15.83	
	LOWER LIMIT	925740		9.86		696082		12.64		665268		14.83	
	EPA SAMPLE NO.												
01	SLCSDH	1667254		10.36		1398697		13.14		1318354		15.33	
02	SBLKDH	1970726		10.36		1312192		13.13		1325168		15.33	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Lab File ID (Standard): DW968 Date Analyzed: 09/22/99

Instrument ID: MS4 Time Analyzed: 1533

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	548821		4.65		1854821		5.83		1063350		8.54	
	UPPER LIMIT	1097642		5.15		3709642		6.33		2126700		9.04	
	LOWER LIMIT	274410		4.15		927410		5.33		531675		8.04	
	EPA SAMPLE NO.												
01	SLCSDH	468717		4.63		1669235		5.80		972577		8.53	
02	SBLKDH	688381		4.64		2304712		5.81		1202037		8.53	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Lab File ID: DW975 Lab Sample ID: S0915-B6

Instrument ID: MS4 Date Extracted: 09/15/99

Matrix: (soil/water) WATER Date Analyzed: 09/22/99

Level: (low/med) LOW Time Analyzed: 1931

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	ER091099-01	990807-02	DW997	09/23/99
02	FB091099-01	990807-01	DW996	09/23/99
03	SLCSDH	S0915-LCS6	DW976	09/22/99

COMMENTS:

Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
C540	208-96-8	Acenaphthylene	50.00	32.78	65.56	
C543	606-20-2	2,6-Dinitrotoluene	50.00	36.77	73.54	
C545	99-09-2	3-Nitroaniline	50.00	34.16	68.32	
C550	83-32-9	Acenaphthene	50.00	33.32	66.64	
C555	51-28-5	2,4-Dinitrophenol	50.00	32.69	65.38	
C560	100-02-7	4-Nitrophenol	50.00	22.39	44.78	
C565	132-64-9	Dibenzofuran	50.00	34.42	68.84	
C570	121-14-2	2,4-Dinitrotoluene	50.00	38.31	76.62	
C580	84-66-2	Diethylphthalate	50.00	34.16	68.32	
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	34.63	69.26	
C590	86-73-7	Fluorene	50.00	34.85	69.70	
C595	100-01-6	4-Nitroaniline	50.00	34.62	69.24	
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	38.99	77.98	
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	36.69	73.38	
C625	101-55-3	4-Bromophenyl-phenylether	50.00	36.63	73.26	
C630	118-74-1	Hexachlorobenzene	50.00	37.54	75.08	
C635	87-86-5	Pentachlorophenol	50.00	32.96	65.92	
C640	85-01-8	Phenanthrene	50.00	36.90	73.80	
C645	120-12-7	Anthracene	50.00	36.51	73.02	
C646	86-74-8	Carbazole	50.00	37.84	75.68	
C660	84-74-2	Di-n-Butylphthalate	50.00	38.56	77.12	
( )	206-44-0	Fluoranthene	50.00	38.99	77.98	
C715	129-00-0	Pyrene	50.00	36.00	72.00	
C720	85-68-7	Butylbenzylphthalate	50.00	35.96	71.92	
- C725	91-94-1	3,3'-Dichlorobenzidine	50.00	29.56	59.12	
C730	56-55-3	Benzo(a)Anthracene	50.00	37.52	75.04	
C740	218-01-9	Chrysene	50.00	37.05	74.10	
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	36.58	73.16	
C760	117-84-0	Di-n-Octyl Phthalate	50.00	38.23	76.46	
C765	205-99-2	Benzo(b)Fluoranthene	50.00	35.63	71.26	
C770	207-08-9	Benzo(k)Fluoranthene	50.00	39.94	79.88	
C775	50-32-8	Benzo(a)Pyrene	50.00	36.68	73.36	
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	33.85	67.70	
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	34.15	68.30	
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	33.41	66.82	

Laboratory Control Spike Summary

LAB SAMP ID S0915-LCS6 SAMPLE ID SLCSDH
LAB QC ID _____ TYPE EPA

DATA RELEASE AUTHORIZED BY

FILE NAME DW976 RECEIVED _____ METHOD CLP
TUNE DW967 EXTRACTED 09/15/99 FRACTION BNA
STANDARD DW968 ANALYZED 09/22/99 20:05 INST MS4
BLANK DW975 VERIFIED _____ ANALYST _____
TAPE/POS _____ ___ BOTTLE _____

% MOISTURE _____ pH _____ LEVEL LOW
(DECANTED) _____ CLEANUP _____ MATRIX WATER
DIL FACTOR 1.000 EXTRACT METHOD CLL UNITS ug/L

SAMPLE:
CONDITIONS:

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
C315	108-95-2	Phenol	50.00	18.36	36.72	
C325	111-44-4	bis(2-Chloroethyl)Ether	50.00	27.04	54.08	
C330	95-57-8	2-Chlorophenol	50.00	27.06	54.12	
C335	541-73-1	1,3-Dichlorobenzene	50.00	25.03	50.06	
C340	106-46-7	1,4-Dichlorobenzene	50.00	23.81	47.62	
C345	100-51-6	Benzyl Alcohol	50.00	31.77	63.54	
C350	95-50-1	1,2-Dichlorobenzene	50.00	25.09	50.18	
C355	95-48-7	2-Methylphenol	50.00	27.15	54.30	
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	29.28	58.56	
C365	106-44-5	4-Methylphenol	50.00	28.22	56.44	
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	29.38	58.76	
C375	67-72-1	Hexachloroethane	50.00	23.88	47.76	
C410	98-95-3	Nitrobenzene	50.00	29.59	59.18	
C415	78-59-1	Isophorone	50.00	31.44	62.88	
C420	88-75-5	2-Nitrophenol	50.00	31.66	63.32	
C425	105-67-9	2,4-Dimethylphenol	50.00	21.65	43.30	
C430	65-85-0	Benzoic Acid	100.0	29.25	29.25	
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	32.44	64.88	
C440	120-83-2	2,4-Dichlorophenol	50.00	30.81	61.62	
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	27.29	54.58	
C450	91-20-3	Naphthalene	50.00	29.16	58.32	
C455	106-47-8	4-Chloroaniline	50.00	25.87	51.74	
C460	87-68-3	Hexachlorobutadiene	50.00	27.54	55.08	
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	34.45	68.90	
C470	91-57-6	2-Methylnaphthalene	50.00	32.25	64.50	
C510	77-47-4	Hexachlorocyclopentadiene	50.00	25.25	50.50	
C515	88-06-2	2,4,6-Trichlorophenol	50.00	34.76	69.52	
C520	95-95-4	2,4,5-Trichlorophenol	50.00	33.85	67.70	
C525	91-58-7	2-Chloronaphthalene	50.00	32.26	64.52	
C530	88-74-4	2-Nitroaniline	50.00	34.98	69.96	
C535	131-11-3	Dimethyl Phthalate	50.00	34.19	68.38	

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

La' ame: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	ER091099-01	69	67	81	20	31	69	53	65	0
02	FB091099-01	79	74	77	28	40	79	61	74	0
03	SLCSDH	64	67	76	35	44	77	52	52	0
04	SBLKDH	65	66	81	26	39	72	54	58	0

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-100)	
S5 (2FP)	= 2-Fluorophenol	(21-125)	
S6 (TBP)	= 2,4,6-Tribromophenol	(25-134)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	1	J
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	J
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

L Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	34	
83-32-9	Acenaphthene	33	
51-28-5	2,4-Dinitrophenol	33	
100-02-7	4-Nitrophenol	22	
132-64-9	Dibenzofuran	34	
121-14-2	2,4-Dinitrotoluene	38	
84-66-2	Diethylphthalate	34	
7005-72-3	4-Chlorophenyl-phenylether	35	
86-73-7	Fluorene	35	
100-01-6	4-Nitroaniline	35	
534-52-1	4,6-Dinitro-2-Methylphenol	39	
86-30-6	N-Nitrosodiphenylamine (1)	37	
101-55-3	4-Bromophenyl-phenylether	37	
118-74-1	Hexachlorobenzene	38	
87-86-5	Pentachlorophenol	33	
85-01-8	Phenanthrene	37	
120-12-7	Anthracene	37	
86-74-8	Carbazole	38	
84-74-2	Di-n-Butylphthalate	39	B
206-44-0	Fluoranthene	39	
129-00-0	Pyrene	36	
85-68-7	Butylbenzylphthalate	36	
91-94-1	3,3'-Dichlorobenzidine	30	
56-55-3	Benzo(a)Anthracene	38	
218-01-9	Chrysene	37	
117-81-7	bis(2-Ethylhexyl)Phthalate	37	B
117-84-0	Di-n-Octyl Phthalate	38	
205-99-2	Benzo(b)Fluoranthene	36	
207-08-9	Benzo(k)Fluoranthene	40	
50-32-8	Benzo(a)Pyrene	37	
193-39-5	Indeno(1,2,3-cd)Pyrene	34	
53-70-3	Dibenzo(a,h)Anthracene	34	
191-24-2	Benzo(g,h,i)Perylene	33	

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

L Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	18	
111-44-4	bis(2-Chloroethyl)Ether	27	
95-57-8	2-Chlorophenol	27	
541-73-1	1,3-Dichlorobenzene	25	
106-46-7	1,4-Dichlorobenzene	24	
100-51-6	Benzyl Alcohol	32	
95-50-1	1,2-Dichlorobenzene	25	
95-48-7	2-Methylphenol	27	
108-60-1	2,2'-oxybis(1-Chloropropane)	29	
106-44-5	4-Methylphenol	28	
621-64-7	N-Nitroso-Di-n-Propylamine	29	
67-72-1	Hexachloroethane	24	
98-95-3	Nitrobenzene	30	
78-59-1	Isophorone	31	
88-75-5	2-Nitrophenol	32	
105-67-9	2,4-Dimethylphenol	22	
65-85-0	Benzoic Acid	29	
111-91-1	bis(2-Chloroethoxy)Methane	32	
120-83-2	2,4-Dichlorophenol	31	
120-82-1	1,2,4-Trichlorobenzene	27	
91-20-3	Naphthalene	29	
106-47-8	4-Chloroaniline	26	
87-68-3	Hexachlorobutadiene	28	
59-50-7	4-Chloro-3-Methylphenol	34	
91-57-6	2-Methylnaphthalene	32	
77-47-4	Hexachlorocyclopentadiene	25	
88-06-2	2,4,6-Trichlorophenol	35	
95-95-4	2,4,5-Trichlorophenol	34	
91-58-7	2-Chloronaphthalene	32	
88-74-4	2-Nitroaniline	35	
131-11-3	Dimethyl Phthalate	34	
208-96-8	Acenaphthylene	33	
606-20-2	2,6-Dinitrotoluene	37	

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW996

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	1	BJ
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

I Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW996

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW997

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

L Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW997

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

SEMIVOLATILE ORGANIC ANALYSES

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY
VOLATILE BLANK SPIKE
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank Spike ID: V150923-LCS

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Associated Method Blank: V150923-B1

Concentration: µg/L (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	5	5	100	68 - 124
Trichloroethene	5	5	97	75 - 120
Benzene	5	5	96	78 - 127
Toluene	5	5	94	71 - 132
Chlorobenzene	5	5	98	77 - 128

* ...e limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	105	75 - 125
Bromofluorobenzene	115	75 - 125

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-03

Date Sample Analyzed: 09/23/99

Associated Method Blank: V120923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	100	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	107	75 - 125
Bromofluorobenzene	110	75 - 125

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-03

Date Sample Analyzed: 09/23/99

Associated Method Blank: V120923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
[illegible]omethane	ND	1
[illegible] Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	10	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	5
2-Hexanone	ND	5
4-Methyl-2-Pentanone		

Reported by: _____ Approved by: _____

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	2	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	97	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	95	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	109	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: _____ Approved by: _____

Fax: (401) 782-8905

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	8	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	5
2-Hexanone	ND	5
4-Methyl-2-Pentanone		

Reported by: _____ Approved by: _____

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CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Blank ID: V150923-B1

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Analyzed: 09/23/99

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	107	75 - 125

Reported by: _____ Approved by: _____

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Blank ID: V150923-B1

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Analyzed: 09/23/99

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	5
Acetone	ND	1
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	5
1,2-Dichloroethane	ND	1
2-Butanone	ND	1
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	
2-Hexanone		
4-Methyl-2-Pentanone		

Approved by: _____

Fax: (401) 782-8905

VOLATILE ANALYSES

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

Corrective Action Form

Name: Amy St. John Date: 9.13.99

Out of Control Situation: Bubbles present in VOA Samples
(describe what happened, when, where and how, and who discovered the problem)

A bubble was present in one of the duplicate vials for Sample ID FBG91099-01 & ID TBG91099-01.

Client(s): TetraTech
Samples Affected: Client ID: ~~FB~~ MS FBG91099-01 & TBG91099-01
(reference both Ceimic and client IDs)
(Ceimic ID: 990807-01 & 990807-02

Action Taken:
(if client contacted, reference client contact name and date)

Name: _____ Date: _____

Proof of Return to Control:

Supervisor: _____ QA/QC Officer: _____
Date: _____ Date: _____

Corrective Action Tracking # _____

QAT0237 Page # _____

CEMIC CORPORATION
Sample Receiving Checklist

LIMS # 990807 Cooler Number: 1-3

Client: Tetra Tech Number of Coolers: 3

Project: NAS Pensacola Date Received: 9/11/99

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9/11/99

1. Have designated person initial here to acknowledge receipt of cooler: AS (date): 9/11/99

2. Did cooler come with a shipping slip (airbill, etc.)? (YES) NO

If YES, enter carrier name & airbill number here: Fedex 810789127451

3. Were custody seals on outside of cooler? YES NO

How many & where: 1, front seal date: 9/10/99 seal name: ENCO

4. Were custody seals unbroken and intact at the date and time of arrival (YES) NO

5. Did you screen samples for radioactivity using a Geiger Counter? Reading: ND (YES) NO

6. Chain of Custody #: 0464

7. Were custody papers sealed in a plastic bag & taped inside to the lid? (YES) NO

8. Were custody papers filled out properly (ink, signed, etc.)? (YES) NO

9. Did you sign custody papers in the appropriate place? (YES) NO

10. Was project identifiable from custody papers? YES (NO)

11. If required, was enough ice used? Cooler Temperature: 4 °C Type of ice: Blue (YES) NO

B. LOG-IN PHASE: Date samples were logged-in: 9/13/99

by (print): Amy St. John (sign): Amy St. John

12. Describe type of packing in cooler:

13. Were all bottles sealed in separate plastic bags? (YES) NO

14. Did all bottles arrive unbroken and were labels in good condition? (YES) NO

15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? (YES) NO

16. Did all bottle labels agree with custody papers? YES (NO)

17. Were correct containers used for the tests indicated? (YES) NO

18. Were samples received at the correct pH? (YES) NO

19. Was a sufficient amount of sample sent for tests indicated? (YES) NO

20. Were bubbles absent in VOA samples? If NO, list by sample#: FB091099-01 & TB091099-01 (YES) NO
990807-01 990807-03

21. Laboratory labelling verified by: (Initials): _____ (date): / /

QAT0261

850-656-2428
385-9879
Terry Hansen
Tallahassee

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

Fax Cover Sheet

To: Tetra Tech NUS
~~Lee Leck~~ Terry Hansen

Fax #: ~~412-921-4040~~ / (850) 385-9860

From: Henry Lubovitz

Date: 9-13-99

Re: CTO 0086 NAS Pensacola

# of Pages: 1
(includes cover sheet)

1) Sample container labelled ID# 100-MW-001- should be ID# 100-MW-001-01 according to COC. Ceimic will assign ID according to COC.

2) Ceimic received 16 samples labelled ID# 100-MW-003-01 and none labelled ID# 100-MW-002-01. The chain of custody indicated there should be eight containers for each ID. Ceimic assigned 100-MW-002-01 ID#'s according to the sample collection time which was specific to each sample. Time 1420 = 100-MW-002-01
1130 = 100-MW-003-01

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(12)

Chain of Custody

Original Chain of Custody goes to Laboratory

990807

Page 1 of 1

#	Project Name	Cooler Temp.
TO 0086	NAS Pensacola OLF Bronson	4°C

Cooler # 1-3

ers (please print): M. Tuhl, Bobby R. Bobo

1999 Date	Time	Comp. / Grab	Sample Identification	Sample Matrix	No. of Containers	TCL VOC	pH	TCL SVOC	pH	Pest/PCB	pH	TAL Metals	pH	Cyanide	pH		pH		pH	Remarks
9/10	1245	G	100-MW-001-01	W	8	X		X		X		X		X						
9/10	1420	G	100-MW-002-01	W	8	X		X		X		X		X						
9/10	1130	G	100-MW-003-01	W	8	X		X		X		X		X						
9/10	—	G	100-MW-DD-01	W	8	X		X		X		X		X						Dup.
9/10	0920	G	100-MW-004-01	W	8	X		X		X		X		X						
9/10	1210	G	10FB091099-01	W	8	X		X		X		X		X						Field Blank
9/10	1435	G	ER091099-01	W	8	X		X		X		X		X						Equip. Rinse
9/10	0900	G	TB091099-01	W	2	X														Trip Blank

Celmic Project # 990807

Storage Location

Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
M. Tuhl	9/10/99 1800	Fed Ex	
Relinquished by (signature)	Date/Time	Received by (signature)	Date/Time
Relinquished by (signature)	Date/Time	Received by Celmic (signature) Amy St. John	Date/Time

Remarks:

Celmic Corporation, 10 Dean Knauss Drive, Narragansett, RI 02882 - Tel: (401) 782-8900, Fax: (401) 782-8905

= Lab Use

CHAIN OF CUSTODY

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

October 8, 1999

Ms. Lee Leck
Tetra Tech NUS
Foster Plaza VII
661 Andersen Dr.
Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlaying Landing Field Bronson Pensacola, FL Project, Project No. CTO086, SDG No. 091099. The 3 aqueous samples were taken from the field on September 10, 1999 and received at Ceimic Corporation on September 11, 1999.

These samples are reported under Ceimic Project Number 990807, which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,

Neil Pothier, Ph.D
Laboratory Manager

NP/djj

Enclosures

cc: Mr. Terry Hansen
Tetra Tech NUS
1311 Executive Center Dr.
Ellis Bldg.
Suite 220
Tallahassee, FL 32301

Mr. Arnold Lamb
Tetra Tech NUS
794 S. Military Trail
Deerfield Beach, FL 33442

10 Dean Knauss Drive, Narragansett, RI 02882 • Tel: (401) 782-8900 • Fax: (401) 782-8905

TOTAL METALS AND CYANIDE

-7-

LABORATORY CONTROL SAMPLE

ontract: Outlaying Landing Field Bronson Pensacola, FL

ab Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

olid LCS Source: ERA LCSS 241

queous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	10000.0	10048.00	100.5	5250.0	3974.8		3150.0	5670.0	75.7
Barium	10000.0	9440.00	94.4	330.0	297.6		221.1	405.9	90.2
Beryllium	250.0	250.18	100.1	42.7	40.2		34.2	47.8	94.2
Calcium	25000.0	24906.00	99.6	1320.0	1108.0		937.2	1716.0	83.9
Chromium	1000.0	946.62	94.7	46.0	38.2		36.8	51.5	82.9
Cobalt	2500.0	2335.50	93.4	120.0	104.0		93.6	124.8	86.7
Copper	1250.0	1165.70	93.3	147.0	131.1		110.3	163.2	89.2
Cyanide	80.0	79.01	98.8	160.0	154.5		65.2	255.0	96.5
Iron	5000.0	5004.60	100.1	10200.0	7488.6		4692.0	13056.0	73.4
Magnesium	25000.0	25464.00	101.9	2340.0	2056.8		1638.0	2433.6	87.9
Manganese	2500.0	2358.50	94.3	166.0	137.1		136.1	172.6	82.6
Ni	2500.0	2306.30	92.3	138.0	120.5		93.8	157.3	87.3
Potassium	25000.0	23814.00	95.3	1480.0	1186.6		947.2	2012.8	80.2
Sodium	25000.0	25771.00	103.1	845.0	695.3		616.9	904.2	82.3
Vanadium	2500.0	2466.60	98.7	65.1	55.0		51.4	72.3	84.5
Zinc	2500.0	2346.90	93.9	75.0	61.5		59.3	81.8	82.0

TOTAL METALS AND CYANIDE

-7-

LABORATORY CONTROL SAMPLE

tract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

id LCS Source: ERA LCSS 241

eous LCS Source: INOR-VNT-ICV

	Aqueous (ug/L)			Solid (mg/kg)				
Analyte	True	Found	%R	True	Found	C	Limits	%R
Cyanide	80.0	74.0	92.5	160.0	139.5		65.2 - 255.0	87.2

TOTAL METALS AND CYANIDE

-7-

LABORATORY CONTROL SAMPLE

ntract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

lid LCS Source: ERA LCSS 241

eous LCS Source: INOR-VNT-ICV

	Aqueous (ug/L)			Solid (mg/kg)				
Analyte	True	Found	%R	True	Found	C	Limits	%R
Mercury				2.2	2.23		1.5 - 2.9	102.6

TOTAL METALS AND CYANIDE

-7-

LABORATORY CONTROL SAMPLE

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

lid LCS Source: ERA LCSS 241

ueous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Antimony	500.0	453.71	90.7	33.0	20.1		12.2	50.5	60.8
Arsenic	200.0	181.43	90.7	93.9	83.4		66.7	119.3	88.8
Cadmium	100.0	87.10	87.1	97.2	82.0		73.9	105.0	84.4
Lead	200.0	177.29	88.6	135.0	113.6		106.7	155.3	84.2
Selenium	200.0	183.29	91.6	96.0	80.2		56.4	123.8	83.6
Silver	1250.0	1139.80	91.2	86.7	82.2		68.5	103.2	94.8
Thallium	200.0	171.60	85.8	45.7	40.9		35.2	58.0	89.5

TOTAL METALS AND CYANIDE

- 3 -

BLANKS

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

eparation Blank Matrix (soil/water): WATER

eparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			41.0	U	41.0	U	42.3	B	41.000	U	P
Barium			16.4	B	12.4	B	17.4	B	4.500	U	P
Beryllium			0.4	U	-0.4	B	0.4	U	-0.640	B	P
Calcium			-127.3	B	170.1	B	-254.8	B	-70.650	B	P
Chromium			-10.9	B	-11.8	B	-9.9	B	-8.050	B	P
Cobalt			7.1	B	5.7	B	8.5	B	5.200	U	P
Copper			-4.7	B	-6.6	B	-4.7	B	3.800	U	P
Cyanide									5.000	U	C
Iron			40.0	U	40.0	U	40.0	U	40.000	U	P
Magnesium			119.0	U	133.7	B	119.0	U	119.000	U	P
Manganese			3.0	U	3.0	U	3.0	U	3.000	U	P
Nickel			-24.4	B	-31.9	B	-23.9	B	-28.350	B	P
Potassium			222.0	U	314.8	B	286.8	B	222.000	U	P
Sodium			57.0	U	133.2	B	57.0	U	120.000	B	P
Vanadium			5.3	B	2.8	U	2.8	U	2.800	U	P
Zinc			5.5	U	5.5	U	5.5	U	10.400	B	P

TOTAL METALS AND CYANIDE

- 3 -

BLANKS

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

eparation Blank Matrix (soil/water): SOIL

eparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum	58.4	B	42.3	B	41.0	U	41.0	U	4.100	U	P
Barium	33.2	B	6.0	B	4.5	U	11.9	B	0.450	U	P
Beryllium	0.6	B	-0.4	B	-0.4	B	0.4	U	-0.043	B	P
Calcium	55.0	U	-566.2	B	-523.7	B	-84.8	B	-53.789	B	P
Chromium	-9.5	B	-12.3	B	-10.9	B	-11.4	B	-1.136	B	P
Cobalt	9.2	B	5.4	B	5.2	U	5.2	U	0.520	U	P
Copper	-4.7	B	-7.5	B	-8.4	B	-5.6	B	-0.653	B	P
Cyanide									0.500	U	C
Iron	40.0	U	40.0	U	-40.3	B	40.0	U	4.000	U	P
Magnesium	122.4	B	119.0	U	119.0	U	119.0	U	11.900	U	P
Manganese	4.8	B	3.0	U	-3.9	B	3.0	U	-0.432	B	P
Nickel	-23.0	B	14899.0		-30.6	B	-24.4	B	-2.747	B	P
Potassium	222.0	U	222.0	U	222.0	U	222.0	U	22.200	U	P
Sodium	73.6	B	-241.3	B	-181.7	B	57.0	U	-12.376	B	P
Vanadium	8.4	B	2.8	U	2.8	U	3.0	B	0.280	U	P
Zinc	7.4	B	18.0	B	5.5	U	5.5	U	1.780	B	P

TOTAL METALS AND CYANIDE

- 3 -

BLANKS

tract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

paration Blank Matrix (soil/water): SOIL

paration Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	0.500	U	C

TOTAL METALS AND CYANIDE

BLANKS

ıtract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

paration Blank Matrix (soil/water): SOIL

paration Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Mercury			0.14	U	0.14	U	0.14	U	0.070	U	AV

TOTAL METALS AND CYANIDE

BLANKS

ntract: Outlaying Landing Field Bronson Pensacola, FL

o Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

eparation Blank Matrix (soil/water): WATER

eparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Antimony			2.6	U	2.6	U			2.600	U	P
Arsenic			3.6	U	3.6	U			3.600	U	P
Cadmium			0.4	U	0.4	U			0.430	U	P
Lead			2.7	U	2.7	U			2.700	U	P
Mercury			0.14	U	0.14	U	0.14	U	0.140	U	AV
Selenium			2.1	U	2.1	U			2.100	U	P
Silver			3.7	U	3.7	U			3.700	U	P
Thallium			4.4	U	4.4	U			4.400	U	P

TOTAL METALS AND CYANIDE
- 3 -
BLANKS

ıtract: Outlaying Landing Field Bronson Pensacola, FL

› Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

ɔparation Blank Matrix (soil/water): SOIL

ɔparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Antimony	2.6	U	2.6	U	2.6	U	2.6	U	0.260	U	P
Arsenic	3.6	U	3.6	U	3.6	U	3.6	U	0.360	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.043	U	P
Lead	2.7	U	2.7	U	2.7	U	2.7	U	0.270	U	P
Selenium	2.1	U	2.1	U	2.1	U	2.1	U	0.210	U	P
Silver	3.7	U	3.7	U	5.4	B	3.7	U	0.370	U	P
Thallium	4.4	U	4.4	U	4.4	U	4.4	U	0.440	U	P

TOTAL METALS AND CYANIDE

BLANKS

ntract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

eparation Blank Matrix (soil/water): SOIL

eparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Antimony	2.6	U	2.6	U	2.6	U	2.6	U	0.260	U	P
Arsenic	3.6	U	3.6	U	3.6	U	3.6	U	0.360	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.043	U	P
Lead	2.7	U	2.7	U	2.7	U	2.7	U	0.270	U	P
Selenium	2.1	U	2.1	U	2.1	U	2.1	U	0.210	U	P
Silver	3.7	U	3.7	U	5.4	B	3.7	U	0.370	U	P
Thallium	4.4	U	4.4	U	4.4	U	4.4	U	0.440	U	P

TOTAL METALS AND CYANIDE
- 5b -
POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

100-SS-01A

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

trix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony		171.03		2.60	U	200.0	85.5		P
Arsenic		367.16		3.60	U	400.0	91.8		P
Cadmium		39.76		0.43	U	50.0	79.5		P
Lead		131.41		41.27		100.0	90.1		P
Mercury		1.02		0.14	U	1.0	102.0		AV
Selenium		160.73		2.10	U	200.0	80.4		P
Silver		172.54		3.70	U	200.0	86.3		P
Thallium		342.47		4.40	U	400.0	85.6		P

Comments: Approved: KK

TOTAL METALS AND CYANIDE

- 5a -

SPIKE SAMPLE RECOVERY

SAMPLE NO.

100-SS-01SD

ntract: Outlaying Landing Field Bronson Pensacola, FL

o Code: CEIMIC Case No.: 990799 SAS SDG NO.: 02SS02

trix (soil/water): SOIL Level (low/med): LOW

Solids for Sample: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		1964.8412		1930		225.38	16.1		P
Antimony	75 - 125	30.1826		0.293	U	56.34	53.6	N	P
Arsenic	75 - 125	4.0890		0.406	U	4.51	90.7		P
Barium	75 - 125	201.3185		2.51	B	225.38	88.2		P
Beryllium	75 - 125	5.4632		0.042	U	5.63	97.0		P
Cadmium	75 - 125	4.6499		0.049	U	5.63	82.5		P
Calcium	75 - 125	209.1278	B	6.20	U	225.38	92.8		P
Chromium	75 - 125	20.5229		0.609	U	22.54	91.1		P
alt	75 - 125	50.4846		0.798	B	56.34	88.2		P
Copper	75 - 125	24.9301		0.997	B	28.17	85.0		P
Iron		856.0176		802		112.69	47.7		P
Lead	75 - 125	6.2227		4.65		2.25	69.8	N	P
Magnesium	75 - 125	259.0827	B	64.3	B	225.38	86.4		P
Manganese	75 - 125	51.6903		2.13		56.34	88.0		P
Mercury	75 - 125	0.5172		0.070	U	0.50	103.5		AV
Nickel	75 - 125	46.6948		0.710	U	56.34	82.9		P
Potassium	75 - 125	260.9759	B	54.4	B	225.38	91.6		P
Selenium	75 - 125	1.2162		0.237	U	1.13	107.9		P
Silver	75 - 125	5.2400		0.417	U	5.63	93.0		P
Sodium	75 - 125	222.8758	B	6.42	U	225.38	98.9		P
Thallium	75 - 125	4.6317		0.496	U	5.63	82.2		P
Vanadium	75 - 125	55.2164		3.87	B	56.34	91.1		P
Zinc	75 - 125	49.8253		3.36		56.34	82.5		P

ments: Appears OK

TOTAL METALS AND CYANIDE

- 5a -

SPIKE SAMPLE RECOVERY

SAMPLE NO.

100-SS-01S

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC Case No.: 990799 SAS SDG NO.: 02SS02

trix (soil/water): SOIL Level (low/med): LOW

Solids for Sample: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		1784.4265		1930		225.38	-63.9		P
Antimony	75 - 125	35.9646		0.293	U	56.34	63.8	N	P
Arsenic	75 - 125	4.0738		0.406	U	4.51	90.4		P
Barium	75 - 125	194.9516		2.51	B	225.38	85.4		P
Beryllium	75 - 125	5.2693		0.042	U	5.63	93.5		P
Cadmium	75 - 125	4.7017		0.049	U	5.63	83.4		P
Calcium	75 - 125	170.9376	B	6.20	U	225.38	75.8		P
Chromium	75 - 125	19.3475		0.609	U	22.54	85.8		P
Cobalt	75 - 125	49.1278		0.798	B	56.34	85.8		P
Copper	75 - 125	25.1431		0.997	B	28.17	85.7		P
Cyanide	75 - 125	9366.3125		484	U	4770.99	196.3	N	C
Iron		827.9130		802		112.69	22.8		P
Lead	75 - 125	6.7709		4.65		2.25	94.1		P
Magnesium	75 - 125	250.0000	B	64.3	B	225.38	82.4		P
Manganese	75 - 125	49.3577		2.13		56.34	83.8		P
Mercury	75 - 125	0.4182		0.070	U	0.48	87.3		AV
Nickel	75 - 125	47.4386		0.710	U	56.34	84.2		P
Potassium	75 - 125	262.3845	B	54.4	B	225.38	92.3		P
Selenium	75 - 125	0.9337		0.237	U	1.13	82.9		P
Silver	75 - 125	5.3220		0.417	U	5.63	94.5		P
Sodium	75 - 125	203.8990	B	6.42	U	225.38	90.5		P
Thallium	75 - 125	4.4755		0.496	U	5.63	79.4		P
Vanadium	75 - 125	54.3419		3.87	B	56.34	89.6		P
Zinc	75 - 125	48.9182		3.36		56.34	80.8		P

mments: Approved KK

EIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-004-01

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

trix (soil/water): WATER Lab Sample ID: 990799-20

vel (low/med): LOW Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	76.3	B		P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	13.9	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	2980	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	3630			P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	586	B		P
7439-96-5	Manganese	50.1			P
7439-97-6	Mercury	0.19	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	471	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	4910	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	15.1	B		P

olo_ Before: COLORLESS Clarity Before: CLEAR Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

omments: Approved: KH

EIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-DD-01

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

trix (soil/water): WATER Lab Sample ID: 990799-19

vel (low/med): LOW Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	374			P
7440-36-0	Antimony	2.5	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	22.8	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	3240	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	12.0	B		P
7440-50-8	Copper	4.8	B		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	1960			P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	1060	B		P
7439-96-5	Manganese	36.9			P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	960	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	4360	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	12.6	B		P
7440-66-6	Zinc	13.7	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: Approved: KK

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-003-01

ıtract: Outlaying Landing Field Bronson Pensacola, FL

› Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

:rix (soil/water): WATER Lab Sample ID: 990799-18

·el (low/med): LOW Date Received: 09/11/99

;olids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	92.3	B		P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	4.9	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	2700	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	2180			P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	395	B		P
7439-96-5	Manganese	14.3	B		P
7439-97-6	Mercury	0.19	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	411	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	2560	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	16.8	B		P

olc efore: COLORLESS Clarity Before: CLEAR Texture:

olor After: COLORLESS Clarity After: CLEAR Artifacts:

omments: Approved: [illegible]

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-002-01

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

trix (soil/water): WATER Lab Sample ID: 990799-17

vel (low/med): LOW Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	13.9	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	2960	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	3570			P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	617	B		P
7439-96-5	Manganese	41.0			P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	393	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	3410	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	12.3	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: Approved: DA

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-001-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

Matrix (soil/water): WATER Lab Sample ID: 990799-16

Level (low/med): LOW Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	269			P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	17.9	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	3210	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.7	B		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	1910			P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	690	B		P
7439-96-5	Manganese	33.5			P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	549	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	4180	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	5.7	B		P
7440-66-6	Zinc	81.5			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: Approved: M

EIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-04

ntract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

trix (soil/water): SOIL Lab Sample ID: 990799-14

vel (low/med): LOW Date Received: 09/11/99

Solids: 92.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	718			P
7440-36-0	Antimony	0.28	U	N	P
7440-38-2	Arsenic	0.38	U		P
7440-39-3	Barium	1.1	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.05	U		P
7440-70-2	Calcium	5.8	U		P
7440-47-3	Chromium	0.57	U		P
7440-48-4	Cobalt	0.55	U		P
7440-50-8	Copper	0.40	U		P
	Cyanide	0.51	U	N	C
7439-89-6	Iron	287			P
7439-92-1	Lead	0.64		N	P
7439-95-4	Magnesium	33.6	B		P
7439-96-5	Manganese	0.60	B		P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.67	U		P
7440-09-7	Potassium	42.2	B		P
7782-49-2	Selenium	0.22	U		P
7440-22-4	Silver	0.39	U		P
7440-23-5	Sodium	6.0	U		P
7440-28-0	Thallium	0.47	U		P
7440-62-2	Vanadium	1.1	B		P
7440-66-6	Zinc	2.1	B		P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

EIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-03

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

trix (soil/water): SOIL Lab Sample ID: 990799-13

vel (low/med): LOW Date Received: 09/11/99

Solids: 91.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	666			P
7440-36-0	Antimony	0.26	U	N	P
7440-38-2	Arsenic	0.37	U		P
7440-39-3	Barium	1.5	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	5.6	U		P
7440-47-3	Chromium	0.55	U		P
7440-48-4	Cobalt	0.53	U		P
7440-50-8	Copper	0.39	U		P
	Cyanide	0.51	U	N	C
7439-89-6	Iron	358			P
7439-92-1	Lead	2.2		N	P
7439-95-4	Magnesium	37.3	B		P
7439-96-5	Manganese	1.7			P
7439-97-6	Mercury	0.06	U		AV
7440-02-0	Nickel	0.64	U		P
7440-09-7	Potassium	46.1	B		P
7782-49-2	Selenium	0.21	U		P
7440-22-4	Silver	0.38	U		P
7440-23-5	Sodium	5.8	U		P
7440-28-0	Thallium	0.45	U		P
7440-62-2	Vanadium	0.92	B		P
7440-66-6	Zinc	2.6			P

olor Before: BROWN Clarity Before: Texture: MEDIUM

olor After: YELLOW Clarity After: Artifacts:

EIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-05

ntract: Outlaying Landing Field Bronson Pensacola, FL

o Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

trix (soil/water): SOIL Lab Sample ID: 990799-12

vel (low/med): LOW Date Received: 09/11/99

Solids: 91.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	889			P
7440-36-0	Antimony	0.26	U	N	P
7440-38-2	Arsenic	0.36	U		P
7440-39-3	Barium	1.2	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	5.5	U		P
7440-47-3	Chromium	0.54	U		P
7440-48-4	Cobalt	0.52	U		P
7440-50-8	Copper	0.38	U		P
	Cyanide	0.53	U	N	C
7439-89-6	Iron	541			P
7439-92-1	Lead	3.8		N	P
7439-95-4	Magnesium	39.8	B		P
7439-96-5	Manganese	0.38	B		P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.63	U		P
7440-09-7	Potassium	61.8	B		P
7782-49-2	Selenium	0.21	U		P
7440-22-4	Silver	0.37	U		P
7440-23-5	Sodium	5.7	U		P
7440-28-0	Thallium	0.44	U		P
7440-62-2	Vanadium	1.4	B		P
7440-66-6	Zinc	2.2			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments: Approved: DR

CEIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-003-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

Matrix (soil/water): WATER Lab Sample ID: 990799-11

Level (low/med): LOW Date Received: 09/11/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1230			P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	9.4	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	492	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.7	B		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	1860			P
7439-92-1	Lead	10.5		N	P
7439-95-4	Magnesium	538	B		P
7439-96-5	Manganese	6.1	B		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	561	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	4040	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	4.1	B		P
7440-66-6	Zinc	21.2			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: Approved: DT

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-004-01

ontract: Outlaying Landing Field Bronson Pensacola, FL

ab Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

atrix (soil/water): WATER Lab Sample ID: 990799-10

evel (low/med): LOW Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	318			P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	23.8	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	949	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	6.4	B		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	1040	B		P
7439-96-5	Manganese	10.6	B		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	505	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	3220	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	6.9	B		P
7440-66-6	Zinc	22.1			P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: Aqueous 107

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-04

ntract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

trix (soil/water): SOIL Lab Sample ID: 990799-08

vel (low/med): LOW Date Received: 09/09/99

Solids: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2580			P
7440-36-0	Antimony	0.27	U	N	P
7440-38-2	Arsenic	0.55	B		P
7440-39-3	Barium	2.9	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	5.6	U		P
7440-47-3	Chromium	0.55	U		P
7440-48-4	Cobalt	0.53	U		P
7440-50-8	Copper	0.39	U		P
	Cyanide	0.56	U	N	C
7439-89-6	Iron	872			P
7439-92-1	Lead	3.4		N	P
7439-95-4	Magnesium	62.3	B		P
7439-96-5	Manganese	2.3			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.64	U		P
7440-09-7	Potassium	58.8	B		P
7782-49-2	Selenium	0.28	B		P
7440-22-4	Silver	0.38	U		P
7440-23-5	Sodium	10.8	B		P
7440-28-0	Thallium	0.45	U		P
7440-62-2	Vanadium	3.7	B		P
7440-66-6	Zinc	3.4			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments: Approved

CEIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-03

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

Matrix (soil/water): SOIL Lab Sample ID: 990799-07

Level (low/med): LOW Date Received: 09/09/99

% Solids: 92.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2080			P
7440-36-0	Antimony	0.23	U	N	P
7440-38-2	Arsenic	0.35	B		P
7440-39-3	Barium	2.3	B		P
7440-41-7	Beryllium	0.03	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	4.8	U		P
7440-47-3	Chromium	0.59	B		P
7440-48-4	Cobalt	0.46	U		P
7440-50-8	Copper	0.39	B		P
	Cyanide	0.51	U	N	C
7439-89-6	Iron	840			P
7439-92-1	Lead	2.9		N	P
7439-95-4	Magnesium	51.1	B		P
7439-96-5	Manganese	2.0			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.55	U		P
7440-09-7	Potassium	42.5	B		P
7782-49-2	Selenium	0.18	U		P
7440-22-4	Silver	0.33	U		P
7440-23-5	Sodium	10.5	B		P
7440-28-0	Thallium	0.39	U		P
7440-62-2	Vanadium	2.7	B		P
7440-66-6	Zinc	3.1			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments: Approved: [signature]

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-22-DD

tract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

rix (soil/water): SOIL Lab Sample ID: 990799-06

el (low/med): LOW Date Received: 09/09/99

olids: 89.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2950			P
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	0.53	B		P
7440-39-3	Barium	3.1	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.05	U		P
7440-70-2	Calcium	6.1	U		P
7440-47-3	Chromium	0.60	U		P
7440-48-4	Cobalt	0.58	U		P
7440-50-8	Copper	0.48	B		P
	Cyanide	0.54	U	N	C
7439-89-6	Iron	953			P
7439-92-1	Lead	2.3		N	P
7439-95-4	Magnesium	52.4	B		P
7439-96-5	Manganese	2.5			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.70	U		P
7440-09-7	Potassium	43.6	B		P
7782-49-2	Selenium	0.23	U		P
7440-22-4	Silver	0.41	U		P
7440-23-5	Sodium	6.3	U		P
7440-28-0	Thallium	0.49	U		P
7440-62-2	Vanadium	3.9	B		P
7440-66-6	Zinc	3.5			P

Col Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments: Approved

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01

ontract: Outlaying Landing Field Bronson Pensacola, FL

ab Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

atrix (soil/water): SOIL Lab Sample ID: 990799-05

evel (low/med): LOW Date Received: 09/09/99

Solids: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1930			P
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	0.41	U		P
7440-39-3	Barium	2.5	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.05	U		P
7440-70-2	Calcium	6.2	U		P
7440-47-3	Chromium	0.61	U		P
7440-48-4	Cobalt	0.80	B		P
7440-50-8	Copper	1.0	B		P
	Cyanide	0.56	U	N	C
7439-89-6	Iron	802			P
7439-92-1	Lead	4.7		N	P
7439-95-4	Magnesium	64.3	B		P
7439-96-5	Manganese	2.1			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.71	U		P
7440-09-7	Potassium	54.4	B		P
7782-49-2	Selenium	0.24	U		P
7440-22-4	Silver	0.42	U		P
7440-23-5	Sodium	6.4	U		P
7440-28-0	Thallium	0.50	U		P
7440-62-2	Vanadium	3.9	B		P
7440-66-6	Zinc	3.4			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments: Approved

EIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-02

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

trix (soil/water): SOIL Lab Sample ID: 990799-04

vel (low/med): LOW Date Received: 09/09/99

Solids: 85.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3450			P
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	0.40	U		P
7440-39-3	Barium	3.4	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.05	U		P
7440-70-2	Calcium	6.2	U		P
7440-47-3	Chromium	1.0	B		P
7440-48-4	Cobalt	0.58	U		P
7440-50-8	Copper	0.50	B		P
	Cyanide	0.57	U	N	C
7439-89-6	Iron	1210			P
7439-92-1	Lead	3.9		N	P
7439-95-4	Magnesium	81.8	B		P
7439-96-5	Manganese	3.4			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.71	U		P
7440-09-7	Potassium	63.6	B		P
7782-49-2	Selenium	0.24	B		P
7440-22-4	Silver	0.41	U		P
7440-23-5	Sodium	6.4	U		P
7440-28-0	Thallium	0.49	U		P
7440-62-2	Vanadium	5.0	B		P
7440-66-6	Zinc	3.9			P

Co. Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments: Approved

CEIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SU-01

ntract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

trix (soil/water): SOIL Lab Sample ID: 990799-03

vel (low/med): LOW Date Received: 09/09/99

Solids: 94.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2710			P
7440-36-0	Antimony	0.26	U	N	P
7440-38-2	Arsenic	0.81	B		P
7440-39-3	Barium	3.2	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	5.4	U		P
7440-47-3	Chromium	3.2			P
7440-48-4	Cobalt	1.1	B		P
7440-50-8	Copper	1.3	B		P
	Cyanide	0.50	U	N	C
7439-89-6	Iron	1490			P
7439-92-1	Lead	1.3		N	P
7439-95-4	Magnesium	68.5	B		P
7439-96-5	Manganese	2.1			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.82	B		P
7440-09-7	Potassium	44.1	B		P
7782-49-2	Selenium	0.21	U		P
7440-22-4	Silver	0.36	U		P
7440-23-5	Sodium	5.6	U		P
7440-28-0	Thallium	0.43	U		P
7440-62-2	Vanadium	5.1			P
7440-66-6	Zinc	3.3			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments: Approved

EIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-01

ntract: Outlaying Landing Field Bronson Pensacola, FL

o Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

trix (soil/water): SOIL Lab Sample ID: 990799-02

vel (low/med): LOW Date Received: 09/09/99

Solids: 96.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2440			P
7440-36-0	Antimony	0.23	U	N	P
7440-38-2	Arsenic	0.31	U		P
7440-39-3	Barium	2.3	B		P
7440-41-7	Beryllium	0.03	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	4.8	U		P
7440-47-3	Chromium	1.0			P
7440-48-4	Cobalt	0.62	B		P
7440-50-8	Copper	1.3	B		P
	Cyanide	0.50	U	N	C
7439-89-6	Iron	363			P
7439-92-1	Lead	5.1		N	P
7439-95-4	Magnesium	60.3	B		P
7439-96-5	Manganese	1.2	B		P
7439-97-6	Mercury	0.06	U		AV
7440-02-0	Nickel	0.55	U		P
7440-09-7	Potassium	62.0	B		P
7782-49-2	Selenium	0.45			P
7440-22-4	Silver	0.32	U		P
7440-23-5	Sodium	9.7	B		P
7440-28-0	Thallium	0.38	U		P
7440-62-2	Vanadium	2.8	B		P
7440-66-6	Zinc	2.8			P

olor Before: BROWN Clarity Before: Texture: MEDIUM

olor After: YELLOW Clarity After: Artifacts:

omments: Spoon. DV

IMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-02

tract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

rix (soil/water): SOIL Lab Sample ID: 990799-01

el (low/med): LOW Date Received: 09/09/99

olids: 97.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1220			P
7440-36-0	Antimony	0.22	U	N	P
7440-38-2	Arsenic	0.30	U		P
7440-39-3	Barium	2.2	B		P
7440-41-7	Beryllium	0.03	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	4.6	U		P
7440-47-3	Chromium	0.45	U		P
7440-48-4	Cobalt	0.76	B		P
7440-50-8	Copper	0.73	B		P
	Cyanide	0.50	U	N	C
7439-89-6	Iron	444			P
7439-92-1	Lead	3.3		N	P
7439-95-4	Magnesium	49.7	B		P
7439-96-5	Manganese	2.4			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.52	U		P
7440-09-7	Potassium	53.8	B		P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.31	U		P
7440-23-5	Sodium	4.7	U		P
7440-28-0	Thallium	0.37	U		P
7440-62-2	Vanadium	1.9	B		P
7440-66-6	Zinc	2.8			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments: Approved: Dale Tetrault

IMIC

TOTAL METALS AND CYANIDE
- Cover Page -
INORGANIC ANALYSIS DATA PACKAGE

tra Outlaying Landing Field Bronson Pensacola, FL SDG No.: 02SS02

Code: CEIMIC Case No.: 990799 SAS No.:

I No.: ILM04.0

Sample No.	Lab Sample ID.
100-MW-002-01	990799-17
100-MW-003-01	990799-18
100-MW-DD-01	990799-19
100-MW-004-01	990799-20

re ICP interelement corrections applied? Yes/No YES

re ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

mments:

certify that this data package is in compliance with the terms and conditions of the ntract, both technically and for completeness, for other than the conditions detailed ove. Release of the data contained in this hardcopy data package and in the mputer-readable data submitted on floppy diskette has been authorized by the Laboratory anager or the Manager's designee, as verified by the following signature.

gnature: Name: DONALD TORTORELLI

te: 12/1/99 Title: INORGANIC LAB MGR

EIMIC

TOTAL METALS AND CYANIDE
- Cover Page -
INORGANIC ANALYSIS DATA PACKAGE

ontract: Outlaying Landing Field Bronson Pensacola, FL SDG No.: 02SS02

ab Code: CEIMIC Case No.: 990799 SAS No.:

OW No.: ILM04.0

Sample No.	Lab Sample ID.
102-SS-02	990799-01
102-SS-01	990799-02
102-SU-01	990799-03
100-SS-02	990799-04
100-SS-01	990799-05
100-SS-01D	990799-05D
100-SS-01S	990799-05S
100-SS-01SD	990799-05SD
100-22-DD	990799-06
100-SS-03	990799-07
100-SS-04	990799-08
102-MW-004-01	990799-10
102-MW-003-01	990799-11
102-SS-05	990799-12
102-SS-03	990799-13
102-SS-04	990799-14
100-MW-001-01	990799-16

ere ICP interelement corrections applied? Yes/No YES

ere ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

omments:

certify that this data package is in compliance with the terms and conditions of the ontract, both technically and for completeness, for other than the conditions detailed bove. Release of the data contained in this hardcopy data package and in the omputer-readable data submitted on floppy diskette has been authorized by the Laboratory anager or the Manager's designee, as verified by the following signature.

gnature: Donald Tortorelli Name: DONALD TORTORELLI

te: 10/1/99 Title: INORGANIC LAB MGR

METAL ANALYSES

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990797 | Analytical Method: 8082 | Surr. Sol. ID: PW990808UB | Prep Date/Time: 9/14/99 / ____

Client: Tetra Tech NUS | Extraction Method: 3550A | MS Sol. ID: PW990701B | Analysis: PCBonly

Blank ID: PQ914-BY | LCS ID: PQ914-LCSY | Addt'l Spike ID: — | Matrix: Soil

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext 10 ml	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/MS	GC/LC	
	PQ914-BY	30.0	100	10.0			—	—	10 ml								1 ml	—	GPC 9/15/99	
	-LCSY		100																	
102-55-02	PQ914-01	30.4			12														9/22/99	KM Bulk
102-55-01	-02	30.0			13														9.2 ml	
102-50-01	-03	30.2			07							NKR								
100-55-02	-04	30.3			17															
100-55-01	-05	30.2			12															
↓	-05 MS	30.3	100										9/15/99							
↓	-05 MSD	30.1																		
100-22-D1	-06	30.2			16															
100-55-03	-07	30.1			06															
100-55-04	-08	30.2			14															
102-55-05	-12	30.1	↓		07		↓	↓	↓								↓	↓	↓	

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: MC72557/MC72565 | Sodium Sulfate Lot #: NL9571

Final Solvent ID: 1 | Supervisor Init: DM

Container Lot #: ____ | Surrogate Added By: MR

Prepared by: NKR | Witnessed By: DM

Reagents IDs: ____ / ____ / ____

☐ GPC X Y Z ☐ Silica ☐ Florisil Lot #: ____

Comment Codes:

RE = Reextract

AL 2nd Aliquot

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

9/14/99

Project#: 990799 | Analytical Method: 8082 | Surr. Sol. ID: PW9908308 | Prep Date/Time: ___ / ___

Client: Tetra Tech NUS | Extraction Method: 3550A | MS Sol. ID: PW990701B | Analysis: PCB

Blank ID: P0914-B4 | LCS ID: P0914-CCS4 | Addt'l Spike ID: - | Matrix: Soil

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
102-SS-03	P0914-15	30.5	100		21		-	-	10ml		NR						1ml			
102-SS-04	-14	30.5	↓		08		↓	↓	↓				9/15/99				↓		↓	
		MA 10/04/99																		
								NR												
									9/15/99											

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: N7255/N2324 | Sodium Sulfate Lot #: N2959

Final Solvent ID: ↓ | Supervisor Init: MA

Container Lot #: - | Surrogate Added By: MR

Prepared by: MR | Witnessed By: MA

Reagents IDs:

☐ GPC X Y Z

☐ Silica

☐ Florisil

Lot #: ___

Comment Codes:

RE = Reextract

AL 2nd Aliquot

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990799 Analytical Method: 8082 Surr. Sol. ID: PW990915B Prep Date/Time: 09/15/99

Client: IT Tech Alus Extraction Method: Sep funnel MS Sol. ID: PW990701B Analysis: PCB only

Blank ID: P000915BA LCS ID: P000915LCS4 Addt'l Spike ID: — Matrix: aqueous

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
102 MW004	P0799-10	1000	1000	—					10ml								1ml		9/16/99	
003	11			—																
100 MW 001	16			—																
002	17			—																
003	18			—																
DD	19			—																
004	20			—																

JM 9/15/99

JM 09/15/99

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: N020263 Sodium Sulfate Lot #: — Reagents IDs:

Final Solvent ID: — Supervisor Init: JM

Container Lot #: — Surrogate Added By: JM

Prepared by: JM Witnessed By: —

☐ GPC X Y Z

☐ Silica

☐ Florisil

Lot #: —

Comment Codes:

RE = Reextract

AL 2nd Aliquot

LABORATORY CONTROL SUMMARY
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank Spike ID: P0914-LCS4

Date Sample Analyzed: 09/22/99

Matrix: Soil

Date Sample Prepared: 09/14/99

Associated Method Blank: P0914-B4

Concentration in: ug/Kg (ppb)÷

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	167	110	66	30 - 150
Aroclor-1260	167	140	84	34 - 174

ND - Not detected
÷ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	60	32 - 103
Decachlorobiphenyl	68	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

LABORATORY CONTROL SUMMARY
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank Spike ID: P0915-LCS4

Date Sample Analyzed: 09/27/99

Matrix: Aqueous

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B4

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	5.0	4.7	94	30 - 150
Aroclor-1260	5.0	5.6	112	47 - 127

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	95	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

METHOD BLANK
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P0915-B4

Matrix: Aqueous

Ceimic Project: 990799

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	85	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

Form I PCB

METHOD BLANK
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P0914-B4

Matrix: Soil

Ceimic Project: 990799

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	33.3
Aroclor-1221	ND	66.6
Aroclor-1232	ND	33.3
Aroclor-1242	ND	33.3
Aroclor-1248	ND	33.3
Aroclor-1254	ND	33.3
Aroclor-1260	ND	33.3

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	57	32 - 103
Decachlorobiphenyl	68	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 100-MW-004-01

Date Sampled: 09/10/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-20

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/28/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	70	34 - 129

* These limits are provided for advisory purposes.

Reported by: SWB

Approved by:

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 100-MW-DD-01

Date Sampled: 09/10/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-19

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/28/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	90	56 - 111
Decachlorobiphenyl	90	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 100-MW-003-01

Date Sampled: 09/10/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-18

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/28/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL): 10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	80	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 100-MW-002-01

Date Sampled: 09/10/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-17

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/28/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL): 10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	100	56 - 111
Decachlorobiphenyl	90	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: 100-MW-001-01
Date Sampled: 09/10/99
Date Sample Received: 09/09/99
Matrix: Aqueous

Laboratory ID: 990799-16
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/28/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL): 10.0
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
roclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	110	56 - 111
Decachlorobiphenyl	115	34 - 129

* These limits are provided for advisory purposes.

Reported by: BJB

Approved by: KL

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: 102-SS-04
Date Sampled: 09/09/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 92

Laboratory ID: 990799-14
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/22/99
Associated Method Blank: P0914-B4
Final Extract Volume (mL):10.0
Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	78	32 - 103
Decachlorobiphenyl	75	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 102-SS-03

Date Sampled: 09/09/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 79

Laboratory ID: 990799-13

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
A r-1016	ND	41.5
Aroclor-1221	ND	83.0
Aroclor-1232	ND	41.5
Aroclor-1242	ND	41.5
Aroclor-1248	ND	41.5
Aroclor-1254	ND	41.5
Aroclor-1260	ND	41.5

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	60	32 - 103
Decachlorobiphenyl	63	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 102-SS-05

Date Sampled: 09/09/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 93

Laboratory ID: 990799-12

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	65	32 - 103
Decachlorobiphenyl	63	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 102-MW-003-01

Date Sampled: 09/09/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-11

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/28/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL): 10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	55	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 102-MW-004-01

Date Sampled: 09/09/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-10

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/28/99

Associated Method Blank: P0915-B1

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	105	34 - 129

* These limits are provided for advisory purposes.

Reported by: SJS

Approved by: [signature]

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 100-SS-04

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 86

Laboratory ID: 990799-08

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	38.5
Aroclor-1221	ND	77.0
Aroclor-1232	ND	38.5
Aroclor-1242	ND	38.5
Aroclor-1248	ND	38.5
Aroclor-1254	ND	38.5
Aroclor-1260	ND	38.5

ND = Not detected.
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	73	32 - 103
Decachlorobiphenyl	60	25 - 131

* These limits are provided for advisory purposes.

Reported by: TNB

Approved by: [illegible]

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: 100-SS-03
Date Sampled: 09/08/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 94

Laboratory ID: 990799-07
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/22/99
Associated Method Blank: P0914-B4
Final Extract Volume (mL):10.0
Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	35.0
Aroclor-1221	ND	70.0
Aroclor-1232	ND	35.0
Aroclor-1242	ND	35.0
Aroclor-1248	ND	35.0
Aroclor-1254	ND	35.0
Aroclor-1260	ND	35.0

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	32 - 103
Decachlorobiphenyl	65	25 - 131

* These limits are provided for advisory purposes.

Reported by: DWB

Approved by: HL

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: 100-22-DD
Date Sampled: 09/08/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 84

Laboratory ID: 990799-06
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/22/99
Associated Method Blank: P0914-B4
Final Extract Volume (mL):10.0
Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	39.4
Aroclor-1221	ND	78.8
Aroclor-1232	ND	39.4
Aroclor-1242	ND	39.4
Aroclor-1248	ND	39.4
Aroclor-1254	ND	39.4
Aroclor-1260	ND	39.4

ND = Not detected.
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	68	32 - 103
Decachlorobiphenyl	68	25 - 131

* These limits are provided for advisory purposes.

Reported by: RNB

Approved by: KL

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 100-SS-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 88

Laboratory ID: 990799-05MS

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Spike Added	Sample Concentration	Matrix Spike Concentration	Matrix Spike Recovery(%)
Aroclor-1016	188	ND	140	74
Aroclor-1260	188	ND	150	80

Target Analyte	Matrix Spike Duplicate Concentration	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)*	
				RPD	Recovery
Aroclor-1016	120	64	11.8	20	30 - 150
Aroclor-1260	140	74	6.6	20	34 - 174

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	68	50	32 - 103
Decachlorobiphenyl	63	60	25 - 131

* These limits are provided for advisory purposes.

Reported by: SW3

Approved by:

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 100-SS-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 88

Laboratory ID: 990799-05

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	37.6
Aroclor-1221	ND	75.2
Aroclor-1232	ND	37.6
Aroclor-1242	ND	37.6
Aroclor-1248	ND	37.6
Aroclor-1254	ND	37.6
Aroclor-1260	ND	37.6

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	45	32 - 103
Decachlorobiphenyl	57	25 - 131

* These limits are provided for advisory purposes.

Reported by: DW3

Approved by: MC

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: 100-SS-02
Date Sampled: 09/08/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 83

Laboratory ID: 990799-04
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/22/99
Associated Method Blank: P0914-B4
Final Extract Volume (mL): 10.0
Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	39.8
Aroclor-1221	ND	79.6
Aroclor-1232	ND	39.8
Aroclor-1242	ND	39.8
Aroclor-1248	ND	39.8
Aroclor-1254	ND	39.8
Aroclor-1260	ND	39.8

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	32 - 103
Decachlorobiphenyl	70	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: 102-SU-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 93

Laboratory ID: 990799-03

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Associated Method Blank: P0914-B4

Final Extract Volume (mL): 10.0

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	68	32 - 103
Decachlorobiphenyl	73	25 - 131

* These limits are provided for advisory purposes.

Reported by: RWB

Approved by:

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

:nt: Tetra Tech NUS
:nt Sample ID: 102-SS-01
e Sampled: 09/08/99
e Sample Received: 09/09/99
:rix: Soil
:ent Solids: 87

Laboratory ID: 990799-02
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/22/99
Associated Method Blank: P0914-B4
Final Extract Volume (mL):10.0
Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

get Analyte	Sample Concentration	Quantitation Limit
oclor-1016	ND	38.3
oclor-1221	ND	76.6
oclor-1232	ND	38.3
oclor-1242	ND	38.3
oclor-1248	ND	38.3
oclor-1254	ND	38.3
oclor-1260	ND	38.3

) = Not detected
Dry weight basis.

Surrogate Spike Recovery

rrogate Compound	Recovery(%)	QC Limits(%)*
:trachloro-m-xylene	48	32 - 103
ecachlorobiphenyl	57	25 - 131

These limits are provided for advisory purposes.

eported by: _____ Approved by: _____

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: 102-SS-02
Date Sampled: 09/08/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 88

Laboratory ID: 990799-01
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/22/99
Associated Method Blank: P0914-B4
Final Extract Volume (mL): 10.0
Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	37.3
Aroclor-1221	ND	74.6
Aroclor-1232	ND	37.3
Aroclor-1242	ND	37.3
Aroclor-1248	ND	37.3
Aroclor-1254	ND	37.3
Aroclor-1260	ND	37.3

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	57	32 - 103
Decachlorobiphenyl	68	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

PCB ANALYSES

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990799 | Analytical Method: 8081A | Surr. Sol. ID: PW903330B | Prep Date/Time: 09/15/?

Client: Tetra Tech NUS | Extraction Method: Sep. funnel | MS Sol. ID: PW907013 | Analysis: Pest.

Blank ID: PB0915-B1 | LCS ID: PB0915LCS1 | Addt'l Spike ID: — | Matrix: aqueous

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
~~MB~~	PB0915B1	1000	1ml	—					10ml								1ml		09/30/?	
—	BB1			—																
—	LCS1			1ml																
[illegible]	PB0915-10			—																
[illegible]	11			—																
[illegible]	16			—																
[illegible]	17			—																
[illegible]	18			—																
[illegible]	19			—																
[illegible]	20			—																

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: NO2026? | Sodium Sulfate Lot #: — | Reagents IDs:

Final Solvent ID: — | Supervisor Init: [illegible]

Container Lot #: — | Surrogate Added By: [illegible]

Prepared by: [illegible] | Witnessed By: [illegible]

☐ GPC X Y Z

☐ Silica

☐ Florisil Lot #: ____

Comment Codes:

RE = Reextract

AL 2nd Aliquot

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

9/14/99

Project#: 990799 | Analytical Method: 8081A | Surr. Sol. ID: PW990830B | Prep Date/Time: ___ / ___

Client: Tetra Tech NUS | Extraction Method: 3550A | MS Sol. ID: PW990501A | Analysis: Pest

Blank ID: P0914-B3 | LCS ID: P0914-LCS3 | Addt'l Spike ID: — | Matrix: Soil

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
102-55-03	P0799-13	30.1	2000	—	21		—	—	4 ml	MR			2 ml	5 ml	MR		1 ml	↓	RC 9.23.99	
102-55-04	-14	30.4	↓	↓	08		↓	↓	↓		9/15/99		↓	↓		9/15/99	↓	↓	BM 9/23/99	
						MR														
							9/15/99													

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: N17255/N23228 | Sodium Sulfate Lot #: N23591

Final Solvent ID: ↓ | Supervisor Init: [illegible]

Container Lot #: — | Surrogate Added By: MR

Prepared by: MR | Witnessed By: [illegible]

Reagents IDs:

☐ GPC X Y Z

☐ Silica

☐ Florisil

Lot #: _____

Comment Codes:

RE = Reextract

AL 2nd Aliquot

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

9/14/99

Project#: 990799 | Analytical Method: 8081A | Surr. Sol. ID: PW990830B | Prep Date/Time: ___ / ___

Client: Tetra Tech NWS | Extraction Method: 3550A | MS Sol. ID: PW 990501A | Analysis: Pest

Blank ID: P0914-B3 | LCS ID: P0914-LCS3 | Addt'l Spike ID: — | Matrix: Soil

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
	P0914-B3	30.0	2000	—			—	—	4ml				2ml	5ml			1ml		RC 9.23.99	
	-LCS3	30.6		1000																
102-SS-02	P0799-01	30.1		—	12															
102-SS-01	-02	30.4			13															
102-SO-01	-03	30.1			07															
100-SS-02	-04	30.2			17															
100-SS-01	-05	30.5			12															
	-05 MS	30.4		1000																
	-05 MSP	30.0																		
100-SS-00	-06	30.0			16														BY 9/23/99	
100-SS-03	-07	30.2			06														RC 9.23.99	
100-SS-04	-08	30.4			14															
102-SS-05	-12	30.1			07															

MR 9/15/99

MR 9/15/99

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: N12255/N23248 | Sodium Sulfate Lot #: N29591 | Reagents IDs:

Final Solvent ID: ↓ | Supervisor Init: [signature] | ☐ GPC X (Y) Z

Container Lot #: — | Surrogate Added By: MR | ☐ Silica 9/21/99

Prepared: MR | Witnessed By: [signature] | ☐ Florisil

Lot #: ___

Comment Codes:

RE = Reextract

AL 2nd Aliquot

57

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: 100-SS-01
Date Sampled: 09/08/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 88

Laboratory ID: 990799-05MS
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb)+

Target Analyte	Spike Added	Sample Concentration	Matrix Spike Concentration	Matrix Spike Recovery(%)
alpha-BHC	19	ND	5.2	27
beta-BHC	19	ND	6.7	35
delta-BHC	19	ND	6.4	34
gamma-BHC	19	ND	6.0	32
Heptachlor	19	ND	6.0	32
Aldrin	19	ND	6.4	34
Heptachlor Epoxide	19	ND	6.7	35
Endosulfan I	19	ND	4.9	26
Dieldrin	19	ND	6.0	32
4,4'-DDE	19	ND	7.1	37
Endrin	19	ND	7.1	37
Endosulfan II	19	ND	6.4	34
4,4'-DDD	19	ND	5.6	29
Endosulfan Sulfate	19	ND	7.5	39
4,4'-DDT	19	ND	6.7	35
Methoxychlor	19	ND	8.2	43
Endrin Ketone	19	ND	7.1	37
Endrin Aldehyde	19	ND	7.1	37

Target Analyte	Matrix Spike Duplicate Concentration	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)* RPD	QC Limits(%)* Recovery
alpha-BHC	13	68	85.7	20	38 - 140
beta-BHC	13	68	64.0	20	52 - 132
delta-BHC	14	74	74.5	20	39 - 99
gamma-BHC	13	68	73.7	20	44 - 131
Heptachlor	12	63	66.7	20	49 - 116
Aldrin	14	74	74.5	20	39 - 130
Heptachlor Epoxide	14	74	70.5	20	44 - 123
Endosulfan I	9.9	52	67.6	20	56 - 130
Dieldrin	14	74	80.0	20	56 - 123
4,4'-DDE	16	84	77.1	20	47 - 128
Endrin	15	79	71.5	20	54 - 144
Endosulfan II	13	68	68.0	20	54 - 134
4,4'-DDD	13	68	79.6	20	52 - 123
Endosulfan Sulfate	15	79	66.7	20	56 - 130
4,4'-DDT	15	79	76.5	20	54 - 142
Methoxychlor	16	84	64.5	20	64 - 148
Endrin Ketone	14	74	65.4	20	58 - 136
Endrin Aldehyde	19	100	91.2	20	49 - 112

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	25	57	32 - 103
Decachlorobiphenyl	35	68	25 - 131

Reported by: NWS

Approved by: [signature]

LABORATORY CONTROL SUMMARY
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Blank Spike ID: P0915-LCS1
Matrix: Aqueous

Ceimic Project: 990799
Date Sample Analyzed: 09/29/99
Date Sample Prepared: 09/15/99
Associated Method Blank: P0915-B1
Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Alpha-BHC	0.50	0.39	78	49 - 150
Beta-BHC	0.50	0.39	78	60 - 135
Delta-BHC	0.50	0.40	80	32 - 140
Gamma-BHC	0.50	0.40	80	54 - 144
Heptachlor	0.50	0.38	76	54 - 134
Aldrin	0.50	0.41	82	58 - 132
Heptachlor Epoxide	0.50	0.41	82	60 - 130
Endosulfan I	0.50	0.27	54	46 - 131
Dieldrin	0.50	0.41	82	64 - 135
4,4'-DDE	0.50	0.46	92	57 - 141
Endrin	0.50	0.45	90	63 - 147
Endosulfan II	0.50	0.31	62	69 - 137
4,4'-DDD	0.50	0.49	98	49 - 141
Endosulfan Sulfate	0.50	0.44	88	51 - 144
4,4'-DDT	0.50	0.43	86	64 - 146
Methoxychlor	0.50	0.49	98	64 - 152
Endrin Ketone	0.50	0.45	90	62 - 150
Endrin Aldehyde	0.50	0.50	100	56 - 129

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	70	56 - 111
Decachlorobiphenyl	80	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

LABORATORY CONTROL SUMMARY
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Blank Spike ID: P0914-LCS3
Matrix: Soil

Ceimic Project: 990799
Date Sample Analyzed: 09/29/99
Date Sample Prepared: 09/14/99
Associated Method Blank: P0914-B3
Concentration in: ug/Kg (ppb)+

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
lpha-BHC	17	16	94	38 - 140
eta-BHC	17	16	94	52 - 132
elta-BHC	17	17	100	39 - 99
amma-BHC	17	16	94	44 - 131
leptachlor	17	15	88	49 - 116
ldrin	17	17	100	39 - 130
leptachlor Epoxide	17	17	100	44 - 123
ndosulfan I	17	12	71	56 - 130
)ieldrin	17	17	100	56 - 123
,4'-DDE	17	19	112	47 - 128
ndrin	17	19	112	54 - 144
ndosulfan II	17	14	82	54 - 134
,4'-DDD	17	19	112	52 - 123
ndosulfan Sulfate	17	19	112	56 - 130
,4'-DDT	17	18	106	54 - 142
lethoxychlor	17	19	112	64 - 148
ndrin Ketone	17	18	106	58 - 136
ndrin Aldehyde	17	21	124	49 - 112

ND = Not detected
- Dry weight basis.

Surrogate Spike Recovery

urrogate Compound	Recovery(%)	QC Limits(%)*
etrachloro-m-xylene	85	32 - 103
)ecachlorobiphenyl	93	25 - 131

These limits are provided for advisory purposes.

eported by: NS

Approved by: BL

METHOD BLANK
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

lient: Tetra Tech NUS
lank ID: P0915-B1
latrix: Aqueous

Ceimic Project: 990799
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/29/99
Concentration in: ug/L (ppb)

arget Analyte	Sample Concentration	Quantitation Limit
pha-BHC	ND	0.050
ta-BHC	ND	0.050
lta-BHC	ND	0.050
mma-BHC	ND	0.050
eptachlor	ND	0.050
ldrin	ND	0.050
eptachlor Epoxide	ND	0.050
ndosulfan I	ND	0.050
ieldrin	ND	0.10
4'-DDE	ND	0.10
ndrin	ND	0.10
ndosulfan II	ND	0.10
4'-D[illegible]	ND	0.10
ndos Sulfate	ND	0.10
4'-DDT	ND	0.10
ethoxychlor	ND	0.50
ndrin Ketone	ND	0.10
ndrin Aldehyde	ND	0.10
pha-Chlordane	ND	0.050
mma-Chlordane	ND	0.050
oxaphene	ND	5.0
roclor-1016	ND	1.0
roclor-1221	ND	2.0
roclor-1232	ND	1.0
roclor-1242	ND	1.0
roclor-1248	ND	1.0
roclor-1254	ND	1.0
roclor-1260	ND	1.0

D = Not detected

Surrogate Spike Recovery

rrogate Compound	Recovery(%)	QC Limits(%)*
etrachloro-m-xylene	85	56 - 111
ecachlorobiphenyl	75	34 - 129

These limits are provided for advisory purposes.

eported by: NWB

Approved by: [signature]

METHOD BLANK
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Blank ID: P0914-B3
Matrix: Soil

Ceimic Project: 990799
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit*
Alpha-BHC	ND	1.7
Beta-BHC	ND	1.7
Delta-BHC	ND	1.7
Gamma-BHC	ND	1.7
Heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor Epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
4,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
4,4'-DDD	ND	3.3
Endosulfan Sulfate	ND	3.3
4,4'-DDT	ND	3.3
Methoxychlor	ND	17
Endrin Ketone	ND	3.3
Endrin Aldehyde	ND	3.3
Alpha-Chlordane	ND	1.7
Gamma-Chlordane	ND	1.7
Toxaphene	ND	165
Aroclor-1016	ND	33.0
Aroclor-1221	ND	66.0
Aroclor-1232	ND	33.0
Aroclor-1242	ND	33.0
Aroclor-1248	ND	33.0
Aroclor-1254	ND	33.0
Aroclor-1260	ND	33.0

ND = Not detected
* Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	57	32 - 103
Decachlorobiphenyl	63	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: 100-MW-004-01
Date Sampled: 09/10/99
Date Sample Received: 09/11/99
Matrix: Aqueous

Laboratory ID: 990799-20
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	0.050
Beta-BHC	ND	0.050
Delta-BHC	ND	0.050
Gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
Alpha-Chlordane	ND	0.050
Gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	65	56 - 111
Decachlorobiphenyl	50	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

lient: Tetra Tech NUS
lient Sample ID: 100-MW-DD-01
ate Sampled: 09/10/99
ate Sample Received: 09/11/99
latrix: Aqueous

Laboratory ID: 990799-19
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/L (ppb)

arget Analyte	Sample Concentration	Quantitation Limit
pha-BHC	ND	0.050
eta-BHC	ND	0.050
elta-BHC	ND	0.050
amma-BHC	ND	0.050
eptachlor	ND	0.050
ldrin	ND	0.050
eptachlor Epoxide	ND	0.050
ndosulfan I	ND	0.050
ieldrin	ND	0.10
4'-DDE	ND	0.10
ndrin	ND	0.10
ndosulfan II	ND	0.10
4'-DDD	ND	0.10
ndosulfan Sulfate	ND	0.10
4'-DDT	ND	0.10
lethoxychlor	ND	0.50
ndrin Ketone	ND	0.10
ndrin Aldehyde	ND	0.10
pha-Chlordane	ND	0.050
amma-Chlordane	ND	0.050
oxaphene	ND	5.0
roclor-1016	ND	1.0
roclor-1221	ND	2.0
roclor-1232	ND	1.0
roclor-1242	ND	1.0
roclor-1248	ND	1.0
roclor-1254	ND	1.0
roclor-1260	ND	1.0

D = Not detected

Surrogate Spike Recovery

urrogate Compound	Recovery(%)	QC Limits(%)*
etrachloro-m-xylene	75	56 - 111
ecachlorobiphenyl	60	34 - 129

These limits are provided for advisory purposes.

eported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

ient: Tetra Tech NUS
ient Sample ID: 100-MW-003-01
ite Sampled: 09/10/99
ite Sample Received: 09/11/99
atrix: Aqueous

Laboratory ID: 990799-18
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/L (ppb)

rget Analyte	Sample Concentration	Quantitation Limit
pha-BHC	ND	0.050
ta-BHC	ND	0.050
lta-BHC	ND	0.050
mma-BHC	ND	0.050
ptachlor	ND	0.050
drin	ND	0.050
ptachlor Epoxide	ND	0.050
dosulfan I	ND	0.050
eldrin	ND	0.10
4'-DDE	ND	0.10
drin	ND	0.10
dosulfan II	ND	0.10
4'-I	ND	0.10
idos...n Sulfate	ND	0.10
4'-DDT	ND	0.10
ethoxychlor	ND	0.50
drin Ketone	ND	0.10
drin Aldehyde	ND	0.10
pha-Chlordane	ND	0.050
mma-Chlordane	ND	0.050
oxaphene	ND	5.0
roclor-1016	ND	1.0
roclor-1221	ND	2.0
roclor-1232	ND	1.0
roclor-1242	ND	1.0
roclor-1248	ND	1.0
roclor-1254	ND	1.0
roclor-1260	ND	1.0

D = Not detected

Surrogate Spike Recovery

rrogate Compound	Recovery(%)	QC Limits(%)*
etrachloro-m-xylene	65	56 - 111
ecachlorobiphenyl	60	34 - 129

These limits are provided for advisory purposes.

eported by: NG

Approved by:

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: 100-MW-002-01
Date Sampled: 09/10/99
Date Sample Received: 09/11/99
Matrix: Aqueous

Laboratory ID: 990799-17
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	75	34 - 129

* These limits are provided for advisory purposes.

Reported by: NUS

Approved by: KL

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

lient: Tetra Tech NUS
lient Sample ID: 100-MW-001-01
ate Sampled: 09/10/99
ate Sample Received: 09/11/99
latrix: Aqueous

Laboratory ID: 990799-16
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/L (ppb)

arget Analyte	Sample Concentration	Quantitation Limit
lpha-BHC	ND	0.050
eta-BHC	ND	0.050
elta-BHC	ND	0.050
amma-BHC	ND	0.050
leptachlor	ND	0.050
ldrin	ND	0.050
leptachlor Epoxide	ND	0.050
ndosulfan I	ND	0.050
)ieldrin	ND	0.10
,4'-DDE	ND	0.10
ndrin	ND	0.10
Endo n II	ND	0.10
,4')	ND	0.10
Endosulfan Sulfate	ND	0.10
,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
lpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	65	56 - 111
Decachlorobiphenyl	65	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: 102-SS-04
Date Sampled: 09/09/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 92

Laboratory ID: 990799-14
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	1.8
beta-BHC	ND	1.8
delta-BHC	ND	1.8
gamma-BHC	ND	1.8
Heptachlor	ND	1.8
Aldrin	ND	1.8
Heptachlor Epoxide	ND	1.8
Endosulfan I	ND	1.8
Dieldrin	ND	3.6
4,4'-DDE	ND	3.6
Endrin	ND	3.6
Endosulfan II	ND	3.6
4,4'-DDD	ND	3.6
Endosulfan Sulfate	ND	3.6
4,4'-DDT	ND	3.6
Methoxychlor	ND	18
Endrin Ketone	ND	3.6
Endrin Aldehyde	ND	3.6
alpha-Chlordane	ND	1.8
gamma-Chlordane	ND	1.8
Toxaphene	ND	180
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	48	32 - 103
Decachlorobiphenyl	50	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

ient: Tetra Tech NUS
ient Sample ID: 102-SS-03
ate Sampled: 09/09/99
ate Sample Received: 09/09/99
atrix: Soil
rcent Solids: 79

Laboratory ID: 990799-13
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb) ÷

arget Analyte	Sample Concentration	Quantitation Limit
pha-BHC	ND	2.1
ta-BHC	ND	2.1
lta-BHC	ND	2.1
mma-BHC	ND	2.1
eptachlor	ND	2.1
ldrin	ND	2.1
eptachlor Epoxide	ND	2.1
ndosulfan I	ND	2.1
ieldrin	ND	4.2
,4'-DDE	ND	4.2
ndrin	ND	4.2
ndo n II	ND	4.2
,4'-L	ND	4.2
ndosulfan Sulfate	ND	4.2
,4'-DDT	ND	4.2
lethoxychlor	ND	21
ndrin Ketone	ND	4.2
ndrin Aldehyde	ND	4.2
lpha-Chlordane	ND	2.1
amma-Chlordane	ND	2.1
oxaphene	ND	210
roclor-1016	ND	42.0
roclor-1221	ND	84.0
roclor-1232	ND	42.0
roclor-1242	ND	42.0
roclor-1248	ND	42.0
roclor-1254	ND	42.0
roclor-1260	ND	42.0

ND = Not detected
÷ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	32 - 103
Decachlorobiphenyl	57	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: 102-SS-05
Date Sampled: 09/09/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 93

Laboratory ID: 990799-12
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb)÷

Target Analyte	Sample Concentration	Quantitation Limit
lpha-BHC	ND	1.8
eta-BHC	ND	1.8
elta-BHC	ND	1.8
amma-BHC	ND	1.8
eptachlor	ND	1.8
ldrin	ND	1.8
eptachlor Epoxide	ND	1.8
ndosulfan I	ND	1.8
ieldrin	ND	3.6
,4'-DDE	ND	3.6
ndrin	ND	3.6
ndosulfan II	ND	3.6
,4'-DDD	ND	3.6
ndosulfan Sulfate	ND	3.6
,4'-DDT	ND	3.6
ethoxychlor	ND	18
ndrin Ketone	ND	3.6
ndrin Aldehyde	ND	3.6
lpha-Chlordane	ND	1.8
amma-Chlordane	ND	1.8
oxaphene	ND	180
roclor-1016	ND	36.0
roclor-1221	ND	72.0
roclor-1232	ND	36.0
roclor-1242	ND	36.0
roclor-1248	ND	36.0
roclor-1254	ND	36.0
roclor-1260	ND	36.0

ND = Not detected
÷ Dry weight basis.

Surrogate Spike Recovery

urrogate Compound	Recovery(%)	QC Limits(%)*
etrachloro-m-xylene	57	32 - 103
ecachlorobiphenyl	60	25 - 131

These limits are provided for advisory purposes.

eported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: 102-MW-003-01
Date Sampled: 09/09/99
Date Sample Received: 09/11/99
Matrix: Aqueous

Laboratory ID: 990799-11
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	55	56 - 111
Decachlorobiphenyl	40	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

ient: Tetra Tech NUS
ient Sample ID: 102-MW-004-01
ate Sampled: 09/09/99
ate Sample Received: 09/11/99
atrix: Aqueous

Laboratory ID: 990799-10
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/L (ppb)

rget Analyte	Sample Concentration	Quantitation Limit
pha-BHC	ND	0.050
ta-BHC	ND	0.050
lta-BHC	ND	0.050
mma-BHC	ND	0.050
eptachlor	ND	0.050
ldrin	ND	0.050
eptachlor Epoxide	ND	0.050
ndosulfan I	ND	0.050
ieldrin	ND	0.10
4'-DDE	ND	0.10
ndrin	ND	0.10
ndosulfan II	ND	0.10
4'-DDD	ND	0.10
ndosulfan Sulfate	ND	0.10
4'-DDT	ND	0.10
ethoxychlor	ND	0.50
ndrin Ketone	ND	0.10
ndrin Aldehyde	ND	0.10
pha-Chlordane	ND	0.050
mma-Chlordane	ND	0.050
oxaphene	ND	5.0
roclor-1016	ND	1.0
roclor-1221	ND	2.0
roclor-1232	ND	1.0
roclor-1242	ND	1.0
roclor-1248	ND	1.0
roclor-1254	ND	1.0
roclor-1260	ND	1.0

D = Not detected

Surrogate Spike Recovery

urrogate Compound	Recovery(%)	QC Limits(%)*
etrachloro-m-xylene	75	56 - 111
ecachlorobiphenyl	75	34 - 129

These limits are provided for advisory purposes.

eported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: 100-SS-04
Date Sampled: 09/08/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 83

Laboratory ID: 990799-08
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	2.0
Beta-BHC	ND	2.0
Delta-BHC	ND	2.0
Gamma-BHC	ND	2.0
Heptachlor	ND	2.0
Aldrin	ND	2.0
Heptachlor Epoxide	ND	2.0
Endosulfan I	ND	2.0
Dieldrin	ND	4.0
4,4'-DDE	ND	4.0
Endrin	ND	4.0
Endosulfan II	ND	4.0
4,4'-DDD	ND	4.0
Endosulfan Sulfate	ND	4.0
4,4'-DDT	ND	4.0
Methoxychlor	ND	20
Endrin Ketone	ND	4.0
Endrin Aldehyde	ND	4.0
Alpha-Chlordane	ND	2.0
Gamma-Chlordane	ND	2.0
Toxaphene	ND	198
Aroclor-1016	ND	39.6
Aroclor-1221	ND	79.2
Aroclor-1232	ND	39.6
Aroclor-1242	ND	39.6
Aroclor-1248	ND	39.6
Aroclor-1254	ND	39.6
Aroclor-1260	ND	39.6

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	48	32 - 103
Decachlorobiphenyl	55	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

lient: Tetra Tech NUS
lient Sample ID: 100-SS-03
ate Sampled: 09/08/99
ate Sample Received: 09/09/99
latrix: Soil
ercent Solids: 94

Laboratory ID: 990799-07
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb)÷

arget Analyte	Sample Concentration	Quantitation Limit
lpha-BHC	ND	1.8
eta-BHC	ND	1.8
elta-BHC	ND	1.8
amma-BHC	ND	1.8
leptachlor	ND	1.8
ldrin	ND	1.8
leptachlor Epoxide	ND	1.8
ndosulfan I	ND	1.8
)ieldrin	ND	3.5
,4'-DDE	ND	3.5
ndrin	ND	3.5
ndosulfan II	ND	3.5
,4'-DDD	ND	3.5
ndosulfan Sulfate	ND	3.5
,4'-DDT	ND	3.5
lethoxychlor	ND	18
ndrin Ketone	ND	3.5
ndrin Aldehyde	ND	3.5
lpha-Chlordane	ND	1.8
amma-Chlordane	ND	1.8
oxaphene	ND	175
roclor-1016	ND	35.0
roclor-1221	ND	70.0
roclor-1232	ND	35.0
roclor-1242	ND	35.0
roclor-1248	ND	35.0
roclor-1254	ND	35.0
roclor-1260	ND	35.0

ND = Not detected
÷ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	55	32 - 103
Decachlorobiphenyl	60	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

lient: Tetra Tech NUS
lient Sample ID: 100-22-DD
ate Sampled: 09/08/99
ate Sample Received: 09/09/99
latrix: Soil
ercent Solids: 84

Laboratory ID: 990799-06
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb)+

arget Analyte	Sample Concentration	Quantitation Limit
lpha-BHC	ND	2.0
eta-BHC	ND	2.0
elta-BHC	ND	2.0
amma-BHC	ND	2.0
leptachlor	ND	2.0
ldrin	ND	2.0
leptachlor Epoxide	ND	2.0
ndosulfan I	ND	2.0
Dieldrin	ND	4.0
,4'-DDE	ND	4.0
ndrin	ND	4.0
End an II	ND	4.0
,4' D	ND	4.0
ndosulfan Sulfate	ND	4.0
,4'-DDT	ND	4.0
Methoxychlor	ND	20
ndrin Ketone	ND	4.0
ndrin Aldehyde	ND	4.0
lpha-Chlordane	ND	2.0
amma-Chlordane	ND	2.0
Toxaphene	ND	199
Aroclor-1016	ND	39.7
Aroclor-1221	ND	79.4
Aroclor-1232	ND	39.7
Aroclor-1242	ND	39.7
Aroclor-1248	ND	39.7
Aroclor-1254	ND	39.7
Aroclor-1260	ND	39.7

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	50	32 - 103
Decachlorobiphenyl	57	25 - 131

* These limits are provided for advisory purposes.

Reported by: KWB

Approved by: KL

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: 100-SS-01
Date Sampled: 09/08/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 88

Laboratory ID: 990799-05
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	1.9
Beta-BHC	ND	1.9
Delta-BHC	ND	1.9
Gamma-BHC	ND	1.9
Heptachlor	ND	1.9
Aldrin	ND	1.9
Heptachlor Epoxide	ND	1.9
Endosulfan I	ND	1.9
Dieldrin	ND	3.7
4,4'-DDE	ND	3.7
Endrin	ND	3.7
Endosulfan II	ND	3.7
4,4'-DDD	ND	3.7
Endosulfan Sulfate	ND	3.7
4,4'-DDT	ND	3.7
Methoxychlor	ND	19
Endrin Ketone	ND	3.7
Endrin Aldehyde	ND	3.7
Alpha-Chlordane	ND	1.9
Gamma-Chlordane	ND	1.9
Toxaphene	ND	187
Aroclor-1016	ND	37.3
Aroclor-1221	ND	74.6
Aroclor-1232	ND	37.3
Aroclor-1242	ND	37.3
Aroclor-1248	ND	37.3
Aroclor-1254	ND	37.3
Aroclor-1260	ND	37.3

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	105	32 - 103
Decachlorobiphenyl	123	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

ient: Tetra Tech NUS
ient Sample ID: 100-SS-02
ate Sampled: 09/08/99
ate Sample Received: 09/09/99
latrix: Soil
ercent Solids: 83

Laboratory ID: 990799-04
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb)+

arget Analyte	Sample Concentration	Quantitation Limit
pha-BHC	ND	2.0
eta-BHC	ND	2.0
elta-BHC	ND	2.0
amma-BHC	ND	2.0
eptachlor	ND	2.0
ldrin	ND	2.0
eptachlor Epoxide	ND	2.0
ndosulfan I	ND	2.0
ieldrin	ND	4.0
,4'-DDE	ND	4.0
ndrin	ND	4.0
ndos n II	ND	4.0
,4'-I	ND	4.0
ndosulfan Sulfate	ND	4.0
,4'-DDT	ND	4.0
lethoxychlor	ND	20
ndrin Ketone	ND	4.0
ndrin Aldehyde	ND	4.0
lpha-Chlordane	ND	2.0
amma-Chlordane	ND	2.0
oxaphene	ND	200
roclor-1016	ND	39.9
roclor-1221	ND	79.8
roclor-1232	ND	39.9
roclor-1242	ND	39.9
roclor-1248	ND	39.9
roclor-1254	ND	39.9
roclor-1260	ND	39.9

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	32 - 103
Decachlorobiphenyl	90	25 - 131

* These limits are provided for advisory purposes.

Reported by: LWS

Approved by: KJL

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: 102-SU-01
Date Sampled: 09/08/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 93

Laboratory ID: 990799-03
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb)÷

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	1.8
Beta-BHC	ND	1.8
Delta-BHC	ND	1.8
Gamma-BHC	ND	1.8
Heptachlor	ND	1.8
Aldrin	ND	1.8
Heptachlor Epoxide	ND	1.8
Endosulfan I	ND	1.8
Dieldrin	ND	3.6
4,4'-DDE	ND	3.6
Endrin	ND	3.6
Endosulfan II	ND	3.6
4,4'-DDD	ND	3.6
Endosulfan Sulfate	ND	3.6
4,4'-DDT	ND	3.6
Methoxychlor	ND	18
Endrin Ketone	ND	3.6
Endrin Aldehyde	ND	3.6
Alpha-Chlordane	ND	1.8
Gamma-Chlordane	ND	1.8
Toxaphene	ND	180
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected
÷ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	78	32 - 103
Decachlorobiphenyl	85	25 - 131

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

ent: Tetra Tech NUS
ent Sample ID: 102-SS-01
te Sampled: 09/08/99
te Sample Received: 09/09/99
ıtrix: Soil
:cent Solids: 87

Laboratory ID: 990799-02
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb)÷

rget Analyte	Sample Concentration	Quantitation Limit
ha-BHC	ND	1.9
a-BHC	ND	1.9
ta-BHC	ND	1.9
mma-BHC	ND	1.9
ptachlor	ND	1.9
drin	ND	1.9
ptachlor Epoxide	ND	1.9
dosulfan I	ND	1.9
eldrin	ND	3.8
4'-DDE	ND	3.8
drin	ND	3.8
dos II	ND	3.8
4'-L	ND	3.8
dosulfan Sulfate	ND	3.8
4'-DDT	ND	3.8
ethoxychlor	ND	19
drin Ketone	ND	3.8
drin Aldehyde	ND	3.8
ha-Chlordane	ND	1.9
mma-Chlordane	ND	1.9
oxaphene	ND	189
roclor-1016	ND	37.8
roclor-1221	ND	75.6
roclor-1232	ND	37.8
roclor-1242	ND	37.8
roclor-1248	ND	37.8
roclor-1254	ND	37.8
roclor-1260	ND	37.8

D = Not detected
Dry weight basis.

Surrogate Spike Recovery

urrogate Compound	Recovery(%)	QC Limits(%)*
etrachloro-m-xylene	48	32 - 103
ecachlorobiphenyl	57	25 - 131

These limits are provided for advisory purposes.

Reported by: DJG

Approved by: KL

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: 102-SS-02
Date Sampled: 09/08/99
Date Sample Received: 09/09/99
Matrix: Soil
Percent Solids: 88

Laboratory ID: 990799-01
Date Sample Extracted: 09/14/99
Date Sample Analyzed: 09/29/99
Associated Method Blank: P0914-B3
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/Kg (ppb)÷

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	1.9
Beta-BHC	ND	1.9
Delta-BHC	ND	1.9
Gamma-BHC	ND	1.9
Heptachlor	ND	1.9
Aldrin	ND	1.9
Heptachlor Epoxide	ND	1.9
Endosulfan I	ND	1.9
Dieldrin	ND	3.8
4,4'-DDE	ND	3.8
Endrin	ND	3.8
Endosulfan II	ND	3.8
4,4'-DDD	ND	3.8
Endosulfan Sulfate	ND	3.8
4,4'-DDT	ND	3.8
Methoxychlor	ND	19
Endrin Ketone	ND	3.8
Endrin Aldehyde	ND	3.8
Alpha-Chlordane	ND	1.9
Gamma-Chlordane	ND	1.9
Toxaphene	ND	189
Aroclor-1016	ND	37.8
Aroclor-1221	ND	75.6
Aroclor-1232	ND	37.8
Aroclor-1242	ND	37.8
Aroclor-1248	ND	37.8
Aroclor-1254	ND	37.8
Aroclor-1260	ND	37.8

ND = Not detected
Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	45	32 - 103
Decachlorobiphenyl	57	25 - 131

*These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	8	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	5
2-Hexanone	ND	5
4-Methyl-2-Pentanone		

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	95	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	109	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Laboratory ID: 990807-02

Date Sampled: 09/10/99

Date Sample Analyzed: 09/23/99

Date Sample Received: 09/11/99

Associated Method Blank: V150923-B1

Matrix: Aqueous

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	2	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	97	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-03

Date Sample Analyzed: 09/23/99

Associated Method Blank: V120923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
/l Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	10	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-03

Date Sample Analyzed: 09/23/99

Associated Method Blank: V120923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	100	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	107	75 - 125
Bromofluorobenzene	110	75 - 125

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY
VOLATILE BLANK SPIKE
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank Spike ID: V150923-LCS

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Associated Method Blank: V150923-B1

Concentration: µg/L (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	5	5	100	68 - 124
Trichloroethene	5	5	97	75 - 120
Benzene	5	5	96	78 - 127
Toluene	5	5	94	71 - 132
Chlorobenzene	5	5	98	77 - 128

*These limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	105	75 - 125
Bromofluorobenzene	115	75 - 125

Reported by: _____ Approved by: _____

SEMIVOLATILE ORGANIC ANALYSES

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
ER091099-01

La Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW997

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW997

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW996

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW996

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/23/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	BJ
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	18	
111-44-4	bis(2-Chloroethyl)Ether	27	
95-57-8	2-Chlorophenol	27	
541-73-1	1,3-Dichlorobenzene	25	
106-46-7	1,4-Dichlorobenzene	24	
100-51-6	Benzyl Alcohol	32	
95-50-1	1,2-Dichlorobenzene	25	
95-48-7	2-Methylphenol	27	
108-60-1	2,2'-oxybis(1-Chloropropane)	29	
106-44-5	4-Methylphenol	28	
621-64-7	N-Nitroso-Di-n-Propylamine	29	
67-72-1	Hexachloroethane	24	
98-95-3	Nitrobenzene	30	
78-59-1	Isophorone	31	
88-75-5	2-Nitrophenol	32	
105-67-9	2,4-Dimethylphenol	22	
65-85-0	Benzoic Acid	29	
111-91-1	bis(2-Chloroethoxy)Methane	32	
120-83-2	2,4-Dichlorophenol	31	
120-82-1	1,2,4-Trichlorobenzene	27	
91-20-3	Naphthalene	29	
106-47-8	4-Chloroaniline	26	
87-68-3	Hexachlorobutadiene	28	
59-50-7	4-Chloro-3-Methylphenol	34	
91-57-6	2-Methylnaphthalene	32	
77-47-4	Hexachlorocyclopentadiene	25	
88-06-2	2,4,6-Trichlorophenol	35	
95-95-4	2,4,5-Trichlorophenol	34	
91-58-7	2-Chloronaphthalene	32	
88-74-4	2-Nitroaniline	35	
131-11-3	Dimethyl Phthalate	34	
208-96-8	Acenaphthylene	33	
606-20-2	2,6-Dinitrotoluene	37	

1X
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	34	
83-32-9	Acenaphthene	33	
51-28-5	2,4-Dinitrophenol	33	
100-02-7	4-Nitrophenol	22	
132-64-9	Dibenzofuran	34	
121-14-2	2,4-Dinitrotoluene	38	
84-66-2	Diethylphthalate	34	
7005-72-3	4-Chlorophenyl-phenylether	35	
86-73-7	Fluorene	35	
100-01-6	4-Nitroaniline	35	
534-52-1	4,6-Dinitro-2-Methylphenol	39	
86-30-6	N-Nitrosodiphenylamine (1)	37	
101-55-3	4-Bromophenyl-phenylether	37	
118-74-1	Hexachlorobenzene	38	
87-86-5	Pentachlorophenol	33	
85-01-8	Phenanthrene	37	
120-12-7	Anthracene	37	
86-74-8	Carbazole	38	
84-74-2	Di-n-Butylphthalate	39	B
206-44-0	Fluoranthene	39	
129-00-0	Pyrene	36	
85-68-7	Butylbenzylphthalate	36	
91-94-1	3,3'-Dichlorobenzidine	30	
56-55-3	Benzo(a)Anthracene	38	
218-01-9	Chrysene	37	
117-81-7	bis(2-Ethylhexyl)Phthalate	37	B
117-84-0	Di-n-Octyl Phthalate	38	
205-99-2	Benzo(b)Fluoranthene	36	
207-08-9	Benzo(k)Fluoranthene	40	
50-32-8	Benzo(a)Pyrene	37	
193-39-5	Indeno(1,2,3-cd)Pyrene	34	
53-70-3	Dibenzo(a,h)Anthracene	34	
191-24-2	Benzo(g,h,i)Perylene	33	

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

I Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl)Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy)Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/22/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	10	U
83-32-9	Acenaphthene	5	U
51-28-5	2,4-Dinitrophenol	10	U
100-02-7	4-Nitrophenol	10	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl-phenylether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	10	U
534-52-1	4,6-Dinitro-2-Methylphenol	10	U
86-30-6	N-Nitrosodiphenylamine (1)	5	U
101-55-3	4-Bromophenyl-phenylether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	10	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
86-74-8	Carbazole	5	U
84-74-2	Di-n-Butylphthalate	1	J
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butylbenzylphthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a)Anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl)Phthalate	2	J
117-84-0	Di-n-Octyl Phthalate	5	U
205-99-2	Benzo(b)Fluoranthene	5	U
207-08-9	Benzo(k)Fluoranthene	5	U
50-32-8	Benzo(a)Pyrene	5	U
193-39-5	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3	Dibenzo(a,h)Anthracene	5	U
191-24-2	Benzo(g,h,i)Perylene	5	U

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	ER091099-01	69	67	81	20	31	69	53	65	0
02	FB091099-01	79	74	77	28	40	79	61	74	0
03	SLCSDH	64	67	76	35	44	77	52	52	0
04	SBLKDH	65	66	81	26	39	72	54	58	0

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-100)	
S5 (2FP)	= 2-Fluorophenol	(21-125)	
S6 (TBP)	= 2,4,6-Tribromophenol	(25-134)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

Laboratory Control Spike Summary

LAB SAMP ID S0915-LCS6 SAMPLE ID SLCSDH
LAB QC ID _____ TYPE EPA
DATA RELEASE AUTHORIZED BY _____

FILE NAME DW976 RECEIVED _____ METHOD CLP
TUNE DW967 EXTRACTED 09/15/99 FRACTION BNA
STANDARD DW968 ANALYZED 09/22/99 20:05 INST MS4
BLANK DW975 VERIFIED _____ ANALYST _____
TAPE/POS _____ BOTTLE _____

% MOISTURE _____ pH _____ LEVEL LOW
(DECANTED) _____ CLEANUP _____ MATRIX WATER
DIL FACTOR 1.000 EXTRACT METHOD CLL UNITS ug/L

SAMPLE:
CONDITIONS:

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
C315	108-95-2	Phenol	50.00	18.36	36.72	
C325	111-44-4	bis(2-Chloroethyl)Ether	50.00	27.04	54.08	
C330	95-57-8	2-Chlorophenol	50.00	27.06	54.12	
C335	541-73-1	1,3-Dichlorobenzene	50.00	25.03	50.06	
C340	106-46-7	1,4-Dichlorobenzene	50.00	23.81	47.62	
C345	100-51-6	Benzyl Alcohol	50.00	31.77	63.54	
C350	95-50-1	1,2-Dichlorobenzene	50.00	25.09	50.18	
C355	95-48-7	2-Methylphenol	50.00	27.15	54.30	
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	29.28	58.56	
C365	106-44-5	4-Methylphenol	50.00	28.22	56.44	
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	29.38	58.76	
C375	67-72-1	Hexachloroethane	50.00	23.88	47.76	
C410	98-95-3	Nitrobenzene	50.00	29.59	59.18	
C415	78-59-1	Isophorone	50.00	31.44	62.88	
C420	88-75-5	2-Nitrophenol	50.00	31.66	63.32	
C425	105-67-9	2,4-Dimethylphenol	50.00	21.65	43.30	
C430	65-85-0	Benzoic Acid	100.0	29.25	29.25	
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	32.44	64.88	
C440	120-83-2	2,4-Dichlorophenol	50.00	30.81	61.62	
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	27.29	54.58	
C450	91-20-3	Naphthalene	50.00	29.16	58.32	
C455	106-47-8	4-Chloroaniline	50.00	25.87	51.74	
C460	87-68-3	Hexachlorobutadiene	50.00	27.54	55.08	
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	34.45	68.90	
C470	91-57-6	2-Methylnaphthalene	50.00	32.25	64.50	
C510	77-47-4	Hexachlorocyclopentadiene	50.00	25.25	50.50	
C515	88-06-2	2,4,6-Trichlorophenol	50.00	34.76	69.52	
C520	95-95-4	2,4,5-Trichlorophenol	50.00	33.85	67.70	
C525	91-58-7	2-Chloronaphthalene	50.00	32.26	64.52	
C530	88-74-4	2-Nitroaniline	50.00	34.98	69.96	
C535	131-11-3	Dimethyl Phthalate	50.00	34.19	68.38	

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKDH

L Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Lab File ID: DW975 Lab Sample ID: S0915-B6

Instrument ID: MS4 Date Extracted: 09/15/99

Matrix: (soil/water) WATER Date Analyzed: 09/22/99

Level: (low/med) LOW Time Analyzed: 1931

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	ER091099-01	990807-02	DW997	09/23/99
02	FB091099-01	990807-01	DW996	09/23/99
03	SLCSDH	S0915-LCS6	DW976	09/22/99

COMMENTS:

Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
C540	208-96-8	Acenaphthylene	50.00	32.78	65.56	
C543	606-20-2	2,6-Dinitrotoluene	50.00	36.77	73.54	
C545	99-09-2	3-Nitroaniline	50.00	34.16	68.32	
C550	83-32-9	Acenaphthene	50.00	33.32	66.64	
C555	51-28-5	2,4-Dinitrophenol	50.00	32.69	65.38	
C560	100-02-7	4-Nitrophenol	50.00	22.39	44.78	
C565	132-64-9	Dibenzofuran	50.00	34.42	68.84	
C570	121-14-2	2,4-Dinitrotoluene	50.00	38.31	76.62	
C580	84-66-2	Diethylphthalate	50.00	34.16	68.32	
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	34.63	69.26	
C590	86-73-7	Fluorene	50.00	34.85	69.70	
C595	100-01-6	4-Nitroaniline	50.00	34.62	69.24	
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	38.99	77.98	
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	36.69	73.38	
C625	101-55-3	4-Bromophenyl-phenylether	50.00	36.63	73.26	
C630	118-74-1	Hexachlorobenzene	50.00	37.54	75.08	
C635	87-86-5	Pentachlorophenol	50.00	32.96	65.92	
C640	85-01-8	Phenanthrene	50.00	36.90	73.80	
C645	120-12-7	Anthracene	50.00	36.51	73.02	
C646	86-74-8	Carbazole	50.00	37.84	75.68	
C650	84-74-2	Di-n-Butylphthalate	50.00	38.56	77.12	
C655	206-44-0	Fluoranthene	50.00	38.99	77.98	
C715	129-00-0	Pyrene	50.00	36.00	72.00	
C720	85-68-7	Butylbenzylphthalate	50.00	35.96	71.92	
C725	91-94-1	3,3'-Dichlorobenzidine	50.00	29.56	59.12	
C730	56-55-3	Benzo(a)Anthracene	50.00	37.52	75.04	
C740	218-01-9	Chrysene	50.00	37.05	74.10	
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	36.58	73.16	
C760	117-84-0	Di-n-Octyl Phthalate	50.00	38.23	76.46	
C765	205-99-2	Benzo(b)Fluoranthene	50.00	35.63	71.26	
C770	207-08-9	Benzo(k)Fluoranthene	50.00	39.94	79.88	
C775	50-32-8	Benzo(a)Pyrene	50.00	36.68	73.36	
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	33.85	67.70	
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	34.15	68.30	
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	33.41	66.82	

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Lab File ID (Standard): DW968 Date Analyzed: 09/22/99

Instrument ID: MS4 Time Analyzed: 1533

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	548821		4.65		1854821		5.83		1063350		8.54	
	UPPER LIMIT	1097642		5.15		3709642		6.33		2126700		9.04	
	LOWER LIMIT	274410		4.15		927410		5.33		531675		8.04	
	EPA SAMPLE NO.												
01	SLCSDH	468717		4.63		1669235		5.80		972577		8.53	
02	SBLKDH	688381		4.64		2304712		5.81		1202037		8.53	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Lab File ID (Standard): DW968 Date Analyzed: 09/22/99

Instrument ID: MS4 Time Analyzed: 1533

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	1851481		10.36		1392163		13.14		1330537		15.33	
	UPPER LIMIT	3702962		10.86		2784326		13.64		2661074		15.83	
	LOWER LIMIT	925740		9.86		696082		12.64		665268		14.83	
	EPA SAMPLE NO.												
01	SLCSDH	1667254		10.36		1398697		13.14		1318354		15.33	
02	SBLKDH	1970726		10.36		1312192		13.13		1325168		15.33	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Lab File ID (Standard): DW992 Date Analyzed: 09/23/99

Instrument ID: MS4 Time Analyzed: 1228

		IS1(DCB) AREA	#	RT	#	IS2(NPT) AREA	#	RT	#	IS3(ANT) AREA	#	RT	#
	12 HOUR STD	439195		4.62		1400076		5.78		802809		8.49	
	UPPER LIMIT	878390		5.12		2800152		6.28		1605618		8.99	
	LOWER LIMIT	219598		4.12		700038		5.28		401404		7.99	
	EPA SAMPLE NO.												
01	ER091099-01	697849		4.62		2415481		5.79		1331022		8.49	
02	FB091099-01	964450	*	4.62		3435530	*	5.79		1932269	*	8.49	

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
S3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: _____ SDG No.: 091099

Lab File ID (Standard): DW992 Date Analyzed: 09/23/99

Instrument ID: MS4 Time Analyzed: 1228

		IS4(PHN) AREA	#	RT	#	IS5(CRY) AREA	#	RT	#	IS6(PRY) AREA	#	RT	#
	12 HOUR STD	1568654		10.32		1174332		13.08		1169876		15.25	
	UPPER LIMIT	3137308		10.82		2348664		13.58		2339752		15.75	
	LOWER LIMIT	784327		9.82		587166		12.58		584938		14.75	
	EPA SAMPLE NO.												
01	ER091099-01	2180804		10.32		1422919		13.08		1395791		15.24	
02	FB091099-01	3276900	*	10.32		2598391	*	13.08		2742870	*	15.24	

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = +0.50 minutes of internal standard RT.
RT LOWER LIMIT = -0.50 minutes of internal standard RT.

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

PESTICIDE ANALYSES

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: FB091099-01
Date Sampled: 09/10/99
Date Sample Received: 09/11/99
Matrix: Aqueous

Laboratory ID: 990807-01
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 10/04/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL):10.0
Dilution Factor: 1
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	55	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

TARGET COMPOUND LIST
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Client Sample ID: ER091099-01
Date Sampled: 09/10/99
Date Sample Received: 09/11/99
Matrix: Aqueous

Laboratory ID: 990807-02
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 10/04/99
Associated Method Blank: P0915-B1
Final Extract Volume (mL): 10.0
Dilution Factor: 1
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	60	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

METHOD BLANK
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS
Blank ID: P0915-B1
Matrix: Aqueous

Ceimic Project: 990807
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/29/99
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	75	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

Form I PEST

LABORATORY CONTROL SUMMARY
ORGANOCHLORINE PESTICIDES
by SW846 Method 8080

Client: Tetra Tech NUS

Blank Spike ID: P0915-LCS1

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Analyzed: 09/29/99

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B1

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
alpha-BHC	0.50	0.39	78	49 - 150
beta-BHC	0.50	0.39	78	60 - 135
delta-BHC	0.50	0.40	80	32 - 140
gamma-BHC	0.50	0.40	80	54 - 144
Heptachlor	0.50	0.38	76	54 - 134
Aldrin	0.50	0.41	82	58 - 132
Heptachlor Epoxide	0.50	0.41	82	60 - 130
Endosulfan I	0.50	0.27	54	46 - 131
Dieldrin	0.50	0.41	82	64 - 135
4,4'-DDE	0.50	0.46	92	57 - 141
Endrin	0.50	0.45	90	63 - 147
Endosulfan II	0.50	0.35	70	69 - 137
4 'DD	0.50	0.43	86	49 - 141
E. ulfan Sulfate	0.50	0.44	88	51 - 144
4,4'-DDT	0.50	0.43	86	64 - 146
Methoxychlor	0.50	0.49	98	64 - 152
Endrin Ketone	0.50	0.45	90	62 - 150
Endrin Aldehyde	0.50	0.50	100	56 - 129

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	70	56 - 111
Decachlorobiphenyl	80	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____

Approved by: _____

Form IIIA PEST

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990807
Client: Tetra Tech Nus
Blank ID: P00915B1

Analytical Method: 8081A
Extraction Method: Sep. funnel
LCS ID: P00915LCS1

Surr. Sol. ID: PW990830B
MS Sol. ID: PW990701B
Addt'l Spike ID: —

Prep Date/Time: 09/15/99
Analysis: Pest
Matrix: aqueous

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
FBC01099-0	P080701	1000 ml	1ml	—					10ml								1ml		09/21/99	
ER01099-0	02	↓	↓	—					↓								↓	↓	↓	

JM 09/14/99

JM 09/15/99

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: NO70763
Final Solvent ID: —
Container Lot #: —
Prepared by: JM

Sodium Sulfate Lot #: —
Supervisor Init: JA
Surrogate Added By: JM
Witnessed By: JA

Reagents IDs:

☐ GPC X Y Z
☐ Silica
☐ Florisil
Lot #:

Comment Codes:

RE = Reextract
AL 2nd Aliquot

PCB ANALYSES

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: FB091099-01
Date Sampled: 09/10/99
Date Sample Received: 09/11/99
Matrix: Aqueous

Laboratory ID: 990807-01
Date Sample Extracted: 09/15/99
Date Sample Analyzed: 09/27/99
Associated Method Blank: P0915-B4
Final Extract Volume (mL): 10.0
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	105	56 - 111
Decachlorobiphenyl	75	34 - 129

* These limits are provided for advisory purposes.

Reported by: AS

Approved by: [illegible]

Form I PCB

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Associated Method Blank: P0915-B4

Final Extract Volume (mL):10.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	90	56 - 111
Decachlorobiphenyl	65	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

METHOD BLANK
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P0915-B4

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	85	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____

Approved by: _____

LABORATORY CONTROL SUMMARY
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank Spike ID: P0915-LCS4

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Analyzed: 09/27/99

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B4

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	5.0	5.2	104	30 - 150
Aroclor-1260	5.0	5.3	106	47 - 127

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	95	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____

Approved by: _____

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990807
Client: Tetra Tech Nus
Blank ID: P00915B1

Analytical Method: 8081A
Extraction Method: Sep. funnel
LCS ID: P00915LCS1

Surr. Sol. ID: PW990830B
MS Sol. ID: PW990701B
Addt'l Spike ID: —

Prep Date/Time: 09/15/99
Analysis: Pest
Matrix: aqueous

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
FBC91099-0	P080701	100ml	1ml	—					10ml								1ml		~~NB~~ 09/21/99	
ER091099-0	02	↓	↓	—					↓								↓	↓	↓	

JM 09/14/99

JM 09/15/99

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: NO70763
Final Solvent ID: —
Container Lot #: —
Prepared by: JM

Sodium Sulfate Lot #: —
Supervisor Init: JA
Surrogate Added By: JM
Witnessed By: JA

Reagents IDs:

☐ GPC X Y Z
☐ Silica
☐ Florisil
Lot #:

Comment Codes:

RE = Reextract
AL 2nd Aliquot

LIMS = 990809

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990807 | Analytical Method: 8082 | Surr. Sol. ID: PW990915B | Prep Date/Time: 091 15/99

Client: XtraTech Nw | Extraction Method: sep funnel | MS Sol. ID: PW990701B | Analysis: PCB only

Blank ID: P0091584 | LCS ID: P0091S LCS4 | Addt'l Spike ID: — | Matrix: aqueous

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
—	P0091584	1000	100	—					10ml								1 ml	T	9/21/99 JM	
—	P0091584D			—																
—	LCS4			100																
FB091099-01	P0807-01			—																
FB091099-02	02			—																

*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: N020663 | Sodium Sulfate Lot #: — | Reagents IDs:

Final Solvent ID: — | Supervisor Init: JM

Container Lot #: — | Surrogate Added By: JM

Prepared by: JM | Witnessed By: EM

☐ GPC X Y Z

☐ Silica

☐ Florisil

Lot #: _____

Comment Codes:

RE = Reextract

AL 2nd Aliquot

METAL ANALYSES

CEIMIC

TOTAL METALS AND CYANIDE
- Cover Page -
INORGANIC ANALYSIS DATA PACKAGE

Contract: Outlaying Landing Field Bronson Pensacola, FL SDG No.: 091099

Lab Code: CEIMIC Case No.: 990807 SAS No.:

SOW No.: ILM04.0

Sample No.	Lab Sample ID.
FB091099-01	990807-01
ER091099-01	990807-02

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Donald Tortorelli Name: DONALD TORTORELLI

Date: 10/1/97 Title: INORGANIC LAB MGR

'EIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

ontract: Outlaying Landing Field Bronson Pensacola, FL

ab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

atrix (soil/water): WATER Lab Sample ID: 990807-01

evel (low/med): LOW Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	12.9	B		P
7440-41-7	Beryllium	0.64	B		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	333	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U		C
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.7	U		P
7439-95-4	Magnesium	119	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.18	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	246	B		P
7782-49-2	Selenium	2.3	B		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	385	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	3.8	B		P
7440-66-6	Zinc	14.0	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: Approved: David Tortorelli

CEIMIC

TOTAL METALS AND CYANIDE

-1-

INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Matrix (soil/water): WATER Lab Sample ID: 990807-02

Level (low/med): LOW Date Received: 09/11/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	4.5	U		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	333	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U		C
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.7	U		P
7439-95-4	Magnesium	119	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.18	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	222	U		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	293	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	18.5	B		P

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments: Approved: David Tortolli

TOTAL METALS AND CYANIDE
- 3 -
BLANKS

ontract: Outlaying Landing Field Bronson Pensacola, FL

ab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

reparation Blank Matrix (soil/water): WATER

reparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Aluminum			41.0	U	41.0	U	42.3	B	141.000	B	P
Barium			16.4	B	12.4	B	17.4	B	9.910	B	P
Beryllium			0.4	U	-0.4	B	0.4	U	0.430	B	P
Calcium			-127.3	B	170.1	B	-254.8	B	495.000	B	P
Chromium			-10.9	B	-11.8	B	-9.9	B	5.710	B	P
Cobalt			7.1	B	5.7	B	8.5	B	15.600	B	P
Copper			-4.7	B	-6.6	B	-4.7	B	13.000	B	P
Iron			40.0	U	40.0	U	40.0	U	40.000	U	P
Magnesium			119.0	U	133.7	B	119.0	U	551.000	B	P
Manganese			3.0	U	3.0	U	3.0	U	3.000	U	P
Nickel			-24.4	B	-31.9	B	-23.9	B	-11.960	B	P
Potassium			222.0	U	314.8	B	286.8	B	620.000	B	P
Sodium			57.0	U	133.2	B	57.0	U	570.000	B	P
Vanadium			5.3	B	2.8	U	2.8	U	18.500	B	P
Zinc			5.5	U	5.5	U	5.5	U	16.800	B	P

TOTAL METALS AND CYANIDE

- 3 -

BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Antimony	2.6	U	2.6	U	2.6	U	2.6	U	2.600	U	P
Arsenic	3.6	U	3.6	U	3.6	U	3.6	U	3.600	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.430	U	P
Lead	2.7	U	2.7	U	2.7	U	2.7	U	2.700	U	P
Mercury			0.14	U	0.14	U	0.14	U	0.140	U	AV
Selenium	3.3	B	2.1	U	2.1	U	2.8	B	2.100	U	P
Silver	3.7	U	3.7	U	3.7	U	3.7	U	3.700	U	P
Thallium	4.4	U	4.4	U	4.4	U	4.4	U	4.400	U	P

TOTAL METALS AND CYANIDE

- 3 -

BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
Cyanide	10.0	U	10.0	U	10.0	U			5.000	U	C

TOTAL METALS AND CYANIDE

-7-

LABORATORY CONTROL SAMPLE

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Solid LCS Source:

Aqueous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	10000.0	9660.60	96.6						
Barium	10000.0	8989.20	89.9						
Beryllium	250.0	241.13	96.5						
Calcium	25000.0	24334.00	97.3						
Chromium	1000.0	923.29	92.3						
Cobalt	2500.0	2266.90	90.7						
Copper	1250.0	1104.50	88.4						
Iron	5000.0	4833.20	96.7						
Magnesium	25000.0	24312.00	97.2						
Manganese	2500.0	2280.20	91.2						
·kel	2500.0	2234.90	89.4						
.assium	25000.0	22620.00	90.5						
Sodium	25000.0	24776.00	99.1						
Vanadium	2500.0	2377.40	95.1						
Zinc	2500.0	2240.30	89.6						
Cyanide	800	77.99	97.5						

TOTAL METALS AND CYANIDE

-7-

LABORATORY CONTROL SAMPLE

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Solid LCS Source:

Aqueous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits	%R
Antimony	500.0	453.52	90.7					
Arsenic	200.0	181.71	90.9					
Cadmium	100.0	85.84	85.8					
Lead	200.0	175.02	87.5					
Selenium	200.0	185.06	92.5					
Silver	1250.0	1138.50	91.1					
Thallium	200.0	175.64	87.8					

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

November 2, 1999

Ms. Lee Leck
Tetra Tech NUS
Foster Plaza VII
661 Andersen Dr.
Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlaying Landing Field Bronson Pensacola, FL Project, CTO# 86, Project No. 770413, SDG No. 02SU02. The 2 soil samples were taken from the field on October 12, 1999 and received at Ceimic Corporation on October 13, 1999.

These samples are reported under Ceimic Project Number 990890, which can be referenced when inquiring about this project.

For the semivolatiles fraction, sample 102SU02 was double spiked with internal standards.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,

Neil Pothier, Ph.D.
Laboratory Manager

NP/djj

Enclosures

cc: Mr. Terry Hansen
Tetra Tech NUS
1311 Executive Center Dr.
Ellis Bldg.
Suite 220
Tallahassee, FL 32301

10 Dean Knauss Drive, Narragansett, RI 02882 • Tel: (401) 782-8900 • Fax: (401) 782-8905

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CHAIN OF CUSTODY

970870 (VOA, 4)

CHAIN OF CUSTODY RECORD

SOUTHWEST LABORATORY OF OKLAHOMA, INC.
1700 W. Albany • Broken Arrow, Oklahoma 74012-1421
Office: 918-251-2858 • Fax 918-251-2599

TM

SAMPLING FIRM	CLIENT CONTACT	PHONE NUMBER
Tetra Tech		[illegible]

P.O. or PROPOSAL NUMBER	PROJECT NAME
	NAS Pensacola/OLF Bronson/CTO 96

SAMPLER: (Signature) [signature]

ANALYTICAL TESTS REQUESTED

SAMPLE NO.	DATE	TIME	COMP.	GRAB	LOCATION	MATRIX	NUMBER OF CONTAINERS	TCL VOC	TCL SVOC	Pest	PCB	TAL Metals				REMARKS
102S402	10/12/99	1305		✓	BRO-102-2S	S	24	X	X	X	X	X				
115101 99-01	10/12/99	0700		✓	Trip Blank	S	2	X								

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)
[signature]	10/12/99	1705	814774096782

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY: (Signature)
	10/13/99	10 AM	Karen Williamson

REMARKS:

02

[S 1192-03]

VOLATILE ANALYSES

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: V121013-B1

Date Sample Analyzed: 10/13/99

Matrix: Soil

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	ND	5
Acetone	ND	10
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
Tetrachloroethene	ND	5

Reported by: _____ Approved by: _____ 04

10 Dean Knauss Drive, Narragansett, RI 02882 Tel: (401) 782-8900 Fax: (401) 782-8905

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: V121013-B1

Date Sample Analyzed: 10/13/99

Matrix: Soil

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
ene	ND	5
Total Xylenes	ND	5

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	83	52 - 149
Dibromofluoromethane	102	65 - 135
Toluene-d8	104	65 - 135
Bromofluorobenzene	101	65 - 135

Reported by: _____ Approved by: _____ 05

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: V151013-B1

Date Sample Analyzed: 10/13/99

Matrix: Aqueous

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	ND	5
Acetone	ND	10
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
Tetrachloroethene	ND	5

Reported by: _____

Approved by: _____ 06

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Blank ID: V151013-B1

Matrix: Aqueous

Ceimic Project: 990890

Date Sample Analyzed: 10/13/99

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	107	62 - 139
Dibromofluoromethane	116	75 - 125
Toluene-d8	104	75 - 125
Bromofluorobenzene	122	75 - 125

Reported by: _____ Approved by: _____ 07

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

MODIFIED COMPOUND LIST
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102SU02

Laboratory ID: 990890-01

Date Sampled: 10/12/99

Date Sample Analyzed: 10/13/99

Date Sample Received: 10/13/99

Associated Method Blank: V121013-B1

Matrix: Soil

Dilution Factor: 1

Percent Solids: 96

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	9	5
Acetone	11	11
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	11
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	11
4-Methyl-2-Pentanone	ND	11
Tetrachloroethene	ND	5

Reported by: _____ Approved by: _____ 08

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

MODIFIED COMPOUND LIST
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 102SU02

Date Sampled: 10/12/99

Date Sample Received: 10/13/99

Matrix: Soil

Percent Solids: 96

Laboratory ID: 990890-01

Date Sample Analyzed: 10/13/99

Associated Method Blank: V121013-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	105	52 - 149
Dibromofluoromethane	104	65 - 135
Toluene-d8	103	65 - 135
Bromofluorobenzene	103	65 - 135

Reported by: _____ Approved by: _____ 09

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

MODIFIED COMPOUND LIST
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB1012

Date Sampled: 10/12/99

Date Sample Received: 10/13/99

Matrix: Aqueous

Laboratory ID: 990890-02

Date Sample Analyzed: 10/13/99

Associated Method Blank: V151013-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	ND	5
Acetone	ND	10
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	10
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	5
Tetrachloroethene		

10

Reported by: _____ Approved by: _____

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

MODIFIED COMPOUND LIST
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB1012

Date Sampled: 10/12/99

Date Sample Received: 10/13/99

Matrix: Aqueous

Laboratory ID: 990890-02

Date Sample Analyzed: 10/13/99

Associated Method Blank: V151013-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
C[illegible]robenzene	ND	5
[illegible]lbenzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	104	62 - 139
Dibromofluoromethane	109	75 - 125
Toluene-d8	102	75 - 125
Bromofluorobenzene	114	75 - 125

Reported by: _____ Approved by: _____ 11

LABORATORY CONTROL SAMPLE SUMMARY
VOLATILE BLANK SPIKE
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank Spike ID: V121013-LCS

Date Sample Analyzed: 10/13/99

Matrix: Soil

Associated Method Blank: V121013-B1

Concentration: ug/Kg (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	50	53	106	60 - 128
Trichloroethene	50	55	109	57 - 145
Benzene	50	55	110	72 - 124
Toluene	50	56	112	71 - 135
Chlorobenzene	50	56	112	72 - 135

* These limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	99	52 - 149
Dibromofluoromethane	106	65 - 135
Toluene-d8	106	65 - 135
Bromofluorobenzene	103	65 - 135

Reported by: _____

Approved by: _____

12

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY
VOLATILE BLANK SPIKE
SW846 METHOD 8260B

Client: Tetra Tech NUS

Blank Spike ID: V151013-LCS

Matrix: Aqueous

Ceimic Project: 990890

Date Sample Analyzed: 10/13/99

Associated Method Blank: V151013-B1

Concentration: µg/L (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	50	52	104	68 - 124
Trichloroethene	50	51	103	75 - 120
Benzene	50	52	103	78 - 127
Toluene	50	52	105	71 - 132
Chlorobenzene	50	52	103	77 - 128

* These limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	103	62 - 139
Dibromofluoromethane	105	75 - 125
Toluene-d8	106	75 - 125
Bromofluorobenzene	99	75 - 125

Reported by: _____

Approved by: _____ 13

SEMIVOLATILE ORGANIC ANALYSES

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

102SU02

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: 990890-01

Sample wt/vol: 30.1 (g/mL) G Lab File ID: JY983

Level: (low/med) LOW Date Received: 10/13/99

% Moisture: 4 decanted: (Y/N) N Date Extracted: 10/15/99

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99

Injection Volume: 2.0 (uL) Dilution Factor: ~~2.0~~ 1.0

GPC Cleanup: (Y/N) Y pH: _____ TS 11/2/99

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	170	U
111-44-4	bis(2-Chloroethyl)Ether	170	U
95-57-8	2-Chlorophenol	170	U
541-73-1	1,3-Dichlorobenzene	170	U
106-46-7	1,4-Dichlorobenzene	170	U
95-50-1	1,2-Dichlorobenzene	170	U
95-48-7	2-Methylphenol	170	U
108-60-1	2,2'-oxybis(1-Chloropropane)	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-Di-n-Propylamine	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
111-91-1	bis(2-Chloroethoxy)Methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
120-82-1	1,2,4-Trichlorobenzene	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
59-50-7	4-Chloro-3-Methylphenol	170	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	340	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	340	U
131-11-3	Dimethyl Phthalate	170	U
208-96-8	Acenaphthylene	170	U
606-20-2	2,6-Dinitrotoluene	170	U
99-09-2	3-Nitroaniline	340	U
83-32-9	Acenaphthene	170	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

102SU02

ıb Name: CEIMIC CORP Contract: TETRA_TECH

ıb Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

ıtrix: (soil/water) SOIL Lab Sample ID: 990890-01

ımple wt/vol: 30.1 (g/mL) G Lab File ID: JY983

ɜvel: (low/med) LOW Date Received: 10/13/99

Moisture: 4 decanted: (Y/N) N Date Extracted: 10/15/99

ɔncentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99

ıjection Volume: 2.0(uL) Dilution Factor: ~~2.0~~ 1.0

ɔC Cleanup: (Y/N) Y pH: _____

11/2/99

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	340	U
100-02-7	4-Nitrophenol	340	U
132-64-9	Dibenzofuran	170	U
121-14-2	2,4-Dinitrotoluene	170	U
84-66-2	Diethylphthalate	170	U
7005-72-3	4-Chlorophenyl-phenylether	170	U
86-73-7	Fluorene	170	U
100-01-6	4-Nitroaniline	340	U
534-52-1	4,6-Dinitro-2-Methylphenol	340	U
86-30-6	N-Nitrosodiphenylamine (1)	170	U
101-55-3	4-Bromophenyl-phenylether	170	U
118-74-1	Hexachlorobenzene	170	U
87-86-5	Pentachlorophenol	340	U
85-01-8	Phenanthrene	170	U
120-12-7	Anthracene	170	U
86-74-8	Carbazole	170	U
84-74-2	Di-n-Butylphthalate	170	U
206-44-0	Fluoranthene	170	U
129-00-0	Pyrene	170	U
85-68-7	Butylbenzylphthalate	170	U
91-94-1	3,3'-Dichlorobenzidine	170	U
56-55-3	Benzo(a)Anthracene	170	U
218-01-9	Chrysene	170	U
117-81-7	bis(2-Ethylhexyl)Phthalate	170	U
117-84-0	Di-n-Octyl Phthalate	170	U
205-99-2	Benzo(b)Fluoranthene	170	U
207-08-9	Benzo(k)Fluoranthene	170	U
50-32-8	Benzo(a)Pyrene	170	U
193-39-5	Indeno(1,2,3-cd)Pyrene	170	U
53-70-3	Dibenzo(a,h)Anthracene	170	U
191-24-2	Benzo(g,h,i)Perylene	170	U

(1) - Cannot be separated from Diphenylamine

16

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCSJS

ab Name: CEIMIC CORP Contract: TETRA_TECH

ab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

atrix: (soil/water) SOIL Lab Sample ID: S1015-LCS2

ample wt/vol: 30.0 (g/mL) G Lab File ID: JY980

evel: (low/med) LOW Date Received: _____

Moisture: _____ decanted: (Y/N) N Date Extracted: 10/15/99

oncentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99

njection Volume: 2.0 (uL) Dilution Factor: 1.0

PC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1200	
111-44-4	bis(2-Chloroethyl)Ether	1000	
95-57-8	2-Chlorophenol	1100	
541-73-1	1,3-Dichlorobenzene	990	
106-46-7	1,4-Dichlorobenzene	950	
95-50-1	1,2-Dichlorobenzene	980	
95-48-7	2-Methylphenol	1200	
108-60-1	2,2'-oxybis(1-Chloropropane)	1100	
106-44-5	4-Methylphenol	1200	
621-64-7	N-Nitroso-Di-n-Propylamine	1100	
67-72-1	Hexachloroethane	940	
98-95-3	Nitrobenzene	1100	
78-59-1	Isophorone	1100	
88-75-5	2-Nitrophenol	1100	
105-67-9	2,4-Dimethylphenol	990	
111-91-1	bis(2-Chloroethoxy)Methane	1100	
120-83-2	2,4-Dichlorophenol	1200	
120-82-1	1,2,4-Trichlorobenzene	1000	
91-20-3	Naphthalene	1100	
106-47-8	4-Chloroaniline	670	
87-68-3	Hexachlorobutadiene	1000	
59-50-7	4-Chloro-3-Methylphenol	1300	
91-57-6	2-Methylnaphthalene	1100	
77-47-4	Hexachlorocyclopentadiene	1000	
88-06-2	2,4,6-Trichlorophenol	1300	
95-95-4	2,4,5-Trichlorophenol	1300	
91-58-7	2-Chloronaphthalene	1200	
88-74-4	2-Nitroaniline	1300	
131-11-3	Dimethyl Phthalate	1300	
208-96-8	Acenaphthylene	1200	
606-20-2	2,6-Dinitrotoluene	1300	
99-09-2	3-Nitroaniline	1100	
83-32-9	Acenaphthene	1200	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCSJS

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: S1015-LCS2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY980

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 10/15/99

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100	
100-02-7	4-Nitrophenol	1400	
132-64-9	Dibenzofuran	1200	
121-14-2	2,4-Dinitrotoluene	1400	
84-66-2	Diethylphthalate	1300	
7005-72-3	4-Chlorophenyl-phenylether	1200	
86-73-7	Fluorene	1200	
100-01-6	4-Nitroaniline	1200	
534-52-1	4,6-Dinitro-2-Methylphenol	1300	
86-30-6	N-Nitrosodiphenylamine (1)	1300	
101-55-3	4-Bromophenyl-phenylether	1300	
118-74-1	Hexachlorobenzene	1300	
87-86-5	Pentachlorophenol	1400	
85-01-8	Phenanthrene	1300	
120-12-7	Anthracene	1300	
86-74-8	Carbazole	1300	
84-74-2	Di-n-Butylphthalate	1300	
206-44-0	Fluoranthene	1400	
129-00-0	Pyrene	1400	
85-68-7	Butylbenzylphthalate	1400	
91-94-1	3,3'-Dichlorobenzidine	1000	
56-55-3	Benzo(a)Anthracene	1400	
218-01-9	Chrysene	1400	
117-81-7	bis(2-Ethylhexyl)Phthalate	1400	
117-84-0	Di-n-Octyl Phthalate	1500	
205-99-2	Benzo(b)Fluoranthene	1400	
207-08-9	Benzo(k)Fluoranthene	1400	
50-32-8	Benzo(a)Pyrene	1300	
193-39-5	Indeno(1,2,3-cd)Pyrene	1400	
53-70-3	Dibenzo(a,h)Anthracene	1500	
191-24-2	Benzo(g,h,i)Perylene	1400	

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKJS

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: S1015-B2J

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY981

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 10/15/99

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
108-95-2	Phenol	160	U
111-44-4	bis(2-Chloroethyl)Ether	160	U
95-57-8	2-Chlorophenol	160	U
541-73-1	1,3-Dichlorobenzene	160	U
106-46-7	1,4-Dichlorobenzene	160	U
95-50-1	1,2-Dichlorobenzene	160	U
95-48-7	2-Methylphenol	160	U
108-60-1	2,2'-oxybis(1-Chloropropane)	160	U
106-44-5	4-Methylphenol	160	U
621-64-7	N-Nitroso-Di-n-Propylamine	160	U
67-72-1	Hexachloroethane	160	U
98-95-3	Nitrobenzene	160	U
78-59-1	Isophorone	160	U
88-75-5	2-Nitrophenol	160	U
105-67-9	2,4-Dimethylphenol	160	U
111-91-1	bis(2-Chloroethoxy)Methane	160	U
120-83-2	2,4-Dichlorophenol	160	U
120-82-1	1,2,4-Trichlorobenzene	160	U
91-20-3	Naphthalene	160	U
106-47-8	4-Chloroaniline	160	U
87-68-3	Hexachlorobutadiene	160	U
59-50-7	4-Chloro-3-Methylphenol	160	U
91-57-6	2-Methylnaphthalene	160	U
77-47-4	Hexachlorocyclopentadiene	160	U
88-06-2	2,4,6-Trichlorophenol	160	U
95-95-4	2,4,5-Trichlorophenol	330	U
91-58-7	2-Chloronaphthalene	160	U
88-74-4	2-Nitroaniline	330	U
131-11-3	Dimethyl Phthalate	160	U
208-96-8	Acenaphthylene	160	U
606-20-2	2,6-Dinitrotoluene	160	U
99-09-2	3-Nitroaniline	330	U
83-32-9	Acenaphthene	160	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKJS

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: S1015-B2J

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY981

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N) N Date Extracted: 10/15/99

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	330	U
100-02-7	4-Nitrophenol	330	U
132-64-9	Dibenzofuran	160	U
121-14-2	2,4-Dinitrotoluene	160	U
84-66-2	Diethylphthalate	160	U
7005-72-3	4-Chlorophenyl-phenylether	160	U
86-73-7	Fluorene	160	U
100-01-6	4-Nitroaniline	330	U
534-52-1	4,6-Dinitro-2-Methylphenol	330	U
86-30-6	N-Nitrosodiphenylamine (1)	160	U
101-55-3	4-Bromophenyl-phenylether	160	U
118-74-1	Hexachlorobenzene	160	U
87-86-5	Pentachlorophenol	330	U
85-01-8	Phenanthrene	160	U
120-12-7	Anthracene	160	U
86-74-8	Carbazole	160	U
84-74-2	Di-n-Butylphthalate	160	U
206-44-0	Fluoranthene	160	U
129-00-0	Pyrene	160	U
85-68-7	Butylbenzylphthalate	160	U
91-94-1	3,3'-Dichlorobenzidine	160	U
56-55-3	Benzo(a)Anthracene	160	U
218-01-9	Chrysene	160	U
117-81-7	bis(2-Ethylhexyl)Phthalate	160	U
117-84-0	Di-n-Octyl Phthalate	160	U
205-99-2	Benzo(b)Fluoranthene	160	U
207-08-9	Benzo(k)Fluoranthene	160	U
50-32-8	Benzo(a)Pyrene	160	U
193-39-5	Indeno(1,2,3-cd)Pyrene	160	U
53-70-3	Dibenzo(a,h)Anthracene	160	U
191-24-2	Benzo(g,h,i)Perylene	160	U

(1) - Cannot be separated from Diphenylamine

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
**01	102SU02	56	62	74	58	57	60	56	56	0
02	SLCSJS	67	72	83	67	70	82	65	62	0
03	SBLKJS	65	70	78	66	63	69	63	63	0

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

** Sample 102SU02 was double spiked with internal standards.

LABORATORY CONTROL SPIKE SUMMARY
SEMIVOLATILE ORGANIC ANALYSIS
EPA Method 8270 SOIL

LAB SAMP ID S1015-LCS2 SAMPLE ID SLCSJS
LAB QC ID _____ TYPE EPA

DATA RELEASE AUTHORIZED BY

FILE NAME	JY980	RECEIVED		METHOD	CLP
TUNE	JY974	EXTRACTED	10/15/99	FRACTION	BNA
STANDARD	JY975	ANALYZED	10/29/99 18:23	INST	MS10
BLANK	JY981	VERIFIED		ANALYST	
TAPE/POS				BOTTLE	

% MOISTURE		pH		LEVEL	LOW
(DECANTED)		CLEANUP	GPC	MATRIX	SOIL
DIL FACTOR	1.000	EXTRACT METHOD	SONC	UNITS	ug/Kg

SAMPLE CONDITIONS:

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
C315	108-95-2	Phenol	50.00	34.73	69.46	
C325	111-44-4	bis(2-Chloroethyl)Ether	50.00	31.09	62.18	
C330	95-57-8	2-Chlorophenol	50.00	32.08	64.16	
C345	100-51-6	Benzyl Alcohol	50.00	45.06	90.12	
C355	95-48-7	2-Methylphenol	50.00	34.99	69.98	
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	33.36	66.72	
C365	106-44-5	4-Methylphenol	50.00	36.39	72.78	
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	33.15	66.30	
C375	67-72-1	Hexachloroethane	50.00	28.25	56.50	
C410	98-95-3	Nitrobenzene	50.00	31.64	63.28	
C415	78-59-1	Isophorone	50.00	32.73	65.46	
C420	88-75-5	2-Nitrophenol	50.00	34.05	68.10	
C425	105-67-9	2,4-Dimethylphenol	50.00	29.67	59.34	
C430	65-85-0	Benzoic Acid	100.0	68.68	68.68	
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	32.14	64.28	
C440	120-83-2	2,4-Dichlorophenol	50.00	34.78	69.56	
C450	91-20-3	Naphthalene	50.00	31.89	63.78	
C455	106-47-8	4-Chloroaniline	50.00	20.15	40.30	
C460	87-68-3	Hexachlorobutadiene	50.00	30.30	60.60	
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	37.72	75.44	
C470	91-57-6	2-Methylnaphthalene	50.00	32.54	65.08	
C510	77-47-4	Hexachlorocyclopentadiene	50.00	31.06	62.12	
C515	88-06-2	2,4,6-Trichlorophenol	50.00	38.78	77.56	
C520	95-95-4	2,4,5-Trichlorophenol	50.00	38.86	77.72	
C525	91-58-7	2-Chloronaphthalene	50.00	35.04	70.08	
C530	88-74-4	2-Nitroaniline	50.00	38.59	77.18	
C535	131-11-3	Dimethyl Phthalate	50.00	38.47	76.94	
C540	208-96-8	Acenaphthylene	50.00	36.75	73.50	
C543	606-20-2	2,6-Dinitrotoluene	50.00	40.32	80.64	

LABORATORY CONTROL SPIKE SUMMARY
SEMIVOLATILE ORGANIC ANALYSIS
EPA Method 8270 SOIL

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY %	FLGS
C545	99-09-2	3-Nitroaniline	50.00	31.63	63.26	
C550	83-32-9	Acenaphthene	50.00	35.23	70.46	
C555	51-28-5	2,4-Dinitrophenol	50.00	32.99	65.98	
C560	100-02-7	4-Nitrophenol	50.00	40.77	81.54	
C565	132-64-9	Dibenzofuran	50.00	36.23	72.46	
C570	121-14-2	2,4-Dinitrotoluene	50.00	41.74	83.48	
C580	84-66-2	Diethylphthalate	50.00	39.39	78.78	
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	36.75	73.50	
C590	86-73-7	Fluorene	50.00	36.12	72.24	
C595	100-01-6	4-Nitroaniline	50.00	36.64	73.28	
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	39.50	79.00	
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	38.39	76.78	
C625	101-55-3	4-Bromophenyl-phenylether	50.00	38.32	76.64	
C630	118-74-1	Hexachlorobenzene	50.00	37.90	75.80	
C635	87-86-5	Pentachlorophenol	50.00	40.58	81.16	
C640	85-01-8	Phenanthrene	50.00	38.57	77.14	
C645	120-12-7	Anthracene	50.00	38.20	76.40	
C646	86-74-8	Carbazole	50.00	40.40	80.80	
C650	84-74-2	Di-n-Butylphthalate	50.00	39.09	78.18	
5	206-44-0	Fluoranthene	50.00	40.51	81.02	
C715	129-00-0	Pyrene	50.00	42.22	84.44	
C720	85-68-7	Butylbenzylphthalate	50.00	41.96	83.92	
C725	91-94-1	3,3'-Dichlorobenzidine	50.00	30.38	60.76	
C730	56-55-3	Benzo(a)Anthracene	50.00	41.99	83.98	
C740	218-01-9	Chrysene	50.00	40.92	81.84	
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	42.37	84.74	
C760	117-84-0	Di-n-Octyl Phthalate	50.00	43.51	87.02	
C765	205-99-2	Benzo(b)Fluoranthene	50.00	40.68	81.36	
C770	207-08-9	Benzo(k)Fluoranthene	50.00	40.95	81.90	
C775	50-32-8	Benzo(a)Pyrene	50.00	40.26	80.52	
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	43.48	86.96	
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	43.98	87.96	
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	41.83	83.66	

PESTICIDE ANALYSES

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

102SU02

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: 990890-01

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Moisture: 4 decanted: (Y/N) N Date Received: 10/13/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/15/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.8	U
319-85-7	beta-BHC	1.8	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	1.8	U
76-44-8	Heptachlor	1.8	U
309-00-2	Aldrin	1.8	U
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	3.4	U
60-57-1	Dieldrin	3.4	U
72-55-9	4,4'-DDE	3.4	U
72-20-8	Endrin	3.4	U
33213-65-9	Endosulfan II	3.4	U
72-54-8	4,4'-DDD	3.4	U
1031-07-8	Endosulfan sulfate	3.4	U
50-29-3	4,4'-DDT	18	U
72-43-5	Methoxychlor	3.4	U
53494-70-5	Endrin ketone	3.4	U
7421-93-4	Endrin aldehyde	1.8	U
5103-71-9	alpha-Chlordane	1.8	U
5103-74-2	gamma-Chlordane	180	U
8001-35-2	Toxaphene		

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: P1015-B3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/15/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLCS01

La ame: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: P1015-LCS3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 0 decanted: (Y/N) N Date Received: 10/15/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/15/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.8	
319-85-7	beta-BHC	10	
319-86-8	delta-BHC	11	
58-89-9	gamma-BHC (Lindane)	10	
76-44-8	Heptachlor	9.5	
309-00-2	Aldrin	10	
1024-57-3	Heptachlor epoxide	11	
959-98-8	Endosulfan I	7.4	
60-57-1	Dieldrin	12	
72-55-9	4,4'-DDE	11	
72-20-8	Endrin	12	
33213-65-9	Endosulfan II	9.8	
72-54-8	4,4'-DDD	11	
1031-07-8	Endosulfan sulfate	12	P
50-29-3	4,4'-DDT	12	P
72-43-5	Methoxychlor	15	J
53494-70-5	Endrin ketone	11	
7421-93-4	Endrin aldehyde	12	
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0A

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0A

Sample wt/vol: 1000 (g/mL) ML Lab_File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: _(SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/13/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0B

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0C

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0C

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0D

La ame: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/22/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0E

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0E

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/25/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0F

La. Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0F

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/25/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1A

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/13/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1B

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1C

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1C

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1D

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/22/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1E

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1E

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/25/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1F

Lab Name: CEIMIC CORP Contract: TETRA_TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1F

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) _____ Date Extracted: _____

Concentrated Extract Volume: _____ (uL) Date Analyzed: 10/25/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

2F
SOIL PESTICIDE SURROGATE RECOVERY

ab Name: CEIMIC CORP Contract: TETRA_TECH

ab Code: CEIMIC Case No.: 770413 SAS No.: _____ SDG No.: 02SU02

C Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK01	54	54	56	53			0
02	102SU02	49	44	57	55			0
03	PLGS01	57	56	59	57			0

QC LIMITS

TCX = Tetrachloro-m-xylene (32-103)
DCB = Decachlorobiphenyl (25-131)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORMIII-LCS

LABORATORY CONTROL SPIKE RECOVERY

ab Name: CEIMIC CORP Contract: TETRA_TECH

ab Code: CEIMIC Case No.: 770413 SAS No.: SDG No.: 02SU02

ethod Blank Spike: PLCS01 Laboratory ID: P1015-LCS3

atrix: Soil

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC LIMITS
alpha-BHC	17	9.8	58	38-140
beta-BHC	17	10	59	52-132
delta-BHC	17	11	65	39-99
gamma-BHC (Lindane)	17	10	59	44-131
Heptachlor	17	9.5	56	49-116
Aldrin	17	10	59	39-130
Heptachlor Epoxide	17	11	65	44-123
Endosulfan I	17	7.4	44	56-130
Dieldrin	17	12	71	56-123
4,4'-DDE	17	11	65	47-128
Endrin	17	12	71	54-144
Endosulfan II	17	9.8	58	54-134
4,4'-DDD	17	11	65	52-123
Endosulfan Sulfate	17	12	71	56-130
4,4'-DDT	17	12	71	54-142
M oxychlor	17	15	88	64-148
En in Ketone	17	11	65	58-136
Endrin Aldehyde	17	12	71	49-112
-				

OMMENTS:

FORMIII-LCS

PCB ANALYSES

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: 102SU02
Date Sampled: 10/12/99
Date Sample Received: 10/13/99
Matrix: Soil
Percent Solids: 96

Laboratory ID: 990890-01
Date Sample Extracted: 10/15/99
Date Sample Analyzed: 10/19/99
Associated Method Blank: P1015-B1
Final Extract Volume (mL):10.0
Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	35.0
lor-1221	ND	70.0
Aroclor-1232	ND	35.0
Aroclor-1242	ND	35.0
Aroclor-1248	ND	35.0
Aroclor-1254	ND	35.0
Aroclor-1260	ND	35.0

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	73	32 - 103
Decachlorobiphenyl	93	25 - 131

* These limits are provided for advisory purposes.

Reported by: JdB

Approved by: HK

Form I PCB

METHOD BLANK
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P1015-BL

Matrix: Soil

Ceimic Project: 990890

Date Sample Extracted: 10/15/99

Date Sample Analyzed: 10/19/99

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	33.0
Aroclor-1221	ND	66.0
Aroclor-1232	ND	33.0
Aroclor-1242	ND	33.0
Aroclor-1248	ND	33.0
Aroclor-1254	ND	33.0
Aroclor-1260	ND	33.0

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	83	32 - 103
Decachlorobiphenyl	95	25 - 131

* These limits are provided for advisory purposes.

Reported by: JdB

Approved by: [signature]

LABORATORY CONTROL SUMMARY
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank Spike ID: P1015-LCS1

Matrix: Soil

Ceimic Project: 990890

Date Sample Analyzed: 10/19/99

Date Sample Prepared: 10/15/99

Associated Method Blank: P1015-B1

Concentration in: ug/Kg (ppb)+

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	165	140	85	30 - 150
Aroclor-1260	165	170	103	34 - 174

ND = Not detected
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	32 - 103
Decachlorobiphenyl	100	25 - 131

* These limits are provided for advisory purposes.

Reported by: JDB

Approved by: [signature]

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990890
Client: Tetra Tech NUS
Blank ID: P1015-B1

Analytical Method: 8082
Extraction Method: 3550A
LCS ID: P1015-LCS1

Surr. Sol. ID: PW991004C
MS Sol. ID: PW99090NB
Addt'l Spike ID: —

Prep Date/Time: 10/15/99
Analysis: PCB
Matrix: Soil

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (µl)	MS Vol (µl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
	P1015-B1	30.0	2000	—			—	—	10.0											
	-LCS1	30.0	↓	100			↓	↓	↓		MR						1.0	—	CH 10/17	
1025002	P0890-01	30.0	↓	—	4		↓	↓	↓			10/15/99					↓	↓	↓	
									MR											
										10/15/99										

Extr.Solvent ID: N34468/N23298
Final Solvent ID: ↓
Container Lot #: B69310-03
Prepared by: MR

Sodium Sulfate Lot #: N29591
Supervisor Init: [signature]
Surrogate Added By: MR
Witnessed By: [signature]

*All volumes are in milliliters (ml) unless otherwise noted.

Reagents IDs:

☐ GPC X Y Z
☐ Silica
☐ Florisil

Lot #:

Comment Codes:

RE = Reextract
AL 2nd Aliquot

AT0287

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METAL ANALYSES

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

METHOD BLANK
TOTAL METALS
SW846 METHOD 6010B AND 7471A

Client: Tetra Tech NUS

Blank ID: PBS

Matrix: Soil

Ceimic Project: 990890

Date Analysis Completed: 10/18/99

Concentration in: mg/Kg (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1015	ND	20
Antimony	1015	ND	5
Arsenic	1015	ND	1
Barium	1015	ND	1
Beryllium	1015	ND	1
Cadmium	1015	ND	1
Calcium	1015	ND	50
Chromium	1015	ND	2
Cobalt	1015	ND	2
Copper	1015	ND	2
Iron	1015	ND	10
Lead	1015	ND	0.5
Magnesium	1015	ND	50
Manganese	1015	ND	1
Mercury	1015	ND	0.1
Nickel	1015	ND	4
Potassium	1015	ND	50
Selenium	1015	ND	1
Silver	1015	ND	1
Sodium	1015	ND	50
Thallium	1015	ND	1
Vanadium	1015	ND	5
Zinc	1015	ND	2

ND = Not Detected

Reported by: _____ Approved by: _____

10 Dean Knauss Drive, Narragansett, RI 02882 · Tel: (401) 782-8900 · Fax: (401) 782-8905

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

TOTAL METALS
SW846 METHOD 6010B AND 7471A

Client: Tetra Tech NUS

Client Sample ID: 102SU02

Date Sampled: 10/12/99

Date Sample Received: 10/13/99

Matrix: Soil

Percent Solids: 91

Laboratory ID: 990890-01

Date Analysis Completed: 10/18/99

Concentration in: mg/Kg (ppm)+

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1015	533	20
Antimony	1015	ND	4
Arsenic	1015	ND	0.9
Barium	1015	1.4	0.9
Beryllium	1015	ND	0.9
[illegible]mium	1015	ND	0.9
[illegible]ium	1015	ND	40
Chromium	1015	ND	2
Cobalt	1015	ND	2
Copper	1015	ND	2
Iron	1015	109	9
Lead	1015	0.6	0.4
Magnesium	1015	ND	40
Manganese	1015	ND	0.9
Mercury	1015	ND	0.1
Nickel	1015	ND	3
Potassium	1015	ND	40
Selenium	1015	ND	0.9
Silver	1015	ND	0.9
Sodium	1015	ND	40
Thallium	1015	ND	0.9
Vanadium	1015	ND	4
Zinc	1015	ND	2

ND = Not Detected
+ Dry weight basis

Reported by: [signature]

Approved by: David Tatarelli

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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY
TOTAL METALS
SW846 METHOD 6010B AND 7471A

Client: Tetra Tech NUS

Ceimic Project: 990890

Laboratory Control Spike ID: LCSS

Date Analysis Completed: 10/18/99

Matrix: Soil

Concentration in: mg/Kg (ppm)

Target Analyte	Preparation Batch	True Value	Lab Control Spike Result	Lab Control Spike Recovery(%)	QC Limits(%)
Aluminum	1015	5250	3930	74.8	60 - 108
Antimony	1015	33.0	25.8	78.2	37 - 153
Arsenic	1015	93.9	93.9	100.0	71 - 127
Barium	1015	330	267	80.9	67 - 123
Beryllium	1015	42.7	39.0	91.3	80 - 112
Cadmium	1015	97.2	91.2	93.8	76 - 108
Calcium	1015	1320	1160	87.7	80 - 120
Chromium	1015	46.0	42.1	91.5	80 - 112
Cobalt	1015	120	108	90.0	78 - 104
Copper	1015	147	137	93.2	75 - 111
Iron	1015	10200	8700	85.3	46 - 128
Lead	1015	135	122	90.4	79 - 115
Magnesium	1015	2340	2010	86.0	70 - 104
Manganese	1015	166	147	88.6	82 - 104
Mercury	1015	2.17	2.67	*123.0	67 - 117
Nickel	1015	138	126	91.3	68 - 114
Potassium	1015	1480	1280	86.3	80 - 120
Selenium	1015	96.0	94.2	98.1	59 - 129
Silver	1015	86.7	89.8	103.6	79 - 119
Sodium	1015	845	669	79.2	73 - 107
Thallium	1015	45.7	46.1	100.9	77 - 127
Vanadium	1015	65.1	59.3	91.1	73 - 111
Zinc	1015	75.0	66.1	88.1	79 - 109

* Outside control chart criteria but within mean factored limits.

Reported by: _____ Approved by: Donald Tatulli 50

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SW846 AQ + SOIL

Ceimic Corporation

Metals Laboratory

Metals Preparation Logbook

Review: BA 10/16/99

Analyst: TY

Date: 10/15/99

Ceimic ID	Client ID	Prep LCS ID	Type	pH	Sample Wt/Vol	Spike ID	Final Vol	Color Before/After	Clarity Before/After	Texture	Artifacts & Comments
990896-10	MW-41A	"	I	<2	100mL	"	100mL	yel./gel.	cldy. Thick/clr.	"	"
↓ -11	MW-41B							yel./↓	clr./		
Diss 990896-01	MW-29							clr less/clr less	/		
-02	MW-19							↓/↓	/		
-03	MW-41C							yel./yel.	/		
-04	MW-28A							clr less/clr less	/		
-05	MW-28B							/	/		
-06	MW-12							/yel.	/		
-08	MW-47A							/clr less	/		
-09	MW-47B							/yel.	/		
-10	MW-41A							yel./	/		
-11	MW-41B							yel./	/		
1015 PBS,	#854, 890	↓		—	—			—/—	—/—	—	
1015 LCS,	#854, 890	990907088			1.00g			—/—	—/—	—	
990884-01	SB-03-25	—			1.14			brn/yel.	/clr	med.	
↓ -03	SB-19-03				1.34			↓/↓	↓/↓	↓	
990890-01	1025W02	↓	↓	↓	1.28	↓	↓	↓/↓	↓/↓	↓	10/15/99
								/	/		

Color = red, blue, yellow, green, orange, violet, white, brown, grey, black, colorless

Clarity = clear, cloudy, opaque

Texture = fine (powder), medium (sand), coarse (large crystals or rocks)

Comments = artifacts and changes (ex. emulsion formation)

LCS ID includes volume taken and Ceimic ID

Pipette ID: ——

1000 µl = ——

400 µl = ——

Acid Lot #(s): *

H_2O_2 Lot #: I99C927A

* { 1:1 HNO_3 – MR990128
conc HNO_3 – 129966105
conc HCl – R990823AS

Prep type ICAP (I) or Zeeman (Z)

pH = <2 or >2 for waters

Spike ID = includes volume taken and Ceimic ID

Spike Witness: ——

Q/ 17 Wheaton 125mL: (M990926)

1104090-01

005

Page # ——

Ceimic Corporation

Classical Chemistry Laboratory

% Solids Logbook

Date/Time In	Date/Time Out	Ceimic ID	Client ID	Tare g	Wet weight Gross g	Wet weight Net g	Dry Weight Gross #1 g	Dry Weight Gross #2* g	Dry Weight Net g	% Solids	Analyst	Review By
10/12/99 15:52	14/10/99 09:30	990883-11	GN-D008406	1.27	8.98	7.67	7.99	—	6.70	87.1	DT	BG 10/13
9/12/99 11:15	10/10/99 09:00	990884-01	JB-03-25	1.30	7.35	6.05	6.52		5.22	86.3	DT	BG 10/13
		-03	JB-19-03	1.30	8.12	6.82	6.80		5.50	80.6		
		990890-01	1025002	1.30	9.49	8.19	8.77		7.47	91.2		
10/18/99 11:20		990897-01	D00276	1.30	8.63	7.33	4.39		3.09	42.2	KS	
		-02	D00277	1.30	9.43	8.13	5.03		3.73	45.9		
		-03	D00278	1.30	8.58	7.28	5.69		4.39	60.3		
		-04	D00279	1.29	8.72	7.43	5.35		4.06	54.6		
		-04D	↓ MD	1.29	8.62	7.33	5.18		3.89	53.1		
		-05	D00280	1.30	9.71	8.41	6.04		4.74	56.4		
		-06	D00281	1.30	8.73	7.43	5.38		4.08	54.9		
		-07	D00282	1.30	8.26	6.96	3.90		2.60	37.4		
		-08	D00283	1.30	9.91	8.61	4.56		3.26	37.9		
		-09	D00284	1.30	9.09	7.79	4.63		3.33	42.7		
		-10	D00285	1.30	9.48	8.18	7.97		6.67	81.5		
		-11	D00286	1.30	8.85	7.55	6.53		5.23	69.3		
		-12	D00287	1.30	9.08	7.78	7.90		6.60	84.8		
		-13	D00288	1.29	9.09	7.80	7.59		6.30	80.8		

All weights must be carried out to 2 decimal places Dry samples ≥ 12 hours at 103°C to 105°C * Use only when proving constant weight.

% solids = (net dry weight/ net wet weight)*100

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

November 19, 1999

Ms. Lee Leck
Tetra Tech NUS
Foster Plaza VII
Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlaying Landing Field Bronson Pensacola, FL Project, Project No. CTO86, SDG No. 022S01. The 3 aqueous samples were taken from the field on October 27, 1999 and received at Ceimic Corporation on October 28, 1999.

These samples are reported under Ceimic Project Number 990922, which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,

Neil Pothier, Ph.D
Laboratory Manager

NP/djj

Enclosures

10 Dean Knauss Drive, Narragansett, RI 02882 • Tel: (401) 782-8900 • Fax: (401) 782-8905

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PROJECT NARRATIVE

SDG Narrative

The enclosed data package is in response to Tetra Tech NUS, Outlaying Landing Field Bronson Pensacola, FL Project, Project No. CTO86, SDG No. 022S01. Under this SDG there are 5 VOA, 4 SVOA, 4 PEST and 4 PCB analyses for 3 aqueous samples which were received at Ceimic Corporation on October 28, 1999.

This data package includes the analyses for the following samples from SDG No. 022S01:

(1)

Client ID	Ceimic ID	Analysis
BRO-102-2S-01	990922-01	VOA, SVOA, PEST, PCB
BRO-102-1S-01 MS/MSD	990922-02 MS/MSD	VOA, SVOA, PEST, PCB
TB102799-02	990922-03	VOA

The submitted data covers the analyses of the Volatiles (VOA), Semivolatiles (SVOA), Pesticides (PEST) and PCB fractions and their associated blanks and QA/QC. CEIMIC would like to highlight the following points pertaining to the analyses performed for this case:

(2) **Sample Receipt**

All samples were received intact and properly preserved.

The cooler temperatures upon receipt are annotated on the Chain of Custodies and on the Ceimic Sample Receiving Checklist.

(3) **Instrumentation and Column Identification**

The following instruments were used for the analyses:

GC/MS Analysis

A. VOA

MS12: HP5973 GC/MS using 20 m x 0.18 mm ID, 1 µm film thickness DB-624 capillary column.

MS15: HP5970B GC/MS using 105 m x 0.53 mm ID, 3 µm film thickness VOCOL megabore column.

B. SVOA

MS1: HP5970B GC/MS using 30 m x 0.25 mm ID, 0.5 µm film thickness DB-5 fused silica capillary column.

MS10: HP5970B GC/MS using 30 m x 0.25 mm ID, 0.5 µm film thickness DB-5 fused silica capillary column.

GC Analysis

C. PEST

AD4_1: HP5890II using 30 m x 0.53 mm ID, 0.83 µm film thickness DB-5 megabore column GC-5 (J.W. Scientific).

AD5_1: HP5890II using 30 m x 0.53 mm ID, 0.83 µm film thickness DB-1701 megabore column GC-5 (J.W. Scientific).

D. PCB

AD17_1: HP5890II using 30 m x 0.53 mm ID, 0.83 µm film thickness DB-608 megabore column GC-6 (J.W. Scientific).

AD18_1: HP5890II using 30 m x 0.53 mm ID, 0.83 µm film thickness DB-5 megabore column GC-6 (J.W. Scientific).

(4) **Sample Information**

Additional qualifier: "x"

An "x" qualifier is flagged by Formaster software whenever the data is manually edited.

The letters "M" for GC/MS and "FF" for GC are used on the raw data of the quantitation report whenever a manual integration is performed. These data manipulations are done only to correct for computer integration error.

A. VOA Fraction (Method 8260B)

No noncompliance is noted.

B. SVOA Fraction (Method 8270C)

No noncompliance is noted.

C. PEST Fraction (Method 8081A)

Sample O1022S01 had low DCB recovery on both columns.

D. PCB Fraction Method 8082

No noncompliance is noted.

E. PAH Fraction Method 8310

No noncompliance is noted.

Deviation from the SOW

None other than specified above.

End of SDG Narrative

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Neil Pothier, Laboratory Manager

November 19, 1999
Date

CHAIN OF CUSTODY

TETRA TECH NUS, INC.

CHAIN OF CUSTODY | NUMBER 99042 (5 VOA) | PAGE 1 OF 1

PROJECT NO: C70 86

SITE NAME: OLF Bronson

PROJECT MANAGER AND PHONE NUMBER: Terry Hanson (850) 385-4849

FIELD OPERATIONS LEADER AND PHONE NUMBER: Roger Franklin

CARRIER/WAYBILL NUMBER: 809 06 02 13 798

LABORATORY NAME AND CONTACT: Ceimic Corporation

ADDRESS: 10 Dean Knauss Dr.

CITY, STATE: Nairangause #, RI

SAMPLERS (SIGNATURE): [signature]

STANDARD TAT ☑
RUSH TAT ☐
☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 7 day ☐ 14 day

CONTAINER TYPE PLASTIC (P) or GLASS (G)

PRESERVATIVE USED

DATE YEAR 1999	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS: TCL VOC	TCL SVOC	Pest/PCB	TAL Metals	Cyanide				COMMENTS
10/27	1620	BRO-102-2S-01	GW	G	9	X	X	X	X	X				
10/27	1555	BRO-102-1S-01	GW	G	9	X	X	X	X	X				MS/MSD
10/27	1555	BRO-102-1S-01M	GW	G	9	X	X	X	X	X				
10/27	0700	TB102799-02	GW	G	2	X								

	DATE	TIME
1. RELINQUISHED BY [signature]	10/27/99	1900
2. RELINQUISHED BY		
3. RELINQUISHED BY		

	DATE	TIME
1. RECEIVED BY [signature] EX		
2. RECEIVED BY [signature]	10/28/99	10 AM
3. RECEIVED BY		

COMMENTS

DISTRIBUTION: WHITE (ACCOMPANIES SAMPLE) YELLOW (FIELD COPY) PINK (FILE COPY)

3/99 FORM NO. TINUS 001

CEIMIC CORPORATION
Sample Receiving Checklist

Cooler Number: 1 + 2

LIMS # 990922

Number of Coolers: 2

Client: Tetra Tech NUS

Date Received: 10/28/99

Project: OLF Bronson
CTO 56

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 10/28/99

1. Have designated person initial here to acknowledge receipt of cooler: KW (date): 10/28/99

2. Did cooler come with a shipping slip (airbill, etc.)? ..... (YES) NO

If YES, enter carrier name & airbill number here: Fx 809060213798

3. Were custody seals on outside of cooler? ..... (YES) NO

How many & where: 2 front / back seal date: 10/27/99 seal name: ECL

4. Were custody seals unbroken and intact at the date and time of arrival ..... (YES) NO

5. Did you screen samples for radioactivity using a Geiger Counter? ..... Reading: ND (YES) NO

6. Chain of Custody #: _____

7. Were custody papers sealed in a plastic bag & taped inside to the lid? ..... (YES) NO

8. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO

9. Did you sign custody papers in the appropriate place? ..... (YES) NO

10. Was project identifiable from custody papers? ..... (YES) NO

11. If required, was enough ice used? ..... Cooler Temperature: 2 °C / 2 °C Type of ice: ~~cubes~~ (YES) NO

B. LOG-IN PHASE: Date samples were logged-in: 10/28/99

by (print): Karen Williamson (sign): Karen Williamson

12. Describe type of packing in cooler: _____

13. Were all bottles sealed in separate plastic bags? ..... (YES) NO

14. Did all bottles arrive unbroken and were labels in good condition? ..... (YES) NO

15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ..... (YES) NO

16. Did all bottle labels agree with custody papers? ..... (YES) NO

17. Were correct containers used for the tests indicated? CN in small poly, but 2 ~250 mL should be in 1 liter poly ..... YES (NO)

18. Were samples received at the correct pH? ..... (YES) NO

19. Was a sufficient amount of sample sent for tests indicated? not sure ..... YES NO

20. Were bubbles absent in VOA samples? If NO, list by sample#: TB102799-02 BRO-102-15-01 YES (NO)

21. Laboratory labelling verified by: (Initials): KW (date): 10/28/99

07

QAT0261

VOLATILE ANALYSES

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Blank ID: V151103-B2

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/03/99

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	5
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	

Reported by: _____ Approved by: _____ 05

10 Dean Knauss Drive, Narragansett, RI 02882 Tel: (401) 782-8900 Fax: (401) 782-8905

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Blank ID: V151103-B2

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/03/99

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	71	62 - 139
Dibromofluoromethane	95	75 - 125
Toluene-d8	98	75 - 125
Bromofluorobenzene	82	75 - 125

Reported by: _____ Approved by: _____

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-01

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
B· ›methane	ND	1
V Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____ 11

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-01

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	75	62 - 139
Dibromofluoromethane	99	75 - 125
Toluene-d8	94	75 - 125
Bromofluorobenzene	82	75 - 125

Reported by: _____ Approved by: _____

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CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Br methane	ND	1
Vi Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____

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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	74	62 - 139
Dibromofluoromethane	95	75 - 125
Toluene-d8	96	75 - 125
Bromofluorobenzene	82	75 - 125

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Reported by: _____ Approved by: _____

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Matrix Spike ID: 990922-02

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Spike Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)* RPD	QC Limits(%)* Recovery
1,1-Dichloroethene	116	118	2	68	68 - 124
Tr[illegible]roethene	103	108	4	75	75 - 120
Be[illegible]	105	109	4	78	78 - 127
Toluene	112	116	4	71	71 - 132
Chlorobenzene	108	114	6	77	77 - 128

* These limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	80	86	62 - 139
Dibromofluoromethane	100	108	75 - 125
Toluene-d8	100	106	75 - 125
Bromofluorobenzene	100	94	75 - 125

Reported by: _____ Approved by: _____

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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB102799-02

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-03

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: _____ Approved by: _____ 16

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
VOLATILE ORGANICS ANALYSIS
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB102799-02

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-03

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1 2,2-Tetrachloroethane	ND	1
T ie	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	69	62 - 139
Dibromofluoromethane	93	75 - 125
Toluene-d8	97	75 - 125
Bromofluorobenzene	82	75 - 125

Reported by: _____ Approved by: _____ 17

LABORATORY CONTROL SAMPLE SUMMARY
VOLATILE BLANK SPIKE
SW846 METHOD 8260B

Client: Tetra Tech NUS

Blank Spike ID: V151103-LCS

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/03/99

Associated Method Blank: V151103-B2

Concentration: µg/L (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	5	6	111	68 - 124
Trichloroethene	5	5	101	75 - 120
Benzene	5	5	102	78 - 127
Toluene	5	5	109	71 - 132
Chlorobenzene	5	5	109	77 - 128

* These limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	75	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	104	75 - 125
Bromofluorobenzene	88	75 - 125

Reported by: _____ Approved by: _____ 18

SEMIVOLATILE ORGANIC ANALYSES

CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS

Blank ID: S1030-B2

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Phenol	ND	5
bis(2-Chloroethyl)Ether	ND	5
2-Chlorophenol	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
2-Methylphenol	ND	5
2,2'-oxybis(1-Chloropropane)	ND	5
4-Methylphenol	ND	5
N-Nitroso-Di-n-Propylamine	ND	5
Hexachloroethane	ND	5
Nitrobenzene	ND	5
Isophorone	ND	5
2-Nitrophenol	ND	5
2,4-Dimethylphenol	ND	5
bis(2-Chloroethoxy)Methane	ND	5
2,4-Dichlorophenol	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
4-Chloroaniline	ND	5
Hexachlorobutadiene	ND	5
4-Chloro-3-methylphenol	ND	5
2-Methylnaphthalene	ND	5
Hexachlorocyclopentadiene	ND	5
2,4,6-Trichlorophenol	ND	5
2-Chloronaphthalene	ND	5
2-Nitroaniline	ND	10
Dimethyl Phthalate	ND	5
Acenaphthylene	ND	5
3-Nitroaniline	ND	10
Acenaphthene	ND	5
2,4-Dinitrophenol	ND	10
4-Nitrophenol	ND	10
Dibenzofuran	ND	5
2,4-Dinitrotoluene	ND	5
2,6-Dinitrotoluene	ND	5
Diethylphthalate	ND	5

Reported by: TS

Approved by: GK

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CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS

Blank ID: S1030-B2

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
4-Chlorophenyl-phenylether	ND	5
Fluorene	ND	5
4-Nitroaniline	ND	10
4,6-Dinitro-2-Methylphenol	ND	10
N-Nitrosodiphenylamine (1)	ND	5
mophenol-phenylether	ND	5
Hexachlorobenzene	ND	5
Pentachlorophenol	ND	10
Phenanthrene	ND	5
Anthracene	ND	5
Carbazole	ND	5
Di-n-butylphthalate	ND	5
Fluoranthene	ND	5
Pyrene	ND	5
Butylbenzylphthalate	ND	5
3,3'-Dichlorobenzidine	ND	5
Benzo(a)anthracene	ND	5
bis(2-Ethylhexyl)Phthalate	ND	5
Chrysene	ND	5
Di-n-Octyl Phthalate	ND	5
Benzo(b)fluoranthene	ND	5
Benzo(k)fluoranthene	ND	5
Benzo(a)pyrene	ND	5
Indeno(1,2,3-cd)pyrene	ND	5
Dibenzo(a,h)anthracene	ND	5
Benzo(g,h,i)perylene	ND	10
2,4,5-Trichlorophenol	ND	

ND = Not detected

Reported by: TS

Approved by: GK

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CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

METHOD BLANK
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS

Blank ID: S1030-B2

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Concentration in: µg/L (ppb)

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
2-Fluorophenol	51	21 - 110
Phenol-d5	39	10 - 110
Nitrobenzene-d5	77	35 - 114
2-Fluorobiphenyl	75	43 - 116
2,4,6-Tribromophenol	68	10 - 123
Terphenyl-d14	67	33 - 141

* These limits are provided for advisory purposes.

Reported by: TS

Approved by: 9/(

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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS
Client Sample ID: BRO-102-2S-01
Date Sampled: 10/27/99
Date Sample Received: 10/28/99
Matrix: Aqueous

Laboratory ID: 990922-01
Date Sample Analyzed: 11/02/99
Date Sample Extracted: 10/30/99
Associated Method Blank: S1030-B2
Dilution Factor: 1
Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Phenol	ND	5
bis(2-Chloroethyl)Ether	ND	5
2-Chlorophenol	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
2-Methylphenol	ND	5
2,2'-oxybis(1-Chloropropane)	ND	5
4-Methylphenol	ND	5
N-Nitroso-Di-n-Propylamine	ND	5
Hexachloroethane	ND	5
Nitrobenzene	ND	5
Isophorone	ND	5
2-Nitrophenol	ND	5
2,4-Dimethylphenol	ND	5
bis(2-Chloroethoxy)Methane	ND	5
2,4-Dichlorophenol	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
4-Chloroaniline	ND	5
Hexachlorobutadiene	ND	5
4-Chloro-3-methylphenol	ND	5
2-Methylnaphthalene	ND	5
Hexachlorocyclopentadiene	ND	5
2,4,6-Trichlorophenol	ND	5
2-Chloronaphthalene	ND	10
2-Nitroaniline	ND	5
Dimethyl Phthalate	ND	5
Acenaphthylene	ND	10
3-Nitroaniline	ND	5
Acenaphthene	ND	10
2,4-Dinitrophenol	ND	10
4-Nitrophenol	ND	5
Dibenzofuran	ND	5
2,4-Dinitrotoluene	ND	5
2,6-Dinitrotoluene	ND	5
Diethylphthalate	ND	5

Reported by: TS

Approved by: GJC

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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS
Client Sample ID: BRO-102-2S-01
Date Sampled: 10/27/99
Date Sample Received: 10/28/99
Matrix: Aqueous

Laboratory ID: 990922-01
Date Sample Analyzed: 11/02/99
Date Sample Extracted: 10/30/99
Associated Method Blank: S1030-B2
Dilution Factor: 1
Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
4-Chlorophenyl-phenylether	ND	5
Fluorene	ND	5
4-Nitroaniline	ND	10
4,6-Dinitro-2-Methylphenol	ND	10
N-Nitrosodiphenylamine (1)	ND	5
4-Bromophenol-phenylether	ND	5
Hexachlorobenzene	ND	5
Pentachlorophenol	ND	10
Phenanthrene	ND	5
Anthracene	ND	5
Carbazole	ND	5
Di-n-butylphthalate	ND	5
Fluoranthene	ND	5
Pyrene	ND	5
Butylbenzylphthalate	ND	5
3,3'-Dichlorobenzidine	ND	5
Benzo(a)anthracene	ND	5
bis(2-Ethylhexyl)Phthalate	ND	5
Chrysene	ND	5
Di-n-Octyl Phthalate	ND	5
Benzo(b)fluoranthene	ND	5
Benzo(k)fluoranthene	ND	5
Benzo(a)pyrene	ND	5
Indeno(1,2,3-cd)pyrene	ND	5
Dibenzo(a,h)anthracene	ND	5
Benzo(g,h,i)perylene	ND	5
2,4,5-Trichlorophenol	ND	10

ND = Not detected

Reported by: TS

Approved by: GK

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CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS
Client Sample ID: BRO-102-2S-01
Date Sampled: 10/27/99
Date Sample Received: 10/28/99
Matrix: Aqueous

Laboratory ID: 990922-01
Date Sample Analyzed: 11/02/99
Date Sample Extracted: 10/30/99
Associated Method Blank: S1030-B2
Dilution Factor: 1
Concentration in: µg/L (ppb)

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
2-Fluorophenol	41	21 - 110
Phenol-d5	29	10 - 110
N[illegible]nzene-d5	78	35 - 114
2-F[illegible]robiphenyl	71	43 - 116
2,4,6-Tribromophenol	68	10 - 123
Terphenyl-d14	57	33 - 141

* These limits are provided for advisory purposes.

Reported by: TS

Approved by: QK

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CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS
Client Sample ID: BRO-102-1S-01
Date Sampled: 10/27/99
Date Sample Received: 10/28/99
Matrix: Aqueous

Laboratory ID: 990922-02
Date Sample Analyzed: 11/02/99
Date Sample Extracted: 10/30/99
Associated Method Blank: S1030-B2
Dilution Factor: 1
Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Phenol	ND	5
bis(2-Chloroethyl)Ether	ND	5
2-Chlorophenol	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
2-Methylphenol	ND	5
2,2'-oxybis(1-Chloropropane)	ND	5
4-Methylphenol	ND	5
N-Nitroso-Di-n-Propylamine	ND	5
Hexachloroethane	ND	5
Nitrobenzene	ND	5
Isophorone	ND	5
2-Nitrophenol	ND	5
2,4-Dimethylphenol	ND	5
bis(2-Chloroethoxy)Methane	ND	5
2,4-Dichlorophenol	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
4-Chloroaniline	ND	5
Hexachlorobutadiene	ND	5
4-Chloro-3-methylphenol	ND	5
2-Methylnaphthalene	ND	5
Hexachlorocyclopentadiene	ND	5
2,4,6-Trichlorophenol	ND	5
2-Chloronaphthalene	ND	5
2-Nitroaniline	ND	10
Dimethyl Phthalate	ND	5
Acenaphthylene	ND	5
3-Nitroaniline	ND	10
Acenaphthene	ND	5
2,4-Dinitrophenol	ND	10
4-Nitrophenol	ND	10
Dibenzofuran	ND	5
2,4-Dinitrotoluene	ND	5
2,6-Dinitrotoluene	ND	5
Diethylphthalate	ND	5

Reported by: TS

Approved by: AK

CEIMIC
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"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS
Client Sample ID: BRO-102-1S-01
Date Sampled: 10/27/99
Date Sample Received: 10/28/99
Matrix: Aqueous

Laboratory ID: 990922-02
Date Sample Analyzed: 11/02/99
Date Sample Extracted: 10/30/99
Associated Method Blank: S1030-B2
Dilution Factor: 1
Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
4-Chlorophenyl-phenylether	ND	5
Fluorene	ND	5
4-Nitroaniline	ND	10
4,6-Dinitro-2-Methylphenol	ND	10
N-Nitrosodiphenylamine (1)	ND	5
4-Bromophenol-phenylether	ND	5
Hexachlorobenzene	ND	5
Pentachlorophenol	ND	10
Phenanthrene	ND	5
Anthracene	ND	5
Carbazole	ND	5
Di-n-butylphthalate	ND	5
Fluoranthene	ND	5
Pyrene	ND	5
Butylbenzylphthalate	ND	5
3,3'-Dichlorobenzidine	ND	5
Benzo(a)anthracene	ND	5
bis(2-Ethylhexyl)Phthalate	ND	5
Chrysene	ND	5
Di-n-Octyl Phthalate	ND	5
Benzo(b)fluoranthene	ND	5
Benzo(k)fluoranthene	ND	5
Benzo(a)pyrene	ND	5
Indeno(1,2,3-cd)pyrene	ND	5
Dibenzo(a,h)anthracene	ND	5
Benzo(g,h,i)perylene	ND	5
2,4,5-Trichlorophenol	ND	10

ND = Not detected

Reported by: TS

Approved by: [signature]

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CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS
Client Sample ID: BRO-102-1S-01
Date Sampled: 10/27/99
Date Sample Received: 10/28/99
Matrix: Aqueous

Laboratory ID: 990922-02
Date Sample Analyzed: 11/02/99
Date Sample Extracted: 10/30/99
Associated Method Blank: S1030-B2
Dilution Factor: 1
Concentration in: µg/L (ppb)

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
2-Fluorophenol	47	21 - 110
Phenol-d5	33	10 - 110
Nitrobenzene-d5	79	35 - 114
2-Fluorobiphenyl	76	43 - 116
2,4,6-Tribromophenol	67	10 - 123
Terphenyl-d14	62	33 - 141

* These limits are provided for advisory purposes.

Reported by: TS

Approved by: [signature] 28

CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Matrix Spike ID: 990922-02

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Spike Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)* RPD	QC Limits(%)* Recovery
[illegible]	36	38	7	10	10 - 125
bis(2-Chloroethyl)Ether	81	72	11	44	44 - 125
2-Chlorophenol	67	66	0	41	41 - 125
1,3-Dichlorobenzene	72	68	7	36	36 - 125
1,4-Dichlorobenzene	74	61	18	30	30 - 125
1,2-Dichlorobenzene	72	64	11	42	42 - 155
2-Methylphenol	63	69	9	25	25 - 125
2,2'-oxybis(1-Chloropropane)	92	82	12	36	36 - 166
4-Methylphenol	64	68	6	33	33 - 125
N-Nitroso-Di-n-Propylamine	88	81	8	37	37 - 125
Hexachloroethane	76	67	12	25	25 - 153
Nitrobenzene	84	74	12	46	46 - 133
Isophorone	81	78	4	26	26 - 175
2-Nitrophenol	77	72	7	44	44 - 125
2,4-Dimethylphenol	66	64	3	1	1 - 139
bis(2-Chloroethoxy)Methane	80	75	6	49	49 - 125
2,4-Dichlorophenol	75	71	4	46	46 - 125
1,2,4-Trichlorobenzene	73	65	12	44	44 - 142
Naphthalene	73	67	9	50	50 - 125
4-Chloroaniline	79	74	7	1	1 - 136
Hexachlorobutadiene	74	66	11	25	25 - 125
4-Chloro-3-methylphenol	83	86	3	44	44 - 125
2-Methylnaphthalene	77	71	8	41	41 - 125
Hexachlorocyclopentadiene	72	60	18	18	18 - 125
2,4,6-Trichlorophenol	79	80	2	39	39 - 128

Reported by: TS

Approved by: [signature]

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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Matrix Spike ID: 990922-02

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Spike Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)* RPD	QC Limits(%)* Recovery
2-Chloronaphthalene	75	73	2	60	60 - 125
2-Nitroaniline	98	94	4	50	50 - 125
Dimethyl Phthalate	83	81	3	25	25 - 175
Acenaphthylene	77	75	3	47	47 - 124
3-Nitroaniline	87	87	0	29	29 - 94
Acenaphthene	74	75	2	49	49 - 125
2,4-Dinitrophenol	83	75	10	10	10 - 151
4-Nitrophenol	37	40	8	10	10 - 131
Dibenzofuran	73	71	2	52	52 - 125
2,4-Dinitrotoluene	86	89	3	39	39 - 139
2,6-Dinitrotoluene	93	91	2	51	51 - 125
Diethylphthalate	81	83	3	37	37 - 125
4-Chlorophenyl-phenylether	79	78	2	51	51 - 132
Fluorene	78	78	0	48	48 - 139
4-Nitroaniline	100	90	10	40	40 - 143
4,6-Dinitro-2-Methylphenol	83	79	5	26	26 - 134
N-Nitrosodiphenylamine (1)	83	82	2	27	27 - 125
4-Bromophenol-phenylether	79	79	1	53	53 - 127
Hexachlorobenzene	78	77	1	46	46 - 133
Pentachlorophenol	50	20	84	28	28 - 136
Phenanthrene	77	79	3	54	54 - 125
Anthracene	78	78	1	45	45 - 165
Carbazole	85	81	5	25	25 - 125
Di-n-butylphthalate	82	82	0	34	34 - 126
Fluoranthene	81	79	2	47	47 - 125

Reported by: TS

Approved by: 9/C

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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Matrix Spike ID: 990922-02

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Spike Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)* RPD	QC Limits(%)* Recovery
Pyrene	83	85	3	47	47 - 136
Butylbenzylphthalate	88	88	1	26	26 - 125
3,3'-Dichlorobenzidine	83	82	2	1	1 - 175
Benzo(a)anthracene	84	84	0	51	51 - 133
bis(2-Ethylhexyl)Phthalate	85	88	4	33	33 - 129
Chrysene	85	85	0	55	55 - 133
Di-n-Octyl Phthalate	120	117	3	38	38 - 127
Benzo(b)fluoranthene	97	102	6	37	37 - 125
Benzo(k)fluoranthene	109	97	12	37	37 - 125
Benzo(a)pyrene	92	88	5	41	41 - 125
Indeno(1,2,3-cd)pyrene	55	62	13	27	27 - 160
Dibenzo(a,h)anthracene	60	71	15	50	50 - 125
Benzo(g,h,i)perylene	46	54	16	34	34 - 149
2,4,5-Trichlorophenol	80	81	2	25	25 - 175

* These limits are provided for advisory purposes.

Reported by: TS

Approved by: QK

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"Analytical Chemistry for Environmental Management"

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
SEMIVOLATILE ORGANICS ANALYSIS
SW846 METHOD 8270C

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Matrix Spike ID: 990922-02

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Dilution Factor: 1

Concentration in: µg/L (ppb)

Surrogate Spike Recovery

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)*
2-Fluorophenol	48	55	21 - 110
Phenol-d5	34	37	10 - 110
Nitrobenzene-d5	81	71	35 - 114
2-Fluorobiphenyl	73	71	43 - 116
2,4,6-Tribromophenol	77	78	10 - 123
Terphenyl-d14	76	77	33 - 141

* These limits are provided for advisory purposes.

Reported by: TS

Approved by: a/c

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CEIMIC Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY
SEMIVOLATILE BLANK SPIKE
SW846 METHOD 8270C

Client: Tetra Tech NUS

Blank Spike ID: S1030-LCS2

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Concentration in: µg/L (ppb)

Spike Compound	Spike Added	Blank Spike Recovery(%)	QC Limits(%)*
Phenol	50.0	37	10 - 125
bi[illegible]hloroethyl)Ether	50.0	64	44 - 125
2-[illegible]rophenol	50.0	61	41 - 125
1,3-Dichlorobenzene	50.0	58	36 - 125
1,4-Dichlorobenzene	50.0	55	30 - 125
1,2-Dichlorobenzene	50.0	59	42 - 155
2-Methylphenol	50.0	64	25 - 125
2,2'-oxybis(1-Chloropropane)	50.0	71	36 - 166
4-Methylphenol	50.0	62	33 - 125
N-Nitroso-Di-n-Propylamine	50.0	72	37 - 125
Hexachloroethane	50.0	56	25 - 153
Nitrobenzene	50.0	67	46 - 133
Isophorone	50.0	71	26 - 175
2-Nitrophenol	50.0	68	44 - 125
2,4-Dimethylphenol	50.0	57	1 - 139
bis(2-Chloroethoxy)Methane	50.0	69	49 - 125
2,4-Dichlorophenol	50.0	64	46 - 125
1,2,4-Trichlorobenzene	50.0	59	44 - 142
Naphthalene	50.0	61	50 - 125
4-Chloroaniline	50.0	74	1 - 136
Hexachlorobutadiene	50.0	61	25 - 125
4-Chloro-3-methylphenol	50.0	80	44 - 125
2-Methylnaphthalene	50.0	66	41 - 125
Hexachlorocyclopentadiene	50.0	52	18 - 125
2,4,6-Trichlorophenol	50.0	73	39 - 128
2-Chloronaphthalene	50.0	65	60 - 125
2-Nitroaniline	50.0	88	50 - 125
Dimethyl Phthalate	50.0	75	25 - 175
Acenaphthylene	50.0	67	47 - 125
3-Nitroaniline	50.0	90	29 - 94
Acenaphthene	50.0	67	49 - 125
2,4 [illegible]nitrophenol	50.0	64	10 - 151
4-[illegible]phenol	50.0	39	10 - 131

Reported by: TS

Approved by: 9/K

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CEIMIC
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"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY
SEMIVOLATILE BLANK SPIKE
SW846 METHOD 8270C

Client: Tetra Tech NUS

Blank Spike ID: S1030-LCS2

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Concentration in: µg/L (ppb)

Spike Compound	Spike Added	Blank Spike Recovery(%)	QC Limits(%)*
Dibenzofuran	50.0	66	52 - 125
2,4-Dinitrotoluene	50.0	79	39 - 139
2,6-Dinitrotoluene	50.0	80	51 - 125
Diethylphthalate	50.0	76	37 - 125
4-Chlorophenyl-phenylether	50.0	72	51 - 132
Fluorene	50.0	72	48 - 139
4-Nitroaniline	50.0	95	40 - 143
4,6-Dinitro-2-Methylphenol	50.0	68	26 - 134
N-Nitrosodiphenylamine (1)	50.0	75	27 - 125
4-Bromophenol-phenylether	50.0	76	53 - 127
Hexachlorobenzene	50.0	73	46 - 133
Pentachlorophenol	50.0	27	28 - 136
Phenanthrene	50.0	72	54 - 125
Anthracene	50.0	74	45 - 165
Carbazole	50.0	81	25 - 125
Di-n-butylphthalate	50.0	78	34 - 126
Fluoranthene	50.0	76	47 - 125
Pyrene	50.0	76	47 - 136
Butylbenzylphthalate	50.0	80	26 - 125
3,3'-Dichlorobenzidine	50.0	77	1 - 175
Benzo(a)anthracene	50.0	81	51 - 133
bis(2-Ethylhexyl)Phthalate	50.0	81	33 - 129
Chrysene	50.0	79	55 - 133
Di-n-Octyl Phthalate	50.0	109	38 - 127
Benzo(b)fluoranthene	50.0	89	37 - 125
Benzo(k)fluoranthene	50.0	100	37 - 125
Benzo(a)pyrene	50.0	83	41 - 125
Indeno(1,2,3-cd)pyrene	50.0	52	27 - 160
Dibenzo(a,h)anthracene	50.0	59	50 - 125
Benzo(g,h,i)perylene	50.0	44	34 - 149
2,4,5-Trichlorophenol	50.0	74	25 - 175

* These limits are provided for advisory purposes.

Reported by: TS

Approved by: GK

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CEIMIC
Corporation

"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY
SEMIVOLATILE BLANK SPIKE
SW846 METHOD 8270C

Client: Tetra Tech NUS

Blank Spike ID: S1030-LCS2

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Concentration in: µg/L (ppb)

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
2 rophenol	51	21 - 110
Pl. -d5	34	10 - 110
Nitrobenzene-d5	66	35 - 114
2-Fluorobiphenyl	63	43 - 116
2,4,6-Tribromophenol	75	10 - 123
Terphenyl-d14	70	33 - 141

* These limits are provided for advisory purposes.

Reported by: TS

Approved by: GK

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PESTICIDE ANALYSES

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

O1021S01

Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT086 SAS No.: SDG No.: 022S01

Matrix: (soil/water) WATER Lab Sample ID: 990922-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A4F00094

% Moisture: _____ decanted: (Y/N)___ Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF. Date Extracted:10/31/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 11/02/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-36-3	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

O1021S01MS

Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO86 SAS No.: SDG No.: 022S01

Matrix: (soil/water) WATER Lab Sample ID: 990922-02MS

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A4F00095

% Moisture: _____ decanted: (Y/N)___ Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/31/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 11/02/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.074	
319-85-7	beta-BHC	0.079	
319-86-8	delta-BHC	0.081	
58-89-9	gamma-BHC (Lindane)	0.077	
76-44-8	Heptachlor	0.064	
309-00-2	Aldrin	0.073	
1024-57-3	Heptachlor epoxide	0.074	P
959-98-8	Endosulfan I	0.028	P
60-57-1	Dieldrin	0.077	
72-55-9	4,4'-DDE	0.081	
72-20-8	Endrin	0.084	
33213-65-9	Endosulfan II	0.042	
72-54-8	4,4'-DDD	0.079	
1031-07-8	Endosulfan sulfate	0.075	P
50-29-3	4,4'-DDT	0.074	P
72-43-5	Methoxychlor	0.096	J
53494-70-5	Endrin ketone	0.082	
7421-36-3	Endrin aldehyde	0.080	P
5103-71-9	alpha-Chlordane	0.074	P
5103-74-2	gamma-Chlordane	0.076	
8001-35-2	Toxaphene	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

O1021S01MSD

Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO86 SAS No.: SDG No.: 022S01

Matrix: (soil/water) WATER Lab Sample ID: 990922-02MSD

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A4F00108

% Moisture: _____ decanted: (Y/N)___ Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/31/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 11/04/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 14.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.085	
319-85-7	beta-BHC	0.085	
319-86-8	delta-BHC	0.090	
58-89-9	gamma-BHC (Lindane)	0.089	
76-44-8	Heptachlor	0.074	
309-00-2	Aldrin	0.086	
1024-57-3	Heptachlor epoxide	0.086	P
959-98-8	Endosulfan I	0.032	P
60-57-1	Dieldrin	0.087	
72-55-9	4,4'-DDE	0.087	
72-20-8	Endrin	0.093	
33213-65-9	Endosulfan II	0.047	
72-54-8	4,4'-DDD	0.085	
1031-07-8	Endosulfan sulfate	0.085	P
50-29-3	4,4'-DDT	0.081	P
72-43-5	Methoxychlor	0.10	
53494-70-5	Endrin ketone	0.090	
7421-36-3	Endrin aldehyde	0.091	
5103-71-9	alpha-Chlordane	0.086	P
5103-74-2	gamma-Chlordane	0.087	
8001-35-2	Toxaphene	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

01022S01

Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO86 SAS No.: SDG No.: 022S01

Matrix: (soil/water) WATER Lab Sample ID: 990922-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A4F00093

% Moisture: _____ decanted: (Y/N)___ Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/31/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 11/02/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-36-3	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLCS01

Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO86 SAS No.: SDG No.: 022S01

Matrix: (soil/water) WATER Lab Sample ID: P1031-LCS1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A4F00092

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/31/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 11/02/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.084	
319-85-7	beta-BHC	0.084	
319-86-8	delta-BHC	0.086	
58-89-9	gamma-BHC (Lindane)	0.085	
76-44-8	Heptachlor	0.074	
309-00-2	Aldrin	0.082	
1024-57-3	Heptachlor epoxide	0.083	
959-98-8	Endosulfan I	0.031	P
60-57-1	Dieldrin	0.084	
72-55-9	4,4'-DDE	0.086	
72-20-8	Endrin	0.090	
33213-65-9	Endosulfan II	0.045	
72-54-8	4,4'-DDD	0.085	
1031-07-8	Endosulfan sulfate	0.081	P
50-29-3	4,4'-DDT	0.080	P
72-43-5	Methoxychlor	0.10	
53494-70-5	Endrin ketone	0.092	
7421-36-3	Endrin aldehyde	0.090	P
5103-71-9	alpha-Chlordane	0.080	P
5103-74-2	gamma-Chlordane	0.082	
8001-35-2	Toxaphene	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT086 SAS No.: SDG No.: 022S01

Matrix: (soil/water) WATER Lab Sample ID: P1031-B1

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A4F00090

% Moisture: _____ decanted: (Y/N)___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:10/31/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 11/02/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-36-3	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT086 SAS No.: SDG No.: 022S01

GC Column(1): DB5 ID: 0.53 (mm) GC Column(2): DB1701 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK01	90	90	80	80			0
02	PLCS01	80	75	70	75			0
03	O1022S01	65	70	22*	25*			2
04	O1021S01	75	85	50	60			0
05	O1021S01MS	65	65	55	65			0
06	O1021S01MSD	80	75	60	70			0
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (45-125)
S2 (DCB) = Decachlorobiphenyl (34-133)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogate diluted out

FORM 3
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: CEIMIC Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO86 SAS No.: SDG No.: 022S01

Matrix Spike - Sample No.: PLCS01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
alpha-BHC	0.10		0.084	84	23-130
beta-BHC	0.10		0.084	84	41-111
delta-BHC	0.10		0.086	86	32-126
gamma-BHC (Lindane)	0.10		0.085	85	34-119
Heptachlor	0.10		0.074	74	28-113
Aldrin	0.10		0.082	82	20-122
Heptachlor epoxide	0.10		0.083	83	39-119
Endosulfan I	0.10		0.031	31	22-111
Dieldrin	0.10		0.084	84	39-110
4,4'-DDE	0.10		0.086	86	36-115
Endrin	0.10		0.090	90	47-128
Endosulfan II	0.10		0.045	45	27-122
4,4'-DDD	0.10		0.085	85	33-116
Endosulfan sulfate	0.10		0.081	81	28-132
4,4'-DDT	0.10		0.080	80	20-150
Methoxychlor	0.10		0.10	100	50-134
Endrin ketone	0.10		0.092	92	47-118
Endrin aldehyde	0.10		0.090	90	43-136
alpha-Chlordane	0.10		0.080	80	41-125
gamma-Chlordane	0.10		0.082	82	41-125

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 0 outside limits
Spike Recovery: 0 out of 20 outside limits

COMMENTS: _____

FORMIII-MS/MSD

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

) N e: CEIMIC CORP Contract: TETRA TECH

) Code: CEIMIC Case No.: CTO86 SAS No.: SDG No.: 022S01

.ent Sample ID.: O1021S01MS/MSD
) Sample ID.: 990922-02MS/MSD

:rix: Aqueous

COMPOUND	SPIKE ADDED (ug/L)	MS RECOVERY %	MSD RECOVERY %	% RPD	QC-LIMITS %
lpha-BHC	0.10	74	85	14	23-130
eta-BHC	0.10	79	85	7	41-111
elta-BHC	0.10	81	90	11	32-126
amma-BHC (Lindane)	0.10	77	89	14	34-119
eptachlor	0.10	64	74	14	28-113
ldrin	0.10	73	86	16	20-122
eptachlor Epoxide	0.10	74	86	15	39-119
ndosulfan I	0.10	28*	32	13	22-111
ieldrin	0.10	77	87	12	39-110
,4'-DDE	0.10	81	87	7	36-115
ndrin	0.10	84	93	10	47-128
ndosulfan II	0.10	42	47	11	27-122
,4'-DDD	0.10	79	85	7	33-116
nd lfan Sulfate	0.10	75	85	13	28-132
,4 DDT	0.10	74	81	9	20-150
ethoxychlor	0.10	96	100	4	50-134
ndrin Ketone	0.10	82	90	9	47-118
ndrin Aldehyde	0.10	80	91	13	43-136
lpha-Chlordane	0.10	74	86	15	41-125
amma-Chlordane	0.10	76	87	13	41-125

MENTS:

PCB ANALYSES

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: BRO-102-2S-01
Date Sampled: 10/27/99
Date Sample Received: 10/28/99
Matrix: Aqueous

Laboratory ID: 990922-01
Date Sample Extracted: 10/30/99
Date Sample Analyzed: 11/10/99
Associated Method Blank: P1030-B3
Final Extract Volume (mL):2.0
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	0.200
Aroclor-1221	ND	0.400
Aroclor-1232	ND	0.200
Aroclor-1242	ND	0.200
Aroclor-1248	ND	0.200
Aroclor-1254	ND	0.200
Aroclor-1260	ND	0.200

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	55	56 - 111
Decachlorobiphenyl	25	34 - 129

* These limits are provided for advisory purposes.

Reported by: RWB Approved by: [illegible]

POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS
Client Sample ID: BRO-102-1S-01
Date Sampled: 10/27/99
Date Sample Received: 10/28/99
Matrix: Aqueous

Laboratory ID: 990922-02
Date Sample Extracted: 10/30/99
Date Sample Analyzed: 11/10/99
Associated Method Blank: P1030-B3
Final Extract Volume (mL):2.0
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	0.200
Aroclor-1221	ND	0.400
Aroclor-1232	ND	0.200
Aroclor-1242	ND	0.200
Aroclor-1248	ND	0.200
Aroclor-1254	ND	0.200
Aroclor-1260	ND	0.200

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	55	56 - 111
Decachlorobiphenyl	40	34 - 129

* These limits are provided for advisory purposes.

Reported by: RWB

Approved by: KL

METHOD BLANK
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P1030-B3

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Extracted: 10/30/99

Date Sample Analyzed: 11/10/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	0.200
Aroclor-1221	ND	0.400
Aroclor-1232	ND	0.200
Aroclor-1242	ND	0.200
Aroclor-1248	ND	0.200
Aroclor-1254	ND	0.200
Aroclor-1260	ND	0.200

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	75	34 - 129

* These limits are provided for advisory purposes.

Reported by: MB

Approved by:

LABORATORY CONTROL SUMMARY
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank Spike ID: P1030-LCS3

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/10/99

Date Sample Prepared: 10/30/99

Associated Method Blank: P1030-B3

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	1.0	0.65	65	30 - 150
Aroclor-1260	1.0	0.70	70	47 - 127

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	56 - 111
Decachlorobiphenyl	70	34 - 129

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY
POLYCHLORINATED BIPHENYLS (PCB)
by SW846 Method 8080A

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02MS

Date Sample Extracted: 10/30/99

Date Sample Analyzed: 11/10/99

Associated Method Blank: P1030-B3

Final Extract Volume (mL):2.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Sample Concentration	Matrix Spike Concentration	Matrix Spike Recovery(%)
Aroclor-1016	2.00	ND	1.4	70
Aroclor-1260	2.00	ND	1.6	80

Target Analyte	Matrix Spike Duplicate Concentration	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)*	
				RPD	Recovery
Aroclor-1016	1.2	60	18.2	20	30 - 150
Aroclor-1260	1.2	60	26.1	20	47 - 127

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	75	56 - 111
Decachlorobiphenyl	60	50	34 - 12[illegible]

* These limits are provided for advisory purposes.

Reported by: _____ Approved by: _____

Form IIIB PCB

METAL ANALYSES

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

METHOD BLANK
TOTAL METALS
SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank ID: PBW

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1101	ND	0.20
Antimony	1101	ND	0.050
Arsenic	1101	ND	0.010
Barium	1101	ND	0.010
Beryllium	1101	ND	0.010
Cadmium	1101	ND	0.010
Calcium	1101	ND	0.50
C ium	1101	ND	0.020
Cobalt	1101	ND	0.020
Copper	1101	ND	0.020
Iron	1101	ND	0.10
Lead	1101	ND	0.005
Magnesium	1101	ND	0.50
Manganese	1101	ND	0.010
Mercury	1101	ND	0.0002
Nickel	1101	ND	0.040
Potassium	1101	ND	0.50
Selenium	1101	ND	0.010
Silver	1101	ND	0.010
Sodium	1101	ND	0.50
Thallium	1101	ND	0.010
Vanadium	1101	ND	0.050
Zinc	1101	ND	0.020

ND = Not Detected

Reported by: _____ Approved by: _____

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CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

TOTAL METALS
SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-01

Date Analysis Completed: 11/09/99

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1101	10.6	0.20
Antimony	1101	ND	0.050
Arsenic	1101	ND	0.010
Barium	1101	0.049	0.010
Beryllium	1101	ND	0.010
Cadmium	1101	ND	0.010
Calcium	1101	0.79	0.50
Chromium	1101	0.021	0.020
Cobalt	1101	ND	0.020
Copper	1101	ND	0.020
Iron	1101	10.1	0.10
Lead	1101	0.010	0.005
Magnesium	1101	0.60	0.50
Manganese	1101	0.087	0.010
Mercury	1101	ND	0.0002
Nickel	1101	ND	0.040
Potassium	1101	ND	0.50
Selenium	1101	ND	0.010
Silver	1101	ND	0.010
Sodium	1101	6.08	0.50
Thallium	1101	ND	0.010
Vanadium	1101	ND	0.050
Zinc	1101	ND	0.020

ND = Not Detected

Reported by: _____ Approved by: _____

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

TOTAL METALS
SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-02

Date Sample Received: 10/28/99

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1101	0.63	0.20
Antimony	1101	ND	0.050
Arsenic	1101	ND	0.010
Barium	1101	0.011	0.010
Beryllium	1101	ND	0.010
Cadmium	1101	ND	0.010
Calcium	1101	ND	0.50
Chromium	1101	ND	0.020
Cobalt	1101	ND	0.020
Copper	1101	ND	0.020
Iron	1101	12.8	0.10
Lead	1101	ND	0.005
Magnesium	1101	ND	0.50
Manganese	1101	0.131	0.010
Mercury	1101	ND	0.0002
Nickel	1101	ND	0.040
Potassium	1101	ND	0.50
Selenium	1101	ND	0.010
Silver	1101	ND	0.010
Sodium	1101	3.60	0.50
Thallium	1101	ND	0.010
Vanadium	1101	ND	0.050
Zinc	1101	ND	0.020

ND = Not Detected

Reported by: _____ Approved by: _____ 55

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CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

SPIKE SAMPLE SUMMARY
TOTAL METALS
SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-02Spk

Date Sample Received: 10/28/99

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Sample Result	Predigest Spike Added	Spiked Sample Result	Recovery(%) Predigest Spike	QC Limits	Post Digest Spike
Aluminum	0.632	2.00	2.32	84	75 - 125	NR
Aluminum	0.632	2.00	2.37	87	75 - 125	NR
Antimony	ND	0.500	0.477	95	75 - 125	NR
Antimony	ND	0.500	0.484	97	75 - 125	NR
Arsenic	ND	0.0400	0.0358	89	75 - 125	NR
Arsenic	ND	0.0400	0.0392	98	75 - 125	NR
Barium	0.0110	2.00	1.77	88	75 - 125	NR
Barium	0.0110	2.00	1.78	88	75 - 125	NR
Beryllium	ND	0.0500	0.0450	90	75 - 125	NR
Beryllium	ND	0.0500	0.0457	91	75 - 125	NR
Cadmium	ND	0.0500	0.0446	89	75 - 125	NR
Cadmium	ND	0.0500	0.0451	90	75 - 125	NR
Calcium	ND	2.00	2.11	106	75 - 125	NR
Calcium	ND	2.00	2.14	107	75 - 125	NR
Chromium	ND	0.200	0.180	90	75 - 125	NR
Chromium	ND	0.200	0.183	91	75 - 125	NR
Cobalt	ND	0.500	0.443	89	75 - 125	NR
Cobalt	ND	0.500	0.446	89	75 - 125	NR
Copper	ND	0.250	0.221	88	75 - 125	NR
Copper	ND	0.250	0.220	88	75 - 125	NR
Iron	12.8	1.00	13.1	30	**	NR
Iron	12.8	1.00	14.2	140	**	NR
Lead	ND	0.0200	0.0190	95	75 - 125	NR
Lead	ND	0.0200	0.0197	98	75 - 125	NR
Magnesium	ND	2.00	2.08	86	75 - 125	NR
Magnesium	ND	2.00	2.13	88	75 - 125	NR
Manganese	0.131	0.500	0.566	87	75 - 125	NR
Manganese	0.131	0.500	0.579	90	75 - 125	NR
Mercury	ND	0.00100	0.00101	101	75 - 125	NR
Mercury	ND	0.00100	0.000970	97	75 - 125	NR
Nickel	ND	0.500	0.440	88	75 - 125	NR
Nickel	ND	0.500	0.440	88	75 - 125	NR
Potassium	ND	2.00	1.72	86	75 - 125	NR

Reported by: _____ Approved by: David Latorelli

10 Dean Knauss Drive, Narragansett, RI 02882 · Tel: (401) 782-8900 · Fax: (401) 782-8905

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

SPIKE SAMPLE SUMMARY
TOTAL METALS
SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02Spk

Date Analysis Completed: 11/09/99

Concentration in: mg/L (ppm)

Target Analyte	Sample Result	Predigest Spike Added	Spiked Sample Result	Recovery(%) Predigest Spike	QC Limits	Post Digest Spike
Potassium	ND	2.00	1.65	83	75 - 125	NR
Selenium	ND	0.0100	0.0087 ~~ND~~	89	75 - 125	NR
Selenium	ND	0.0100	0.0105	105	75 - 125	NR
Si	ND	0.0500	0.0493	99	75 - 125	NR
Si	ND	0.0500	0.0490	98	75 - 125	NR
Sodium	3.60	2.00	5.21	81	75 - 125	NR
Sodium	3.60	2.00	5.51	95	75 - 125	NR
Thallium	ND	0.0500	0.0463	93	75 - 125	NR
Thallium	ND	0.0500	0.0463	93	75 - 125	NR
Vanadium	ND	0.500	0.461	92	75 - 125	NR
Vanadium	ND	0.500	0.461	92	75 - 125	NR
Zinc	ND	0.500	0.439	88	75 - 125	NR
Zinc	ND	0.500	0.442	88	75 - 125	NR

ND = Not Detected
NR = Not Required
** Sample result exceeds four times the spike added value. There is no control limit in this case.

Reported by: _____ Approved by: _____

10 Dean Knauss Drive, Narragansett, RI 02882 · Tel: (401) 782-8900 · Fax: (401) 782-8905

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY
TOTAL METALS
SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Ceimic Project: 990922

Laboratory Control Spike ID: LCSW

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Spike Added	Lab Control Spike Result	Lab Control Spike Recovery(%)	QC Limits(%)
Aluminum	1101	10.0	8.88	88.8	85 - 111
Antimony	1101	0.500	0.484	96.8	80 - 116
Arsenic	1101	0.200	0.194	97.0	83 - 119
Barium	1101	10.0	8.96	89.6	86 - 111
Beryllium	1101	0.250	0.227	90.8	84 - 114
Cadmium	1101	0.100	0.0910	91.0	78 - 109
Calcium	1101	25.0	22.4	89.6	84 - 110
Chromium	1101	1.00	0.912	91.2	84 - 116
Cobalt	1101	2.50	2.24	89.6	82 - 115
Copper	1101	1.25	1.10	88.0	87 - 109
Iron	1101	5.00	4.49	89.8	85 - 111
Lead	1101	0.200	0.187	93.5	81 - 112
Magnesium	1101	25.0	22.2	88.8	86 - 112
Manganese	1101	2.50	2.25	90.0	79 - 120
Mercury	1101	0.00197	0.00196	101.5	80 - 120
Nickel	1101	2.50	2.22	88.8	83 - 112
Potassium	1101	25.0	22.2	88.8	83 - 110
Selenium	1101	0.200	0.206	103.0	83 - 126
Silver	1101	1.25	1.20	96.0	73 - 124
Sodium	1101	25.0	22.3	89.2	86 - 110
Thallium	1101	0.200	0.185	92.5	81 - 117
Vanadium	1101	2.50	2.35	94.0	79 - 121
Zinc	1101	2.50	2.21	88.4	86 - 107

Reported by: _____ Approved by: _____

INORGANIC ANALYTES

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

QUALITY CONTROL

METHOD BLANK

Client: Tetra Tech NUS

Blank ID: PBW

Ceimic Project: 990922

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Total Cyanide	ND	mg/L	0.01	11/01/98	11/01/98

ND = Not Detected

Reported by: Jeffrey D. Maymon

Approved by: Donald Tortelli

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-01

Date Sample Received: 10/28/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
T Cyanide	ND	mg/L	0.01	11/01/98	11/01/98

ND = Not Detected

Reported by: Jeffrey D. Maynor

Approved by:

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

INORGANIC ANALYTES

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Laboratory ID: 990922-02

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Total Cyanide	ND	mg/L	0.01	11/01/98	11/01/98

ND = Not Detected

Reported by: Jeffrey D Maynor

Approved by: KH

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

QUALITY CONTROL

LABORATORY CONTROL SAMPLE SUMMARY

Client: Tetra Tech NUS

Laboratory Control Spike ID: QC

Ceimic Project: 990922

Concentration in: mg/L (ppm)

Target Analyte	Date Prep'd	Date Analyzed	Spike Added	Lab Control Spike Result	Lab Control Spike Recovery(%)	QC Limits(%)
Total Cyanide	11/01/98	11/01/98	0.080	0.070	88.0	80-120

Reported by: Jeffrey D. Mayman

Approved by: KH

CEIMIC
Corporation
"Analytical Chemistry for Environmental Management"

SPIKE SAMPLE SUMMARY
INORGANIC ANALYTES

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Laboratory ID: 990922-02Spk

Date Sampled: 10/27/99

Concentration in: mg/L (ppm)

Date Sample Received: 10/28/99

Matrix: Aqueous

Target Analyte	Sample Result	Spike Added	Spiked Sample Result	Recovery(%) Predigest Spike	Recovery(%) QC Limits
Total Cyanide	ND	0.050	0.051	102	75-125
Total Cyanide	ND	0.050	0.040	80	75-125

ND = Not Detected

Reported by: Jeffrey D. Mayhon

Approved by: KH

APPENDIX F

SITE CHARACTERIZATION REPORT ADDENDUM

TETRA TECH NUS, INC.
1401 Oven Park Drive • Suite 102 • Tallahassee, FL 32312
(850) 385-9899 • FAX (850) 385-9860 • www.tetratech.com

TtNUS/TAL-01-012/0105-4.3

March 5, 2001

State of Florida
Department of Environmental Protection
Attn: Joe Fugitt
MS 4535
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Site Characterization Report Addendum
Site 102
U.S. Naval Air Station Pensacola
Pensacola, Florida

Mr. Fugitt:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this Site Characterization Report (SCR) Addendum for Site 102 located at Naval Air Station (NAS) Pensacola, Pensacola, Florida. This SCR Addendum has been prepared for the U.S. Navy Southern Division Naval Facilities Engineering Command under Contract Tank Order 086, for the Comprehensive Long-term Environmental Action Navy (CLEAN) Contract Number N62467-94-D-0888.

The purpose of the investigation was to collect additional groundwater, surface soil, and subsurface soil samples. The collection of additional samples was recommended in the SCR (TtNUS, February 2000) and agreed upon, in comments, by Florida Department of Environmental Protection (FDEP) dated March 1, 2000.

PREVIOUS INVESTIGATIONS

Investigations conducted at Site 102 prior to the SCR associated fieldwork included a Preliminary Assessment (Law Engineering and Environmental Services, Inc., 1997) and a Phase I Environmental Assessment (Law Engineering and Environmental Services, Inc. 1997).

SCR field activities conducted during September and October 1999 included surface soil collection and analysis for metals, cyanide, Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), and Pesticides / PCBs. Installation of two temporary monitoring wells (BRO-102-3S and BRO-102-4S) was accomplished using Direct-Push Technology. Groundwater samples from the two temporary monitoring wells were analyzed for metals, cyanide, VOCs, SVOCs, and Pesticides / PCBs. In February 2000 the NAS Pensacola Navy Public Works Center submitted the SCR based on the findings of all investigations.

Upon review of the SCR, FDEP issued a letter agreeing with the SCR recommendations. A copy of the Letter is provided in Attachment A. FDEP agreed that additional groundwater data needed to be collected for Site 102 and included in the final document. This letter report addresses the recommendation of the SCR and FDEP. In so doing, a summary of the work performed by TtNUS and the resulting data is also provided. Conclusions and recommendations for the site are provided in dedicated sections.

CONCLUSIONS

Soil Investigation Results

On October 21, 2000, TtNUS personnel advanced two soil borings, adjacent to temporary monitoring wells, BRO-102-4S and BRO-102-2S (Figure 1, Attachment B), to total depths of 10 feet below land surface (bls). Soil Samples for Flame Ionization Detector (FID) readings were collected from the 30 to 48 inch interval (Boring Log, Attachment D). Upon collection, the soil samples were placed in cleaned glass jars, capped with aluminum foil, and marked with the depth of collection. The samples were allowed to volatilize in the sealed jars for 3 to 5 minutes. The headspace vapor concentrations were measured after volatization using a calibrated FID.

Two surface soil samples (BRO-102-5S-0-2 and BRO-102-6S-0-2) were collected from 0-2 feet bls. One subsurface soil sample (BRO-102-6S-2-4) was collected from 2-4 feet bls. The samples were analyzed at an off-site laboratory for the following parameters:

- Total aluminum and iron – SW-846 6010B
- Synthetic Precipitation Leaching Procedure (SPLP) – SW-846 1312

The soil sample analytical results are included in Table 1, Attachment D. Total aluminum was detected at 1400 mg/kg and total iron was detected at 650 mg/kg in sample BRO-102-5S-0-2. Total aluminum was detected at 1200 mg/kg and total iron was detected at 370 mg/kg in sample BRO-102-6S-0-2. Total aluminum was detected at 1200 mg/kg and total iron was detected at 290 mg/kg in sample BRO-102-6S-

2-4. The total analyses results were below the applicable FDEP Direct Exposure 1 (DE1) Soil Cleanup Target Level (SCTL) in Chapter 62-777 FAC.

SPLP analysis of sample BRO-102-6S-2-4 detected aluminum at 1.6 mg/L, an exceedence of the FDEP GCTL (0.20 mg/L).

Groundwater Investigation Results

On October 21, 2000, TtNUS personnel installed two monitoring wells (BRO-102-5S and BRO-102-6S) to replace the temporary wells (BRO-102-3S and BRO-102-4S, Figure 2, Attachment B). The total depths of the well screens are 7 feet bls for BRO-102-5S, and 10.28 feet bls for BRO-102-6S. The wells were constructed using 2-inch ID schedule 40 PVC with 0.01 slot by 5-foot screens (Monitoring Well Log, Attachment C). The wells were developed on 10/23/00 using a pump and surge method (Monitoring Well Development Record, Attachment C).

Two groundwater samples (BRO-102-5S and BRO-102-6S) were collected on 11/03/00 for submission to a fixed-based laboratory. The recorded turbidity for sample BRO-102-6S was 7 NTUs, and for sample BRO-102-5S, the turbidity was 0 NTUs (Groundwater Sampling Log Sheet, Attachment C). The samples were analyzed for the following parameters:

- Total aluminum and iron– SW-846 6010B

The groundwater sample analytical results are included in Attachment D. Aluminum was detected above the FDEP GCTL (0.20 mg/L) in both samples (910 ug/L – BRO-102-5S; 1700 ug/L – BRO-102-6S). However, aluminum is below the health-based GCTL of 7 mg/L (Attachment F). Iron was detected above the FDEP Groundwater Clean-up Target Level (GCTL) (300 ug/L) in both samples (460 ug/L – BRO-102-5S; 2100 ug/L – BRO-102-6S). But, iron is below the health-based GCTL of 2.1 mg/L.

CONCLUSIONS AND RECOMMENDATIONS

- Soil analytical results for aluminum and iron were below FDEP SCTLs;
- Groundwater analytical results for aluminum were greater than the FDEP GCTL, but below the health-based GCTL developed by the University of Florida, Center for Environmental & Human Toxicology (Attachment F);
- Soil SPLP analytical results for aluminum indicate that the soil may leach aluminum into the groundwater resulting in groundwater concentration of aluminum above the FDEP GCTLs;

- Groundwater analytical results for iron were greater than the FDEP GCTL and equal to the health-based GCTL;
- Soil SPLP analytical results for iron indicate that the soil does not leach additional iron into the groundwater;
- Groundwater analytical results from the initial site characterization (9/8/99 – 9/10/99) were below the health-based GCTLs for either of the two (2) temporary monitoring wells for aluminum and iron.

No further action is recommended for this site as there are no exceedences of FDEP SCTLs, and the groundwater analytical results are at or below health-based GCTLs.

Sincerely,

Terry Hansen, P.G.
Florida Professional Geologist No. 234
Tetra Tech NUS, Inc.

CC: R. Joyner (NAS Pensacola)
B. Hill (SOUTHNAVFACENGCOM)
G. Townsend (USEPA)
G. Wilfley (CH2M HILL)
B. Caldwell (EnSafe, Inc.)
A. Harris (EnSafe, Inc.)
M. Perry (TtNUS)
T. Hansen (2 copies)

PROFESSIONAL REVIEW CERTIFICATION

Site Charaterization Report Addendum

Outlying Landing Field Bronson

Naval Air Station, Pensacola, Florida

This Site Characterization Report Addendum was prepared under the direct supervision of the undersigned geologist using geologic and hydrogeologic principles standard to the profession at the time the report was prepared. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of additional information on the assessment described in this report. This report was developed specifically for the referenced site and should not be construed to apply to any other site.

Terry Hansen, P.G.
Florida License No. 234

March 05, 2001
Date

ATTACHMENT A

FDEP Comment Letter

FLORIDA

Department of Environmental Protection

Jeb Bush
Governor

Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

March 1, 2000

Mr. Bill Hill
Code 1851
Southern Division
Naval Facilities Engineering Command
2155 Eagle Drive
P.O. Box 190010
North Charleston, South Carolina 29419-9010

RE: Draft Site Characterization Report, Sites 100 and 102, Outlying Landing Field Bronson, Pensacola, Florida

Dear Mr. Hill:

I have completed the technical review of the above referenced document dated February 2000 (received February 11, 2000). I concur with the recommendation for no further action (NFA) at Site 100 and for additional groundwater assessment at Site 102. I recommend that the additional data be collected and included in the final document.

If I can be of any further assistance with this matter, please contact me at (850) 921-9989.

Sincerely,

Joseph F. Fugitt

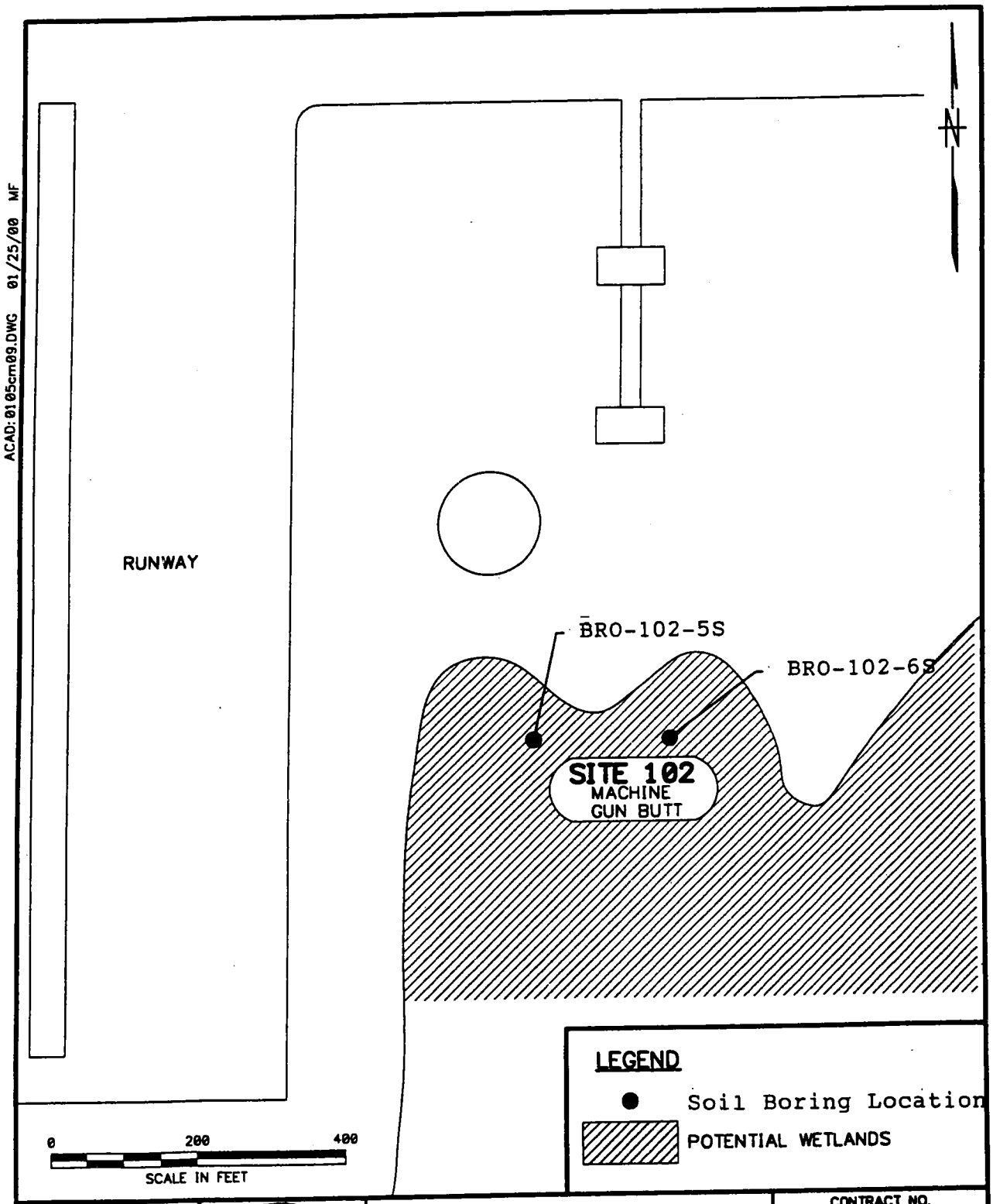
Joseph F. Fugitt, P.G.
Remedial Project Manager

cc: Ron Joyner, NAS Pensacola
Gena Townsend, USEPA Region IV
Terry Hansen, Tetra Tech NUS, Inc., Tallahassee
Charlie Goddard, FDEP Northwest District

TJB TB JJC JJC ESN ESN

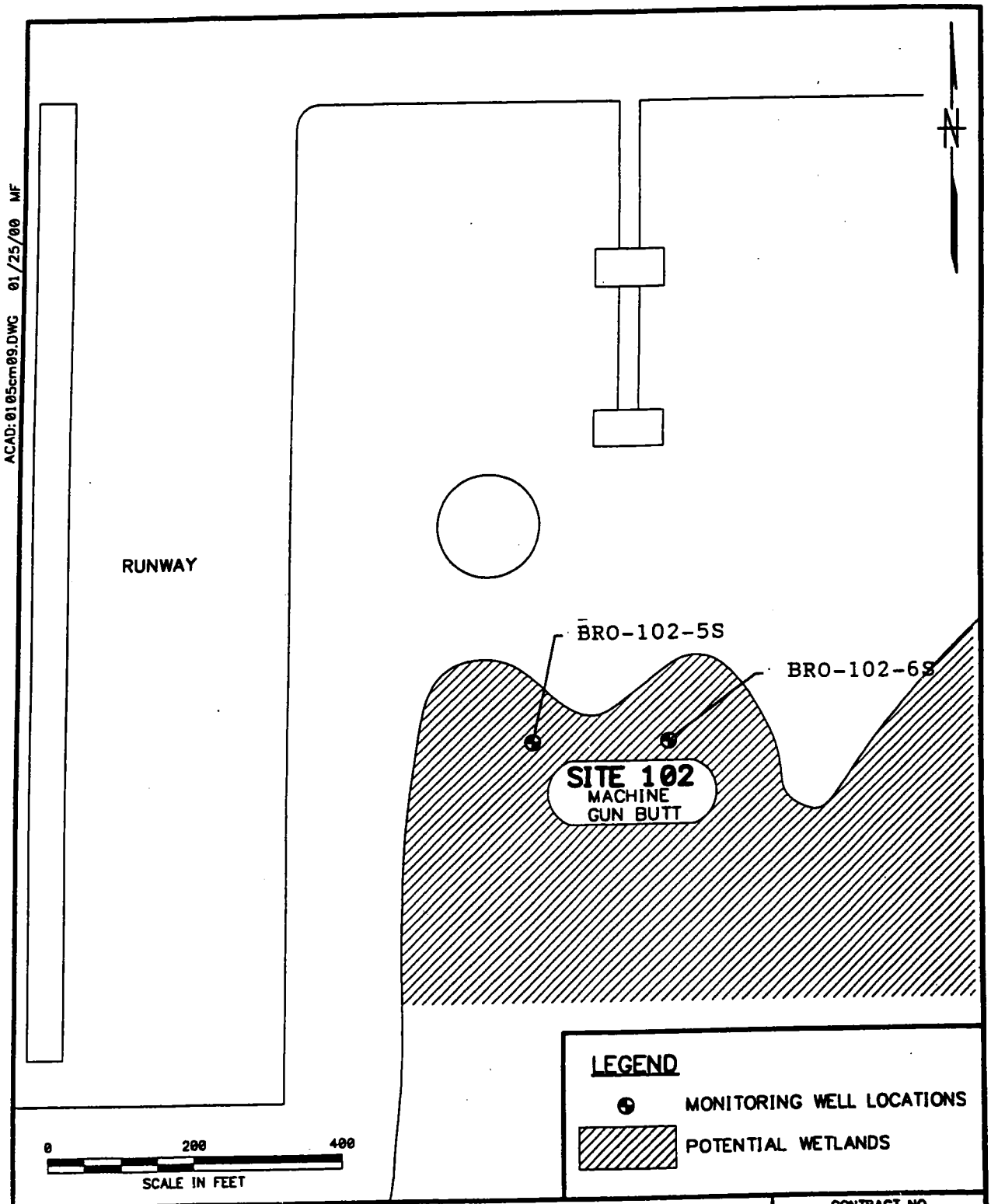
ATTACHMENT B

Figures



DRAWN BY MF DATE 1/24/00		GROUNDWATER SAMPLE LOCATIONS SITE 102 OLF BRONSON NAVAL AIR STATION PENSACOLA, FLORIDA	CONTRACT NO. 0105
CHECKED BY DATE			APPROVED BY DATE
COST/SCHED-AREA			APPROVED BY DATE
SCALE AS NOTED			DRAWING NO. Figure 1 / REV. 0

FORM CADD NO. SDIV_AV.DVG - REV 0 - 1/20/98


ACAD:0105cm09.DWG 01/25/00 MF
N
RUNWAY
BRO-102-5S
BRO-102-6S
SITE 102
MACHINE
GUN BUTT
LEGEND
MONITORING WELL LOCATIONS
POTENTIAL WETLANDS
0
200
400
SCALE IN FEET
DRAWN BY DATE
MF 1/24/00
CHECKED BY DATE
COST/SCHED-AREA
SCALE
AS NOTED
DEPARTMENT OF THE NAVY
NAVFAC
GROUNDWATER SAMPLE LOCATIONS
SITE 102
OLF BRONSON
NAVAL AIR STATION
PENSACOLA, FLORIDA
CONTRACT NO.
0105
APPROVED BY DATE
APPROVED BY DATE
DRAWING NO
Figure 2
REV.
0
FORM CADD NO. SDIV_AV.DWG - REV 0 - 1/20/98

ATTACHMENT C

Tables

TABLE 1

SUMMARY OF INORGANIC ANALYTES DETECTED IN SOILS-SITE 102

OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

Sample No.		BRO-102-5S-0-2	BRO-102-6S-0-2	BRO-102-6S-2-4
Sample Location		BRO-102-5S	BRO-102-6S	BRO-102-6S
Collect Date		10/21/2000	10/21/2000	10/21/2000
Sample Depth (bls)		0 to 2 ft.	0 to 2 ft.	2 to 4 ft.
	DE1[1]/DE2[2]/LE[3] (mg/kg)			
Metals[4] (mg/kg)				
Aluminum	72,000/ * / ***	1400	1200	1200
Iron	23,000/480,000/ ***	650	370	290

[1] DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.

[2] DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.

[3] LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.

[4] SW-846 6010B

* Contaminant is not a health concern for this default exposure scenario.

*** Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

TABLE 2

SUMMARY OF INORGANIC ANALYTES DETECTED IN GROUNDWATER SAMPLES-SITE 100

OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

Sample No.		BRO-102-5S	BRO-102-6S
Sample Location		BRO-102-5S	BRO-102-6S
Collect Date		11/3/2000	11/3/2000
	Groundwater Criteria [2] (ug/L)		
Metals[1] (ug/L)			
Aluminum	200	**910**	**1,700**
Iron	300	**460**	**2,100**

[1] SW-846 6010B

[2] As provided in Chapter 62-777, F.A.C.

Bold indicates an exceedance of limits.

TABLE 1

SUMMARY OF INORGANIC ANALYTES DETECTED IN SOIL LEACHATE SAMPLES-SITE 100

OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA

Sample No.		BRO-102-5S-0-2	BRO-102-6S-0-2	BRO-102-6S-2-4
Sample Location		BRO-102-5S	BRO-102-6S	BRO-102-6S
Collect Date		10/21/2000	10/21/2000	10/21/2000
Sample Depth (bls)		0 to 2 ft.	0 to 2 ft.	2 to 4 ft.
	Groundwater Criteria [2] (ug/L)			
Metals[1] (ug/L)				
Aluminum	200	--	**1600**	--
Iron	300	--	--	--

[1] SW-846 1312 followed by 6010B

[2] As provided in Chapter 62-777, F.A.C.

Bold indicates an exceedance of limits.

-- Not Detected

ATTACHMENT D

Soil Boring Log

Monitoring Well Sheet

Monitoring Well Development Record

Groundwater Sample Log

Low Flow Purge Data Sheet

Tetra Tech NUS, Inc.

BORING LOG

PROJECT NAME: Bronson Fld. Machine Gun Butt Site 102
PROJECT NUMBER: N0401 CTO 112
DRILLING COMPANY: AECS
DRILLING RIG: Geoprobe w/ Auger

BORING No.: BRO-102-5S
DATE: 10-21-00
GEOLOGIST: Gary J. Davis
DRILLER: David Cobb

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 or Rock Hardness	Color	Material Classification	USCS *	Remarks: Surface Marsh Grass	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
						Lt.	Brown silty sand		wet				
		NA	30"/48"	1.5	loose		fine-med grained.	SC		0	0	0	0
				5' screen	to very loose	Med-dark brown	silty sand		Saturated				
								SC		0	0	0	0
	5					Lt	Brown silty sand						
			42"/48"										
							Color change to white "beach" sand	SC					
							Terminated boring to set well						
	10												

Sample Tin 1000

* When rock coring, enter rock brokeness.

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

Remarks: Surface Soil Sample 0-2' BGS (BRO-102-5S-0-2)

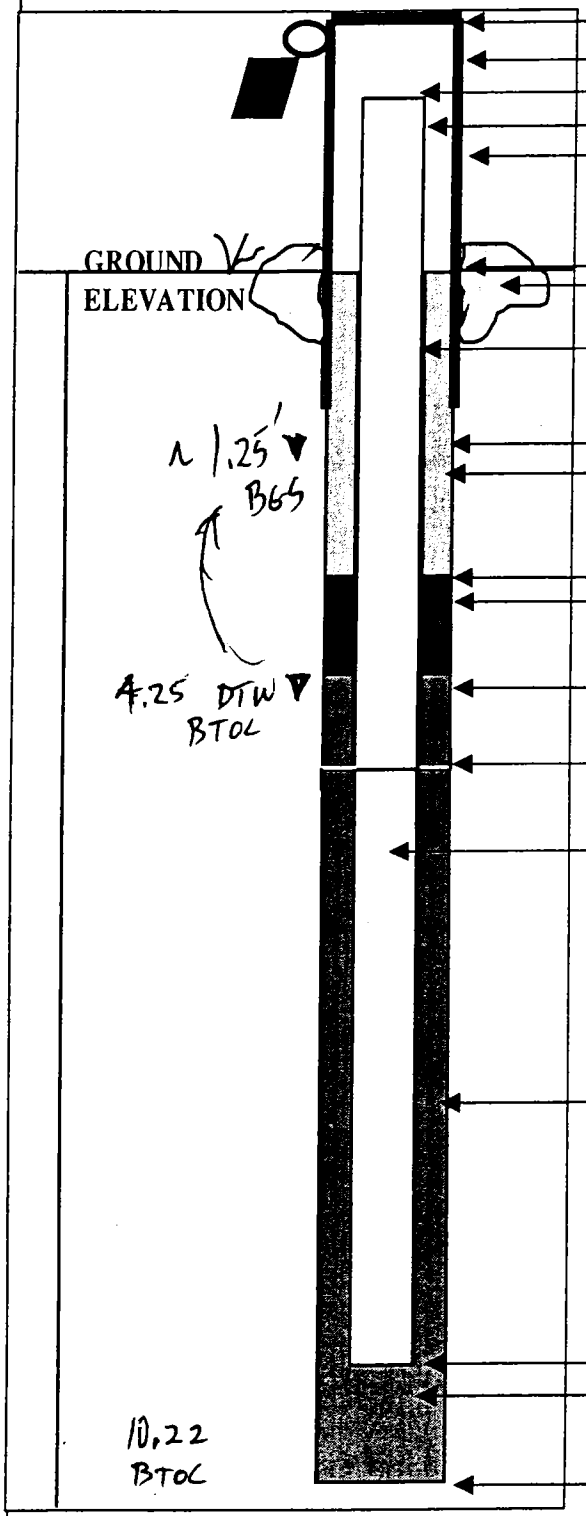
Drilling Area Background (ppm): 0

Converted to Well: Yes ✓ No ____ Well I.D. #: BRO-102-5S

BORING NO. BRO-102-55

Tetra Tech NUS, Inc. **OVERBURDEN MONITORING WELL SHEET**

PROJECT:	Site 102 Branson Fld. Machine Gun Butt	DRILLING Co.:	AECS	BORING No.:	BRO-102-55
PROJECT No.:	NO401 CTO 112	DRILLER:	David Cobb	DATE COMPLETED:	10-21-00
SITE:	AECS	DRILLING METHOD:	HSA	NORTHING:	
GEOLOGIST:	Geoprobe w/ Auger	DEV. METHOD:	Pump & Surge	EASTING:	



ELEVATION OF TOP OF SURFACE CASING:

STICK -UP TOP OF SURFACE CASING: ~3.5' AGS

ELEVATION OF TOP OF RISER PIPE:

RISER STICK-UP ABOVE GROUND SURFACE: ~3' AGS

I.D. OF SURFACE CASING: 2-inch

TYPE OF SURFACE CASING: Sch 40 PVC

GROUND ELEVATION:

TYPE OF SURFACE SEAL: Concrete Pad 2'x2'x6"

RISER PIPE I.D.: 2-inch

TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: ~8 1/4-inch

TYPE OF SEAL: Concrete

ELEVATION / DEPTH OF SEAL: 0.5

TYPE OF SEAL: Pure Gold Bentonite medium chips

ELEVATION / DEPTH TOP OF FILTER PACK: 1.5

ELEVATION / DEPTH TOP OF SCREEN: ~2' BGS

TYPE OF SCREEN: Sch 40 PVC

SLOT SIZE X LENGTH: 0.01 slot x 5 Ft

I.D. OF SCREEN: 2-inch

TYPE OF FILTER PACK: Filter Sil Silica sand 20/40

ELEVATION / DEPTH BOTTOM OF SCREEN: 7' BGS

ELEVATION / DEPTH BOTTOM OF FILTER PACK: 18'

TYPE OF BACKFILL BELOW WELL: Filter Sil

ELEVATION / DEPTH OF BOREHOLE: 18' BGS

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BRO-102-5S Stick-up
Site: Machine Gun Butt Bronson
Date Installed: 10-21-00
Date Developed: 10-23-00
Dev. Method: Pump & Surge
Pump Type: "Whale" Submersible
Depth to Bottom (ft.): 10.41 BTOC
Static Water Level Before (ft.): 4.96
Static Water Level After (ft.):
Screen Length (ft.): 5 ft
Specific Capacity:
Casing ID (in.): 2-inch
Responsible Personnel: Gary J. Davis
Drilling Co.: AECS
Project Name: Machine Gun Butt - Bronson Field
Project Number:

2 l/gal/40sec.

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units mg/cm)	Turbidity (NTU)	Remarks (odor, color, etc.) mg/l DO	Sal	No Odor
Start 1200	0.1	~1	5.34	23.2	5.06	0.068	999	3.47	0.00	lt. milky brown
1230	0.01	~30	5.36	23.2	4.98	0.061	768	5.18	0.00	Clearing after surge
1300	-0-	~60	5.40	23.1	4.86	0.059	421	5.18	0.00	Clearing more
1330	-0-	~90	5.42	23.1	4.68	0.057	98	5.17	0.00	" "
1400	-0-	~120	5.42	23.3	4.55	0.057	40	4.20	0.00	clear
1430	-0-	~150	5.42	23.4	4.54	0.056	26	4.35	0.00	clear
1500	-0-	~180	5.42	23.3	4.55	0.056	21	4.26	0.00	clear

Tetra Tech NUS, Inc.

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: NASP ~~Bldg. 1932~~ Bronson Machine Gun Butt Site 102
Project No.: ~~CTO 140 / 0547~~ N0105 EJ0050260

[] Domestic Well Data
[✓] Monitoring Well Data
[] Other Well Type:
[] QA Sample Type:

Sample ID No.: BRO-102-5S-GW3
Sample Location: BRO-102-5S
Sampled By: Gary J. Davis
C.O.C. No.:
Type of Sample:
[✓] Low Concentration
[] High Concentration

SAMPLING DATA:

	Color Visual	pH Standard	S.C. mS/cm	Temp. °C	Turbidity NTU	DO mg/l	TBD	TBD
Date: 11-03-00								
Time: 1030								
Method: Peristaltic	Clear	4.44	0.065	23.7	-0-	3.08		

PURGE DATA:

	Volume	pH	S.C.	Temp. (C)	Turbidity	DO	TBD	TBD
Date: 11-03-00								
Method: Peristaltic								
Monitor Reading (ppm): -0-		See Low Flow Purge Data Sheet						
Well Casing Diameter & Material								
Type: 2inch ID Sch 40 PVC								
BTOC Total Well Depth (TD): 10.41								
Static Water Level (WL): 6.50								
One Casing Volume(gal/L): ~0.7								
Start Purge (hrs): 0850								
End Purge (hrs): 1030								
Total Purge Time (min): 100								
Total Vol. Purged (gal/L): ~4 gal								

SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
Total (Al & Fe)	Nitric	1 ~~250~~ ml Poly 500 ml	1 [illegible]

OBSERVATIONS / NOTES:

5 ft screen, tubing intake set ~2.5' above bottom. 3.91' of water col. x .167
pumping ~100ml/min or less. 0.653 gal ≈ 1 vol

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): Gary J. Davis

TETRA TECH NUS, INC. LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NAS PENSACOLA Bronson Fld. Machine Gun Butt Site 102
PROJECT NUMBER: N0105 EJ0050260
WELL ID.: BRO-102-5S
DATE: 11-03-00

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	Sal. (%)	Comments Start 0850
0900	6.50	100	4.65	0.58	27	3.88	22.6	0.00	Flow ~ 100ml/min
0910	6.51	100	4.53	0.61	11	2.98	23.0	0.00	Clear
0920	6.51	100	4.49	0.62	5	2.69	23.2	0.00	
0940	6.51	100	4.46	0.63	2	2.80	23.4	0.00	
1020	6.51	100	4.44	0.065	0	3.01	23.7	0.00	
1030	6.51	100	4.44	0.065	0	3.08	23.7	0.00	End ~ 4 gal.

end and sample

SIGNATURE(S): Gary J. Davis

PAGE 1 OF

Tetra Tech NUS, Inc.

BORING LOG

Page 1 of 1

PROJECT NAME: Bronson Field - Machine Gun Butt Site 102
PROJECT NUMBER: N0401 CTO 112
DRILLING COMPANY: AECS
DRILLING RIG: Geoprobe w/ Auger
BORING No.: BRO-102-65
DATE: 10-21-00
GEOLOGIST: Gary J. Davis
DRILLER: David Cobb

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 or Rock Hardness	Color	Material Classification	USCS *	Remarks	PID/FID Reading (ppm): Sample	Sampler BZ	Borehole**	Driller BZ**
						Med	brown silty sand		fine - med grained Surface Marsh Grass				
		NA	30" / 48"	5' Screen	base	lt	brown	SC	moist	0	0	0	0
					to		yellowish brown						
					very			SC	wet	0	0	0	0
	5				loose		Color change to		saturated				
			36" / 48"				white "beach" sand						
							same	SC					
							Terminated boring to set well						
	10												

Sample Times: 830, 845

* When rock coring, enter rock brokeness.

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

Drilling Area Background (ppm): 0

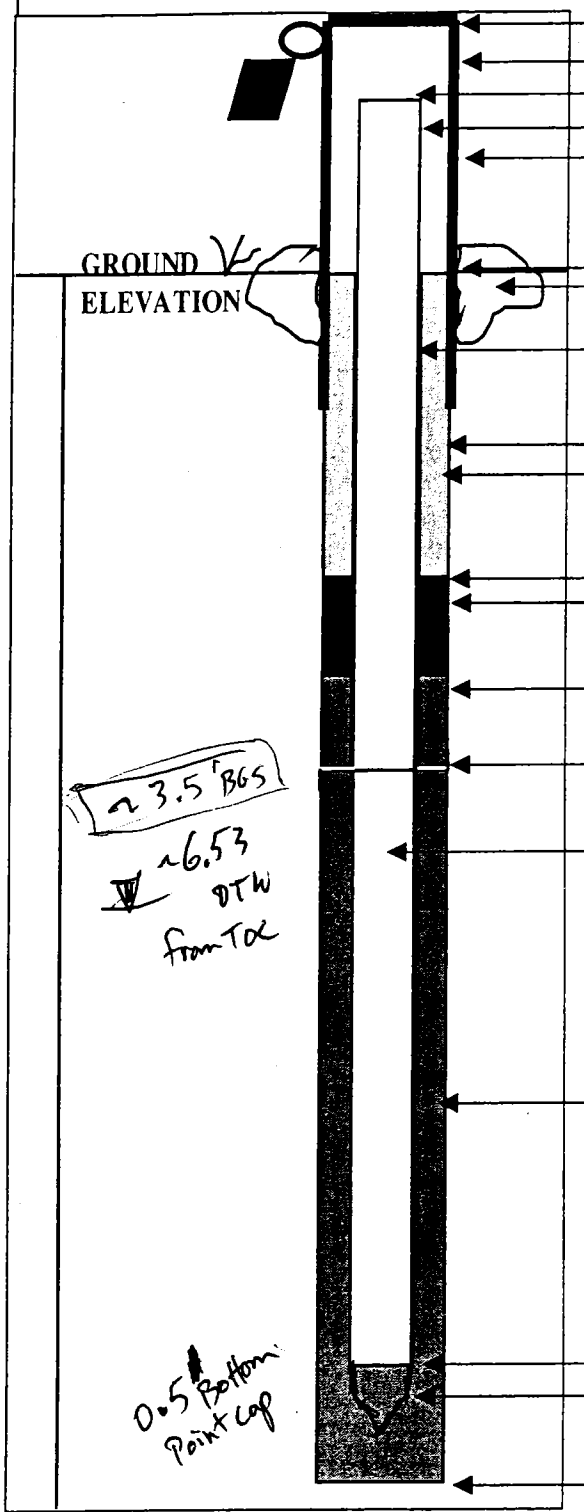
Remarks: Surface soil sample 0-2' BGS (BRO-102-65-0-2)
Subsurface " " 2-4' BGS (" " " 0-4)

Converted to Well: Yes ✓ No _____ Well I.D. #: BRO-102-65

BORING NO.: BRO-102-65

Tetra Tech NUS, Inc. **OVERBURDEN MONITORING WELL SHEET**

PROJECT: Bronson Fld Machine Gun Butt Site 102	DRILLING Co.: AECS	BORING No.: BRO-102-65	
PROJECT No.: N0401 CTO 112	DRILLER: David Cobb	DATE COMPLETED: 10-21-00	
SITE: AECS	DRILLING METHOD: HSA	NORTHING:	
GEOLOGIST: Geoprobe w/Auger	DEV. METHOD: Pump & Surge	EASTING:	



ELEVATION OF TOP OF SURFACE CASING: ~3.5 AGS

STICK -UP TOP OF SURFACE CASING:

ELEVATION OF TOP OF RISER PIPE:

RISER STICK-UP ABOVE GROUND SURFACE: ~3' AGS

I.D. OF SURFACE CASING: 2-inch

TYPE OF SURFACE CASING: Sch 40 PVC

GROUND ELEVATION:

TYPE OF SURFACE SEAL: Concrete pad 2'x2'x6"

RISER PIPE I.D.: 2-inch

TYPE OF RISER PIPE: Sch 40 PVC

BOREHOLE DIAMETER: ~8¼ inch

TYPE OF SEAL: Pure Gold Bentonite Med.-Chips @ Concrete Pad

ELEVATION / DEPTH OF SEAL: 10.5'

TYPE OF SEAL: Pure Gold Bentonite Med.-Chips

ELEVATION / DEPTH TOP OF FILTER PACK: 11.0' BGS

ELEVATION / DEPTH TOP OF SCREEN: ~~11.72~~ BGS HyP ~11.72'

TYPE OF SCREEN: Sch 40 PVC

SLOT SIZE X LENGTH: 0.01 slot x 5 ft.

I.D. OF SCREEN: 2-inch

TYPE OF FILTER PACK: Filtersil Silica Sand 20/40

ELEVATION / DEPTH BOTTOM OF SCREEN: ~12' BGS (10.28 BTOC)

ELEVATION / DEPTH BOTTOM OF FILTER PACK: 13'

TYPE OF BACKFILL BELOW WELL: Filtersil

ELEVATION / DEPTH OF BOREHOLE: 18'

10.28
-.50
9.72
-5
4.72

Tetra Tech NUS, Inc.

MONITORING WELL DEVELOPMENT RECORD

Well: BRO-102-65
Site: Machine Gun Butt 102
Date Installed: 10-21-00
Date Developed: 10-23-00
Dev. Method: Pump & Surge
Pump Type: Whale IC submersible

Depth to Bottom (ft.): 10.29 Stick up BTOC
Static Water Level Before (ft.): 6.79
Static Water Level After (ft.):
Screen Length (ft.): 5 ft
Specific Capacity:
Casing ID (in.): 2-inch

Responsible Personnel: Gary J. Davis
Drilling Co.: AECS
Project Name: Machine Gun Butt Bronson Field
Project Number:

Time	Estimated Sediment Thickness (Ft.)	Cumulative Water Volume (Gal.)	Water Level Readings (Ft. below TOC)	Temperature (Degrees C)	pH	Specific Conductance (Units ~~µS/cm~~)	Turbidity (NTU)	Remarks (odor, color, etc.) DO	Sal	
1530	0.1	~5	7.11	23.3	5.07	0.041	999	0.66	0.00	lt. milky brown
1600	0.01	~30	7.14	23.3	5.05	0.042	322	0.28	0.00	Clearing alla Surged,
1630	-0-	~60	7.11	23.7	5.01	0.047	258	0.45	0.00	" " "
1700	-0-	~90	7.11	23.5	5.01	0.048	94	0.81	0.00	" " "
1730	-0-	~120	7.11	23.5	5.02	0.048	14	0.88	0.00	Clear
1800	-0-	~150	7.11	23.6	5.01	0.049	5	0.29	0.00	Clear

DEP Form # 62-770.900(3)
Form Title: Petroleum or Petroleum Products Water Sampling Log
Effective Date: September 23, 1997

Petroleum or Petroleum Products Water Sampling Log

N0105 0000 EJ0050260

BRO-102-6S

FDEP FACILITY NO.:	WELL NO.: - 6S	SAMPLE ID: BRO 102-6S	DATE: 1/13/00
SITE NAME: OLF Bronson	SITE LOCATION: Machine Gun Butt		

PURGE DATA

WELL DIAMETER (in): 2"	TOTAL WELL DEPTH (ft): 10.29	DEPTH TO WATER (ft): 8.01	WELL CAPACITY (gal/ft): .4

1 WELL VOLUME (gal) = (TOTAL WELL DEPTH - DEPTH TO WATER) x WELL CAPACITY =

= (10.29 - 8.01) x .167 = .4

PURGE METHOD: Peristaltic	PURGING INITIATED AT: 0855	PURGING ENDED AT: 0943
	PURGE RATE (~~gpm~~): 100 ml/min	TOTAL VOLUME PURGED (gal): 1.5

WELL VOLS. PURGED	CUMUL. VOLUME PURGED (gal)	pH	TEMP. (°C)	COND. (µmhos)	COLOR	ODOR	APPEARANCE	OTHER
1	.4	5.26	23.5	.059	No Color	None	Clear	
2	~1.0	5.29	23.6	.052	"	"	"	
3	~1.5	5.32	24.0	.050	"	"	"	

SAMPLING DATA

SAMPLED BY / AFFILIATION: Dan Hartnett	SAMPLER(S) SIGNATURE(S): Dan Hartnett	
SAMPLING METHOD(S): Peristaltic Pump	SAMPLING INITIATED AT: 09:43	SAMPLING ENDED AT: 09:48
FIELD DECONTAMINATION: Y (N)	FIELD-FILTERED: Y (N)	DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATIONS			SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD
NO.	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOLUME ADDED IN FIELD (ml)	FINAL pH	
1	HDP	500ml	HNO_3	None		Fe, Al

REMARKS:

MATERIAL CODES: AG = AMBER GLASS; CG = CLEAR GLASS; HDP = HIGH DENSITY POLYETHYLENE; O = OTHER (SPECIFY)

WELL CAPACITY: 1.25" = 0.06 gal/ft; 2" = 0.16 gal/ft; 4" = 0.65 gal/ft; 6" = 1.47 gal/ft; 8" = 2.61 gal/ft; 12" = 5.88 gal/ft

NOTE: this does not constitute all the information required by Chapter 62-160, F.A.C.

TETRA TECH NUS, INC. LOW FLOW PURGE DATA SHEET

PROJECT SITE NAME: NAS PENSACOLA OLF BRONSON Machine Gun Butt
PROJECT NUMBER: N0105000EJ005D260
WELL ID.: BRO-102-6S
DATE: 11/3/00

Begin pump 0855

Time (Hrs.)	Water Level (Ft. below TOC)	Flow (mL/Min.)	pH (S.U.)	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp. (Celcius)	Sal. (%)	Comments
0904	8.03'	100	5.26	.059	8	1.86	23.5	0.00	Very clear, No odor
0920	8.03'	100	5.29	.052	4	1.48	23.6	0.00	" " " "
0940	8.03'	100	5.32	.050	7	1.54	24.0	0.00	" " " "
	0943	collect	+ Sample						

0840 - Calibrate Horiba U-10 Pine Env. #954

0845 collect equipment Blank "BRO-102-EQB

SIGNATURE(S): Dan Hartnett

ATTACHMENT E

Laboratory Analytical Reports

Data Validation Report

Tetra Tech NUS, Inc. Internal Correspondence

TO:	Mr. Gerald Walker	DATE:	December 26, 2000
FROM:	Suzanne I. Smith	CC:	File
SUBJECT:	Inorganic Data Validation – Aluminum and Iron CTO086 – NAS Pensacola, Bronson Field SDG 26005		
SAMPLES:	3/Soil		
	BRO-102-5S-0-2	BRO-102-6S-0-2	BRO-102-6S-2-4
	3/Leachate		
	BRO-102-5S-0-2	BRO-102-6S-0-2	BRO-102-6S-2-4
	2/Aqueous		
	BRO-102-5S	BRO-102-6S	

OVERVIEW

The sample set for CTO086, SDG 26005; Bronson Field, Pensacola, Florida consists of three (3) soil environmental samples, three (3) leachate environmental samples, and two (2) aqueous environmental samples. The environmental samples were analyzed for Aluminum and Iron.

The samples were collected by Tetra Tech NUS on October 21, 2000 and analyzed by Accura Analytical Laboratories. All analyses were performed in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria and analyzed according to SW-846 Method 6010B analytical and reporting protocols. The data in this SDG was validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
* • Laboratory method/field quality control blank results
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter.

Aluminum and Iron Fraction

All other quality control criteria were met for this fraction.

Executive Summary

Laboratory performance: All other quality control criteria were met.

Other factors affecting data quality: No other factors affected data quality.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (February, 1996), and the NFESC guidelines "Navy Installation Restoration Chemical Data Quality Manual" (September, 1999). The text of the report has been formulated to address only those problems affecting data quality.

"I attest that the data referenced herein was validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."

Suzanne J. Smith

Suzanne J. Smith

Project Chemist
Tetra Tech NUS, Inc.

SOIL DATA
AAL
SDG: 26005

SAMPLE NUMBER:	BRO-102-5S-0-2	BRO-102-6S-0-2	BRO-102-6S-2-4	/ /
SAMPLE DATE:	10/21/00	10/21/00	10/21/00	
LABORATORY ID:	AC02198	AC02195	AC02196	
QC_TYPE:	NORMAL	NORMAL	NORMAL	
% SOLIDS:	90.0 %	85.0 %	87.0 %	100.0 %
UNITS:	MG/KG	MG/KG	MG/KG	
FIELD DUPLICATE OF:				

INORGANICS	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
ALUMINUM	1400			1200			1200					
IRON	650			370			290					

WATER DATA
AAL
SDG: 26005

SAMPLE NUMBER:	BRO-102-5S			BRO-102-5S-0-2			BRO-102-6S			BRO-102-6S-0-2		
SAMPLE DATE:	10/21/00			10/21/00			10/21/00			10/21/00		
LABORATORY ID:	AC02197			AC02198			AC02194			AC02195		
QC_TYPE:	NORMAL			NORMAL			NORMAL			NORMAL		
% SOLIDS:	0.0 %			0.0 %			0.0 %			0.0 %		
UNITS:	MG/L			MG/L			MG/L			MG/L		
FIELD DUPLICATE OF:												
INORGANICS	**RESULT**	**QUAL**	**CODE**	**RESULT**	**QUAL**	**CODE**	**RESULT**	**QUAL**	**CODE**	**RESULT**	**QUAL**	**CODE**
ALUMINUM	0.050	U		1.0	U		0.050	U		1.6		
IRON	0.10	U		1.0	U		0.10	U		1.0	U	

SAMPLE NUMBER:	BRO-102-6S-2-4 ✓			
SAMPLE DATE:	10/21/00	/ /	/ /	/ /
LABORATORY ID:	AC02196			
QC_TYPE:	NORMAL			
% SOLIDS:	0.0 %	100.0 %	100.0 %	100.0 %
UNITS:	MG/L			
FIELD DUPLICATE OF:				

	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE	RESULT	QUAL	CODE
INORGANICS												
ALUMINUM	Ø 1.0	U										
IRON	Ø 1.0	U										

HOLDING TIME
12/11/00

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
MG/L	BRO-102-5S	AC02197	NORMAL	26005	M	10/21/00	10/31/00	11/03/00	10	3	13
MG/L	BRO-102-5S-0-2	AC02198	NORMAL	26005	M	10/21/00	10/27/00	10/31/00	6	4	10
MG/L	BRO-102-6S	AC02194	NORMAL	26005	M	10/21/00	10/31/00	11/03/00	10	3	13
MG/L	BRO-102-6S-0-2	AC02195	NORMAL	26005	M	10/21/00	10/27/00	10/31/00	6	4	10
MG/L	BRO-102-6S-2-4	AC02196	NORMAL	26005	M	10/21/00	10/27/00	10/31/00	6	4	10

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia, 30071, Phone (770) 449-8800

CASE NARRATIVE for Project Number: 26005
Client Project: Bronson Fld-Machine Gun Butt
Project Manager: Gerry Walker
Sampler(s): Gary Davis

The following items were noted concerning this project:

1. All soil results have reported on a dry weight basis and the reporting limits have been adjusted accordingly.

2. The Matrix Spike and Matrix Spike Duplicate analyses associated with Total / SPLP Iron and Aluminum was performed on sample BRO-102-5S-0-2.

3. The Matrix Spike and Matrix Spike Duplicate recoveries for Total Aluminum was outside the method specified limits due to high analyte concentration.

4. The relative percent difference between the Matrix Spike and Matrix Spike Duplicate analyses was outside the method specified limits for Total Iron due to sample heterogeneity.

5. The EDD file matches the submitted data reports.

Quality Assurance Manager

Laboratory Manager

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25178

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

CHAIN OF CUSTODY

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

Company Name: Tetra Tech NUS, Inc.
Address: 1401 Oven Park Dr Ste 102 Tallahassee, FL 32308
Report Sent to: (Client Contact): Gerry Walker
Contact Phone # 850-385-9899 Fax # 850-385-9860
Project Name: Bronson Fld - Machine Gun Butt
Project Number:

Billing address:
Client P.O. #

For Laboratory Use Only

Custody Seal: Y N
Page 1 OF 1
QC Level: N 1 2 3 4
Init/Temp: RPS 14°C
Sample Condition: (R)
AAL Lab Project # 26005

Samplers: (signature)
Samplers: (printed)

Sample ID #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Sample Location:	No. of Containers	ANALYSIS Total/SPLP (Al & Fe)	Total (Al & Fe)								Remarks	Accura Sample ID No. ~~AB~~ AC.
BRO-102-6S	10-21-00/0815		✓	W	HNO3	Rinsate Machine Gun Bronson Field Butt	1		1									02194
(BRO102-6S-02)	10/21/0830	✓		S	Ice	"	1	1										02195
(BRO102-6S-2A)	10/21/0845	✓		S	Ice	"	1	1										02196
BRO-102-5S	10-21-00/0945		✓	W	HNO3	" Rinsate	1		1									02197
(BRO-102-5S-02)	10/21-00 1000	✓		S	Ice	"	1	1										02198

Relinquished By:	Date / Time	Received By:	Date / Time	Special Requirements Or Remarks:
Gary J. Davis	10/24/00-1000	R.P.Su		
Relinquished By:	**Date / Time**	**Received By:**	**Date / Time**	**Turnaround Time Requested:**
Fedex	10/25/00 9:19	Re P. Sumathi	10/25/00 9:19	Normal

Matrix Guide: (S = Soil) (W = Water) (L = Liquid) (C = Cartridge) (SL = Sludge) (A = Air Sample) (F = Foods) (M = Miscellaneous)

COC97-2.XLS

PROJECT QUALITY CONTROL RESULTS
AAL PROJECT #26005

Method No[1]	Analyte / Component	Project Control Rec. MS (Water)	Project Control Rec. MSD (Water)	Project Control Rec. MS (Soil[2])	Project Control Rec. MSD (Soil[2])	Accuracy Limits MS/MSD Recoveries Water	Accuracy Limits MS/MSD Recoveries Soil[2]	Project Control MS/MSD % Deviation Water	Project Control MS/MSD % Deviation Soil[2]	Precision Limits MS/MSD Deviation Water	Precision Limits MS/MSD Deviation Soil[2]	Project Control Recoveries LCS Water	Project Control Recoveries LCS Soil[2]	Accuracy Limits LCS Recoveries Water	Accuracy Limits LCS Recoveries Soil[2]	Project Control Field Dup % Deviation Water	Project Control Field Dup % Deviation Soil[2]	Precision Limits Field Dup Deviation Water	Precision Limits Field Dup Deviation Soil[2]
METALS BY ICP						%	%			%	%			%	%			%	%
6010B	Aluminum *			398	510	50-150	30-170	#DIV/0!	25%	<30	<50		99	79-115	79-115			<50	<75
6010B	Iron *			84	130	50-150	30-170	#DIV/0!	43%	<30	<50		103	85-112	85-112			<50	<75

* Expected value for MS/MSD/LCS = 100ppm

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS - Not Specified
NA - Not Applicable

TABLE 2-3
PROJECT QUALITY CONTROL OBJECTIVES
AAL PROJECT #26005

		Project Control Rec.		Accuracy Limits	Precision Limits	Project Control	Project Control Rec	Accuracy Limits	Precision Limits
		MS	MSD	MS/MSD Recoveries	MS/MSD Deviation	MS/MSD % Deviation	LCS	LCS Recoveries	Field Dup Deviation
Method No	Analyte / Component	SPLP	SPLP	SPLP	SPLP	SPLP	SPLP	SPLP	SPLP
SPLP Metals				(%)	(%)			(%)	(%)
6010B	Aluminum *	110	104	50-150	<50	6%	94	70-130	<50
6010B	Iron *	111	106	50-150	<50	5%	102	70-130	<50

* Expected value for MS/MSD/LCS = 4.0ppm

Notes:
1) SW-846 Methods unless otherwise noted
2) Includes sediments, waste, solids

NS = Not Specified
NA = Not Applicable

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477
FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC02194 **Accura Project #: 26005**

Client: Tetra Tech Nus -Tallahassee Date Sampled: 10/21/2000
Client Contact: GERRY WALKER Date Received: 10/25/2000
Client Project Number: Date Reported: 11/07/2000
Client Project Name: BRONSON FLD-MACHINE GUN BUTT Sample Matrix: WATER
Client Sample ID: BRO-102-6S

ANALYSIS: Metals Method Ref: 3010A/6010B
Date Ext/Dig/Prep: 10/31/2000 Date Analyzed: 11/03/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	<RDL	0.050
Iron	<RDL	0.10

Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

6017 Financial Drive, Norcross, Georgia 30017, Phone (770)449-8800, FAX (770)449-5477

FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC02195 **Accura Project #: 26005**

Client: Tetra Tech Nus -Tallahassee Date Sampled: 10/21/2000

Client Contact: GERRY WALKER Date Received: 10/25/2000

Client Project Number: Date Reported: 11/07/2000

Client Project Name: BRONSON FLD-MACHINE GUN BUTT Sample Matrix: SOIL

Client Sample ID: BRO-102-6S-0-2

ANALYSIS: % Solids Method Ref: EPA 160.3

Date Ext/Dig/Prep: 10/27/2000 Date Analyzed: 10/27/2000 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
Solids	85	1.0

ANALYSIS: Metals Method Ref: 3050B/6010B

Date Ext/Dig/Prep: 10/31/2000 Date Analyzed: 11/02/2000 Result Units: mg/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	1200	5.9
Iron	370	12

ANALYSIS: SPLP Extraction Procedure Method Ref: 1312

Date Ext/Dig/Prep: 10/26/2000 Date Analyzed: 10/27/2000 Result Units:

Analyte Name	Analytical Results	Reported Detection Limits
SPLP Extraction	COMPLETE	

ANALYSIS: SPLP Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 10/27/2000 Date Analyzed: 10/31/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	1.6	1.0
Iron	<RDL	1.0

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LABORATORY REPORT

Accura Sample ID #: AC02196 **Accura Project #: 26005**

Client: Tetra Tech Nus -Tallahassee Date Sampled: 10/21/2000

Client Contact: GERRY WALKER Date Received: 10/25/2000

Client Project Number: Date Reported: 11/07/2000

Client Project Name: BRONSON FLD-MACHINE GUN BUTT Sample Matrix: SOIL

Client Sample ID: BRO-102-6S-2-4

ANALYSIS: % Solids Method Ref: EPA 160.3

Date Ext/Dig/Prep: 10/27/2000 Date Analyzed: 10/27/2000 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
Solids	87	1.0

ANALYSIS: Metals Method Ref: 3050B/6010B

Date Ext/Dig/Prep: 10/31/2000 Date Analyzed: 11/02/2000 Result Units: mg/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	1200	5.7
Iron	290	11

ANALYSIS: SPLP Extraction Procedure Method Ref: 1312

Date Ext/Dig/Prep: 10/26/2000 Date Analyzed: 10/27/2000 Result Units:

Analyte Name	Analytical Results	Reported Detection Limits
SPLP Extraction	COMPLETE	

ANALYSIS: SPLP Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 10/27/2000 Date Analyzed: 10/31/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	<RDL	1.0
Iron	<RDL	1.0

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC02197 **Accura Project #: 26005**

Client: Tetra Tech Nus -Tallahassee
Client Contact: GERRY WALKER
Client Project Number:
Client Project Name: BRONSON FLD-MACHINE GUN BUTT
Client Sample ID: BRO-102-5S

Date Sampled: 10/21/2000
Date Received: 10/25/2000
Date Reported: 11/07/2000
Sample Matrix: WATER

ANALYSIS: Metals — Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 10/31/2000 Date Analyzed: 11/03/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	<RDL	0.050
Iron	<RDL	0.10

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FL Certification # E87429 NC Certification # 483 SC Certification # 98015 USACE-MRD Approved

LABORATORY REPORT

Accura Sample ID #: AC02198 **Accura Project #: 26005**

Client: Tetra Tech Nus -Tallahassee

Client Contact: GERRY WALKER

Client Project Number:

Client Project Name: BRONSON FLD-MACHINE GUN BUTT

Client Sample ID: BRO-102-5S-0-2

Date Sampled: 10/21/2000

Date Received: 10/25/2000

Date Reported: 11/07/2000

Sample Matrix: SOIL

ANALYSIS: % Solids Method Ref: EPA 160.3

Date Ext/Dig/Prep: 10/27/2000 Date Analyzed: 10/27/2000 Result Units: %

Analyte Name	Analytical Results	Reported Detection Limits
Solids	90	1.0

ANALYSIS: Metals Method Ref: 3050B/6010B

Date Ext/Dig/Prep: 10/31/2000 Date Analyzed: 11/02/2000 Result Units: mg/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	1400	5.6
Iron	650	11

ANALYSIS: SPLP Extraction Procedure Method Ref: 1312

Date Ext/Dig/Prep: 10/26/2000 Date Analyzed: 10/27/2000 Result Units:

Analyte Name	Analytical Results	Reported Detection Limits
SPLP Extraction	COMPLETE	

ANALYSIS: SPLP Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 10/27/2000 Date Analyzed: 10/31/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	<RDL	1.0
Iron	<RDL	1.0

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LABORATORY REPORT

Accura Sample ID #: AC02199 **Accura Project #: 26005**

Client: Tetra Tech Nus -Tallahassee

Client Contact: GERRY WALKER

Client Project Number:

Client Project Name: BRONSON FLD-MACHINE GUN BUTT

Client Sample ID: METHOD BLANK-1

Date Sampled: 10/25/2000

Date Received: 10/25/2000

Date Reported: 11/07/2000

Sample Matrix: WATER

ANALYSIS: Metals Method Ref: 3010A/6010B

Date Ext/Dig/Prep: 10/31/2000 Date Analyzed: 11/03/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	<RDL	0.050
Iron	<RDL	0.10

Accura Analytical Laboratory, Inc.

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LABORATORY REPORT

Accura Sample ID #: AC02200 **Accura Project #: 26005**

Client: Tetra Tech Nus -Tallahassee Date Sampled: 10/25/2000
Client Contact: GERRY WALKER Date Received: 10/25/2000
Client Project Number: Date Reported: 11/07/2000
Client Project Name: BRONSON FLD-MACHINE GUN BUTT Sample Matrix: SOIL
Client Sample ID: METHOD BLANK-2

ANALYSIS: Metals Method Ref: 3050B/6010B
Date Ext/Dig/Prep: 10/31/2000 Date Analyzed: 11/02/2000 Result Units: mg/Kg

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	<RDL	5.0
Iron	<RDL	10

ANALYSIS: SPLP Extraction Procedure Method Ref: 1312
Date Ext/Dig/Prep: 10/26/2000 Date Analyzed: 10/27/2000 Result Units:

Analyte Name	Analytical Results	Reported Detection Limits
SPLP Extraction	COMPLETE	

ANALYSIS: SPLP Metals Method Ref: 3010A/6010B
Date Ext/Dig/Prep: 10/27/2000 Date Analyzed: 10/31/2000 Result Units: mg/L

Analyte Name	Analytical Results	Reported Detection Limits
Aluminum	<RDL	1.0
Iron	<RDL	1.0

Accura Analytical Laboratory, Inc.

Tetra Tech NUS, Inc. **Internal Correspondence**

TO:	**Mr. Terry Hansen**	**DATE:**	**February 6, 2001**
FROM:	**Suzanne I. Smith**	**CC:**	**File**
SUBJECT:	**Inorganic Data Validation – Aluminum and Iron** **CTO086 – NAS Pensacola, Bronson Field** **SDG ORL13288**		
SAMPLES:	**3/Aqueous**		
	BRO-102-5S BRO-102-6S BRO-102-EQB		

OVERVIEW

The sample set for CTO086, SDG ORL13288; Bronson Field, Pensacola, Florida consists of two (2) aqueous environmental samples and one (1) equipment blank. The samples were analyzed for Aluminum and Iron.

The samples were collected by Tetra Tech NUS on November 3, 2000 and analyzed by Environmental Conservation Laboratories. All analyses were performed in accordance with Naval Facilities Engineering Service Center (NFESC) Quality Assurance/Quality Control (QA/QC) criteria and analyzed according to EPA Method 202.1 (Aluminum) and EPA Method 236.1 (Iron) analytical and reporting protocols. The data in this SDG was validated with regard to the following parameters:

* • Data Completeness
* • Holding Times
  • Laboratory method/field quality control blank results
* • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter.

Aluminum and Iron Fraction

Blank analysis

Affected samples : None

Analyte	Maximum Concentration(mg/L)	Action Level(mg/L)
Aluminum	0.11	0.55

An action level of 5x the maximum concentration has been used to evaluate the sample for contamination in the blanks. Dilution factors and sample aliquots were taken into consideration.

All other quality control criteria were met for this fraction.

Executive Summary

Laboratory performance: All quality control criteria were met.

Other factors affecting data quality: No other factors affected data quality.

The data for these analyses were reviewed with reference to the EPA Functional Guidelines for Organic Data Validation (February, 1996), and the NFESC guidelines "Navy Installation Restoration Chemical Data Quality Manual" (September, 1999). The text of the report has been formulated to address only those problems affecting data quality.

"I attest that the data referenced herein was validated according to the agreed upon validation criteria as specified in the NFESC Guidelines and the Quality Assurance Project Plan (QAPP)."

Suzanne J. Smith

Project Chemist
Tetra Tech NUS, Inc.

DATA VALIDATION TRACKING FORM

Site Name : NAS Pensacola **Region:** 4

Proj Manager: T. Hansen **CTO:** 086

Charge No.: 0105 **Validation:**

Validator: ☐ **Full**

QA: ☐ **Limited**

☒ **Cursory**

☐

Sample Delivery Group: 13288

Fraction:		AQUEOUS	SOLID
☒	**METALS**	3	
☐	**MISC**		
☐	**OTHER**		

Date Assigned: _____
Due Date: _____
Date Valid Complete: 2/6/01
Date QA Complete: _____

LOE Allotted: _____ hrs
LOE Expended:
Validation _____ hrs
Corrections _____ hrs
QA _____ hrs

Total LOE Expended _____ hrs

PACKAGE TRACKING

CTO: 086
SDG: 13288
DATE DISK RECEIVED: 2/1/01
DATE DATA RECEIVED:

JOB NO: 0105
VALIDATION REQUIRED: C
PROJECT MANAGER: T. Hansen
REGION: 4

PROJECT NAME: NAS Pensacola
NETWORK PATH: P:\Valid\SDG\CTO086\

FRACTIONS RECEIVED:

OV
OVG
OS
PAH
PEST/PCB
HERB
PET
EXP
DIOX
M /
MF
MISC
OTHER

NOTES: Sent to S. Smith 2/5/01 - faxed. Hard copy sent directly to lab - no raw data in Pgh.

CTO086-NAS PENSACOLA
WATER DATA
ENCO LABORATORIES
SDG: 13288

SAMPLE NUMBER:	BRO-102-5S			BRO-102-6S			BRO-102-EQB					
SAMPLE DATE:	11/03/00			11/03/00			11/03/00			/ /		
LABORATORY ID:	ORL13288-2			ORL13288-1			ORL13288-3					
QC_TYPE:	NORMAL			NORMAL			NORMAL					
% SOLIDS:	0.0 %			0.0 %			0.0 %			100.0 %		
UNITS:	MG/L			MG/L			MG/L					
FIELD DUPLICATE OF:												
	RESULT	**QUAL**	**CODE**	**RESULT**	**QUAL**	**CODE**	**RESULT**	**QUAL**	**CODE**	**RESULT**	**QUAL**	**CODE**
INORGANICS												
ALUMINUM	0.91			1.7			0.11					
IRON	0.46			2.1			0.10	U				

13288

HOLDING TIME

02/05/01

Units	Nsample	Lab Id	Qc Type	Sdg	Sort	Samp Date	Extr Date	Anal Date	SAMP_DATE TO EXTR_DATE	EXTR_DATE TO ANAL_DATE	SAMP_DATE TO ANAL_DATE
MG/L	BRO-102-5S	ORL13288-2	NORMAL	13288	M	11/03/00	/ /	11/13/00	0	0	10
MG/L	BRO-102-6S	ORL13288-1	NORMAL	13288	M	11/03/00	/ /	11/13/00	0	0	10
MG/L	BRO-102-EQB	ORL13288-3	NORMAL	13288	M	11/03/00	/ /	11/13/00	0	0	10

Environmental Conservation Laboratories, Inc.
10207 General Drive
Orlando, Florida 32824-8529
407 / 826-5314
Fax 407 / 850-6945
www.encolabs.com

ENCO Laboratories

DHRS Certification No. E83182

CLIENT : Tetra Tech NUS
ADDRESS: 1401 Oven Park Dr.
Suite 102
Tallahassee, FL 32312

REPORT # : ORL13288
DATE SUBMITTED: November 4, 2000
DATE REPORTED : November 20, 2000

ATTENTION: Gerry Walker

SAMPLE IDENTIFICATION

Samples submitted and
identified by client as:

PROJECT #: N3876

CTO #0146/086 BRONSON SITE 102

11/03/00

#1 - BRO-102-6S @ 09:43
#2 - BRO-102-5S @ 10:30
#3 - BRO-102-EQB @ 08:45

PROJECT MANAGER _____

Marcia C. Terlep

ENCO LABORATORIES
REPORT # : ORL13288
DATE REPORTED: November 20, 2000
REFERENCE : N3876
PROJECT NAME : CTO #0146/086
BRONSON SITE 102

RESULTS OF ANALYSIS

TOTAL METALS	METHOD	BRO-102-6S	BRO-102-5S	Units
Aluminum	202.1	**1.7**	**0.91**	mg/L
Date Analyzed		11/13/00	11/13/00	
Iron	236.1	**2.1**	**0.46**	mg/L
Date Analyzed		11/06/00	11/06/00	

RESULTS OF ANALYSIS

TOTAL METALS	METHOD	BRO-102-EQB	LAB BLANK	Units
Aluminum	202.1	**0.11**	0.10 U	mg/L
Date Analyzed		11/13/00	11/13/00	
Iron	236.1	0.10 U	0.10 U	mg/L
Date Analyzed		11/06/00	11/06/00	

U = Compound was analyzed for but not detected to the level shown.

QUALITY CONTROL DATA

Parameter	% RECOVERY MS/MSD/LCS	ACCEPT LIMITS	% RPD MS/MSD	ACCEPT LIMITS

Aluminum

MS Reported value; 9.8 mg/L - MSD Reported value; 10.2 mg/L
MS Expected value; 10 mg/L - MSD Expected value; 10 mg/L
MS % Recovery 98% - MSD % Recovery 102%
MS Control Limits 65-125% - MSD Control Limits 65-125%
Date Analyzed 11/13/00 - Date Analyzed 11/13/00

LCS Reported value; 9.99 mg/L
LCS Expected value; 10 mg/L
LCS % Recovery 99.9%
LCS Control Limit 65-125%
Date Analyzed 11/13/00

Iron

MS Reported value; 0.93 mg/L - MSD Reported value; 0.9 mg/L
MS Expected value; 1.0 mg/L - MSD Expected value; 1.0 mg/L
MS % Recovery 93% - MSD % Recovery 91%
MS Control Limits 63-129% - MSD Control Limits 63-129%
Date Analyzed 11/06/00 - Date Analyzed 11/06/00

LCS Reported value; 0.98 mg/L
LCS Expected value; 1.0 mg/L
LCS % Recovery 98%
LCS Control Limit 63-129%
Date Analyzed 11/06/00

Environmental Conservation Laboratories Comprehensive QA Plan #960038

< = Less Than
MS = Matrix Spike
MSD = Matrix Spike Duplicate
LCS = Laboratory Control Standard
RPD = Relative Percent Difference

This report shall not be reproduced except in full, without the written approval of the laboratory. Results for these procedures apply only to the samples as submitted.

QSARF # R1206

ENVIRONMENTAL CONSERVATION LABORATORIES

4810 Executive Park Court, Suite 211
Jacksonville, Florida 32216-6069
Ph. (904) 296-3007 • Fax (904) 296-6210

10207 General Drive
Orlando, Florida 32824-8529
Ph. (407) 826-5314 • Fax (407) 850-6945

1015 Passport Way
Cary, North Carolina 27513
Ph. (919) 677-1669 • Fax (919) 677-9846

ENCO CompQAP No.: 960038G/0

CHAIN OF CUSTODY RECORD

PROJECT REFERENCE	PROJECT NO.	P.O. NUMBER
Bronson Site 102	N3876	

PROJECT LOC. (State)	SAMPLER(s) NAME	PHONE / FAX
FL	D. Hartnett / G. Davis	850/185-9899

CLIENT NAME	CLIENT PROJECT MANAGER
Tetra Tech NUS	Gerry Walker

CLIENT ADDRESS (CITY, STATE, ZIP): 1401 Oven Park Dr, Tallahassee, FL 32312

PAGE 1 OF 1

☒ STANDARD REPORT DELIVERY
☐ EXPEDITED REPORT DELIVERY (surcharge)
Date Due: _____

SAMPLE						MATRIX TYPE									REQUIRED ANALYSIS							
STATION	DATE	TIME	GRAB	COMP	SAMPLE IDENTIFICATION	SURFACE WATER	GROUND WATER	WASTEWATER	DRINKING WATER	SOIL/SOLID/SEDIMENT	NONAQUEOUS LIQUID (oil, solvent, etc.)	AIR	SLUDGE	OTHER	Fe, Al							PRESERVATIVE
															NUMBER OF CONTAINERS SUBMITTED							REMARKS
1	11/3/00	0943	✓		BRO-102-6S										1							
2	"	1030	✓		BRO-102-5S										1							
3	"	0845	✓		BRO-102-EQB										1							
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						

SAMPLE KIT PREPARED BY:	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
☐ JACKSONVILLE ☒ ORLANDO	11/1/00	11:45	Lisa Brunch	11/1/00	11:45	Dan Hartnett	11/2/00	1200
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
Dan Hartnett	11/3/00	1730						
RECEIVED BY (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	ENCO LOG NO.	REMARKS
Dana Eisenman ☐ Jacksonville ☒ Orlando	11/4/00	9:00	☒ YES ☐ NO	ORL-13288	

ATTACHMENT F

University of Florida, Center for Environmental & Human Toxicology

Health-Based GCTLs

UNIVERSITY OF FLORIDA

Center for Environmental & Human Toxicology

P.O. Box 110885
Gainesville, Florida 32611-0885
Tel.: (352) 392-4700, ext. 5500
Fax: (352) 392-4707

November 30, 1999

Ms. Ligia Mora-Applegate
Bureau of Waste Cleanup
Florida Department of Environmental Protection
Room 471 A, Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Ms. Mora-Applegate:

At your request, we have developed health-based groundwater cleanup target levels (GCTLs) for those contaminants which currently have GCTLs that are set by secondary standards or are based on organoleptic criteria. Attachment 1 shows the equation used by FDEP to calculate health-based GCTLs for non-carcinogens. Attachment 2 provides the list of contaminants, their current GCTL and basis, and the health-based GCTL. Attachment 3 provides the reference doses (RfDs) and their sources, used in the calculation of the health-based GCTLs.

We hope that this information is helpful. If you have any questions regarding the derivation of these values, please do not hesitate to contact us.

Sincerely,

Christopher J. Saranko, Ph.D.

Stephen M. Roberts, Ph. D.

cc: Tim Bahr
attachments

Attachment 1

Equation for Deriving Site-Specific Cleanup Target Levels For Non-Carcinogens in Groundwater

$$GCTL\ (\mu g/L) = \frac{RfD_{oral} \times BW \times RSC \times CF}{Wconsp.}$$

Parameter	Definition (units)	Default Value
GCTL	groundwater cleanup target level (µg/L)	n/a
RfD_{oral}	chronic oral reference dose (mg/kg/day)	Chemical-specific[b]
BW	average body weight (kg)	70[a]
RSC	relative source contribution (%)	20%
CF	conversion factor (µg/mg)	1000
Wconsp.	average water consumption (L/day)	2

[a]Equations and default parameters from FDEP 'Ground Water Guidance Concentration Manual', Bureau of Drinking Water and Ground Water Resources, June 1994.

[b]Toxicity values from IRIS, HEAST, or other sources as provided in Tables 5b of the Technical Report for Chapter 62-777, F.A.C.

Note: For those parameters where the derived GCTL is lower than what can reasonably be measured in a laboratory, the PQL will be designated as the groundwater cleanup target level.

Attachment 2

Comparison of Organoleptic and Secondary Standard GCTLs with Health-Based Values

Contaminant	CAS #	Current GCTL (µg/L)	Health-Based GCTL (µg/L)
Acenaphthene	83-32-9	20 *Organoleptic*	420 *Systemic Toxicant*
Aluminum	7249-90-5	200 *Secondary Standard*	7000 *Systemic Toxicant*
Biphenyl, 1,1- [or Diphenyl]	92-52-4	0.5 *Organoleptic*	350 *Systemic Toxicant*
Butyl acetate, n-	123-86-4	43 *Organoleptic*	N/A
Chlorophenol, 3-	108-43-0	10 *Organoleptic / PQL*	35 *Systemic Toxicant*
Chlorophenol, 4-	106-48-9	5.5 *Organoleptic / PQL*	35 *Systemic Toxicant*
Chloropicrin	76-06-2	7.3 *Organoleptic*	N/A
Copper	7440-50-8	1000 *Secondary Standard*	280[a] *Systemic Toxicant*
Cumene [or Isopropyl benzene]	98-82-8	0.8 *Organoleptic*	700 *Systemic Toxicant*
Dichlorobenzene, 1,3-	541-73-1	10 *Organoleptic / PQL*	210 *Systemic Toxicant*
Dichlorophenol, 2,3-	576-24-9	10 *Organoleptic / PQL*	21 *Systemic Toxicant*
Dichlorophenol, 2,4-	120-83-2	0.5 *Organoleptic / PQL*	21 *Systemic Toxicant*
Dichlorophenol, 2,5-	583-78-8	10 *Organoleptic / PQL*	21 *Systemic Toxicant*
Dichlorophenol, 2,6-	87-65-0	4 *Organoleptic / PQL*	21 *Systemic Toxicant*
Dichlorophenol, 3,4-	95-77-2	0.5 *Organoleptic / PQL*	21 *Systemic Toxicant*
Ethyl ether	60-29-7	750 *Organoleptic*	1400 *Systemic Toxicant*
Ethylbenzene	100-41-4	30 *Secondary Standard*	700[b] *Primary Standard*
Fluoride	7782-41-4	2000 *Secondary Standard*	4000[c] *Primary Standard*
Formaldehyde	50-00-0	600 *Organoleptic*	1400 *Systemic Toxicant*
Hexane, n-	110-54-3	10 *Organoleptic / PQL*	420 *Systemic Toxicant*
Iron	7439-89-6	300 *Secondary Standard*	2100 *Systemic Toxicant*
Manganese	7439-96-5	50 *Secondary Standard*	980[d] *Systemic Toxicant*
Methyl acetate	79-20-9	5000 *Organoleptic / PQL*	7000 *Systemic Toxicant*

Contaminant	CAS #	Current GCTL (µg/L)	Health-Based GCTL (µg/L)
Methyl methacrylate	80-62-6	25 *Organoleptic*	9800 *Systemic Toxicant*
Methyl tert-butyl ether [or MTBE]	1634-04-4	50 *Organoleptic*	210 *Systemic Toxicant*
Methylnaphthalene, 1-	90-12-0	20 *Organoleptic*	140 *Systemic Toxicant*
Methylnaphthalene, 2-	91-57-6	20 *Organoleptic*	140 *Systemic Toxicant*
Naphthalene	91-20-3	20 *Organoleptic*	140 *Systemic Toxicant*
Phenol	108-95-2	10 *Organoleptic*	4200 *Systemic Toxicant*
Silver	7440-22-4	100 *Secondary Standard*	35 *Systemic Toxicant*
Sulfate	14808-79-8	250000 *Secondary Standard*	N/A
Toluene	108-88-3	40 *Secondary Standard*	1000[e] *Primary Standard*
Total dissolved solids [or TDS]	C-010	500000 *Secondary Standard*	N/A
Trichlorophenol, 2,4,5-	95-95-4	4 *Organoleptic*	700 *Systemic Toxicant*
Trimethylbenzene, 1,2,3-	526-73-8	10 *Organoleptic*	350 *Systemic Toxicant*
Trimethylbenzene, 1,2,4-	95-63-6	10 *Organoleptic*	350 *Systemic Toxicant*
Trimethylbenzene, 1,3,5-	108-67-8	10 *Organoleptic*	350 *Systemic Toxicant*
TRPH	No CAS#	5000 ##	280[f] *Systemic Toxicant*
Vinyl acetate	108-05-4	88 *Organoleptic*	7000 *Systemic Toxicant*
Xylenes, total	1330-20-7	20 *Secondary Standard*	10000[e] *Primary Standard*
Zinc	7440-66-6	5000 *Secondary Standard*	2100 *Systemic Toxicant*

[a]The National Center for Environmental Assessment (NCEA) recommends a reference dose range of 0.04-0.07 mg/kg-day. The health-based GCTL is based on a RfD of 0.04 mg/kg-day.

[b]The health-based GCTL for ethylbenzene is the basis for the Primary Standard.

[c]The value for fluoride is the Primary Standard. A value based on systemic toxicity would be lower.

[d]When considering risk from non-dietary exposure to manganese, the USEPA recommends modifying the reference dose to account for background exposure. In this case, the unmodified RfD was used because the formula used to calculate the GCTL uses a relative source contribution term to account for background exposure.

[e]The values for Toluene and Xylenes, total are the Primary Standards. Values based on systemic toxicity would be higher.

[f]The health-based GCTL for TRPH is based on the fraction-specific RfD (0.04 mg/kg-day) for the C_6-C_{16} hydrocarbon fraction recommended by the Total Petroleum Hydrocarbon Working Group (TPHCWG). If site-specific data on the composition of the TRPH is available, it could be used to derive a site-specific GCTL.

N/A = Not available

= Based on similarity to oil and grease standard as provided in Chapter 62-302, F.A.C.

Attachment 3

Sources of Toxicity Information Used to Calculate Health-Based GCTLS

Contaminant	CAS #	Oral RfD (mg/kg-day)	Oral RfD Source	Health-Based GWCTL (µg/L)
Acenaphthene	83-32-9	0.06	IRIS	420
Aluminum	7249-90-5	1	NCEA	7000
Butyl acetate, n-	123-86-4	N/A	N/A	N/A
Biphenyl, 1,1- [or Diphenyl]	92-52-4	0.05	IRIS	350
Chlorophenol, 3-	108-43-0	0.005	Surrogate (a)	35
Chlorophenol, 4-	106-48-9	0.005	Surrogate (a)	35
Chloropicrin	76-06-2	N/A	N/A	N/A
Copper	7440-50-8	0.037	HEAST	259[a]
Cumene [or isopropyl benzene]	98-82-8	0.1	IRIS	700
Dichlorobenzene, 1,3-	541-73-1	0.03	IRIS	210
Dichlorophenol, 2,3-	576-24-9	0.003	Surrogate (b)	21
Dichlorophenol, 2,4-	120-83-2	0.003	IRIS	21
Dichlorophenol, 2,5-	583-78-8	0.003	Surrogate (b)	21
Dichlorophenol, 2,6-	87-65-0	0.003	Surrogate (b)	21
Dichlorophenol, 3,4-	95-77-2	0.003	Surrogate (b)	21
Ethyl ether	60-29-7	0.2	IRIS	1400
Ethylbenzene	100-41-4	0.1	IRIS	700[b]
Fluoride	7782-41-4	0.06	IRIS	4000[c]
Formaldehyde	50-00-0	0.2	IRIS	1400
Hexane, n-	110-54-3	0.06	HEAST	420
Iron	7439-89-6	0.3	NCEA	2100
Manganese	7439-96-5	0.14	IRIS	980[d]
Methyl acetate	79-20-9	1	HEAST	7000
Methyl methacrylate	80-62-6	1.4	IRIS	9800
Methyl tert-butyl ether [or MTBE]	1634-04-4	0.03	HAL	210
Methylnaphthalene, 1-	90-12-0	0.02	Surrogate (c)	140
Methylnaphthalene, 2-	91-57-6	0.02	Surrogate (c)	140
Naphthalene	91-20-3	0.02	IRIS	140

Contaminant	CAS #	Oral RfD (mg/kg-day)	Oral RfD Source	Health-Based GWCTL (µg/L)
Phenol	108-95-2	0.6	IRIS	4200
Silver	7440-22-4	0.005	IRIS	35
Sulfate	14808-79-8	N/A	N/A	N/A
Toluene	108-88-3	0.2	IRIS	1400[e]
Total Disolved Solids (TDS)	C-010	N/A	N/A	N/A
Trichlorophenol, 2,4,5-	95-95-4	0.1	IRIS	700
Trimethylbenzene, 1,2,3-	526-73-8	0.05	Surrogate (d)	350
Trimethylbenzene, 1,2,4-	95-63-6	0.05	NCEA	350
Trimethylbenzene, 1,3,5-	108-67-8	0.05	NCEA	350
TRPH	No CAS#	0.04	TPHWG	280[f]
Vinyl acetate	108-05-4	1	HEAST	7000
Xylenes, total	1330-20-7	2	IRIS	14000[e]
Zinc	7440-66-6	0.3	IRIS	2100

[a]The National Center for Environmental Assessment (NCEA) recommends a reference dose range of 0.04 -0.07 mg/kg-day. The health-based GCTL is based on a RfD of 0.04 mg/kg-day.

[b]The health-based GCTL for ethylbenzene is the basis for the Primary Standard.

[c]Fluoride has a Primary Standard of 4,000 µg/L.

[d]When considering risk from non-dietary exposure to manganese, the USEPA recommends modifying the reference dose to account for background exposure. In this case, the unmodified RfD was used because the formula used to calculate the GCTL uses a relative source contribution term to account for background exposure.

[e]Toluene and Total Xylenes have Primary Standards of 1,000 µg/L and 10,000 µg/L respectively.

[f]The health-based GCTL for TRPH is based on the fraction-specific RfD (0.04 mg/kg-day) for the C_6-C_{16} hydrocarbon fraction recommended by the Total Petroleum Hydrocarbon Working Group (TPHCWG). If site-specific data on the composition of the TRPH is available, it could be used to derive a site-specific GCTL.

N/A = Not available

= Based on similarity to oil and grease standard as provided in Chapter 62-302, F.A.C.

Reference sources for toxicity data:

IRIS: U.S. EPA's Integrated Risk Information System
HEAST: U.S. EPA's Health Effects Assessment Summary Tables
NCEA: National Center for Environmental Assessment
OPP: U.S. EPA's Office of Pesticide Programs *Reference Dose Tracking Report*
HAL: Drinking Regulations and Health Advisories (U.S. EPA Office of Water)
TPHCWG: TPH Criteria Working Group Series. *Volume 4: Development of Fraction Specific Reference Doses and Reference Concentrations for Total Petroleum Hydrocarbons*, Amherst, MA: Amherst Scientific Publishers, 1997.
Surrogate (a): Surrogate RfD based oral RfD for 2-chlorophenol
Surrogate (b): Surrogate RfD based oral RfD for 2,4-dichlorophenol
Surrogate (c): Surrogate RfD based oral RfD for naphthalene
Surrogate (d): Surrogate RfD based oral RfD for 1,2,4-Trimethylbenzene