

**SOLID WASTE MANAGEMENT UNIT
ASSESSMENT REPORT
SITE 68 - CRYOGENICS AREA
CONTRACT NUMBER N52470-94-D-150
PROJECT CP4202M
MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA**

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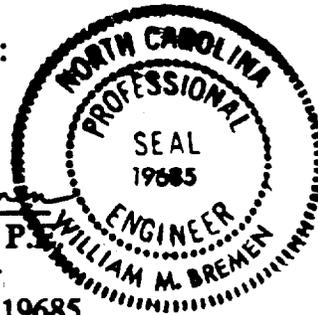


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1.0 BACKGROUND

The Marine Corps Air Station (MCAS), Cherry Point, North Carolina's Resource Conservation and Recovery Act (RCRA) Part B Permit requires notification to the U.S. Environmental Protection Agency (EPA) and the North Carolina Department of Environment, Health and Natural Resources (NCDEHNR) when a new Solid Waste Management Unit (SWMU) is identified. In a letter dated 17 May 1994, the MCAS notified the appropriate agencies that a SWMU had been discovered. A copy of the letter is included as Appendix A of this SWMU Assessment Report (SAR). The submittal of a SAR, including a specified list of items to be addressed, is required by the Part B Permit. This SAR is being submitted to comply with the Part B Permit requirements.

2.0 LOCATION OF SWMU

The SWMU is located at Site 68 near buildings 4392 and 985 at MCAS, Cherry Point, North Carolina. The location of the MCAS is depicted on Figure 1, a United States Geologic Survey (USGS) topographic map for Havelock, North Carolina quadrangle, revised in 1983.

2.1 SWMU LOCATION ON TOPOGRAPHIC MAP

A topographic map showing the location of the SWMU is included as Figure 2 of this SAR. The scale of the topographic map (1 inch = 110 feet) is appropriate as required by 40 CFR 270.14 (b) (19) as adopted in 15A NCAC 13A .0013. The topographic map is based on a General Development Map of existing map area 42 at the MCAS, prepared in February 1984. Additional information relevant to the SWMU assessment is provided in Figure 3, Sampling Location Map. Figure 3, which has a scale of 1 inch = 50 feet, shows details of the SWMU location, its observed contents, and the locations of soil and groundwater sampling points.

2.2 100-YEAR FLOOD PLAIN

The elevations of the SWMU range from approximately sea level to 30 feet above sea level. The 100-year flood plain elevation in the vicinity of Buildings 4392 and 985 is shown as the high water contour on the topographic map at an elevation of 10.8 feet (Federal Emergency Management Agency, Flood Insurance Rate Map 370265 0006 B, dated 4 May 1987).

2.3 SURFACE WATERS

The topographic map indicates surface waters, including intermittent streams.

2.4 SURROUNDING LAND USE

The area within 1000 feet of the SWMU is used for warehouses, administrative offices, equipment maintenance, cryogenics, and water-related recreation. Recreational boating piers are found at three locations within the 1000-foot radius. Most of the land is forested, and timber production is an incidental land use within this area. The land in the immediate vicinity of the SWMU is used primarily by Marine Air Logistics Squadron (MALS)-14 for their cryogenics operations. A cryogenics training school (Building 4392) is also found in the area. The SWMU and the surrounding areas are accessible to personnel from these units and other authorized and unauthorized visitors.

2.5 WIND ROSE

A wind rose showing prevailing wind-speed and direction is indicated on the topographic map. The wind rose was taken directly from General Development Map, Existing Area 53, NAVFAC Drawing No. 4167071, sheet 27 of 37, prepared for the MCAS in February, 1984. Wind conditions depicted in that wind rose are assumed to be close to current conditions at Site 68.

2.6 MAP ORIENTATION

The orientation of the topographic map is indicated on the map with a north arrow.

2.7 LEGAL BOUNDARIES

The SWMU is entirely within the legal boundaries of the MCAS, Cherry Point, North Carolina. Figure 1 is a portion of a US Geological Survey map for Havelock, North Carolina which shows that the SWMU is within the portion designated as a "Naval Reservation."

2.8 ACCESS CONTROL

Admittance to the MCAS is regulated by access gates under the control of sentries. Authorized personnel are granted access to the MCAS through the gates. Once aboard the Air Station, however, no further man-made barriers prevent access to the SWMU area. Natural barriers, such as the steep slope of the land and the dense vegetation, discourage access but do not prevent it.

2.9 WITHDRAWAL WELLS

The nearest known drinking water supply well to the SWMU is approximately 1.3 miles southeast of the SWMU and is beyond the range of the topographic map. There are no known wells in the immediate vicinity of the SWMU.

2.10 BUILDINGS AND STRUCTURES

Buildings, structures, and roads near the SWMU have been located on the topographic map.

2.11 DRAINAGE BARRIERS AND FLOOD CONTROL

There are no known barriers for drainage or flood control in the vicinity of the SWMU.

2.12 OPERATIONAL UNITS

There are no permitted operational units where hazardous waste will be treated, stored or disposed in the vicinity of the SWMU. Two areas where disposal of fuel or other liquids may have occurred in the past were identified during the review of site historic information. These include an area containing soil contaminated with JP-5 fuel, which is located approximately 300 feet northeast of the SWMU. The soil contaminated with JP-5 was originally around a fuel berm. (Information concerning the JP-5 fuel was taken from NAVFAC Drawing and Specification Review Comments and Demolition and Removal Cryogenics Facility CP401R, NAVFAC Drawing no. 4125793, 18 July 1985.) A sand filled liquid disposal area is situated approximately 450 feet southeast of the SWMU. The liquid disposal area is used to accommodate accidental spills of liquid oxygen or nitrogen and for off-specification aviation-grade gases (oxygen and nitrogen). The off-specification gases generally have an unacceptable concentration of carbon dioxide, hydrogen, argon, and acetylene gases, which are normally present in trace amounts in the ambient air when liquified. (Information concerning the liquid disposal area was taken from NAVFAC Drawing and Specification Review Comments and New Work - Site Plan Cryogenics Facility CP401R, NAVFAC Drawing no. 4125795, 18 July 1985.)

3.0 SWMU HISTORICAL INFORMATION

A diligent effort was made to determine the history of the SWMU. The past use of the SWMU, the materials disposed of, and the dates when the area may have been used for disposal of solid waste were derived from review of available information, interviews with appropriate personnel, and field observations. The following sections described the sources of information reviewed and the findings of this review.

3.1 AERIAL PHOTOGRAPHS

Readily available aerial photographs taken at various points of time throughout the operational history of the MCAS were reviewed to assist in determining the dates that the SWMU may have been actively used and to gather information on the lateral extent of the SWMU. The following is a summary of the aerial photographs that were reviewed:

- Photograph # AOK-4W-35; dated 12 November 1958; Scale 1:22,000. Several buildings believed to be buildings 981, 983, 984, and 985 and a parking area are shown in the vicinity of the SWMU. The area of the SWMU is interpreted as dense woods in the aerial photograph. The scale is very small and little detail can be seen.
- Photograph # V VMCJ-2 USMC 677A dated 16 October 1963; Scale of 1:8,000. Several buildings believed to be buildings 981, 983, 984, and 985 and a parking area are shown in the vicinity of the SWMU. Several elongated dark figures, possibly trucks or heavy equipment, are found along the edge of the parking area and the SWMU. The dense woods in the area of the SWMU viewed in the 1958 photograph are shown as slightly less dense in the 1963 photograph.
- Photograph # AOK-7EE-64; dated 2 February 1964; Scale of 1:18,000. The details in the photograph in the vicinity of the SWMU appear very similar to the details in the 1963 photograph.

- The NAVFAC Drawing No. 4166963, Aerial Photo Plan, Map Area 42, Sheet 19 of 37; dated 6 March 1987; Scale of 1:2,400. The details in the photograph in the vicinity of the SWMU appear very similar to the details in the 1964 photograph.

3.2 PERSONNEL INTERVIEWS AND OTHER INFORMATION

A Building Card (NAVCOMPT Form 277) was reviewed for Building 985, an older building near the SWMU. The building was constructed in 1945 and is described as a "vehicle transportation building." Solid waste disposal in the SWMU could have potentially occurred from the mid 1940's. The classification of Building 985 indicates that vehicle maintenance chemical products, including oils, greases, degreasing solvents, paints, and antifreeze, could have potentially been disposed in the SWMU.

MALS-14 presently occupies the area near the SWMU, and they generate and repair mobile equipment used for cryogenics activities, including liquidizing of nitrogen and oxygen. A list of chemicals taken from the MALS-14 Material Safety Data Sheets (MSDSs) was cross-referenced with the list of RCRA hazardous constituents in 40 CFR 261, Appendix VIII. This cross referenced list appears as Appendix B. The list was developed to determine the likely chemical constituents that may have been included in the SWMU disposal. Personnel interviewed from MALS-14 had no knowledge of using the SWMU for disposal of solid waste materials.

Marine Wing Support Squadron (MWSS)-271 reportedly occupied the area near the SWMU prior to MALS-14 and conducted vehicle maintenance related activities using chemical products believed similar to some of those currently in use by MALS-14. No one was available to be interviewed who would have worked for the unit at the time it occupied the Cryogenics Area near the SWMU.

Personnel at Ground Support Equipment (GSE) serviced a Cryogenics equipment vehicle ("GBU") and disposed the perlite used for insulation in the vehicle at the SWMU and washed the material down the side of the ravine. Review of the MSDS for perlite shows it to be volcanic glass, consisting of crystalline silica (quartz). The personnel interviewed believed this practice occurred prior to the late 1970's to approximately 1990 when the GSE stopped servicing this type of equipment. An employee at GSE recalled as a Marine stationed at MCAS, Cherry Point in the 1970's that the SWMU area had been used to dispose of various scrap materials generated during maintenance activities.

Personnel currently serving with MALS-14 recalled that metal drums may have been placed below the current top of the embankment at the northeastern edge of the SWMU. However, the personnel interviewed believed that these drums were probably empty or contained inert material and were used as structural supports for expansion of the ridge.

3.3 FIELD OBSERVATIONS

A magnetometer survey was conducted during the assessment on 21 September 1994 as a non-intrusive means to assist in determining the lateral extent of the SWMU. The results of the survey were combined with field observations and sampling results to outline the areal extent of the SWMU on the topographic maps (refer to Figures 2 and 3). The magnetometer survey indicated that large amounts of metallic objects are disposed in the SWMU.

An attempt was made to inventory objects visible on the surface of the SWMU. This was difficult to accomplish because no attempt was made to unearth or move objects to allow more access. No attempt was made to open containers which were found

with lids secured to them. A general description of items observed in the SWMU is presented in Table 1, contained in the Tables Section at the end of the SAR.

4.0 SWMU ASSESSMENT TECHNIQUES

In order to evaluate whether hazardous waste or hazardous constituents may have been released from the Site 68-Cryogenics SWMU, an assessment of groundwater, soils, and surface sediments was conducted. Due to the lack of vehicle access to the downslope boundary of the SWMU, all sampling procedures were limited to use of hand-held equipment. In addition, no on-site decontamination of sampling equipment was conducted. All sampling equipment was decontaminated off-site before and after use. The following sections of the SAR described the standard techniques employed during the assessment.

4.1 GROUNDWATER SAMPLING PROCEDURES

Four temporary monitoring wells were installed to obtain representative groundwater samples from the uppermost aquifer underlying the site. The sampling points, which are identified on Figure 3, were situated at the bottom of the sloped area where the majority of the debris was observed. At each sampling location, a temporary groundwater monitoring well was installed by constructing a borehole to an approximate depth of five feet by use of a hand auger. The soils were classified at approximately one foot intervals using the Geological Society of America method and logged into a field log book. A two and one-half foot PVC well screen was placed at the bottom of each borehole with a five-foot PVC riser pipe to above ground surface. The borehole was allowed to collapse around the well screen to form a natural sand pack. A groundwater sample was collected from each well with a laboratory decontaminated Teflon bailer and placed in laboratory supplied bottles. The bottles were then placed on ice in coolers to be delivered to the laboratory under standard chain-of-custody procedures (refer to Section 4.6). After the samples were collected, the well screen and riser pipe were removed and the borehole backfilled with grout,

in accordance with North Carolina Department of Environmental Management (DEM) requirements. A composite sample of the soil cuttings was collected and the remaining cuttings were placed in a DOT approved 55-gallon drum pending analytical results.

The initial sampling point, identified as S-01 on Figure 3, is located at the base of the slope south of building 4392 and just downgradient of a perlite and metal disposal area. Burned bark and wood debris were observed from a depth of ground surface to 1.5 feet at this sampling point. According to Cherry Point personnel, controlled burns for forest fire prevention are common on the Air Station, accounting for the burned material. From approximately 1.5 to 4.0 feet consolidated fine sand was observed. Groundwater was observed at approximately 2.5 feet. The well screen was set in this material. Soil cuttings collected from this sampling location were observed to exhibit a mild sewage odor. The cuttings were screened for volatile organic compounds (VOCs) using an Organic Vapor Analyzer (OVA), and the highest measurement recorded at this borehole was 10 parts per million (ppm). The well was allowed to fill and then the samples were collected from near the groundwater table interface.

The second sampling point, identified as S-02 on Figure 3, is located southeast of the Building 4392. This location was selected because of a small creek adjacent to it that appears to drain the eastern end of the SWMU. A mixture of perlite and fine sand was observed at this location from ground surface to approximately 5.0 feet. According to Air Station personnel, in the past the area was used to dispose of perlite, therefore it is not unusual to find it in the soil. Groundwater samples for only VOC analysis were collected from the well. However, the well did not recharge due to the perlite in the soil. Therefore, the remaining samples were collected from the creek

approximately two feet from the well. The OVA scan at this sampling location detected a nominal 1 to 2 ppm of VOCs.

A third groundwater sampling location, identified as S-04 on Figure 3, was located immediately downgradient of a disposal area containing metal, full paint buckets, and empty solvent buckets. This sampling location is in a drainage area. From ground surface to approximately 1.0 foot an unconsolidated fine to course sand was encountered. From 1.0 to 5.0 feet a consolidated fine sand was encountered. Groundwater was observed at approximately 1.5 feet below land surface. Soil cuttings from this location were observed to exhibit a mild sewage odor. An OVA scan of the cutting measured a nominal 1 to 2 ppm of VOCs.

The final groundwater sampling location, identified as S-05 in Figure 3, is located southwest of the Building 4392, approximately 20 feet from Slocum Creek. This location is in the drainage area for the northwest end of the SWMU. From ground surface to approximately 1.0 foot humus and decayed leaves were encountered. From 1.0 to 3.5 feet a fine sand with a few cypress fragments was observed. From 3.5 to 5.0 feet a gray to tan sandy clay was observed. Groundwater was measured at approximately 3.0 feet below land surface. An OVA scan of the soil cuttings indicated no detectable VOCs.

4.2 SOIL SAMPLING PROCEDURES

Four soil samples were collected from the soils overlying the water bearing zone. Three of the samples were collected from the cuttings generated during construction of the hand auger borings for the temporary wells. The fourth soil sample consisted of a surficial sediment sample from a drainage area. Composite samples were mixed in a decontaminated stainless steel bowl and placed into laboratory supplied sample

containers. Grab samples were placed directly into the sample containers. The soil cuttings were scanned with an OVA to detect any VOCs and soil from the depth with the highest concentration was used for the VOC sample.

The first soil sample, taken from sampling location S-01, was collected from the borehole used for temporary well S-01. OVA readings of approximately 10 ppm were detected in the soils from a depth of 1.0 to 1.5 feet. Therefore, the VOC sample was collected from this depth. Since no other OVA readings indicated VOC concentrations above background, the remaining soil was mixed for a composite sample for additional laboratory analyses.

The second soil sample was collected from the temporary well S-02 borehole. The VOC sample was collected from a depth of 1.0 to 2.0 feet and had an OVA reading of approximately 2 ppm. The remaining soil was mixed for a composite sample and had VOC readings ranging from background to 2 ppm.

The third soil sample was a sediment sample collected at the sampling location identified as S-03 on Figure 3. This sample was collected from a low area that appears to convey surface water from the base of the SWMU. No VOCs were detected during OVA screening of the sediments in this location. Several inches of topsoil were scraped away with a stainless steel spoon, exposing fresh sediments. A portion of these sediments were collected as a grab sample for VOC analysis. The remaining sediments were mixed for a composite sample of additional parameters.

The final soil sample locations, identified as S-04 and S-04A on Figure 3, included the borehole for temporary well S-04, along with an area of potential contamination observed situated upgradient from well S-04. The soil sample for the VOC analysis was collected from this second area at a point directly under disposed buckets and

scrap metal in order to obtain a worst case reading. Some of these buckets contained what appeared to be gray paint. Another bucket was labelled as xylene. The remaining soil collected from the borehole was mixed for a composite sample for additional parameter analyses. No elevated VOC readings were detected during OVA screening.

4.3 DRUMMED SOIL SAMPLING PROCEDURES

Approximately 30 pounds of soil was collected during the above described soil and groundwater assessments. This soil was containerized in a DOT-approved 55-gallon drum and labelled as soil cuttings. A composite sample of the cuttings was collected for laboratory analysis to determine the regulatory disposal status of the investigation derived waste. Pending laboratory results, the drum was placed in the designated non-hazardous waste drum storage area at the MCAS.

4.4 LOCATION OF SAMPLING POINTS

The groundwater and soil sampling points were located by using survey equipment and measuring with a tape from known locations on the maps. The locations and elevations were compared to the existing maps and found to generally coincide with the elevations and locations measured in the field. A new base map was generated, using existing and new data, showing the location of existing features as well as the new sampling locations and the observed. The estimated lateral extent of the SWMU, based on the magnetometer survey and field observations, was additionally surveyed for inclusion on the topographic maps.

4.5 LABORATORY ANALYTICAL METHODS

The soil and groundwater samples collected at the Site 68-Cryogenics Area SWMU were submitted for a variety of analyses to determine if hazardous waste or hazardous waste constituents may have been released. Where applicable, the appropriate SW-846 Methods were employed. The list of methods employed was developed to ensure that the hazardous constituents listed in 40 CFR 261, Appendix VIII and potentially used at the site were analyzed during this assessment (refer to Appendix B of this SAR). All laboratory analysis were performed by a laboratory certified by the State of North Carolina, IEA Laboratories in Cary, North Carolina. The following test methods were employed:

- Total VOCs using SW-846 Method #8240
- Semi-volatile organic compounds (BNA) using SW-846 Method #8270
- RCRA metals plus antimony using the appropriate EPA SW-846 methods
- TPH by GC using SW-846 Methods #3510/3550/5030
- TPH by IR using EPA Method #418.1
- Total Cyanide using EPA Method #335.2
- pH using SW-846 Method #9045

A composite sample of the soil cuttings generated during the site assessment was submitted to the laboratory to determine if the soil cuttings may exhibit the characteristic of a hazardous waste using the Toxicity Characteristic Leaching Procedure (TCLP). The TCLP test was conducted for both heavy metals and organic compounds.

4.6 SAMPLE CHAIN-OF-CUSTODY PROCEDURES

The following sections describe the procedures employed to ensure proper custody of the samples collected at the site.

4.6.1 Sample Identification/Labeling

The following information was included for each sample in a bound logbook, or recorded directly on the chain-of-custody form provided by the laboratory, while the samples were in the custody of the sampling team:

- Project Number
- Sample Number
- Brief description of sample location
- Date and time of sample collection
- Designation as to how sample taken (e.g., grab or composite)
- Signature of the sampler
- Type of sample preservative used, if applicable
- Type of analysis to be performed
- Relevant comments (e.g., discolored surface area)
- Duplicate sample designations, if applicable

The sample tag/label for each sample was marked with the pertinent information using waterproof, non-erasable ink. Specific sample I.D. Numbers were used for the identification of samples obtained from the Site 68-Cryogenics Area SWMU assessment. The sample numbers, along with the corresponding sampling location on Figure 3, are listed in Table 2.

4.6.2 Chain-of-Custody

Soil and water samples were transported within 48 hours of collection to IEA Laboratories in Cary, North Carolina. The samples remained in the custody of the sampling personnel until released to laboratory personnel in accordance with U.S. EPA-approved chain-of-custody procedures. The chain-of-custody record supplied by the analytical laboratory was used to record the custody of all samples and other physical evidence and also serves to provide a sample logging mechanism for the analytical laboratory. All samples were stored and transported in coolers packed with ice.

5.0 SWMU ASSESSMENT RESULTS

The assessment of the Site 68-Cryogenics Area SWMU has defined the horizontal extent of the observed disposal area and this information has been included on the required topographic map. The estimated area of the SWMU, based on magnetometer readings and visual observations, is approximately 45,000 square feet. This includes the visible extent of minor disposal. The majority of the solid waste was observed confined to a smaller area along the ridge south of Building 4392. The observed solid waste consists primarily of scrap metal and old containers of vehicle maintenance materials. Based on review of the available historic data, the SWMU may have operated since the 1940s, however, disposal activities appear to have been intermittent.

Soil, sediment and groundwater monitoring detected certain hazardous constituents. Table 3 summarizes the observed concentrations of constituents detected in groundwater samples at levels above the method quantitation limits. Table 4 summarizes constituents detected in soil or sediment samples. Levels of total chromium and lead were detected in groundwater samples, and total mercury was detected in one groundwater sample. Total petroleum hydrocarbons with a boiling point range similar to Number 2 fuel oil was detected in one groundwater sample. Acetone and carbon disulfide were detected in other samples.

Levels of total arsenic, barium, cadmium, chromium and lead, along with total petroleum hydrocarbons, benzoic acid and phthalates including di-n-butyl, butyl benzyl, and bis(2-ethylhexyl) were detected in soil samples. No constituents were detected above the quantitation limits during TCLP analysis of the soil cuttings generated during the SWMU assessment. Copies of the analytical reports for soils and groundwater are attached as Appendix C of this SAR.

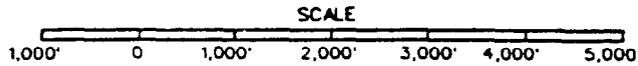
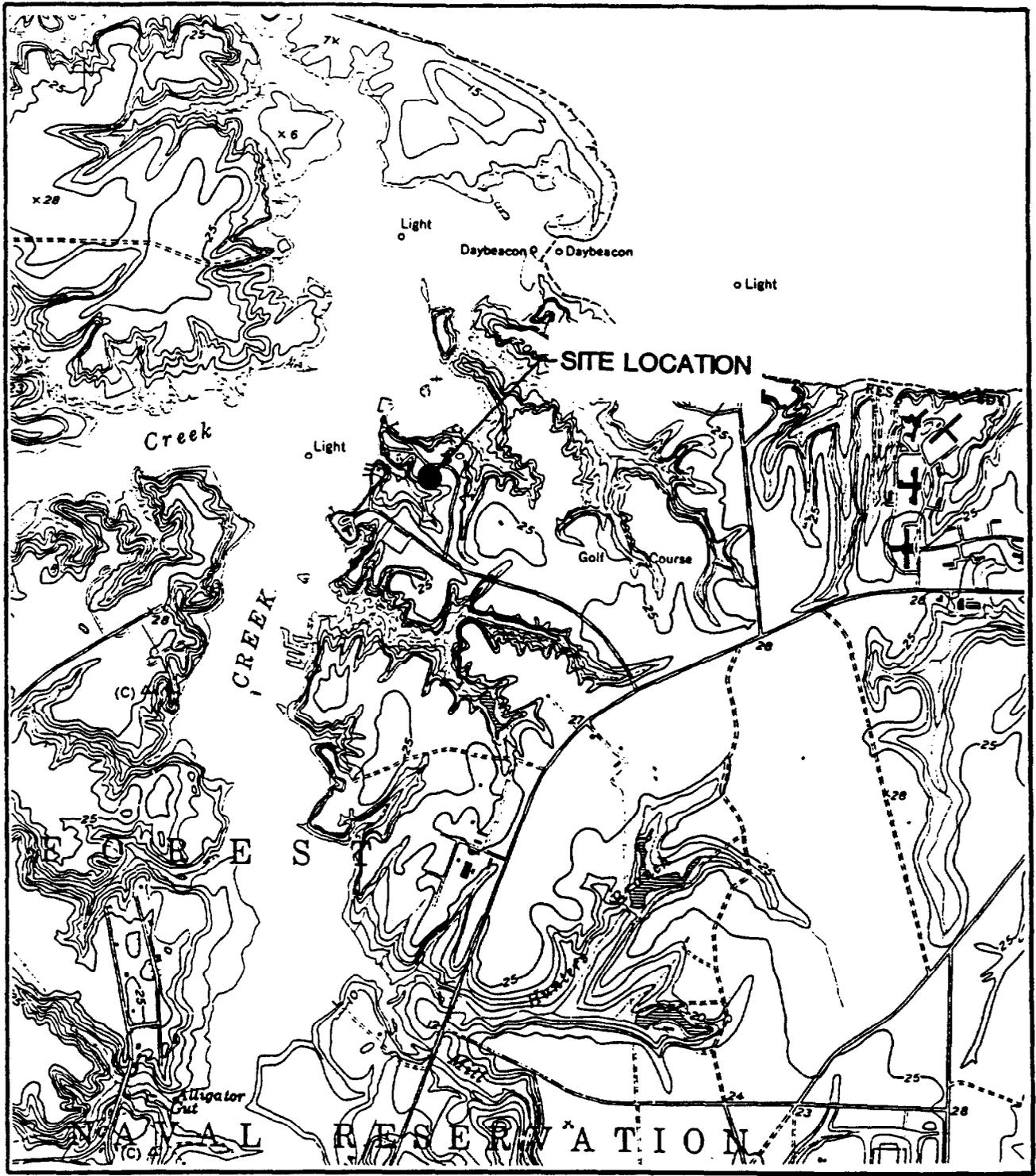
**TABLE 1
MATERIALS OBSERVED IN SITE 68-CRYOGENICS AREA SWMU
MCAS, CHERRY POINT**

Object Disposed	Description
Construction debris and building materials	Includes bricks, mortar, old latrine, mattress springs, pallets.
Vehicle parts and associated materials	Includes engine parts, gas can, wheel axle, three used oil filters, and large amounts of temporary metal support road tracks. Most of the metal objects were rusted on the surface.
Various paint and solvent containers	<p>Includes:</p> <ul style="list-style-type: none"> -Approximately five-12 to 16 ounce spray cans presumably for spray paint. No labels available. -Approximately twenty-1 to 5 gallon cans. The majority is believed to have been for paint and some of those cans are partially full. Labels were not legible. -One-five gallon container was labeled "Acetone" and was closed with a lid. -One-5 gallon container had a sticker label that indicated that the contents is hazardous and may be flammable, and should be disposed in an appropriate manner. <p>All the drums or cans described above were rusted on the surface and had experienced various degrees of crushing or denting.</p>
White, non-native material	Believed to be perlite insulation and was found in various locations during soil and groundwater sampling activities. The amount of material could not be quantified.
Reconfigured 55-gallon drum	This drum (possibly both ends removed and two drums stacked/welded together to form a large tube) is believed to have been buried in the SWMU to facilitate drainage in the area.

TABLE 2 SAMPLE DESIGNATION NUMBERS SITE 68-CRYOGENICS AREA SWMU ASSESSMENT MCAS CHERRY POINT, NC		
SAMPLE IDENTIFICATION NUMBER¹	SAMPLE COLLECTION LOCATION²	MEDIA SAMPLED
CP68-W01	S-01	Groundwater
CP68-S01	S-01	Soil
CP68-W02	S-02	Groundwater
CP68-S02	S-02	Soil
CP68-S03	S-03	Sediments
CP68-W04	S-04	Groundwater
CP68-S04	S-04	Soil
CP68-S04A	S-04A	Soil-VOCs only
CP68-W05	S-05	Groundwater
CP68-EQBL	Equipment Blank	D.I. Water
TRIP BLANK	Trip Blank	D.I. Water
CP68-DRCMP	Soil Drum	Soil
<p>¹ As recorded on the Chain-of-Custody forms and laboratory reports.</p> <p>² As shown on Figure 3, Sample Location Map.</p>		

TABLE 3						
GROUNDWATER ANALYTICAL RESULTS						
SITE 68-CRYOGENICS AREA SWMU ASSESSMENT						
MCAS CHERRY POINT, NC						
CONSTITUENT	GROUNDWATER SAMPLE ID NUMBER					
	CP68 -W01	CP68 -W02	CP68- W04	CP68 -W05	CP68- EQBL	Trip Blank
T-Chromium	0.013	BQL	0.021	0.020	BQL	NA
T-Lead	0.005	0.004	0.005	0.005	BQL	NA
T-Mercury	BQL	BQL	0.0015	BQL	BQL	NA
TPH-GC (fuel oil)	BQL	BQL	0.50	BQL	BQL	NA
Acetone	BQL	0.030	0.012	BQL	BQL	BQL
Carbon Disulfide	BQL	BQL	0.006	BQL	BQL	BQL
pH	6.6	6.3	5.9	5.2	5.3	NA
<p>All concentrations are expressed in mg/L, except pH</p> <p>BQL = Below Quantitation Limit</p> <p>NA = Not Analyzed, only VOCs analyzed in Trip Blank.</p> <p>EQBL = Equipment Blank</p>						

TABLE 4					
SOIL ANALYTICAL RESULTS					
SITE 68-CRYOGENICS AREA SWMU ASSESSMENT					
MCAS CHERRY POINT, NC					
CONSTITUENT	SOIL SAMPLE ID NUMBER				
	CP68-S01	CP68-S02	CP68-S03	CP68-S04	CP68-S04A
T-Arsenic	BQL	1.8	BQL	BQL	NA
T-Barium	BQL	BQL	54	BQL	NA
T-Cadmium	BQL	BQL	1.9	BQL	NA
T-Chromium	2.0	9.0	13	7.7	NA
T-Lead	2.5	9.1	57	6.3	NA
TPH-IR	BQL	200	35	19	NA
TPH-GC (fuel oil)	BQL	14	BQL	BQL	NA
Benzoic Acid	BQL	4.1	BQL	BQL	NA
Di-N-Butyl Phthalate	3.0	BQL	3.0	3.2	NA
Butyl Benzyl Phthalate	BQL	BQL	0.88	BQL	NA
DEHP*	BQL	BQL	0.93	BQL	NA
pH	6.6	6.3	7.1	6.7	NA
<p>All concentrations are expressed in mg/kg, except pH</p> <p>BQL = Below Quantitation Limit</p> <p>NA = Not Analyzed, only VOCs analyzed in sample CP68-S04A</p> <p>* DEHP = Bis (2-ethylhexyl) phthalate, also detected in laboratory blank.</p>					



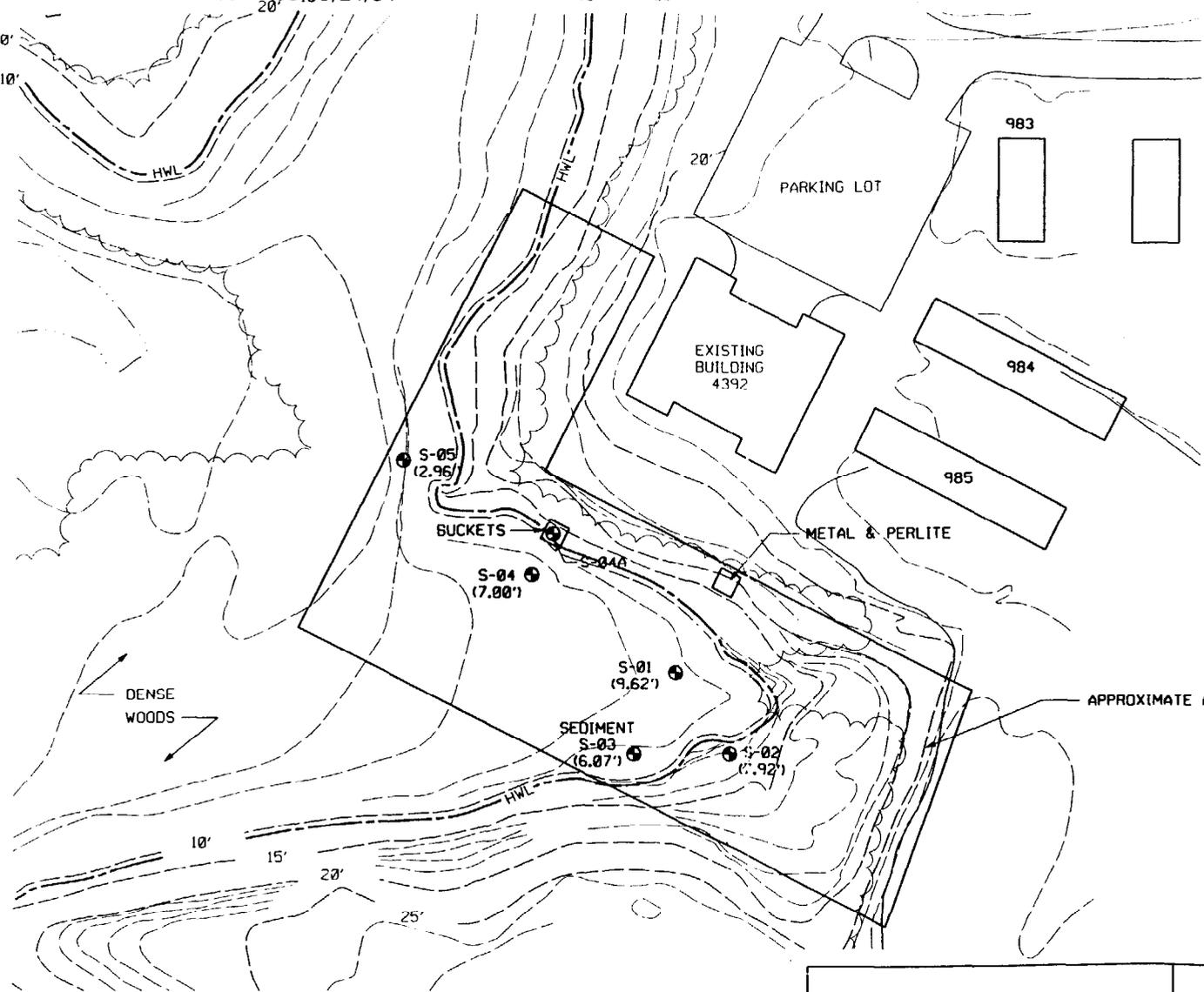
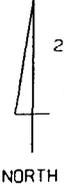
SOURCE: U.S. GEOLOGICAL SURVEY MAP
 HAVELOCK, N.C., PHOTOREVISED 1983

RUST ENVIRONMENT &
 INFRASTRUCTURE

FIGURE 1
 SITE MAP
 SITE 68 - CRYOGENICS AREA
 SOLID WASTE MANAGEMENT UNIT
 U. S. MARINE CORPS AIR STATION
 CHERRY POINT, NORTH CAROLINA

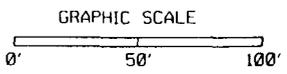
CP-00884-1.05.10/24/94

10' 15' 20'



LEGEND

- SAMPLING LOCATION
- TREE LINE
- CONTOURS
- SHORE LINE
- HWL (ELEVATION 10.8 FT.)



RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 3
SAMPLING LOCATION MAP
SITE 68 - CRYOGENICS AREA
SOLID WASTE MANAGEMENT UNIT
U. S. MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA

APPENDIX A
SWMU NOTIFICATION LETTER, DATED 17 MAY 1994



UNITED STATES MARINE CORPS
MARINE CORPS AIR STATION
CHERRY POINT, NORTH CAROLINA 28533-6001

6280
LN
17 May 94

Mr. Jerome H. Rhodes
Chief, Hazardous Waste Section
North Carolina Department of Environment,
Health and Natural Resources
P.O. Box 27687
Raleigh, North Carolina 27611-7687

Dear Mr. Rhodes:

Per requirements of the Air Station's Resource Conservation and Recovery Act (RCRA) Part B Permit, this letter transmits notice that a new Solid Waste Management Unit (SWMU) has been discovered aboard Marine Corps Air Station, Cherry Point, North Carolina. The Air Station is preparing a SWMU Assessment Report (SAR) for submittal to your office as prescribed by the Part B Permit.

The SWMU is an area near Building 985 where various items appear to have been tossed over the side of a gully at some time in the past. Personnel involved in planning for a new liquid oxygen facility nearby saw debris at the ground surface and brought the area to the attention of the Air Station's Environmental Affairs Department. Items which can be seen at the surface include motor vehicle parts, building materials, containers which may be paint cans, and a container which appears to be a five-gallon gasoline can. Most of the items are partially or completely buried, and we currently have no knowledge of what may lie beneath the surface.

The Air Station will compile the information required for completion of a SAR and will forward the report to your office upon completion. Copies will be provided to the same recipients who will receive copies of this letter. In the interim, if you have questions or require additional information, please contact Steve Simmons of the Environmental Affairs Department at (919) 466-5271.

Sincerely,

G. W. RADFORD
Supervisory
Environmental Engineer
By direction of
the Commanding General

Encl:
(1) Site Map

Copy to:

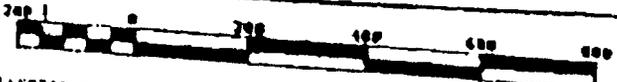
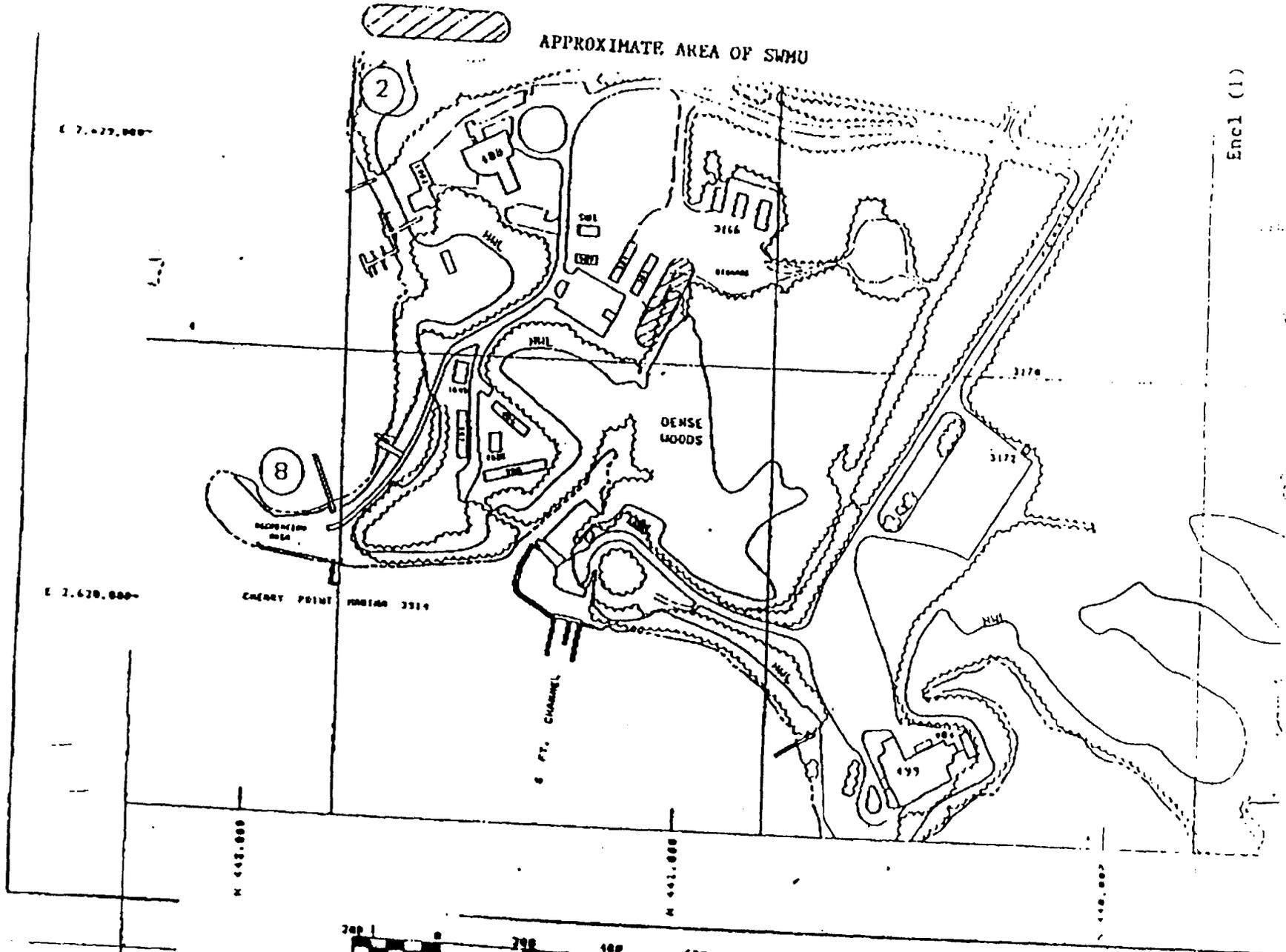
Mr. Jon D. Johnson, Chief
Federal Facilities Branch
Waste Management Division
U.S. Environmental Protection
Agency, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Mr. John C. Lank, Jr., P.E.
Chief, East Unit, Resource
Conservation and Recovery Act
U.S. Environmental Protection
Agency, Region IV
345 Courtland Street, N.E.
Atlanta, Georgia 30365

Commander, Atlantic Division (2 copies)
Naval Facilities Engineering Command
Attn: G. McSmith (Code 18234)
Norfolk, Virginia 23511-6287

Mr. Jack Butler
Superfund Section
North Carolina Department of Environment,
Health and Natural Resources
P.O. Box 27687
Raleigh, North Carolina 27611-7687

Commandant of the Marine Corps
Headquarters, U.S. Marine Corps
2 Navy Annex
Attn: J. Burleson (LFL)
Washington, DC 20380-1775



ELEVATIONS BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929.
 1000 FT. GRID TICKS BASED ON NORTH CAROLIAN RECTANGULAR GRID SYSTEM.
 1000 FT. STATION GRID 1 ISRU ON LOCAL COORDINATE SYSTEM.

Encl (1)

**APPENDIX B
MSDS AND APPENDIX VIII CROSS-REFERENCE LIST**

The following is a list of chemicals taken from MALS-14 MSDSs and cross-referenced with the list of chemicals in 40 CFR 261, Appendix VIII:

Antimony
Arsenic
Barium Compounds
Benzene
Chlorinated Benzenes
Chlorinated Ethane
Chlorinated Fluorocarbons
Chlorinated Naphthalene
Chlorinated Phenol
Chromium Compounds
Di (2-Ethylhexyl) Phthalate
Dibutyl Phthalate
Dioctyl Phthalate
Epichlorhydrin
Halomethanes
Hydrogen Fluoride
Isobutyl Alcohol
Lead
Lead Compounds
Mercury
Methyl Chloroform (1,1,1-trichloroethane)
Methyl Ethyl Ketone
Methylene Chloride (dichloromethane)
Naphthalene
Perchloroethylene (Tetrachloroethylene)
Phenol
Cyanide (Soluble Salts and Complexes)
Tetraethyl Lead
Toluene

**APPENDIX C
LABORATORY SAMPLE RESULTS**



IEA

An Aquarion Company

October 13, 1994

Bill Bremen
RUST Environment & Infrastructure
5510 Six Forks Road
Raleigh, NC 27609

IEA Project No.: 115116(0)/9409390, 9409392
IEA Reference No.: W9409103
Client Project I.D.: 32145 MARINE CORPS

Dear Mr. Bremen,

Transmitted herewith are the results of analyses on 12 samples submitted to our laboratory.

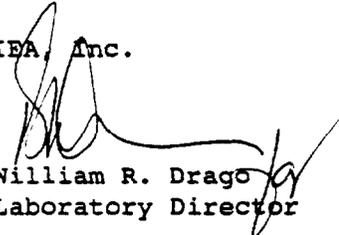
The sample(s) were received intact.

Analyses were performed according to approved methodologies and meet the requirements of the IEA Quality Assurance Program except where noted. Please see the enclosed reports for your results and a copy of the Chain of Custody documentation.

Thank you for selecting IEA for your sample analysis. Please do not hesitate to call your project manager representative at 1-919-677-0090 or 1-800-444-9919 should you have any questions regarding this report. We look forward to serving you in the future.

Very truly yours,

IEA, Inc.


William R. Drago
Laboratory Director



State Certification	
Alabama - #40210	North Carolina - #37720/#84
California - #1768	South Carolina - #99021
Florida - #87350/#E87439	Tennessee - #01814
Georgia - #816	Utah - #E226
Kansas - E-158/E-1189	Virginia - #00179
Kentucky - #90049	West Virginia - #9908C
Massachusetts - M-NC039	Wisconsin - #998051010
New Jersey - #67719	

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-01 Matrix: Soil
 Client Name: RUST Env. & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/20/94
 Sample I.D.: CP68-S01

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analy
T-Mercury	SW-846 7471	0.12 mg/kg	BQL	09/30/94	10/03/94	JS
T-Silver	SW-846 6010	1.2 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Arsenic	SW-846 6010	1.2 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Barium	SW-846 6010	24 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Cadmium	SW-846 6010	0.61 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Chromium	SW-846 6010	1.2 mg/kg	2.0 mg/kg	09/26/94	10/03/94	JJ
T-Lead	SW-846 7421	0.37 mg/kg	2.5 mg/kg	10/03/94	10/04/94	JJ
T-Antimony	SW-846 6010	7.3 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Selenium	SW-846 6010	1.2 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Cyanide	EPA 335.2 M	1.0 mg/kg	BQL	10/06/94	10/07/94*	SJ
pH	SW-846 9045	0.1	6.6	N/A	09/26/94	PC

Comments:

Quantitation limits and results reported on a dry weight basis.

*Analysis date exceeded the protocol holding time specified by the method.

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-02 Matrix: Water
 Client Name: RUST Env. & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/20/94
 Sample I.D.: CP68-W01

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analy
T-Mercury	SW-846 7470	0.0002 mg/L	BQL	09/27/94	09/28/94	JS
T-Silver	SW-846 6010	0.01 mg/L	BQL	09/26/94	10/03/94	JJ
T-Arsenic	SW-846 6010	0.010 mg/L	BQL	09/26/94	10/03/94	JJ
T-Barium	SW-846 6010	0.20 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cadmium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Chromium	SW-846 6010	0.01 mg/L	0.013 mg/L	09/26/94	10/03/94	JJ
T-Lead	SW-846 7421	0.003 mg/L	0.005 mg/L	10/03/94	10/04/94	JJ
T-Antimony	SW-846 6010	0.06 mg/L	BQL	09/26/94	10/03/94	JJ
T-Selenium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cyanide	EPA 335.2 M	0.010 mg/L	BQL	09/30/94	09/30/94	SJ
pH	EPA 150.1	0.1	6.6	N/A	09/26/94	PC

Comments:

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-03 Matrix: Soil
 Client Name: RUST Env. & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/21/94
 Sample I.D.: CP68-S02

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analy
T-Mercury	SW-846 7471	0.15 mg/kg	BQL	09/30/94	10/03/94	JS
T-Silver	SW-846 6010	1.5 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Arsenic	SW-846 6010	1.5 mg/kg	1.8 mg/kg	09/26/94	10/03/94	JJ
T-Barium	SW-846 6010	30 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Cadmium	SW-846 6010	0.74 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Chromium	SW-846 6010	1.5 mg/kg	9.0 mg/kg	09/26/94	10/03/94	JJ
T-Lead	SW-846 6010	0.44 mg/kg	9.1 mg/kg	09/26/94	10/03/94	JJ
T-Antimony	SW-846 6010	8.9 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Selenium	SW-846 6010	1.5 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Cyanide	EPA 335.2 M	1.0 mg/kg	BQL	09/26/94	10/03/94	JJ
pH	SW-846 9045	0.1	6.3	N/A	09/26/94	PC

Comments:

Quantitation limits and results reported on a dry weight basis.

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-04 Matrix: Water
 Client Name: RUST Env. & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/21/94
 Sample I.D.: CP68-W02

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analy
T-Mercury	SW-846 7470	0.0002 mg/L	BQL	09/27/94	09/28/94	JS
T-Silver	SW-846 6010	0.01 mg/L	BQL	09/26/94	10/03/94	JJ
T-Arsenic	SW-846 6010	0.010 mg/L	BQL	09/26/94	10/03/94	JJ
T-Barium	SW-846 6010	0.20 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cadmium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Chromium	SW-846 6010	0.01 mg/L	BQL	09/26/94	10/03/94	JJ
T-Lead	SW-846 7421	0.003 mg/L	0.004 mg/L	10/03/94	10/04/94	JJ
T-Antimony	SW-846 6010	0.06 mg/L	BQL	09/26/94	10/03/94	JJ
T-Selenium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cyanide	EPA 335.2 M	0.010 mg/L	BQL	09/30/94	09/30/94	SJ
pH	EPA 150.1	0.1	6.3	N/A	09/26/94	PC

Comments:

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-05 Matrix: Soil
 Client Name: RUST Env. & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/21/94
 Sample I.D.: CP68-S03

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analy
T-Mercury	SW-846 7471	0.27 mg/kg	BQL	09/30/94	10/03/94	JS
T-Silver	SW-846 6010	2.6 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Arsenic	SW-846 6010	2.6 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Barium	SW-846 6010	53 mg/kg	54 mg/kg	09/26/94	10/03/94	JJ
T-Cadmium	SW-846 6010	1.3 mg/kg	1.9 mg/kg	09/26/94	10/03/94	JJ
T-Chromium	SW-846 6010	2.6 mg/kg	13 mg/kg	09/26/94	10/03/94	JJ
T-Lead	SW-846 6010	0.80 mg/kg	57 mg/kg	09/26/94	10/03/94	JJ
T-Antimony	SW-846 6010	16 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Selenium	SW-846 6010	2.6 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Cyanide	EPA 335.2 M	1.0 mg/kg	BQL	09/26/94	10/03/94	JJ
pH	SW-846 9045	0.1	7.1	N/A	09/26/94	PC

Comments:

Quantitation limits and results reported on a dry weight basis.

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-06 Matrix: Soil
 Client Name: RUST Env. & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/21/94
 Sample I.D.: CP68-S04

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analy
T-Mercury	SW-846 7471	0.12 mg/kg	BQL	09/30/94	10/03/94	JS
T-Silver	SW-846 6010	1.2 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Arsenic	SW-846 6010	1.2 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Barium	SW-846 6010	25 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Cadmium	SW-846 6010	0.62 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Chromium	SW-846 6010	1.2 mg/kg	7.7 mg/kg	09/26/94	10/03/94	JJ
T-Lead	SW-846 6010	0.37 mg/kg	6.3 mg/kg	09/26/94	10/03/94	JJ
T-Antimony	SW-846 6010	7.5 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Selenium	SW-846 6010	1.2 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Cyanide	EPA 335.2 M	1.0 mg/kg	BQL	09/26/94	10/03/94	JJ
pH	SW-846 9045	0.1	6.7	N/A	09/26/94	PC

Comments:

Quantitation limits and results reported on a dry weight basis.

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-08 Matrix: Water
 Client Name: RUST Env. & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/21/94
 Sample I.D.: CP68-W04

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Anal
T-Mercury	SW-846 7470	0.0002 mg/L	0.0015 mg/L	09/27/94	09/28/94	JS
T-Silver	SW-846 6010	0.01 mg/L	BQL	09/26/94	10/03/94	JJ
T-Arsenic	SW-846 6010	0.010 mg/L	BQL	09/26/94	10/03/94	JJ
T-Barium	SW-846 6010	0.20 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cadmium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Chromium	SW-846 6010	0.01 mg/L	0.021 mg/L	09/26/94	10/03/94	JJ
T-Lead	SW-846 7421	0.003 mg/L	0.005 mg/L	10/03/94	10/04/94	JJ
T-Antimony	SW-846 6010	0.06 mg/L	BQL	09/26/94	10/03/94	JJ
T-Selenium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cyanide	EPA 335.2 M	0.010 mg/L	BQL	09/30/94	09/30/94	SJ
pH	EPA 150.1	0.1	5.9	N/A	09/26/94	PC

Comments:

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
 IEA Sample #: 9409392-09 Matrix: Water
 Client Name: RUST Env. & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/22/94
 Sample I.D.: CP68-W05

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Anal
T-Mercury	SW-846 7470	0.0002 mg/L	BQL	09/27/94	09/28/94	JS
T-Silver	SW-846 6010	0.01 mg/L	BQL	09/26/94	10/03/94	JJ
T-Arsenic	SW-846 6010	0.010 mg/L	BQL	09/26/94	10/03/94	JJ
T-Barium	SW-846 6010	0.20 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cadmium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Chromium	SW-846 6010	0.01 mg/L	0.020 mg/L	09/26/94	10/03/94	JJ
T-Lead	SW-846 7421	0.003 mg/L	0.005 mg/L	10/03/94	10/04/94	JJ
T-Antimony	SW-846 6010	0.06 mg/L	BQL	09/26/94	10/03/94	JJ
T-Selenium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cyanide	EPA 335.2 M	0.010 mg/L	BQL	09/30/94	09/30/94	SJ
pH	EPA 150.1	0.1	5.2	N/A	09/26/94	PC

Comments:

Industrial & Environmental Analysts, Inc. (IEA)

TCLP METALS REGULATED

IEA Project #: 115-116(0) Matrix: Water
 IEA Sample #: 9409392-10 Date Received: 09/23/94
 Client Name: RUST Env. & Infrastructure Date Sampled: 09/21/94
 Client Proj. I.D.: 32145 MARINE CORPS TCLP Extraction: 09/26/94
 Sample I.D.: CP68-DRCMP

Parameter	Method	Regulatory Level (mg/L)	Quantitation Limits (mg/L)	Results (mg/L)	Date Prepared	Date Analyzed	Analys
Mercury	SW-846 7470	0.2	0.02	BQL	09/27/94	09/28/94	JS
Selenium	SW-846 6010	1.0	0.10	BQL	10/03/94	10/03/94	FW
Silver	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW
Arsenic	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW
Barium	SW-846 6010	100	10	BQL	10/03/94	10/03/94	FW
Cadmium	SW-846 6010	1.0	0.10	BQL	10/03/94	10/03/94	FW
Chromium	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW
Lead	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW

Comments:

Industrial & Environmental Analysts, Inc. (IEA)

MATRIX SPIKE RECOVERY

IEA Project No:	115-116(0)	Matrix:	Soil
IEA Sample No.:	9409392-10	Date Received:	09/23/94
Client Name:	RUST Env. & Infrastructure	Date Sampled:	09/21/94
Client Proj. I.D.:	32145 MARINE CORPS	TCLP Extraction:	09/26/94
Sample I.D.:	CP68-DRCMP		

Parameter	Method	Quantitation Limit (mg/L)	Sample Result (mg/L)	% Recovery	Date Prepared	Analysis Date	Analyst
Mercury	SW-846 7470	0.02	BQL	102	09/27/94	09/28/94	JS
Selenium	SW-846 6010	0.10	BQL	93	10/03/94	10/03/94	FW
Silver	SW-846 6010	0.50	BQL	82	10/03/94	10/03/94	FW
Arsenic	SW-846 6010	0.50	BQL	92	10/03/94	10/03/94	FW
Barium	SW-846 6010	10	BQL	93	10/03/94	10/03/94	FW
Cadmium	SW-846 6010	0.10	BQL	89	10/03/94	10/03/94	FW
Chromium	SW-846 6010	0.50	BQL	88	10/03/94	10/03/94	FW
Lead	SW-846 6010	0.50	BQL	90	10/03/94	10/03/94	FW

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
 IEA Sample #: 9409392-12 Matrix: Water
 Client Name: RUST Env. & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/22/94
 Sample I.D.: CP68-EqB1

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Anal
T-Mercury	SW-846 7470	0.0002 mg/L	BQL	09/27/94	09/28/94	JS
T-Silver	SW-846 6010	0.01 mg/L	BQL	09/26/94	10/03/94	JJ
T-Arsenic	SW-846 6010	0.010 mg/L	BQL	09/26/94	10/03/94	JJ
T-Barium	SW-846 6010	0.20 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cadmium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Chromium	SW-846 6010	0.01 mg/L	BQL	09/26/94	10/03/94	JJ
T-Lead	SW-846 7421	0.003 mg/L	BQL	10/03/94	10/04/94	JJ
T-Antimony	SW-846 6010	0.06 mg/L	BQL	09/26/94	10/03/94	JJ
T-Selenium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cyanide	EPA 335.2 M	0.010 mg/L	BQL	09/30/94	09/30/94	SJ
pH	EPA 150.1	0.1	5.3	N/A	09/26/94	PC

Comments:

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
 IEA Sample #: 9409390 Matrix: Water
 Client Name: RUST Env. & Infrastructure Date Received: N/A
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: N/A
 Sample I.D.: QC Blank

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Anal
T-Mercury	SW-846 7470	0.0002 mg/L	BQL	09/27/94	09/28/94	JS
T-Silver	SW-846 6010	0.01 mg/L	BQL	09/26/94	10/03/94	JJ
T-Arsenic	SW-846 6010	0.010 mg/L	BQL	09/26/94	10/03/94	JJ
T-Barium	SW-846 6010	0.20 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cadmium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Chromium	SW-846 6010	0.01 mg/L	BQL	09/26/94	10/03/94	JJ
T-Lead	SW-846 7421	0.003 mg/L	BQL	10/03/94	10/04/94	JJ
T-Antimony	SW-846 6010	0.06 mg/L	BQL	09/26/94	10/03/94	JJ
T-Selenium	SW-846 6010	0.005 mg/L	BQL	09/26/94	10/03/94	JJ
T-Cyanide	EPA 335.2 M	0.010 mg/L	BQL	09/30/94	09/30/94	SJ

Comments:

Corresponding Samples: 9409390-02, 04, 08, 9409392-09 and 12

Industrial & Environmental Analysts, Inc. (IEA)

TCLP METALS REGULATED

IEA Project #: 115-116(0) Matrix: Water
 IEA Sample #: 9409390 Date Received: N/A
 Client Name: RUST Env. & Infrastructure Date Sampled: N/A
 Client Proj. I.D.: 32145 MARINE CORPS TCLP Extraction: 09/26/94
 Sample I.D.: TCLP Blank #070

Parameter	Method	Regulatory	Quantitation	Results	Date Prepared	Date Analyzed	Analys
		Level (mg/L)	Limits (mg/L)				
Mercury	SW-846 7470	0.2	0.02	BQL	09/27/94	09/28/94	JS
Selenium	SW-846 6010	1.0	0.10	BQL	10/03/94	10/03/94	FW
Silver	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW
Arsenic	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW
Barium	SW-846 6010	100	10	BQL	10/03/94	10/03/94	FW
Cadmium	SW-846 6010	1.0	0.10	BQL	10/03/94	10/03/94	FW
Chromium	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW
Lead	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW

Comments:

Corresponding Sample: 9409392-10

Industrial & Environmental Analysts, Inc. (IEA)

TCLP METALS REGULATED

IEA Project #: 115-116(0) Matrix: Water
 IEA Sample #: 9409390 Date Received: N/A
 Client Name: RUST Env. & Infrastructure Date Sampled: N/A
 Client Proj. I.D.: 32145 MARINE CORPS TCLP Extraction: N/A
 Sample I.D.: Prep Blank

Parameter	Method	Regulatory	Quantitation	Results	Date Prepared	Date Analyzed	Analys
		Level (mg/L)	Limits (mg/L)				
Mercury	SW-846 7470	0.2	0.02	BQL	09/27/94	09/28/94	JS
Selenium	SW-846 6010	1.0	0.10	BQL	10/03/94	10/03/94	FW
Silver	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW
Arsenic	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW
Barium	SW-846 6010	100	10	BQL	10/03/94	10/03/94	FW
Cadmium	SW-846 6010	1.0	0.10	BQL	10/03/94	10/03/94	FW
Chromium	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW
Lead	SW-846 6010	5.0	0.50	BQL	10/03/94	10/03/94	FW

Comments:

Corresponding Samples: 9409392-10 and TCLP Blank #070

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
 IEA Sample #: 9409390 Matrix: Solid
 Client Name: RUST Env. & Infrastructure Date Received: N/A
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: N/A
 Sample I.D.: QC Blank

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analy
T-Mercury	SW-846 7471	0.10 mg/kg	BQL	09/30/94	10/03/94	JS
T-Silver	SW-846 6010	1.0 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Arsenic	SW-846 6010	1.0 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Barium	SW-846 6010	20 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Cadmium	SW-846 6010	0.50 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Chromium	SW-846 6010	1.0 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Antimony	SW-846 6010	6.0 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Selenium	SW-846 6010	0.50 mg/kg	BQL	09/26/94	10/03/94	JJ
T-Cyanide	EPA 335.2 M	1.0 mg/kg	BQL	09/26/94	10/03/94	JJ

Comments:

Corresponding Samples: 9409390-01, 03, 05 and 06

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
IEA Sample #: 9409390 Matrix: Solid
Client Name: RUST Env. & Infrastructure Date Received: N/A
Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: N/A
Sample I.D.: QC Blank

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analy
T-Lead	SW-846 7421	0.30 mg/kg	BQL	10/03/94	10/04/94	JJ

Comments:

Corresponding sample: 9409390-01

Industrial & Environmental Analysts, Inc. (IEA)

IEA Project #: 115-116(0)
IEA Sample #: 9409390 Matrix: Solid
Client Name: RUST Env. & Infrastructure Date Received: N/A
Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: N/A
Sample I.D.: QC Blank

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analy
T-Lead	SW-846 6010	0.30 mg/kg	BQL	09/26/94	10/03/94	JJ

Comments:

Corresponding Sample: 9409390-03, 05 and 06

Industrial & Environmental Analysts, Inc. (IEA)
Total Petroleum Hydrocarbon Analysis
Method 8015M

IEA Project No: 115-116 Date Sampled: 09/20/94
IEA Sample No: 9409387-01 Date Received: 09/23/94
Client Sample No: CP68-S01 Date Extracted: 09/27/94
Client Project No: 32145 MARINE CORPS

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 2251

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 2.0 mg/kg.

Comment:

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 1238

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

Industrial & Environmental Analysts, Inc. (IEA)
Total Petroleum Hydrocarbon Analysis
Method 8015M

IEA Project No: 115-116 Date Sampled: 09/20/94
IEA Sample No: 9409387-02 Date Received: 09/23/94
Client Sample No: CP68-W01 Date Extracted: 09/26/94
Client Project No: 32145 MARINE CORPS

Extraction (SW 846 - 3510) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 0347

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 0.050 mg/L.

Comment:

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 09/26/94 Analyzed by: Brown
Time Analyzed: 1542

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 0.050 mg/L.

Comment:

Industrial & Environmental Analysts, Inc. (IEA)
Total Petroleum Hydrocarbon Analysis
Method 8015M

IEA Project No: 115-116 Date Sampled: 09/21/94
IEA Sample No: 9409387-03 Date Received: 09/23/94
Client Sample No: CP68-S02 Date Extracted: 09/27/94
Client Project No: 32145 MARINE CORPS

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 1557

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 14 mg/kg. The quantitation limit is 2.0 mg/kg.

Comment:

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 1306

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

Industrial & Environmental Analysts, Inc. (IEA)
Total Petroleum Hydrocarbon Analysis
Method 8015M

IEA Project No: 115-116 Date Sampled: 09/21/94
IEA Sample No: 9409387-04 Date Received: 09/23/94
Client Sample No: CP68-W02 Date Extracted: 09/26/94
Client Project No: 32145 MARINE CORPS

Extraction (SW 846 - 3510) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 0127

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 0.050 mg/L.

Comment:

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 09/26/94 Analyzed by: Brown
Time Analyzed: 1638

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 0.050 mg/L.

Comment:

Industrial & Environmental Analysts, Inc. (IEA)
Total Petroleum Hydrocarbon Analysis
Method 8015M

IEA Project No: 115-116 Date Sampled: 09/21/94
IEA Sample No: 9409387-05 Date Received: 09/23/94
Client Sample No: CP68-S03 Date Extracted: 09/27/94
Client Project No: 32145 MARINE CORPS

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 1643

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 2.0 mg/kg.

Comment:

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 1334

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

Industrial & Environmental Analysts, Inc. (IEA)
Total Petroleum Hydrocarbon Analysis
Method 8015M

IEA Project No: 115-116 Date Sampled: 09/21/94
IEA Sample No: 9409387-06 Date Received: 09/23/94
Client Sample No: CP68-S04 Date Extracted: 09/27/94
Client Project No: 32145 MARINE CORPS

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 1729

The sample does not contain a petroleum hydrocarbon blend in the
distillation range referenced above. The quantitation limit is
2.0 mg/kg.

Comment:

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 1403

The sample does not contain a petroleum hydrocarbon blend with a
distillation range similar to gasoline. The quantitation limit is
2.0 mg/kg.

Comment:

Industrial & Environmental Analysts, Inc. (IEA)
Total Petroleum Hydrocarbon Analysis
Method 8015M

IEA Project No: 115-116 Date Sampled: 09/21/94
IEA Sample No: 9409387-07 Date Received: 09/23/94
Client Sample No: CP68-W04 Date Extracted: 09/26/94
Client Project No: 32145 MARINE CORPS

Extraction (SW 846 - 3510) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 0214

The sample contains a petroleum hydrocarbon blend with a distillation range similar to #2 fuel oil. The concentration is 0.50 mg/L. The quantitation limit is 0.050 mg/L.

Comment:

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 09/26/94 Analyzed by: Brown
Time Analyzed: 1850

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 0.050 mg/L.

Comment:

Industrial & Environmental Analysts, Inc. (IEA)
Total Petroleum Hydrocarbon Analysis
Method 8015M

IEA Project No: 115-116 Date Sampled: 09/22/94
IEA Sample No: 9409387-08 Date Received: 09/23/94
Client Sample No: CP68-W05 Date Extracted: 09/26/94
Client Project No: 32145 MARINE CORPS

Extraction (SW 846 - 3510) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 0300

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 0.050 mg/L.

Comment:

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 09/26/94 Analyzed by: Brown
Time Analyzed: 1918

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 0.050 mg/L.

Comment:

Industrial & Environmental Analysts, Inc. (IEA)
Total Petroleum Hydrocarbon Analysis
Method 8015M

IEA Project No: 115-116 Date Sampled: 09/22/94
IEA Sample No: 9409387-09 Date Received: 09/23/94
Client Sample No: CP68-EQBL Date Extracted: 09/26/94
Client Project No: 32145 MARINE CORPS

Extraction (SW 846 - 3510) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 0347

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 0.050 mg/L.

Comment:

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 09/26/94 Analyzed by: Brown
Time Analyzed: 1946

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 0.050 mg/L.

Comment:

Industrial & Environmental Analysts, Inc. (IEA)
Total Petroleum Hydrocarbon Analysis
Method 8015M

IEA Project No: 115-116 Date Sampled: N/A
IEA Sample No: 9409387 Date Received: N/A
Client Sample No: QC Blank Date Extracted: 09/27/94
Client Project No: 32145 MARINE CORPS

Extraction (SW 846 - 3550) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 1947

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 2.0 mg/kg.

Comment:

N/A = Not Applicable
Corresponding Samples: 9409387-01, -03, -05, -06

=====
Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 1006

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 2.0 mg/kg.

Comment:

N/A = Not Applicable
Corresponding Samples: 9409387-01, -03, -05, -06

Industrial & Environmental Analysts, Inc. (IEA)
Total Petroleum Hydrocarbon Analysis
Method 8015M

IEA Project No: 115-116 Date Sampled: N/A
IEA Sample No: 9409387 Date Received: N/A
Client Sample No: QC Blank Date Extracted: 09/26/94
Client Project No: 32145 MARINE CORPS

Extraction (SW 846 - 3510) / GC-FID analysis (for #2 fuel oil, kerosene, varsol)
Date Analyzed: 09/27/94 Analyzed by: Brown
Time Analyzed: 0214

The sample does not contain a petroleum hydrocarbon blend in the distillation range referenced above. The quantitation limit is 0.050 mg/L.

Comment:

N/A = Not Applicable
Corresponding Samples: 9409387-02, -04, -07, -08, -09

=====

Purge and Trap (SW 846 - 5030) / GC-FID analysis (for gasoline only)
Date Analyzed: 09/26/94 Analyzed by: Brown
Time Analyzed: 1011

The sample does not contain a petroleum hydrocarbon blend with a distillation range similar to gasoline. The quantitation limit is 0.050 mg/L.

Comment:

N/A = Not Applicable
Corresponding Samples: 9409387-02, -04, -07, -08, -09

Industrial & Environmental Analysts, Inc. (IEA)
Petroleum Hydrocarbons by IR

IEA Project #: 115-116(0)
IEA Sample #: 9409390-03 Matrix: Soil
Client Name: RUST Environ & Infrastructure Date Received: 09/23/94
Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/21/94
Sample I.D.: CP68-S02

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analyst
TPH by IR	EPA 418.1	13 mg/kg	200 mg/kg	09/27/94	09/27/94	RJB

Comments:

TPH by IR = Petroleum Hydrocarbons by IR

Quantitation limits and results have been adjusted for moisture correction factor.

Industrial & Environmental Analysts, Inc. (IEA)
 Petroleum Hydrocarbons by IR

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-02 Matrix: Water
 Client Name: RUST Environ & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/20/94
 Sample I.D.: CP68-W01

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analyst
TPH by IR	EPA 418.1	1.0 mg/L	BQL	09/28/94	09/28/94	RJB

Comments:
 TPH by IR = Petroleum Hydrocarbons by IR
 BQL = Below Quantitation Limits

Industrial & Environmental Analysts, Inc. (IEA)
 Petroleum Hydrocarbons by IR

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-01 Matrix: Soil
 Client Name: RUST Environ & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/20/94
 Sample I.D.: CP68-S01

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analyst
TPH by IR	EPA 418.1	12 mg/kg	BQL	09/27/94	09/27/94	RJB

Comments:

TPH by IR = Petroleum Hydrocarbons by IR
 Quantitation limits and results have been adjusted for moisture correction factor.
 BQL = Below Quantitation Limits

Industrial & Environmental Analysts, Inc. (IEA)
 Petroleum Hydrocarbons by IR

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-04 Matrix: Water
 Client Name: RUST Environ & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/21/94
 Sample I.D.: CP68-W02

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analyst
TPH by IR	EPA 418.1	1.0 mg/L	BQL	09/28/94	09/28/94	RJB

Comments:
 TPH by IR = Petroleum Hydrocarbons by IR
 BQL = Below Quantitation Limits

Industrial & Environmental Analysts, Inc. (IEA)
 Petroleum Hydrocarbons by IR

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-05 Matrix: Soil
 Client Name: RUST Environ & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/21/94
 Sample I.D.: CP68-S03

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analyst
TPH by IR	EPA 418.1	26 mg/kg	35 mg/kg	09/27/94	09/27/94	RJB

Comments:

TPH by IR = Petroleum Hydrocarbons by IR
 Quantitation limits and results have been adjusted for moisture correction factor.

Industrial & Environmental Analysts, Inc. (IEA)
 Petroleum Hydrocarbons by IR

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-06 Matrix: Soil
 Client Name: RUST Environ & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/21/94
 Sample I.D.: CP68-S04

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analyst
TPH by IR	EPA 418.1	12 mg/kg	19 mg/kg	09/27/94	09/27/94	RJB

Comments:

TPH by IR = Petroleum Hydrocarbons by IR
 Quantitation limits and results have been adjusted for moisture correction factor.

Industrial & Environmental Analysts, Inc. (IEA)
 Petroleum Hydrocarbons by IR

IEA Project #: 115-116(0)
 IEA Sample #: 9409390-08 Matrix: Water
 Client Name: RUST Environ & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/21/94
 Sample I.D.: CP68-W04

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analyst
TPH by IR	EPA 418.1	1.0 mg/L	BQL	09/28/94	09/28/94	RJB

Comments:

TPH by IR = Petroleum Hydrocarbons by IR
 BQL = Below Quantitation Limits

Industrial & Environmental Analysts, Inc. (IEA)
 Petroleum Hydrocarbons by IR

IEA Project #: 115-116(0)
 IEA Sample #: 9409392-09 Matrix: Water
 Client Name: RUST Environ & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/22/94
 Sample I.D.: CP68-W05

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analyst
TPH by IR	EPA 418.1	1.0 mg/L	BQL	09/28/94	09/28/94	RJB

Comments:
 TPH by IR = Petroleum Hydrocarbons by IR
 BQL = Below Quantitation Limits

Industrial & Environmental Analysts, Inc. (IEA)
 Petroleum Hydrocarbons by IR

IEA Project #: 115-116(0)
 IEA Sample #: 9409392-12 Matrix: Water
 Client Name: RUST Environ & Infrastructure Date Received: 09/23/94
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: 09/22/94
 Sample I.D.: CP68-EqB1

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analyst
TPH by IR	EPA 418.1	1.0 mg/L	BQL	09/28/94	09/28/94	RJB

Comments:
 TPH by IR = Petroleum Hydrocarbons by IR
 BQL = Below Quantitation Limits

Industrial & Environmental Analysts, Inc. (IEA)
 Petroleum Hydrocarbons by IR

IEA Project #: 115-116(0)
 IEA Sample #: 9409390 Matrix: Soil
 Client Name: RUST Environ & Infrastructure Date Received: N/A
 Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: N/A
 Sample I.D.: QC Blank

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analyst
TPH by IR	EPA 418.1	10 mg/kg	BQL	09/27/94	09/27/94	RJB

Comments:

TPH by IR = Petroleum Hydrocarbons by IR
 BQL = Below Quantitation Limits
 N/A = Not Applicable
 Corresponding Samples: 9409390-01, -03, -05, and -06

Industrial & Environmental Analysts, Inc. (IEA)
Petroleum Hydrocarbons by IR

IEA Project #: 115-116(0)
IEA Sample #: 9409390 Matrix: Water
Client Name: RUST Environ & Infrastructure Date Received: N/A
Client Proj. I.D.: 32145 MARINE CORPS Date Sampled: N/A
Sample I.D.: QC Blank

Parameter	Method	Quantitation Limits	Results	Date Prepared	Date Analyzed	Analyst
TPH by IR	EPA 418.1	1.0 mg/L	BQL	09/28/94	09/28/94	RJB

Comments:

TPH by IR = Petroleum Hydrocarbons by IR

BQL = Below Quantitation Limits

N/A = Not Applicable

Corresponding Samples: 9409390-02, -04, -08, and 9409392-09, and -12

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-01	Date Sampled:	09/20/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/28/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Ware
Sample Identification:	CP68-S01	Dilution Factor:	1.0
Matrix:	Soil		
Moisture Correction Factor:	1.23		

Number	Compound	Quantitation Limit (ug/Kg)	Results Concentration (ug/Kg)
1	Acetone	10	BQL
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-01	Date Sampled:	09/20/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/28/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Ware
Sample Identification:	CP68-S01	Dilution Factor:	1.0
Matrix:	Soil		
Moisture Correction Factor:	1.23		

Number	Compound	Quantitation Limit (ug/Kg)	Results Concentration (ug/Kg)
36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-02	Date Sampled:	09/20/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	CP68-W01	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	10	BQL
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-02	Date Sampled:	09/20/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	CP68-W01	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
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Additional Compounds:

36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-03	Date Sampled:	09/21/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Ware
Sample Identification:	CP68-S02	Dilution Factor:	5.0
Matrix:	Soil		
Moisture Correction Factor:	1.28		

Number	Compound	Quantitation Limit (ug/Kg)	Results Concentration (ug/Kg)
1	Acetone	10	BQL
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390-03 Date Received: 09/23/94
 Client Name: Rust Environ & Infrastructure Date Sampled: 09/21/94
 Client Project I.D.: 32145 MARINE CORPS Date Analyzed: 09/29/94
 Sample Identification: CP68-S02 Analysis By: Ware
 Matrix: Soil Dilution Factor: 5.0
 Moisture Correction Factor: 1.28

Number	Compound	Quantitation	Results
		Limit (ug/Kg)	Concentration (ug/Kg)
36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Quantitation limit elevated due to sample dilution prior to analysis.

Sample diluted due to high concentration of non-target compounds present.

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number: 115-116(0)
IEA Sample Number: 9409390-04
Client Name: Rust Environ & Infrastructure
Client Project I.D.: 32145 MARINE CORPS
Sample Identification: CP68-W02
Matrix: Water

Date Received: 09/23/94
Date Sampled: 09/21/94
Date Analyzed: 09/29/94
Analysis By: Moore
Dilution Factor: 1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	10	30
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-04	Date Sampled:	09/21/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	CP68-W02	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
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Additional Compounds:

36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-05	Date Sampled:	09/21/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/28/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Ware
Sample Identification:	CP68-S03	Dilution Factor:	1.0
Matrix:	Soil		
Moisture Correction Factor:	2.56		

Number	Compound	Quantitation Limit (ug/Kg)	Results Concentration (ug/Kg)
1	Acetone	10	BQL
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

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Additional Compounds:

Industrial & Environmental Analysts, Inc. (IEA)
 GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-05	Date Sampled:	09/21/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/28/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Ware
Sample Identification:	CP68-S03	Dilution Factor:	1.0
Matrix:	Soil		
Moisture Correction Factor:	2.56		

Number	Compound	Quantitation Limit (ug/Kg)	Results Concentration (ug/Kg)
36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-07	Date Sampled:	09/21/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Ware
Sample Identification:	CP68-S04A	Dilution Factor:	1.0
Matrix:	Soil		
Moisture Correction Factor:	1.16		

Number	Compound	Quantitation Limit (ug/Kg)	Results Concentration (ug/Kg)
1	Acetone	10	BQL
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-07	Date Sampled:	09/21/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Ware
Sample Identification:	CP68-S04A	Dilution Factor:	1.0
Matrix:	Soil		
Moisture Correction Factor:	1.16		

Number	Compound	Quantitation Limit (ug/Kg)	Results Concentration (ug/Kg)
36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number: 115-116(0)
IEA Sample Number: 9409390-08
Client Name: Rust Environ & Infrastructure
Client Project I.D.: 32145 MARINE CORPS
Sample Identification: CP68-W04
Matrix: Water

Date Received: 09/23/94
Date Sampled: 09/21/94
Date Analyzed: 09/29/94
Analysis By: Moore
Dilution Factor: 1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	10	12
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	6
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-08	Date Sampled:	09/21/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	CP68-W04	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
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Additional Compounds:

36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
 BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-09	Date Sampled:	09/22/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	CP68-W05	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	10	BQL
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-09	Date Sampled:	09/22/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	CP68-W05	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
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Additional Compounds:

36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.
 BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
 TCLP/ZHE REGULATED GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-10	Date Sampled:	09/21/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	CP68-DRCMP	Dilution Factor:	1.0
Matrix:	Soil		
TCLP Extraction Date:	09/26/94		

Number	Compound	EPA Regulatory Level (mg/L)	Quantitation Limit (mg/L)	Results Concentration (mg/L)
1	Benzene	0.50	0.010	BQL
2	2-Butanone	200	0.020	BQL
3	Carbon tetrachloride	0.50	0.010	BQL
4	Chlorobenzene	100	0.010	BQL
5	Chloroform	6.0	0.010	BQL
6	1,2-Dichloroethane	0.50	0.010	BQL
7	1,1-Dichloroethene	0.70	0.010	BQL
8	Tetrachloroethene	0.70	0.010	BQL
9	Trichloroethene	0.50	0.010	BQL
10	Vinyl chloride	0.20	0.020	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-11	Date Sampled:	09/22/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	Trip Blank	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	10	BQL
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-11	Date Sampled:	09/22/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	Trip Blank	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
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Additional Compounds:

36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-12	Date Sampled:	09/22/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	CP68-EqB1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	10	BQL
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-12	Date Sampled:	09/22/94
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	CP68-EqB1	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
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Additional Compounds:

36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409390	Date Sampled:	N/A
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	QC BLANK (VBLKKU)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acetone	10	BQL
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409390	Date Sampled:	N/A
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	QC BLANK (VBLKKU)	Dilution Factor:	1.0
Matrix:	Water		

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
Additional Compounds:			
36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409390-02,04,9409392-08,09,11,12

Filename: 0929K04

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number: 115-116(0)
IEA Sample Number: 9409390
Client Name: Rust Environ & Infrastructure
Client Project I.D.: 32145 MARINE CORPS
Sample Identification: QC BLANK (VBLK72)
Matrix: Solid
Moisture Correction Factor: N/A

Date Received: N/A
Date Sampled: N/A
Date Analyzed: 09/29/94
Analysis By: Larkins
Dilution Factor: 1.0

Number	Compound	Quantitation Limit (ug/Kg)	Results Concentration (ug/Kg)
1	Acetone	10	BQL
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number: 115-116(0)
IEA Sample Number: 9409390
Client Name: Rust Environ & Infrastructure
Client Project I.D.: 32145 MARINE CORPS
Sample Identification: QC BLANK (VBLK72)
Matrix: Solid
Moisture Correction Factor: N/A

Date Received: N/A
Date Sampled: N/A
Date Analyzed: 09/29/94
Analysis By: Larkins
Dilution Factor: 1.0

Number	Compound	Quantitation Limit (ug/Kg)	Results Concentration (ug/Kg)
36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409390-07

Filename: 0929704

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409390	Date Sampled:	N/A
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/28/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Ware
Sample Identification:	QC BLANK (VBLK7F)	Dilution Factor:	1.0
Matrix:	Solid		
Moisture Correction Factor:	N/A		

Number	Compound	Quantitation Limit (ug/Kg)	Results Concentration (ug/Kg)
1	Acetone	10	BQL
2	Benzene	5	BQL
3	Bromodichloromethane	5	BQL
4	Bromoform	5	BQL
5	Bromomethane	10	BQL
6	2-Butanone	10	BQL
7	Carbon disulfide	5	BQL
8	Carbon tetrachloride	5	BQL
9	Chlorobenzene	5	BQL
10	Chlorodibromomethane	5	BQL
11	Chloroethane	10	BQL
12	2-Chloroethylvinyl ether	10	BQL
13	Chloroform	5	BQL
14	Chloromethane	10	BQL
15	1,1-Dichloroethane	5	BQL
16	1,2-Dichloroethane	5	BQL
17	1,1-Dichloroethene	5	BQL
18	1,2-Dichloroethene (total)	5	BQL
19	1,2-Dichloropropane	5	BQL
20	cis-1,3-Dichloropropene	5	BQL
21	trans-1,3-Dichloropropene	5	BQL
22	Ethylbenzene	5	BQL
23	2-Hexanone	10	BQL
24	Methylene chloride	5	BQL
25	4-Methyl-2-pentanone	10	BQL
26	Styrene	5	BQL
27	1,1,2,2-Tetrachloroethane	5	BQL
28	Tetrachloroethene	5	BQL
29	Toluene	5	BQL
30	1,1,1-Trichloroethane	5	BQL
31	1,1,2-Trichloroethane	5	BQL
32	Trichloroethene	5	BQL
33	Vinyl acetate	10	BQL
34	Vinyl chloride	10	BQL
35	Xylenes (total)	5	BQL

Industrial & Environmental Analysts, Inc. (IEA)
GC/MS PURGEABLES
SW-846 METHOD 8240

IEA Project Number: 115-116(0)
IEA Sample Number: 9409390
Client Name: Rust Environ & Infrastructure
Client Project I.D.: 32145 MARINE CORPS
Sample Identification: QC BLANK (VBLK7F)
Matrix: Solid
Moisture Correction Factor: N/A
Date Received: N/A
Date Sampled: N/A
Date Analyzed: 09/28/94
Analysis By: Ware
Dilution Factor: 1.0

Number	Compound	Quantitation Limit (ug/Kg)	Results Concentration (ug/Kg)
36	Dichlorodifluoromethane	5	BQL
37	Trichlorofluoromethane	5	BQL
38	MTBE	5	BQL
39	DIPE	5	BQL
40	Isobutyl Alcohol	500	BQL
41	Epichlorohydrin	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409390-01,03,05

Filename: 0928G04

Industrial & Environmental Analysts, Inc. (IEA)
 TCLP/ZHE REGULATED GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409392	Date Sampled:	N/A
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	10/04/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Nelson
Sample Identification:	QC BLANK (VBLKJS)	Dilution Factor:	1.0
Matrix:	Water		
TCLP Extraction Date:	N/A		

Number	Compound	EPA	Quantitation	Results
		Regulatory Level (mg/L)		
1	Benzene	0.50	0.010	BQL
2	2-Butanone	200	0.020	BQL
3	Carbon tetrachloride	0.50	0.010	BQL
4	Chlorobenzene	100	0.010	BQL
5	Chloroform	6.0	0.010	BQL
6	1,2-Dichloroethane	0.50	0.010	BQL
7	1,1-Dichloroethene	0.70	0.010	BQL
8	Tetrachloroethene	0.70	0.010	BQL
9	Trichloroethene	0.50	0.010	BQL
10	Vinyl chloride	0.20	0.020	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: ZHE BLK#511

Filename: 1004103

Industrial & Environmental Analysts, Inc. (IEA)
 TCLP/ZHE REGULATED GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409392	Date Sampled:	N/A
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	09/29/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Moore
Sample Identification:	QC BLANK (VBLKKU)	Dilution Factor:	1.0
Matrix:	Water		
TCLP Extraction Date:	N/A		

Number	Compound	EPA Regulatory Level (mg/L)	Quantitation Limit (mg/L)	Results Concentration (mg/L)
1	Benzene	0.50	0.010	BQL
2	2-Butanone	200	0.020	BQL
3	Carbon tetrachloride	0.50	0.010	BQL
4	Chlorobenzene	100	0.010	BQL
5	Chloroform	6.0	0.010	BQL
6	1,2-Dichloroethane	0.50	0.010	BQL
7	1,1-Dichloroethene	0.70	0.010	BQL
8	Tetrachloroethene	0.70	0.010	BQL
9	Trichloroethene	0.50	0.010	BQL
10	Vinyl chloride	0.20	0.020	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409392-10,10SPK

Filename: 0929K04

Industrial & Environmental Analysts, Inc. (IEA)
 TCLP/ZHE REGULATED GC/MS PURGEABLES
 SW-846 METHOD 8240

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409392	Date Sampled:	N/A
Client Name:	Rust Environ & Infrastructure	Date Analyzed:	10/04/94
Client Project I.D.:	32145 MARINE CORPS	Analysis By:	Nelson
Sample Identification:	ZHE BLK#511	Dilution Factor:	1.0
Matrix:	Water		
TCLP Extraction Date:	09/26/94		

Number	Compound	EPA Regulatory Level (mg/L)	Quantitation Limit (mg/L)	Results Concentration (mg/L)
1	Benzene	0.50	0.010	BQL
2	2-Butanone	200	0.020	BQL
3	Carbon tetrachloride	0.50	0.010	BQL
4	Chlorobenzene	100	0.010	BQL
5	Chloroform	6.0	0.010	BQL
6	1,2-Dichloroethane	0.50	0.010	BQL
7	1,1-Dichloroethene	0.70	0.010	BQL
8	Tetrachloroethene	0.70	0.010	BQL
9	Trichloroethene	0.50	0.010	BQL
10	Vinyl chloride	0.20	0.020	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409392-10

Filename: 1004104

Industrial & Environmental Analysts, Inc. (IEA)
TCLP VOLATILE MATRIX SPIKEIEA Project No.: 115-116(0)
IEA Sample ID: 9409392-10SPK
Analysis Date: 09/29/94

COMPOUND	QUANTITATION LIMIT (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS % REC #
Benzene	0.010	BQL	>100
2-Butanone	0.020	BQL	>100
Carbon tetrachloride	0.010	BQL	95
Chlorobenzene	0.010	BQL	>100
Chloroform	0.010	BQL	>100
1,2-Dichloroethane	0.010	BQL	>100
1,1-Dichloroethene	0.010	BQL	89
Tetrachloroethene	0.010	BQL	>100
Trichloroethene	0.010	BQL	>100
Vinyl chloride	0.020	BQL	>100

Comments:

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409390	Date Sampled:	N/A
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/26/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	09/29/94
Sample Identification:	QC Blank (SVB982)	Analysis By:	C. Smith
Matrix:	Water	Dilution Factor:	1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acenaphthene	10	BQL
2	Acenaphthylene	10	BQL
3	Anthracene	10	BQL
4	Benzoic acid	50	BQL
5	Benzo(a)anthracene	10	BQL
6	Benzo(b)fluoranthene	10	BQL
7	Benzo(k)fluoranthene	10	BQL
8	Benzo(g,h,i)perylene	10	BQL
9	Benzo(a)pyrene	10	BQL
10	Benzyl alcohol	20	BQL
11	bis(2-Chloroethoxy)methane	10	BQL
12	bis(2-Chloroethyl)ether	10	BQL
13	bis(2-Chloroisopropyl)ether	10	BQL
14	bis(2-Ethylhexyl)phthalate	10	BQL
15	4-Bromophenyl phenyl ether	10	BQL
16	Benzyl butyl phthalate	10	BQL
17	4-Chloroaniline	20	BQL
18	2-Chloronaphthalene	10	BQL
19	4-Chloro-3-methylphenol	20	BQL
20	2-Chlorophenol	10	BQL
21	4-Chlorophenyl phenyl ether	10	BQL
22	Chrysene	10	BQL
23	Dibenzo(a,h)anthracene	10	BQL
24	Dibenzofuran	10	BQL
25	Di-n-butylphthalate	10	BQL
26	1,3-Dichlorobenzene	10	BQL
27	1,4-Dichlorobenzene	10	BQL
28	1,2-Dichlorobenzene	10	BQL
29	3,3'-Dichlorobenzidine	20	BQL
30	2,4-Dichlorophenol	10	BQL
31	Diethyl phthalate	10	BQL
32	2,4-Dimethylphenol	10	BQL
33	Dimethyl phthalate	10	BQL
34	4,6-Dinitro-2-methylphenol	50	BQL
35	2,4-Dinitrophenol	50	BQL
36	2,4-Dinitrotoluene	10	BQL
37	2,6-Dinitrotoluene	10	BQL
38	Di-n-octylphthalate	10	BQL
39	Fluoranthene	10	BQL

Industrial & Environmental Analysts, Inc. (IEA)
BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409390	Date Sampled:	N/A
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/26/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	09/29/94
Sample Identification:	QC Blank (SVB982)	Analysis By:	C. Smith
Matrix:	Water	Dilution Factor:	1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
40	Fluorene	10	BQL
41	Hexachlorobenzene	10	BQL
42	Hexachlorobutadiene	10	BQL
43	Hexachlorocyclopentadiene	10	BQL
44	Hexachloroethane	10	BQL
45	Indeno(1,2,3-cd)pyrene	10	BQL
46	Isophorone	10	BQL
47	2-Methylnaphthalene	10	BQL
48	2-Methylphenol (o-cresol)	10	BQL
49	4-Methylphenol (p-cresol)	10	BQL
50	Naphthalene	10	BQL
51	2-Nitroaniline	50	BQL
52	3-Nitroaniline	50	BQL
53	4-Nitroaniline	50	BQL
54	Nitrobenzene	10	BQL
55	2-Nitrophenol	10	BQL
56	4-Nitrophenol	50	BQL
57	N-Nitroso-di-n-propylamine	10	BQL
58	N-Nitrosodiphenylamine	10	BQL
59	Pentachlorophenol	50	BQL
60	Phenanthrene	10	BQL
61	Phenol	10	BQL
62	Pyrene	10	BQL
63	1,2,4-Trichlorobenzene	10	BQL
64	2,4,5-Trichlorophenol	10	BQL
65	2,4,6-Trichlorophenol	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409390-02

Filename: 0929606.d

FORM 8270 (2) Rev. 081792

Industrial & Environmental Analysts, Inc. (IEA)
BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409390	Date Sampled:	N/A
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/26/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	09/29/94
Sample Identification:	QC Blank (SVB 983)	Analysis By:	G. Smith
Matrix:	Solid	Dilution Factor:	1.0
Moisture Correction Factor:	N/A		

Number	Compound	Quantitation Limit (ug/kg)	Results Concentration (ug/kg)
1	Acenaphthene	330	BQL
2	Acenaphthylene	330	BQL
3	Anthracene	330	BQL
4	Benzoic acid	1600	BQL
5	Benzo(a)anthracene	330	BQL
6	Benzo(b)fluoranthene	330	BQL
7	Benzo(k)fluoranthene	330	BQL
8	Benzo(g,h,i)perylene	330	BQL
9	Benzo(a)pyrene	330	BQL
10	Benzyl alcohol	660	BQL
11	bis(2-Chloroethoxy)methane	330	BQL
12	bis(2-Chloroethyl)ether	330	BQL
13	bis(2-Chloroisopropyl)ether	330	BQL
14	bis(2-Ethylhexyl)phthalate	330	BQL
15	4-Bromophenyl phenyl ether	330	BQL
16	Benzyl butyl phthalate	330	BQL
17	4-Chloroaniline	660	BQL
18	2-Chloronaphthalene	330	BQL
19	4-Chloro-3-methylphenol	660	BQL
20	2-Chlorophenol	330	BQL
21	4-Chlorophenyl phenyl ether	330	BQL
22	Chrysene	330	BQL
23	Dibenzo(a,h)anthracene	330	BQL
24	Dibenzofuran	330	BQL
25	Di-n-butylphthalate	330	BQL
26	1,3-Dichlorobenzene	330	BQL
27	1,4-Dichlorobenzene	330	BQL
28	1,2-Dichlorobenzene	330	BQL
29	3,3'-Dichlorobenzidine	660	BQL
30	2,4-Dichlorophenol	330	BQL
31	Diethyl phthalate	330	BQL
32	2,4-Dimethylphenol	330	BQL
33	Dimethyl phthalate	330	BQL
34	4,6-Dinitro-2-methylphenol	1600	BQL
35	2,4-Dinitrophenol	1600	BQL
36	2,4-Dinitrotoluene	330	BQL
37	2,6-Dinitrotoluene	330	BQL
38	Di-n-octylphthalate	330	BQL
39	Fluoranthene	330	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390 Date Received: N/A
 Client Name: RUST Environ & Date Sampled: N/A
 Infrastructure Date Extracted: 09/26/94
 Client Project I.D.: 32145 MARINE CORPS Date Analyzed: 09/29/94
 Sample Identification: QC Blank (SVB 983) Analysis By: G. Smith
 Matrix: Solid Dilution Factor: 1.0
 Moisture Correction Factor: N/A

Number	Compound	Quantitation Limit (ug/kg)	Results Concentration (ug/kg)
40	Fluorene	330	BQL
41	Hexachlorobenzene	330	BQL
42	Hexachlorobutadiene	330	BQL
43	Hexachlorocyclopentadiene	330	BQL
44	Hexachloroethane	330	BQL
45	Indeno(1,2,3-cd)pyrene	330	BQL
46	Isophorone	330	BQL
47	2-Methylnaphthalene	330	BQL
48	2-Methylphenol (o-cresol)	330	BQL
49	4-Methylphenol (p-cresol)	330	BQL
50	Naphthalene	330	BQL
51	2-Nitroaniline	1600	BQL
52	3-Nitroaniline	1600	BQL
53	4-Nitroaniline	1600	BQL
54	Nitrobenzene	330	BQL
55	2-Nitrophenol	330	BQL
56	4-Nitrophenol	1600	BQL
57	N-Nitroso-di-n-propylamine	330	BQL
58	N-Nitrosodiphenylamine	330	BQL
59	Pentachlorophenol	1600	BQL
60	Phenanthrene	330	BQL
61	Phenol	330	BQL
62	Pyrene	330	BQL
63	1,2,4-Trichlorobenzene	330	BQL
64	2,4,5-Trichlorophenol	330	BQL
65	2,4,6-Trichlorophenol	330	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409390-01, 03, 05 and 06.

Filename: 0929803

FORM 8270 (2) Rev. 081792

Industrial & Environmental Analysts, Inc. (IEA)
BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409390	Date Sampled:	N/A
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/27/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	10/03/94
Sample Identification:	QC Blank (SVB985)	Analysis By:	Smith
Matrix:	Water	Dilution Factor:	1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acenaphthene	10	BQL
2	Acenaphthylene	10	BQL
3	Anthracene	10	BQL
4	Benzoic acid	50	BQL
5	Benzo(a)anthracene	10	BQL
6	Benzo(b)fluoranthene	10	BQL
7	Benzo(k)fluoranthene	10	BQL
8	Benzo(g,h,i)perylene	10	BQL
9	Benzo(a)pyrene	10	BQL
10	Benzyl alcohol	20	BQL
11	bis(2-Chloroethoxy)methane	10	BQL
12	bis(2-Chloroethyl) ether	10	BQL
13	bis(2-Chloroisopropyl) ether	10	BQL
14	bis(2-Ethylhexyl)phthalate	10	10
15	4-Bromophenyl phenyl ether	10	BQL
16	Benzyl butyl phthalate	10	BQL
17	4-Chloroaniline	20	BQL
18	2-Chloronaphthalene	10	BQL
19	4-Chloro-3-methylphenol	20	BQL
20	2-Chlorophenol	10	BQL
21	4-Chlorophenyl phenyl ether	10	BQL
22	Chrysene	10	BQL
23	Dibenzo(a,h)anthracene	10	BQL
24	Dibenzofuran	10	BQL
25	Di-n-butylphthalate	10	BQL
26	1,3-Dichlorobenzene	10	BQL
27	1,4-Dichlorobenzene	10	BQL
28	1,2-Dichlorobenzene	10	BQL
29	3,3'-Dichlorobenzidine	20	BQL
30	2,4-Dichlorophenol	10	BQL
31	Diethyl phthalate	10	BQL
32	2,4-Dimethylphenol	10	BQL
33	Dimethyl phthalate	10	BQL
34	4,6-Dinitro-2-methylphenol	50	BQL
35	2,4-Dinitrophenol	50	BQL
36	2,4-Dinitrotoluene	10	BQL
37	2,6-Dinitrotoluene	10	BQL
38	Di-n-octylphthalate	10	BQL
39	Fluoranthene	10	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390
 Client Name: RUST Environ & Infrastructure
 Client Project I.D.: 32145 MARINE CORPS
 Sample Identification: QC Blank (SVB985)
 Matrix: Water
 Date Received: N/A
 Date Sampled: N/A
 Date Extracted: 09/27/94
 Date Analyzed: 10/03/94
 Analysis By: Smith
 Dilution Factor: 1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
40	Fluorene	10	BQL
41	Hexachlorobenzene	10	BQL
42	Hexachlorobutadiene	10	BQL
43	Hexachlorocyclopentadiene	10	BQL
44	Hexachloroethane	10	BQL
45	Indeno(1,2,3-cd)pyrene	10	BQL
46	Isophorone	10	BQL
47	2-Methylnaphthalene	10	BQL
48	2-Methylphenol (o-cresol)	10	BQL
49	4-Methylphenol (p-cresol)	10	BQL
50	Naphthalene	10	BQL
51	2-Nitroaniline	50	BQL
52	3-Nitroaniline	50	BQL
53	4-Nitroaniline	50	BQL
54	Nitrobenzene	10	BQL
55	2-Nitrophenol	10	BQL
56	4-Nitrophenol	50	BQL
57	N-Nitroso-di-n-propylamine	10	BQL
58	N-Nitrosodiphenylamine	10	BQL
59	Pentachlorophenol	50	BQL
60	Phenanthrene	10	BQL
61	Phenol	10	BQL
62	Pyrene	10	BQL
63	1,2,4-Trichlorobenzene	10	BQL
64	2,4,5-Trichlorophenol	10	BQL
65	2,4,6-Trichlorophenol	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409390-04 and 08

Filename: 1003605

FORM 8270 (2) Rev. 081792

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409390	Date Sampled:	N/A
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/27/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	10/03/94
Sample Identification:	QC Blank (SVB985)	Analysis By:	Smith
Matrix:	Water	Dilution Factor:	1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
40	Fluorene	10	BQL
41	Hexachlorobenzene	10	BQL
42	Hexachlorobutadiene	10	BQL
43	Hexachlorocyclopentadiene	10	BQL
44	Hexachloroethane	10	BQL
45	Indeno(1,2,3-cd)pyrene	10	BQL
46	Isophorone	10	BQL
47	2-Methylnaphthalene	10	BQL
48	2-Methylphenol (o-cresol)	10	BQL
49	4-Methylphenol (p-cresol)	10	BQL
50	Naphthalene	10	BQL
51	2-Nitroaniline	50	BQL
52	3-Nitroaniline	50	BQL
53	4-Nitroaniline	50	BQL
54	Nitrobenzene	10	BQL
55	2-Nitrophenol	10	BQL
56	4-Nitrophenol	50	BQL
57	N-Nitroso-di-n-propylamine	10	BQL
58	N-Nitrosodiphenylamine	10	BQL
59	Pentachlorophenol	50	BQL
60	Phenanthrene	10	BQL
61	Phenol	10	BQL
62	Pyrene	10	BQL
63	1,2,4-Trichlorobenzene	10	BQL
64	2,4,5-Trichlorophenol	10	BQL
65	2,4,6-Trichlorophenol	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409390-04 and 08

Filename: 1003605

FORM 8270 (2) Rev. 081792

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409390	Date Sampled:	N/A
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/28/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	09/30/94
Sample Identification:	QC Blank (SVB986)	Analysis By:	C. Smith
Matrix:	Water	Dilution Factor:	1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acenaphthene	10	BQL
2	Acenaphthylene	10	BQL
3	Anthracene	10	BQL
4	Benzoic acid	50	BQL
5	Benzo(a)anthracene	10	BQL
6	Benzo(b)fluoranthene	10	BQL
7	Benzo(k)fluoranthene	10	BQL
8	Benzo(g,h,i)perylene	10	BQL
9	Benzo(a)pyrene	10	BQL
10	Benzyl alcohol	20	BQL
11	bis(2-Chloroethoxy)methane	10	BQL
12	bis(2-Chloroethyl)ether	10	BQL
13	bis(2-Chloroisopropyl)ether	10	BQL
14	bis(2-Ethylhexyl)phthalate	10	BQL
15	4-Bromophenyl phenyl ether	10	BQL
16	Benzyl butyl phthalate	10	BQL
17	4-Chloroaniline	20	BQL
18	2-Chloronaphthalene	10	BQL
19	4-Chloro-3-methylphenol	20	BQL
20	2-Chlorophenol	10	BQL
21	4-Chlorophenyl phenyl ether	10	BQL
22	Chrysene	10	BQL
23	Dibenzo(a,h)anthracene	10	BQL
24	Dibenzofuran	10	BQL
25	Di-n-butylphthalate	10	BQL
26	1,3-Dichlorobenzene	10	BQL
27	1,4-Dichlorobenzene	10	BQL
28	1,2-Dichlorobenzene	10	BQL
29	3,3'-Dichlorobenzidine	20	BQL
30	2,4-Dichlorophenol	10	BQL
31	Diethyl phthalate	10	BQL
32	2,4-Dimethylphenol	10	BQL
33	Dimethyl phthalate	10	BQL
34	4,6-Dinitro-2-methylphenol	50	BQL
35	2,4-Dinitrophenol	50	BQL
36	2,4-Dinitrotoluene	10	BQL
37	2,6-Dinitrotoluene	10	BQL
38	Di-n-octylphthalate	10	BQL
39	Fluoranthene	10	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390 Date Received: N/A
 Client Name: RUST Environ & Date Sampled: N/A
 Infrastructure Date Extracted: 09/28/94
 Client Project I.D.: 32145 MARINE CORPS Date Analyzed: 09/30/94
 Sample Identification: QC Blank (SVB986) Analysis By: C. Smith
 Matrix: Water Dilution Factor: 1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
40	Fluorene	10	BQL
41	Hexachlorobenzene	10	BQL
42	Hexachlorobutadiene	10	BQL
43	Hexachlorocyclopentadiene	10	BQL
44	Hexachloroethane	10	BQL
45	Indeno(1,2,3-cd)pyrene	10	BQL
46	Isophorone	10	BQL
47	2-Methylnaphthalene	10	BQL
48	2-Methylphenol (o-cresol)	10	BQL
49	4-Methylphenol (p-cresol)	10	BQL
50	Naphthalene	10	BQL
51	2-Nitroaniline	50	BQL
52	3-Nitroaniline	50	BQL
53	4-Nitroaniline	50	BQL
54	Nitrobenzene	10	BQL
55	2-Nitrophenol	10	BQL
56	4-Nitrophenol	50	BQL
57	N-Nitroso-di-n-propylamine	10	BQL
58	N-Nitrosodiphenylamine	10	BQL
59	Pentachlorophenol	50	BQL
60	Phenanthrene	10	BQL
61	Phenol	10	BQL
62	Pyrene	10	BQL
63	1,2,4-Trichlorobenzene	10	BQL
64	2,4,5-Trichlorophenol	10	BQL
65	2,4,6-Trichlorophenol	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409392-09 and 9409392-12.

Filename: 0929614.d

FORM 8270 (2) Rev. 081792

TCLP REGULATED
BASE/NEUTRAL/ACID EXTRACTABLES
SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409392
 Client Name: RUST Environ & Infrastructure
 Client Project I.D.: 32145 MARINE CORPS
 Sample Identification: QC Blank (SVB 990)
 Matrix: Water
 TCLP Extraction Date: N/A
 Date Received: N/A
 Date Sampled: N/A
 Date Extracted: 09/29/94
 Date Analyzed: 10/04/94
 Analysis By: G. Smith
 Dilution Factor: 1.0

Number	Compound	Regulatory Level (mg/L)	Quantitation Limit (mg/L)	Results Concentration (mg/L)
1	1,4-Dichlorobenzene	7.5	0.020	BQL
2	2,4-Dinitrotoluene	0.13	0.020	BQL
3	Hexachlorobutadiene	0.5	0.020	BQL
4	Hexachloroethane	3.0	0.020	BQL
5	Total Cresol	200	0.020	BQL
6	Nitrobenzene	2.0	0.020	BQL
7	Pentachlorophenol	100	0.10	BQL
8	Pyridine	5.0	0.020	BQL
9	2,4,5-Trichlorophenol	400	0.020	BQL
10	2,4,6-Trichlorophenol	2.0	0.020	BQL
11	Hexachlorobenzene	0.13	0.020	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Sample: 9409392-10

Filename: 1004402

FORM TCLP-8270R Rev. 081792

TCLP REGULATED
BASE/NEUTRAL/ACID EXTRACTABLES
SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409392 Date Received: N/A
 Client Name: RUST Environ & Infrastructure Date Sampled: N/A
 Date Extracted: 09/29/94
 Client Project I.D.: 32145 MARINE CORPS Date Analyzed: 10/04/94
 Sample Identification: Method Blank (TCLP 70) Analysis By: G. Smith
 Matrix: Solid Dilution Factor: 1.0
 TCLP Extraction Date: 09/27/94

Number	Compound	Regulatory Level (mg/L)	Quantitation Limit (mg/L)	Results Concentration (mg/L)
1	1,4-Dichlorobenzene	7.5	0.020	BQL
2	2,4-Dinitrotoluene	0.13	0.020	BQL
3	Hexachlorobutadiene	0.5	0.020	BQL
4	Hexachloroethane	3.0	0.020	BQL
5	Total Cresol	200	0.020	BQL
6	Nitrobenzene	2.0	0.020	BQL
7	Pentachlorophenol	100	0.10	BQL
8	Pyridine	5.0	0.020	BQL
9	2,4,5-Trichlorophenol	400	0.020	BQL
10	2,4,6-Trichlorophenol	2.0	0.020	BQL
11	Hexachlorobenzene	0.13	0.020	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Sample: 9409392-10

Filename: 1004404

FORM TCLP-8270R Rev. 081792

Industrial & Environmental Analysts, Inc. (IEA)
TCLP SEMIVOLATILE MATRIX SPIKEIEA Project No.: 115-116(0)
IEA Sample ID: 9409392-10
Date Extracted: 09/29/94
Date Analyzed: 10/04/94

COMPOUND	QUANTITATION LIMIT (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS % REC #
1,4-Dichlorobenzene	0.020	BQL	51
2,4-Dinitrotoluene	0.020	BQL	47
Hexachlorobutadiene	0.020	BQL	54
Hexachloroethane	0.020	BQL	49
Total Cresol	0.020	BQL	63
Nitrobenzene	0.020	BQL	60
Pentachlorophenol	0.100	BQL	74
Pyridine	0.020	BQL	48
2,4,5-Trichlorophenol	0.020	BQL	71
2,4,6-Trichlorophenol	0.020	BQL	70
Hexachlorobenzene	0.020	BQL	35

Comments:
BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-01	Date Sampled:	09/20/94
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/26/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	09/30/94
Sample Identification:	CP68-S01	Analysis By:	C. Smith
Matrix:	Soil	Dilution Factor:	1.0
Moisture Correction Factor:	1.22		

Number	Compound	Quantitation Limit (ug/kg)	Results Concentration (ug/kg)
1	Acenaphthene	330	BQL
2	Acenaphthylene	330	BQL
3	Anthracene	330	BQL
4	Benzoic acid	1600	BQL
5	Benzo(a)anthracene	330	BQL
6	Benzo(b)fluoranthene	330	BQL
7	Benzo(k)fluoranthene	330	BQL
8	Benzo(g,h,i)perylene	330	BQL
9	Benzo(a)pyrene	330	BQL
10	Benzyl alcohol	660	BQL
11	bis(2-Chloroethoxy)methane	330	BQL
12	bis(2-Chloroethyl)ether	330	BQL
13	bis(2-Chloroisopropyl)ether	330	BQL
14	bis(2-Ethylhexyl)phthalate	330	BQL
15	4-Bromophenyl phenyl ether	330	BQL
16	Benzyl butyl phthalate	330	BQL
17	4-Chloroaniline	660	BQL
18	2-Chloronaphthalene	330	BQL
19	4-Chloro-3-methylphenol	660	BQL
20	2-Chlorophenol	330	BQL
21	4-Chlorophenyl phenyl ether	330	BQL
22	Chrysene	330	BQL
23	Dibenzo(a,h)anthracene	330	BQL
24	Dibenzofuran	330	BQL
25	Di-n-butylphthalate	330	3000
26	1,3-Dichlorobenzene	330	BQL
27	1,4-Dichlorobenzene	330	BQL
28	1,2-Dichlorobenzene	330	BQL
29	3,3'-Dichlorobenzidine	660	BQL
30	2,4-Dichlorophenol	330	BQL
31	Diethyl phthalate	330	BQL
32	2,4-Dimethylphenol	330	BQL
33	Dimethyl phthalate	330	BQL
34	4,6-Dinitro-2-methylphenol	1600	BQL
35	2,4-Dinitrophenol	1600	BQL
36	2,4-Dinitrotoluene	330	BQL
37	2,6-Dinitrotoluene	330	BQL
38	Di-n-octylphthalate	330	BQL
39	Fluoranthene	330	BQL

Industrial & Environmental Analysts, Inc. (IEA)
BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-01	Date Sampled:	09/20/94
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/26/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	09/30/94
Sample Identification:	CP68-S01	Analysis By:	C. Smith
Matrix:	Soil	Dilution Factor:	1.0
Moisture Correction Factor:	1.22		

Number	Compound	Quantitation Limit (ug/kg)	Results Concentration (ug/kg)
40	Fluorene	330	BQL
41	Hexachlorobenzene	330	BQL
42	Hexachlorobutadiene	330	BQL
43	Hexachlorocyclopentadiene	330	BQL
44	Hexachloroethane	330	BQL
45	Indeno(1,2,3-cd)pyrene	330	BQL
46	Isophorone	330	BQL
47	2-Methylnaphthalene	330	BQL
48	2-Methylphenol (o-cresol)	330	BQL
49	4-Methylphenol (p-cresol)	330	BQL
50	Naphthalene	330	BQL
51	2-Nitroaniline	1600	BQL
52	3-Nitroaniline	1600	BQL
53	4-Nitroaniline	1600	BQL
54	Nitrobenzene	330	BQL
55	2-Nitrophenol	330	BQL
56	4-Nitrophenol	1600	BQL
57	N-Nitroso-di-n-propylamine	330	BQL
58	N-Nitrosodiphenylamine	330	BQL
59	Pentachlorophenol	1600	BQL
60	Phenanthrene	330	BQL
61	Phenol	330	BQL
62	Pyrene	330	BQL
63	1,2,4-Trichlorobenzene	330	BQL
64	2,4,5-Trichlorophenol	330	BQL
65	2,4,6-Trichlorophenol	330	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-02	Date Sampled:	09/20/94
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/26/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	10/05/94
Sample Identification:	CP68-W01	Analysis By:	G. Smith
Matrix:	Water	Dilution Factor:	1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acenaphthene	10	BQL
2	Acenaphthylene	10	BQL
3	Anthracene	10	BQL
4	Benzoic acid	50	BQL
5	Benzo(a)anthracene	10	BQL
6	Benzo(b)fluoranthene	10	BQL
7	Benzo(k)fluoranthene	10	BQL
8	Benzo(g,h,i)perylene	10	BQL
9	Benzo(a)pyrene	10	BQL
10	Benzyl alcohol	20	BQL
11	bis(2-Chloroethoxy)methane	10	BQL
12	bis(2-Chloroethyl)ether	10	BQL
13	bis(2-Chloroisopropyl)ether	10	BQL
14	bis(2-Ethylhexyl)phthalate	10	BQL
15	4-Bromophenyl phenyl ether	10	BQL
16	Benzyl butyl phthalate	10	BQL
17	4-Chloroaniline	20	BQL
18	2-Chloronaphthalene	10	BQL
19	4-Chloro-3-methylphenol	20	BQL
20	2-Chlorophenol	10	BQL
21	4-Chlorophenyl phenyl ether	10	BQL
22	Chrysene	10	BQL
23	Dibenzo(a,h)anthracene	10	BQL
24	Dibenzofuran	10	BQL
25	Di-n-butylphthalate	10	BQL
26	1,3-Dichlorobenzene	10	BQL
27	1,4-Dichlorobenzene	10	BQL
28	1,2-Dichlorobenzene	10	BQL
29	3,3'-Dichlorobenzidine	20	BQL
30	2,4-Dichlorophenol	10	BQL
31	Diethyl phthalate	10	BQL
32	2,4-Dimethylphenol	10	BQL
33	Dimethyl phthalate	10	BQL
34	4,6-Dinitro-2-methylphenol	50	BQL
35	2,4-Dinitrophenol	50	BQL
36	2,4-Dinitrotoluene	10	BQL
37	2,6-Dinitrotoluene	10	BQL
38	Di-n-octylphthalate	10	BQL
39	Fluoranthene	10	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-02	Date Sampled:	09/20/94
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/26/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	10/05/94
Sample Identification:	CP68-W01	Analysis By:	G. Smith
Matrix:	Water	Dilution Factor:	1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
40	Fluorene	10	BQL
41	Hexachlorobenzene	10	BQL
42	Hexachlorobutadiene	10	BQL
43	Hexachlorocyclopentadiene	10	BQL
44	Hexachloroethane	10	BQL
45	Indeno (1,2,3-cd)pyrene	10	BQL
46	Isophorone	10	BQL
47	2-Methylnaphthalene	10	BQL
48	2-Methylphenol (o-cresol)	10	BQL
49	4-Methylphenol (p-cresol)	10	BQL
50	Naphthalene	10	BQL
51	2-Nitroaniline	50	BQL
52	3-Nitroaniline	50	BQL
53	4-Nitroaniline	50	BQL
54	Nitrobenzene	10	BQL
55	2-Nitrophenol	10	BQL
56	4-Nitrophenol	50	BQL
57	N-Nitroso-di-n-propylamine	10	BQL
58	N-Nitrosodiphenylamine	10	BQL
59	Pentachlorophenol	50	BQL
60	Phenanthrene	10	BQL
61	Phenol	10	BQL
62	Pyrene	10	BQL
63	1,2,4-Trichlorobenzene	10	BQL
64	2,4,5-Trichlorophenol	10	BQL
65	2,4,6-Trichlorophenol	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390-03
 Client Name: RUST Environ & Infrastructure
 Client Project I.D.: 32145 MARINE CORPS
 Sample Identification: CP68-S02
 Matrix: Soil
 Moisture Correction Factor: 1.52
 Date Received: 09/23/94
 Date Sampled: 09/21/94
 Date Extracted: 09/26/94
 Date Analyzed: 09/30/94
 Analysis By: G. Smith
 Dilution Factor: 2.0

Number	Compound	Quantitation Limit (ug/kg)	Results Concentration (ug/kg)
1	Acenaphthene	330	BQL
2	Acenaphthylene	330	BQL
3	Anthracene	330	BQL
4	Benzoic acid	1600	4100
5	Benzo(a)anthracene	330	BQL
6	Benzo(b)fluoranthene	330	BQL
7	Benzo(k)fluoranthene	330	BQL
8	Benzo(g,h,i)perylene	330	BQL
9	Benzo(a)pyrene	330	BQL
10	Benzyl alcohol	660	BQL
11	bis(2-Chloroethoxy)methane	330	BQL
12	bis(2-Chloroethyl)ether	330	BQL
13	bis(2-Chloroisopropyl)ether	330	BQL
14	bis(2-Ethylhexyl)phthalate	330	BQL
15	4-Bromophenyl phenyl ether	330	BQL
16	Benzyl butyl phthalate	330	BQL
17	4-Chloroaniline	660	BQL
18	2-Chloronaphthalene	330	BQL
19	4-Chloro-3-methylphenol	660	BQL
20	2-Chlorophenol	330	BQL
21	4-Chlorophenyl phenyl ether	330	BQL
22	Chrysene	330	BQL
23	Dibenzo(a,h)anthracene	330	BQL
24	Dibenzofuran	330	BQL
25	Di-n-butylphthalate	330	BQL
26	1,3-Dichlorobenzene	330	BQL
27	1,4-Dichlorobenzene	330	BQL
28	1,2-Dichlorobenzene	330	BQL
29	3,3'-Dichlorobenzidine	660	BQL
30	2,4-Dichlorophenol	330	BQL
31	Diethyl phthalate	330	BQL
32	2,4-Dimethylphenol	330	BQL
33	Dimethyl phthalate	330	BQL
34	4,6-Dinitro-2-methylphenol	1600	BQL
35	2,4-Dinitrophenol	1600	BQL
36	2,4-Dinitrotoluene	330	BQL
37	2,6-Dinitrotoluene	330	BQL
38	Di-n-octylphthalate	330	BQL
39	Fluoranthene	330	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390-03 Date Received: 09/23/94
 Client Name: RUST Environ & Date Sampled: 09/21/94
 Infrastructure Date Extracted: 09/26/94
 Client Project I.D.: 32145 MARINE CORPS Date Analyzed: 09/30/94
 Sample Identification: CP68-S02 Analysis By: G. Smith
 Matrix: Soil Dilution Factor: 2.0
 Moisture Correction Factor: 1.52

Number	Compound	Quantitation Limit (ug/kg)	Results Concentration (ug/kg)
40	Fluorene	330	BQL
41	Hexachlorobenzene	330	BQL
42	Hexachlorobutadiene	330	BQL
43	Hexachlorocyclopentadiene	330	BQL
44	Hexachloroethane	330	BQL
45	Indeno(1,2,3-cd)pyrene	330	BQL
46	Isophorone	330	BQL
47	2-Methylnaphthalene	330	BQL
48	2-Methylphenol (o-cresol)	330	BQL
49	4-Methylphenol (p-cresol)	330	BQL
50	Naphthalene	330	BQL
51	2-Nitroaniline	1600	BQL
52	3-Nitroaniline	1600	BQL
53	4-Nitroaniline	1600	BQL
54	Nitrobenzene	330	BQL
55	2-Nitrophenol	330	BQL
56	4-Nitrophenol	1600	BQL
57	N-Nitroso-di-n-propylamine	330	BQL
58	N-Nitrosodiphenylamine	330	BQL
59	Pentachlorophenol	1600	BQL
60	Phenanthrene	330	BQL
61	Phenol	330	BQL
62	Pyrene	330	BQL
63	1,2,4-Trichlorobenzene	330	BQL
64	2,4,5-Trichlorophenol	330	BQL
65	2,4,6-Trichlorophenol	330	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Extract diluted for target compound.

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390-04 Date Received: 09/23/94
 Client Name: RUST Environ & Date Sampled: 09/21/94
 Infrastructure Date Extracted: 09/27/94
 Client Project I.D.: 32145 MARINE CORPS Date Analyzed: 10/04/94
 Sample Identification: CP68-W02 Analysis By: C. Smith
 Matrix: Water Dilution Factor: 1.0

Number	Compound	Quantitation	Results
		Limit (ug/L)	Concentration (ug/L)
1	Acenaphthene	10	BQL
2	Acenaphthylene	10	BQL
3	Anthracene	10	BQL
4	Benzoic acid	50	BQL
5	Benzo(a)anthracene	10	BQL
6	Benzo(b)fluoranthene	10	BQL
7	Benzo(k)fluoranthene	10	BQL
8	Benzo(g,h,i)perylene	10	BQL
9	Benzo(a)pyrene	10	BQL
10	Benzyl alcohol	20	BQL
11	bis(2-Chloroethoxy)methane	10	BQL
12	bis(2-Chloroethyl)ether	10	BQL
13	bis(2-Chloroisopropyl)ether	10	BQL
14	bis(2-Ethylhexyl)phthalate	10	BQL
15	4-Bromophenyl phenyl ether	10	BQL
16	Benzyl butyl phthalate	10	BQL
17	4-Chloroaniline	20	BQL
18	2-Chloronaphthalene	10	BQL
19	4-Chloro-3-methylphenol	20	BQL
20	2-Chlorophenol	10	BQL
21	4-Chlorophenyl phenyl ether	10	BQL
22	Chrysene	10	BQL
23	Dibenzo(a,h)anthracene	10	BQL
24	Dibenzofuran	10	BQL
25	Di-n-butylphthalate	10	BQL
26	1,3-Dichlorobenzene	10	BQL
27	1,4-Dichlorobenzene	10	BQL
28	1,2-Dichlorobenzene	10	BQL
29	3,3'-Dichlorobenzidine	20	BQL
30	2,4-Dichlorophenol	10	BQL
31	Diethyl phthalate	10	BQL
32	2,4-Dimethylphenol	10	BQL
33	Dimethyl phthalate	10	BQL
34	4,6-Dinitro-2-methylphenol	50	BQL
35	2,4-Dinitrophenol	50	BQL
36	2,4-Dinitrotoluene	10	BQL
37	2,6-Dinitrotoluene	10	BQL
38	Di-n-octylphthalate	10	BQL
39	Fluoranthene	10	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390-04 Date Received: 09/23/94
 Client Name: RUST Environ & Date Sampled: 09/21/94
 Infrastructure Date Extracted: 09/27/94
 Client Project I.D.: 32145 MARINE CORPS Date Analyzed: 10/04/94
 Sample Identification: CP68-W02 Analysis By: C. Smith
 Matrix: Water Dilution Factor: 1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
40	Fluorene	10	BQL
41	Hexachlorobenzene	10	BQL
42	Hexachlorobutadiene	10	BQL
43	Hexachlorocyclopentadiene	10	BQL
44	Hexachloroethane	10	BQL
45	Indeno (1,2,3-cd) pyrene	10	BQL
46	Isophorone	10	BQL
47	2-Methylnaphthalene	10	BQL
48	2-Methylphenol (o-cresol)	10	BQL
49	4-Methylphenol (p-cresol)	10	BQL
50	Naphthalene	10	BQL
51	2-Nitroaniline	50	BQL
52	3-Nitroaniline	50	BQL
53	4-Nitroaniline	50	BQL
54	Nitrobenzene	10	BQL
55	2-Nitrophenol	10	BQL
56	4-Nitrophenol	50	BQL
57	N-Nitroso-di-n-propylamine	10	BQL
58	N-Nitrosodiphenylamine	10	BQL
59	Pentachlorophenol	50	BQL
60	Phenanthrene	10	BQL
61	Phenol	10	BQL
62	Pyrene	10	BQL
63	1,2,4-Trichlorobenzene	10	BQL
64	2,4,5-Trichlorophenol	10	BQL
65	2,4,6-Trichlorophenol	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390-05 Date Received: 09/23/94
 Client Name: RUST Environ & Date Sampled: 09/21/94
 Infrastructure Date Extracted: 09/26/94
 Client Project I.D.: 32145 MARINE CORPS Date Analyzed: 09/30/94
 Sample Identification: CP68-S03 Analysis By: C. Smith
 Matrix: Soil Dilution Factor: 1.0
 Moisture Correction Factor: 2.63

Number	Compound	Quantitation Limit (ug/kg)	Results Concentration (ug/kg)
1	Acenaphthene	330	BQL
2	Acenaphthylene	330	BQL
3	Anthracene	330	BQL
4	Benzoic acid	1600	BQL
5	Benzo(a)anthracene	330	BQL
6	Benzo(b)fluoranthene	330	BQL
7	Benzo(k)fluoranthene	330	BQL
8	Benzo(g,h,i)perylene	330	BQL
9	Benzo(a)pyrene	330	BQL
10	Benzyl alcohol	660	BQL
11	bis(2-Chloroethoxy)methane	330	BQL
12	bis(2-Chloroethyl)ether	330	BQL
13	bis(2-Chloroisopropyl)ether	330	BQL
14	bis(2-Ethylhexyl)phthalate	330	930
15	4-Bromophenyl phenyl ether	330	BQL
16	Benzyl butyl phthalate	330	880
17	4-Chloroaniline	660	BQL
18	2-Chloronaphthalene	330	BQL
19	4-Chloro-3-methylphenol	660	BQL
20	2-Chlorophenol	330	BQL
21	4-Chlorophenyl phenyl ether	330	BQL
22	Chrysene	330	BQL
23	Dibenzo(a,h)anthracene	330	BQL
24	Dibenzofuran	330	BQL
25	Di-n-butylphthalate	330	3000
26	1,3-Dichlorobenzene	330	BQL
27	1,4-Dichlorobenzene	330	BQL
28	1,2-Dichlorobenzene	330	BQL
29	3,3'-Dichlorobenzidine	660	BQL
30	2,4-Dichlorophenol	330	BQL
31	Diethyl phthalate	330	BQL
32	2,4-Dimethylphenol	330	BQL
33	Dimethyl phthalate	330	BQL
34	4,6-Dinitro-2-methylphenol	1600	BQL
35	2,4-Dinitrophenol	1600	BQL
36	2,4-Dinitrotoluene	330	BQL
37	2,6-Dinitrotoluene	330	BQL
38	Di-n-octylphthalate	330	BQL
39	Fluoranthene	330	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390-05 Date Received: 09/23/94
 Client Name: RUST Environ & Date Sampled: 09/21/94
 Infrastructure Date Extracted: 09/26/94
 Client Project I.D.: 32145 MARINE CORPS Date Analyzed: 09/30/94
 Sample Identification: CP68-S03 Analysis By: C. Smith
 Matrix: Soil Dilution Factor: 1.0
 Moisture Correction Factor: 2.63

Number	Compound	Quantitation Limit (ug/kg)	Results Concentration (ug/kg)
40	Fluorene	330	BQL
41	Hexachlorobenzene	330	BQL
42	Hexachlorobutadiene	330	BQL
43	Hexachlorocyclopentadiene	330	BQL
44	Hexachloroethane	330	BQL
45	Indeno(1,2,3-cd)pyrene	330	BQL
46	Isophorone	330	BQL
47	2-Methylnaphthalene	330	BQL
48	2-Methylphenol (o-cresol)	330	BQL
49	4-Methylphenol (p-cresol)	330	BQL
50	Naphthalene	330	BQL
51	2-Nitroaniline	1600	BQL
52	3-Nitroaniline	1600	BQL
53	4-Nitroaniline	1600	BQL
54	Nitrobenzene	330	BQL
55	2-Nitrophenol	330	BQL
56	4-Nitrophenol	1600	BQL
57	N-Nitroso-di-n-propylamine	330	BQL
58	N-Nitrosodiphenylamine	330	BQL
59	Pentachlorophenol	1600	BQL
60	Phenanthrene	330	BQL
61	Phenol	330	BQL
62	Pyrene	330	BQL
63	1,2,4-Trichlorobenzene	330	BQL
64	2,4,5-Trichlorophenol	330	BQL
65	2,4,6-Trichlorophenol	330	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)		
IEA Sample Number:	9409390-06	Date Received:	09/23/94
Client Name:	RUST Environ &	Date Sampled:	09/21/94
	Infrastructure	Date Extracted:	09/26/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	09/30/94
Sample Identification:	CP68-S04	Analysis By:	C. Smith
Matrix:	Soil	Dilution Factor:	2.0
Moisture Correction Factor:	1.21		

Number	Compound	Quantitation Limit (ug/kg)	Results Concentration (ug/kg)
1	Acenaphthene	330	BQL
2	Acenaphthylene	330	BQL
3	Anthracene	330	BQL
4	Benzoic acid	1600	BQL
5	Benzo(a)anthracene	330	BQL
6	Benzo(b)fluoranthene	330	BQL
7	Benzo(k)fluoranthene	330	BQL
8	Benzo(g,h,i)perylene	330	BQL
9	Benzo(a)pyrene	330	BQL
10	Benzyl alcohol	660	BQL
11	bis(2-Chloroethoxy)methane	330	BQL
12	bis(2-Chloroethyl)ether	330	BQL
13	bis(2-Chloroisopropyl)ether	330	BQL
14	bis(2-Ethylhexyl)phthalate	330	BQL
15	4-Bromophenyl phenyl ether	330	BQL
16	Benzyl butyl phthalate	330	BQL
17	4-Chloroaniline	660	BQL
18	2-Chloronaphthalene	330	BQL
19	4-Chloro-3-methylphenol	660	BQL
20	2-Chlorophenol	330	BQL
21	4-Chlorophenyl phenyl ether	330	BQL
22	Chrysene	330	BQL
23	Dibenzo(a,h)anthracene	330	BQL
24	Dibenzofuran	330	BQL
25	Di-n-butylphthalate	330	3200
26	1,3-Dichlorobenzene	330	BQL
27	1,4-Dichlorobenzene	330	BQL
28	1,2-Dichlorobenzene	330	BQL
29	3,3'-Dichlorobenzidine	660	BQL
30	2,4-Dichlorophenol	330	BQL
31	Diethyl phthalate	330	BQL
32	2,4-Dimethylphenol	330	BQL
33	Dimethyl phthalate	330	BQL
34	4,6-Dinitro-2-methylphenol	1600	BQL
35	2,4-Dinitrophenol	1600	BQL
36	2,4-Dinitrotoluene	330	BQL
37	2,6-Dinitrotoluene	330	BQL
38	Di-n-octylphthalate	330	BQL
39	Fluoranthene	330	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390-06
 Client Name: RUST Environ & Infrastructure
 Client Project I.D.: 32145 MARINE CORPS
 Sample Identification: CP68-S04
 Matrix: Soil
 Moisture Correction Factor: 1.21
 Date Received: 09/23/94
 Date Sampled: 09/21/94
 Date Extracted: 09/26/94
 Date Analyzed: 09/30/94
 Analysis By: C. Smith
 Dilution Factor: 2.0

Number	Compound	Quantitation Limit (ug/kg)	Results Concentration (ug/kg)
40	Fluorene	330	BQL
41	Hexachlorobenzene	330	BQL
42	Hexachlorobutadiene	330	BQL
43	Hexachlorocyclopentadiene	330	BQL
44	Hexachloroethane	330	BQL
45	Indeno(1,2,3-cd)pyrene	330	BQL
46	Isophorone	330	BQL
47	2-Methylnaphthalene	330	BQL
48	2-Methylphenol (o-cresol)	330	BQL
49	4-Methylphenol (p-cresol)	330	BQL
50	Naphthalene	330	BQL
51	2-Nitroaniline	1600	BQL
52	3-Nitroaniline	1600	BQL
53	4-Nitroaniline	1600	BQL
54	Nitrobenzene	330	BQL
55	2-Nitrophenol	330	BQL
56	4-Nitrophenol	1600	BQL
57	N-Nitroso-di-n-propylamine	330	BQL
58	N-Nitrosodiphenylamine	330	BQL
59	Pentachlorophenol	1600	BQL
60	Phenanthrene	330	BQL
61	Phenol	330	BQL
62	Pyrene	330	BQL
63	1,2,4-Trichlorobenzene	330	BQL
64	2,4,5-Trichlorophenol	330	BQL
65	2,4,6-Trichlorophenol	330	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit
 Extract diluted for target compound.

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409390-08 Date Received: 09/23/94
 Client Name: RUST Environ & Date Sampled: 09/21/94
 Infrastructure Date Extracted: 09/27/94
 Client Project I.D.: 32145 MARINE CORPS Date Analyzed: 10/04/94
 Sample Identification: CP68-W04 Analysis By: C. Smith
 Matrix: Water Dilution Factor: 1.0

Number	Compound	Quantitation	Results
		Limit (ug/L)	Concentration (ug/L)
1	Acenaphthene	10	BQL
2	Acenaphthylene	10	BQL
3	Anthracene	10	BQL
4	Benzoic acid	50	BQL
5	Benzo(a)anthracene	10	BQL
6	Benzo(b)fluoranthene	10	BQL
7	Benzo(k)fluoranthene	10	BQL
8	Benzo(g,h,i)perylene	10	BQL
9	Benzo(a)pyrene	10	BQL
10	Benzyl alcohol	20	BQL
11	bis(2-Chloroethoxy)methane	10	BQL
12	bis(2-Chloroethyl)ether	10	BQL
13	bis(2-Chloroisopropyl)ether	10	BQL
14	bis(2-Ethylhexyl)phthalate	10	BQL
15	4-Bromophenyl phenyl ether	10	BQL
16	Benzyl butyl phthalate	10	BQL
17	4-Chloroaniline	20	BQL
18	2-Chloronaphthalene	10	BQL
19	4-Chloro-3-methylphenol	20	BQL
20	2-Chlorophenol	10	BQL
21	4-Chlorophenyl phenyl ether	10	BQL
22	Chrysene	10	BQL
23	Dibenzo(a,h)anthracene	10	BQL
24	Dibenzofuran	10	BQL
25	Di-n-butylphthalate	10	BQL
26	1,3-Dichlorobenzene	10	BQL
27	1,4-Dichlorobenzene	10	BQL
28	1,2-Dichlorobenzene	10	BQL
29	3,3'-Dichlorobenzidine	20	BQL
30	2,4-Dichlorophenol	10	BQL
31	Diethyl phthalate	10	BQL
32	2,4-Dimethylphenol	10	BQL
33	Dimethyl phthalate	10	BQL
34	4,6-Dinitro-2-methylphenol	50	BQL
35	2,4-Dinitrophenol	50	BQL
36	2,4-Dinitrotoluene	10	BQL
37	2,6-Dinitrotoluene	10	BQL
38	Di-n-octylphthalate	10	BQL
39	Fluoranthene	10	BQL

Industrial & Environmental Analysts, Inc. (IEA)
BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409390-08	Date Sampled:	09/21/94
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/27/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	10/04/94
Sample Identification:	CP68-W04	Analysis By:	C. Smith
Matrix:	Water	Dilution Factor:	1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
40	Fluorene	10	BQL
41	Hexachlorobenzene	10	BQL
42	Hexachlorobutadiene	10	BQL
43	Hexachlorocyclopentadiene	10	BQL
44	Hexachloroethane	10	BQL
45	Indeno(1,2,3-cd)pyrene	10	BQL
46	Isophorone	10	BQL
47	2-Methylnaphthalene	10	BQL
48	2-Methylphenol (o-cresol)	10	BQL
49	4-Methylphenol (p-cresol)	10	BQL
50	Naphthalene	10	BQL
51	2-Nitroaniline	50	BQL
52	3-Nitroaniline	50	BQL
53	4-Nitroaniline	50	BQL
54	Nitrobenzene	10	BQL
55	2-Nitrophenol	10	BQL
56	4-Nitrophenol	50	BQL
57	N-Nitroso-di-n-propylamine	10	BQL
58	N-Nitrosodiphenylamine	10	BQL
59	Pentachlorophenol	50	BQL
60	Phenanthrene	10	BQL
61	Phenol	10	BQL
62	Pyrene	10	BQL
63	1,2,4-Trichlorobenzene	10	BQL
64	2,4,5-Trichlorophenol	10	BQL
65	2,4,6-Trichlorophenol	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409392-09 Date Received: 09/23/94
 Client Name: RUST Environ & Date Sampled: 09/22/94
 Infrastructure Date Extracted: 09/28/94
 Client Project I.D.: 32145 MARINE CORPS Date Analyzed: 09/30/94
 Sample Identification: CP68-W05 Analysis By: C. Smith
 Matrix: Water Dilution Factor: 1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acenaphthene	10	BQL
2	Acenaphthylene	10	BQL
3	Anthracene	10	BQL
4	Benzoic acid	50	BQL
5	Benzo(a)anthracene	10	BQL
6	Benzo(b)fluoranthene	10	BQL
7	Benzo(k)fluoranthene	10	BQL
8	Benzo(g,h,i)perylene	10	BQL
9	Benzo(a)pyrene	10	BQL
10	Benzyl alcohol	20	BQL
11	bis(2-Chloroethoxy)methane	10	BQL
12	bis(2-Chloroethyl)ether	10	BQL
13	bis(2-Chloroisopropyl)ether	10	BQL
14	bis(2-Ethylhexyl)phthalate	10	BQL
15	4-Bromophenyl phenyl ether	10	BQL
16	Benzyl butyl phthalate	10	BQL
17	4-Chloroaniline	20	BQL
18	2-Chloronaphthalene	10	BQL
19	4-Chloro-3-methylphenol	20	BQL
20	2-Chlorophenol	10	BQL
21	4-Chlorophenyl phenyl ether	10	BQL
22	Chrysene	10	BQL
23	Dibenzo(a,h)anthracene	10	BQL
24	Dibenzofuran	10	BQL
25	Di-n-butylphthalate	10	BQL
26	1,3-Dichlorobenzene	10	BQL
27	1,4-Dichlorobenzene	10	BQL
28	1,2-Dichlorobenzene	10	BQL
29	3,3'-Dichlorobenzidine	20	BQL
30	2,4-Dichlorophenol	10	BQL
31	Diethyl phthalate	10	BQL
32	2,4-Dimethylphenol	10	BQL
33	Dimethyl phthalate	10	BQL
34	4,6-Dinitro-2-methylphenol	50	BQL
35	2,4-Dinitrophenol	50	BQL
36	2,4-Dinitrotoluene	10	BQL
37	2,6-Dinitrotoluene	10	BQL
38	Di-n-octylphthalate	10	BQL
39	Fluoranthene	10	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-09	Date Sampled:	09/22/94
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/28/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	09/30/94
Sample Identification:	CP68-W05	Analysis By:	C. Smith
Matrix:	Water	Dilution Factor:	1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
40	Fluorene	10	BQL
41	Hexachlorobenzene	10	BQL
42	Hexachlorobutadiene	10	BQL
43	Hexachlorocyclopentadiene	10	BQL
44	Hexachloroethane	10	BQL
45	Indeno (1, 2, 3-cd) pyrene	10	BQL
46	Isophorone	10	BQL
47	2-Methylnaphthalene	10	BQL
48	2-Methylphenol (o-cresol)	10	BQL
49	4-Methylphenol (p-cresol)	10	BQL
50	Naphthalene	10	BQL
51	2-Nitroaniline	50	BQL
52	3-Nitroaniline	50	BQL
53	4-Nitroaniline	50	BQL
54	Nitrobenzene	10	BQL
55	2-Nitrophenol	10	BQL
56	4-Nitrophenol	50	BQL
57	N-Nitroso-di-n-propylamine	10	BQL
58	N-Nitrosodiphenylamine	10	BQL
59	Pentachlorophenol	50	BQL
60	Phenanthrene	10	BQL
61	Phenol	10	BQL
62	Pyrene	10	BQL
63	1,2,4-Trichlorobenzene	10	BQL
64	2,4,5-Trichlorophenol	10	BQL
65	2,4,6-Trichlorophenol	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

TCLP REGULATED
BASE/NEUTRAL/ACID EXTRACTABLES
SW-846 METHOD 8270

IEA Project Number: 115-116(0)
 IEA Sample Number: 9409392-10
 Client Name: RUST Environ & Infrastructure
 Client Project I.D.: 32145 MARINE CORPS
 Sample Identification: CP68-DRCMP
 Matrix: Soil
 TCLP Extraction Date: 09/27/94
 Date Received: 09/23/94
 Date Sampled: 09/21/94
 Date Extracted: 09/29/94
 Date Analyzed: 10/04/94
 Analysis By: G. Smith
 Dilution Factor: 1.0

Number	Compound	Regulatory Level (mg/L)	Quantitation Limit (mg/L)	Results Concentration (mg/L)
1	1,4-Dichlorobenzene	7.5	0.020	BQL
2	2,4-Dinitrotoluene	0.13	0.020	BQL
3	Hexachlorobutadiene	0.5	0.020	BQL
4	Hexachloroethane	3.0	0.020	BQL
5	Total Cresol	200	0.020	BQL
6	Nitrobenzene	2.0	0.020	BQL
7	Pentachlorophenol	100	0.10	BQL
8	Pyridine	5.0	0.020	BQL
9	2,4,5-Trichlorophenol	400	0.020	BQL
10	2,4,6-Trichlorophenol	2.0	0.020	BQL
11	Hexachlorobenzene	0.13	0.020	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-12	Date Sampled:	09/22/94
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/28/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	09/30/94
Sample Identification:	CP68-EqBl	Analysis By:	C. Smith
Matrix:	Water	Dilution Factor:	1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
1	Acenaphthene	10	BQL
2	Acenaphthylene	10	BQL
3	Anthracene	10	BQL
4	Benzoic acid	50	BQL
5	Benzo(a)anthracene	10	BQL
6	Benzo(b)fluoranthene	10	BQL
7	Benzo(k)fluoranthene	10	BQL
8	Benzo(g,h,i)perylene	10	BQL
9	Benzo(a)pyrene	10	BQL
10	Benzyl alcohol	20	BQL
11	bis(2-Chloroethoxy)methane	10	BQL
12	bis(2-Chloroethyl)ether	10	BQL
13	bis(2-Chloroisopropyl)ether	10	BQL
14	bis(2-Ethylhexyl)phthalate	10	BQL
15	4-Bromophenyl phenyl ether	10	BQL
16	Benzyl butyl phthalate	10	BQL
17	4-Chloroaniline	20	BQL
18	2-Chloronaphthalene	10	BQL
19	4-Chloro-3-methylphenol	20	BQL
20	2-Chlorophenol	10	BQL
21	4-Chlorophenyl phenyl ether	10	BQL
22	Chrysene	10	BQL
23	Dibenzo(a,h)anthracene	10	BQL
24	Dibenzofuran	10	BQL
25	Di-n-butylphthalate	10	BQL
26	1,3-Dichlorobenzene	10	BQL
27	1,4-Dichlorobenzene	10	BQL
28	1,2-Dichlorobenzene	10	BQL
29	3,3'-Dichlorobenzidine	20	BQL
30	2,4-Dichlorophenol	10	BQL
31	Diethyl phthalate	10	BQL
32	2,4-Dimethylphenol	10	BQL
33	Dimethyl phthalate	10	BQL
34	4,6-Dinitro-2-methylphenol	50	BQL
35	2,4-Dinitrophenol	50	BQL
36	2,4-Dinitrotoluene	10	BQL
37	2,6-Dinitrotoluene	10	BQL
38	Di-n-octylphthalate	10	BQL
39	Fluoranthene	10	BQL

Industrial & Environmental Analysts, Inc. (IEA)
 BASE/NEUTRAL/ACID EXTRACTABLES SW-846 METHOD 8270

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-12	Date Sampled:	09/22/94
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/28/94
Client Project I.D.:	32145 MARINE CORPS	Date Analyzed:	09/30/94
Sample Identification:	CP68-EqB1	Analysis By:	C. Smith
Matrix:	Water	Dilution Factor:	1.0

Number	Compound	Quantitation Limit (ug/L)	Results Concentration (ug/L)
40	Fluorene	10	BQL
41	Hexachlorobenzene	10	BQL
42	Hexachlorobutadiene	10	BQL
43	Hexachlorocyclopentadiene	10	BQL
44	Hexachloroethane	10	BQL
45	Indeno(1,2,3-cd)pyrene	10	BQL
46	Isophorone	10	BQL
47	2-Methylnaphthalene	10	BQL
48	2-Methylphenol (o-cresol)	10	BQL
49	4-Methylphenol (p-cresol)	10	BQL
50	Naphthalene	10	BQL
51	2-Nitroaniline	50	BQL
52	3-Nitroaniline	50	BQL
53	4-Nitroaniline	50	BQL
54	Nitrobenzene	10	BQL
55	2-Nitrophenol	10	BQL
56	4-Nitrophenol	50	BQL
57	N-Nitroso-di-n-propylamine	10	BQL
58	N-Nitrosodiphenylamine	10	BQL
59	Pentachlorophenol	50	BQL
60	Phenanthrene	10	BQL
61	Phenol	10	BQL
62	Pyrene	10	BQL
63	1,2,4-Trichlorobenzene	10	BQL
64	2,4,5-Trichlorophenol	10	BQL
65	2,4,6-Trichlorophenol	10	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor and/or moisture correction factor where reported.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
 TCLP REGULATED PESTICIDES / PCBs
 SW-846 METHOD 8080

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-10	Date Sampled:	09/21/94
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/29/94
Client Project ID:	32145 MARINE CORPS	Date Analyzed:	10/05/94
Sample Identification:	CP68-DRCMP	Analysis By:	Dingess
Matrix:	Soil	Dilution Factor:	1.0
TCLP Extraction Date:	09/26/94		

Number	Compound	EPA Regulatory Level (mg/L)	Quantitation Limit (mg/L)	Results Concentration (mg/L)
1	gamma-BHC (Lindane)	0.4	0.00025	BQL
2	Heptachlor	0.008	0.00025	BQL
3	Heptachlor epoxide	0.008	0.00025	BQL
4	Endrin	0.02	0.00050	BQL
5	Methoxychlor	10	0.0025	BQL
6	Toxaphene	0.5	0.0050	BQL
7	Chlordane (technical)	0.03	0.0025	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor.

BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
 TCLP REGULATED PESTICIDES / PCBs
 SW-846 METHOD 8080

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409392	Date Sampled:	N/A
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/29/94
Client Project ID:	32145 MARINE CORPS	Date Analyzed:	10/04/94
Sample Identification:	QC Blank (PBLK54)	Analysis By:	Dingess
Matrix:	Water	Dilution Factor:	1.0
TCLP Extraction Date:	N/A		

Number	Compound	EPA Regulatory Level (mg/L)	Quantitation Limit (mg/L)	Results Concentration (mg/L)
1	gamma-BHC (Lindane)	0.4	0.00025	BQL
2	Heptachlor	0.008	0.00025	BQL
3	Heptachlor epoxide	0.008	0.00025	BQL
4	Endrin	0.02	0.00050	BQL
5	Methoxychlor	10	0.0025	BQL
6	Toxaphene	0.5	0.0050	BQL
7	Chlordane (technical)	0.03	0.0025	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor.

BQL = Below Quantitation Limit

Corresponding Samples: 9409390-10, -10SPK, TCLPBLK70

Industrial & Environmental Analysts, Inc. (IEA)
 TCLP REGULATED PESTICIDES / PCBs
 SW-846 METHOD 8080

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409392	Date Sampled:	N/A
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/29/94
Client Project ID:	32145 MARINE CORPS	Date Analyzed:	10/05/94
Sample Identification:	Method Blank (TCLPBLK70)	Analysis By:	Dingess
Matrix:	Water	Dilution Factor:	1.0
TCLP Extraction Date:	09/26/94		

Number	Compound	EPA Regulatory Level (mg/L)	Quantitation Limit (mg/L)	Results Concentration (mg/L)
1	gamma-BHC (Lindane)	0.4	0.00025	BQL
2	Heptachlor	0.008	0.00025	BQL
3	Heptachlor epoxide	0.008	0.00025	BQL
4	Endrin	0.02	0.00050	BQL
5	Methoxychlor	10	0.0025	BQL
6	Toxaphene	0.5	0.0050	BQL
7	Chlordane (technical)	0.03	0.0025	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor.

BQL = Below Quantitation Limit

Corresponding Samples: 9409390-10, -10SPK

Industrial & Environmental Analysts, Inc. (IEA)
TCLP PESTICIDE MATRIX SPIKE

IEA Project No: 115-116(0)
IEA Sample ID: 9409392
Date Extracted: 09/29/94
Date Analyzed: 10/05/94

COMPOUND	QUANTITATION LIMIT (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS % REC #
gamma-BHC (Lindane)	0.00025	BQL	82
Heptachlor	0.00025	BQL	>100
Heptachlor epoxide	0.00025	BQL	>100
Endrin	0.00050	BQL	>100
Methoxychlor	0.0025	BQL	>100
Toxaphene	0.0050	BQL	>100 *
Chlordane (technical)	0.0025	BQL	>100 *

Comments:

BQL = Below Quantitation Limit

*MS% Recovery for the multi-response pesticides is calculated as the average recovery of the single-response compounds (as per communication with the EPA Office of Solid Waste, Washington, D.C.)

Industrial & Environmental Analysts, Inc. (IEA)
 TCLP HERBICIDES REGULATED METHOD 8150

IEA Project Number:	115-116(0)	Date Received:	09/23/94
IEA Sample Number:	9409392-10	Date Sampled:	09/21/94
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/28/94
Client Project ID.:	32145 MARINE CORPS	Date Analyzed:	10/04/94
Sample Identification:	CP68-DRCMP	Analysis By:	Dingess
Matrix:	Soil	Dilution Factor:	1.0
TCLP Extraction Date:	09/26/94		

Number	Compound	EPA Regulatory Level (mg/L)	Quantitation Limit (mg/L)	Results Concentration (mg/L)
1	2,4-D	10	0.010	BQL
2	2,4,5-TP	1.0	0.0020	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor.
 BQL = Below Quantitation Limit

Industrial & Environmental Analysts, Inc. (IEA)
 TCLP HERBICIDES REGULATED METHOD 8150

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409392	Date Sampled:	N/A
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/28/94
Client Project ID.:	32145 MARINE CORPS	Date Analyzed:	10/04/94
Sample Identification:	QC Blank (HB436)	Analysis By:	Dingess
Matrix:	Water	Dilution Factor:	1.0
TCLP Extraction Date:	N/A		

Number	Compound	EPA	Quantitation	Results
		Regulatory Level (mg/L)	Limit (mg/L)	Concentration (mg/L)
1	2,4-D	10	0.010	BQL
2	2,4,5-TP	1.0	0.0020	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409392-10, -10SPK, TCLPBLK70

Industrial & Environmental Analysts, Inc. (IEA)
TCLP HERBICIDES REGULATED METHOD 8150

IEA Project Number:	115-116(0)	Date Received:	N/A
IEA Sample Number:	9409392	Date Sampled:	N/A
Client Name:	RUST Environ & Infrastructure	Date Extracted:	09/28/94
Client Project ID.:	32145 MARINE CORPS	Date Analyzed:	10/04/94
Sample Identification:	Method Blank (TCLPBLK70)	Analysis By:	Dingess
Matrix:	Water	Dilution Factor:	1.0
TCLP Extraction Date:	09/26/94		

Number	Compound	EPA	Quantitation	Results
		Regulatory Level (mg/L)		
1	2,4-D	10	0.010	BQL
2	2,4,5-TP	1.0	0.0020	BQL

Comments:

Sample specific quantitation limits may be calculated by multiplying the quantitation limit by the dilution factor.

BQL = Below Quantitation Limit

N/A = Not Applicable

Corresponding Samples: 9409392-10, -10SPK

TCLP HERBICIDE MATRIX SPIKE

IEA Project Number: 115-116(0)
 IEA Sample ID: 9409392
 Date Extracted: 09/28/94
 Date Analyzed: 10/04/94

COMPOUND	QUANTITATION LIMIT (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS # REC #
2,4-D	0.010	BQL	88
2,4,5-TP	0.0020	BQL	81

Comments:

BQL = Below Quantitation Limit



IEA

An Aquarion Company

3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-677-0090
FAX # 919-677-0427

CHAIN OF CUSTODY RECORD

REGULATORY CLASSIFICATION - PLEASE SPECIFY

NPDES DRINKING WATER RCRA OTHER

NO: 46317

COMPANY:
RUST ENVIRONMENT + INFRASTRUCTURE
5510 SIX FORKS RD., RALEIGH, NC 27609

Please Fax Results to Bill Brewer
(919) 676-5119 (phone) / (919) 676-5259 (fax)

Page 1 of 2

PROJECT #		PROJECT NAME		# OF CONTAINERS	REQUESTED PARAMETERS													
32145.000		Cherry Point, site 68			MATRIX	RCRA METALS	PH	T-CN	TPH-GC	8240	TPH-IR	8270 BNA						
SAMPLERS	(SIGNATURE)	DATE	TIME		SOIL	WATER												
CP68-S01		9/20/94	1645	7	✓													
CP68-W01		9/20/94	1730	13	✓				4	3	2							
CP68-S02		9/21/94		7	✓													
CP68-W02		9/21/94	0830	14	✓				5	3	2							
CP68-S03		9/21/94	1010	7	✓													
CP68-S04		9/21/94	1100	6	✓													
CP68-S04A		9/21/94	1045	1	✓					1								
RECEIVED BY (SIGNATURE)		DATE	TIME	RECEIVED BY (SIGNATURE)		DATE	TIME	IEA QUOTE NO.		IEA RUSH NO.								
J. Steg		9/15/94						W5409183										
RECEIVED BY (SIGNATURE)		DATE	TIME	RECEIVED FOR LAB BY (SIGNATURE)		DATE	TIME	PROJECT MANAGER (PLEASE PRINT)		P.O. NO.								
K. L. Hall		9/22/94	1618	M. Underkepk		9/22/94	1618											
REMARKS ON SAMPLE RECEIPT				LAB REMARKS				FIELD REMARKS										
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> PRESERVED <input checked="" type="checkbox"/> CHILLED				<input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS				3°, 3°, 2°, 4°C										

CP-00884-1.05-10/24/94



IEA

An Aquarion Company

3000 WESTON PKWY.
CARY, N.C. 27513
PH # 919-877-0090
FAX # 919-877-0427

CHAIN OF CUSTODY RECORD

NO: 46319

REGULATORY CLASSIFICATION - PLEASE SPECIFY

NPDES DRINKING WATER RCRA OTHER _____

COMPANY:
RUST Environment + Infrastructure
5510 Six Forks Rd., Raleigh, NC 27609

Please Fax Results to Bill Bremen
(919) 676-5119 (Phone) / (919) 676-5259 (Fax)

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PROJECT		SITE NAME		# OF CONTAINERS	REQUESTED PARAMETERS																								
32145.000		Cherry Point, Side 68			SOIL	WATER	ROA Metals	PH	T-CN	TPH-GC	8240	TPH-IR	8270 BNA	TCLP															
SAMPLERS: (SIGNATURE)	DATE	TIME	START LOCATION																										
CP68-W04	9-21-94	1330		15	✓		1	1	1	5	3	2	2																
CP68-W05	9-22-94	0815		15	✓		1	1	1	5	3	2	2																
CP68-PRCMP	9-21-94	1555	✓	4	✓									4															
TRIP BLANK	-	-		3	✓						32																		
CP68-Eg BL	9-22-94	0745	✓	12	✓		1	1	1	2	3	2	2																
RELINQUISHED BY (SIGNATURE)				DATE	TIME	RECEIVED BY				DATE	TIME	IEA QUOTE NO.		IEA RUSH NO.															
[Signature]				9/15/94								W5LUSIU3																	
RELINQUISHED BY (SIGNATURE)				DATE	TIME	RECEIVED FOR LAB BY				DATE	TIME	PROJECT MANAGER (PLEASE PRINT)		P.O. NO.															
[Signature]				9/22/94	1618	Wander Wade				9/22/94	1618																		
REMARKS ON SAMPLE RECEIPT										IEA REMARKS										FIELD REMARKS									
<input checked="" type="checkbox"/> BOTTLE INTACT <input checked="" type="checkbox"/> PRESERVED <input checked="" type="checkbox"/> CHILLED										<input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS										30, 30, 20, 40									
																				1 Trip blank 8240 cracked.									

CP-00884-1.05-10/24/94