Nevada
Environmental
Restoration
Project

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Closure Report

Nevada Test Site Underground
Storage Tank Number 12-13-1:
Nevada Division of Emergency
Management Number H931130E
Corrective Action Unit 450

January 1997

Environmental Restoration
Division

U.S. Department of Energy
Nevada Operations Office

CLOSURE REPORT

***NEVADA TEST SITE UNDERGROUND STORAGE
TANK NUMBER 12-13-1:
NEVADA DIVISION OF EMERGENCY MANAGEMENT
CASE NUMBER H931130E
CORRECTIVE ACTION UNIT 450***

January 1997

*Prepared for
U.S. Department of Energy
Environmental Restoration Division*

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*Prepared by
Bechtel Nevada
Remediation Projects*

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ABBREVIATIONS AND ACRONYMS

ASL	Analytical Services Laboratory
BN RP	Bechtel Nevada Remediation Projects
CFR	Code of Federal Regulations
CGA	Combustible Gas Analyzer
DOE/NV	U. S. Department of Energy/Nevada Operations Office
EPA	U. S. Environmental Protection Agency
ERD	Environmental Restoration Division
HPT	Health Protection Technician
LEL	Lower Explosive Limit
mg/kg	milligrams per kilogram
mg/l	milligrams per liter
NAC	Nevada Administrative Code
NDEP	Nevada Division of Environmental Protection
NTS	Nevada Test Site
OVM	Organic Vapor Monitor
PCB	Polychlorinated Biphenyl
ppb	parts per billion
ppm	part per million
RCRA	Resource Conservation and Recovery Act
REEC _o	Reynolds Electrical & Engineering Co., Inc.
semi-VOCs	semivolatile organic compounds
TPH	Total Petroleum Hydrocarbons
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

1.0 INTRODUCTION

1.1 INTRODUCTION

The project site was identified as an abandoned Underground Storage Tank (UST) to be closed under the Department of Energy/Nevada Operations Office (DOE/NV) Environmental Restoration Division (ERD) Program during Fiscal Year 1993. The United States Environmental Protection Agency (EPA) requires that before permanent closure is completed an assessment of the site must take place (U.S. EPA 1994b). The Nevada Division of Environmental Protection (NDEP) requires assessment and corrective actions for a petroleum substance in the soil which exceeds 100 milligrams per kilogram (mg/kg)(NAC 1992b).

Subsequent to the tank removal, a hydrocarbon release was identified at the site. The release was reported to the NDEP by DOE/NV on November 30, 1993. Nevada Division of Environmental Management (NDEM) Case Number H931130E was assigned. This final closure report documents the assessment and corrective actions taken for the hydrocarbon release identified at the site. The Notification of Closure, EPA Form 7530-1 dated March 22, 1994, is provided in Appendix A. A 45-day report documenting the notification for a hydrocarbon release was submitted to NDEP on April 6, 1994 (REECo, 1994).

1.2 PURPOSE AND SCOPE

The purpose and scope of work for tank closure activities includes evaluating site conditions, closing the tank in accordance with all applicable regulations, and preparation of this report of findings. Closure of the UST site 12-13-1 was accomplished by completing the following activities:

- collection of a representative sample of the tank contents for laboratory analyses;
- removal and disposal of tank contents according to applicable regulations;
- excavation and removal of the tank and associated pipes;
- collection of soil samples at the bottom ends of the tanks for laboratory analyses to evaluate site conditions;
- segmentation and cleaning of the tank interior;
- collection and disposal of the rinseate generated from equipment and tank cleaning activities according to applicable regulations;
- crushing and disposal of the cleaned tank in a Class II Sanitary Landfill at the Nevada Test Site (NTS);

- evaluation of the laboratory analytical results; and
- preparation of closure documentation for submission by DOE/NV to the NDEP.

1.3 SITE DESCRIPTION

The abandoned tank was located at the Area 12 Boiler House (Building 12-13) at the NTS, Nevada (Figure 1). The 5,680 liter (1,500 gallons) steel tank provided diesel fuel for a boiler located in Building 12-13. The tank was situated along the north side of the building (Figure 2). Approximate Nevada Coordinates for the site are N890,000 and E650,000 (from NTS Road and Facility Map, Holmes and Narver, 1986 update). Records indicate the tank was installed in February, 1962. No records were located identifying when the tank was no longer in service. The nearest water well (Well No. 8) is located approximately 12 kilometers (7.5 miles) southeast of the site (RSN, 1986). Depth to water in Well No. 8 is approximately 327 meters (1,073 feet) below the land surface.

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FIGURE 1 - SITE LOCATION

SOURCE: USGS RAINIER MESA, NEVADA 7.5 MINUTE QUADRANGLE, 1986

ERUSTP2/1213-E
and
12-13-1/E

TANK 12-13-1

ERUSTP2/1213-W

BUILDING
12-13
BOILER
HOUSE

CHANGE
HOUSE
12-43

CHANGE
HOUSE
12-2

ACCESS DRIVE

PARKING LOT

LEGEND

- = Sample Location
- = Tank Excavation

Scale (feet)

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FIGURE 2 - TANK EXCAVATION & SAMPLE LOCATIONS

2.0 TANK CLOSURE ACTIVITIES

2.1 PRODUCT MANAGEMENT

2.1.1 TANK SAMPLING AND RESULTS

The tank was inspected and sampled on September 16, 1992. It was found to contain 71 cm (28 inches) of fluid which consisted of 63.5 cm (25 inches) of fuel product and 7.62 cm (three inches) of water. Since no documentation or physical controls for management of the tank contents (locks or security seals) were observed, process knowledge could not be used to characterize the tank contents. Samples were obtained using a new Coliwasa Sampler for both the organic and aqueous phase and analyzed for:

- Volatile Organic Compounds (VOCs), U.S. EPA Method 8240;
- Semi-VOCs, U.S. EPA Method 8270;
- Total Metals, U.S. EPA Method 6010
- Polychlorinated Biphenyls (PCBs), U.S. Method 8080;
- Total Petroleum Hydrocarbons (TPH), U.S. EPA Method 8015, Modified;
- pH, U.S. EPA Method 9040/9045;
- Flashpoint, U.S. EPA Method 1010; and
- Gamma Activity, Reynolds Electrical and Engineering Company (REECo) Counting and Instrumentation Procedure.

The samples were placed into clean, laboratory-supplied jars with Teflon lids, sealed and labeled prior to cooling to approximately four degrees centigrade in an ice chest. The samples were transported to the REECo Analytical Services Laboratory (ASL) in Mercury, Nevada, following standard chain-of-custody procedures. The REECo Laboratory was the predecessor to Bechtel Nevada (BN) Analytical Services.

2.1.2 PRODUCT REMOVAL AND DISPOSAL

Laboratory analytical results (Table 1 and Appendix B) indicated that the product within the tank was primarily diesel fuel (913,000 milligrams per liter [mg/l]). An estimated 3,785 liters (1,000 gallons) of product was removed from the tank on September 22, 1993. It was transported as a combustible liquid waste by Rollins Custom Environmental Transport to Los Angeles, California for recycling. Laboratory data packages are provided in Appendix B. Laboratory analytical results are summarized in Table 1. A copy of Waste Manifest Number 93221 is included in Appendix C.

Approximately 94 liters (25 gallons) of product remained in the tank and was pumped into a 208 liter (55 gallon) drum on October 20, 1993. The drum contents contained low concentrations of gasoline; therefore, it could not be disposed of in the Area 6 Hydrocarbon Landfill. The drum was removed on April 25, 1995 by the REEC Co Waste Management Department as hazardous waste. A copy of Waste Manifest Number 95086 is included in Appendix C.

2.2 SOIL EXCAVATION AND TANK REMOVAL

Prior to the start of tank excavation activities, the site was cleared for subsurface utilities by reviewing engineering drawings, when available, and the use of Goldak metal detection equipment. Hand excavation was used to confirm the location of suspected utilities prior to excavating with a backhoe. Hand excavation was done using non-sparking shovels, picks, etc.

Before excavation began, the interior atmosphere of the tank was made inert using nitrogen gas. A Combustible Gas Analyzer (CGA) was used to confirm that a lower explosive limit (LEL) of less than 20 percent and an oxygen (O₂) content of less than seven percent was achieved. The backhoe and tank were electrically grounded during all excavation activities.

The tank excavation and removal occurred on October 20, 1993. A backhoe was used to excavate sufficient soil above and around the tank to allow for removal with a crane. The tank was marked with spray paint to indicate the NTS Tank Number. A radiologic "Green Tag" was issued to indicate that the tank was screened and found to be below radiological release limits prior to transporting to the NTS U10c Landfill Segmentation Pad. Soils that were removed from the excavation were placed on plastic. The pile was covered with plastic and secured with sandbags at the end of each work day.

2.2.1 SAMPLING ACTIVITIES

Prior to sample collection, the backhoe bucket was steam cleaned over a 208 liter (55 gallon) drum to contain the rinseate. The backhoe bucket was also cleaned between each sample point to reduce the potential of cross-contamination. A sample of the rinseate was collected on October 20, 1993.

Soil samples were collected on October 20, 1993 from beneath the tank at each end at a depth of 2.7 meters (nine feet). The samples were collected approximately 0.3 meters (one foot) below the tank bottom. Samples were analyzed for TPH using U.S. EPA Method 8015, Modified. A headspace sample was also collected at each sample location. Soil samples were collected from the clean backhoe bucket using a stainless steel scoop.

The soil pile that was generated during the excavation was sampled on November 9, 1993. One composite soil sample from three locations within the pile was collected using a stainless steel hand auger at an approximate depth of 0.9 meters (three feet) into the pile. The sample was analyzed for TPH using U.S. EPA Method 8015, Modified.

The samples were placed into clean, laboratory-supplied jars with Teflon lids, sealed and labeled prior to cooling to approximately four degrees centigrade in an ice chest. The samples were subsequently transported to the REEC Co ASL, Mercury, Nevada, following standard chain-of-custody procedures. The REEC Co Laboratory was the predecessor to the (BN) Analytical Services.

TABLE 1 - SUMMARY OF ANALYTICAL RESULTS FOR TANK CLOSURE ACTIVITIES

SAMPLE NUMBER & DESCRIPTION	DATE SAMPLED	TOTAL PETROLEUM HYDROCARBONS ^a (mg/kg or mg/l)			VOLATILE ORGANIC COMPOUNDS ^b (mg/l)	SEMI-VOLATILE ORGANIC COMPOUNDS ^c (mg/l)	POLY- CHLORINATED BIPHENYLS ^d (mg/l)	TOTAL METALS ^e (mg/l)	FLASH- POINT ^f (°F)
		DIESEL	GAS	OIL					
12-13-1-TK (tank contents -organic phase)	9/16/92	913,000	167	<10.0	Benzene 110 Toluene 690 Ethylbenzene 410 Total Xylene 1,690	2-Methyl- naphthalene 1.0	<2.5	Mercury 0.02	189
12-13-1-TK (tank contents - aqueous phase)	9/16/92	14,200	24	<0.5	Acetone 0.310 2-Butanone 0.094 Benzene 0.180 Toluene 0.340 Ethylbenzene 0.076 Total Xylene 0.340	ND	NA	ND	164
ERUSTP2/ 1213-W (west bottom)	10/20/93	<10.0	<5.0	<10.0	NA	NA	NA	NA	NA
ERUSTP2/ 1213-E (east bottom)	10/20/93	116	<5.0	<10.0	NA	NA	NA	NA	NA
12-13/PILE (soil pile sample)	11/9/93	671	<5.0	<10.0	NA	NA	NA	NA	NA
ERUSTP2/1213- RINSE (rinseate sample)	10/20/93	0.730	<5.0	<0.5	NA	NA	NA	NA	NA

Notes:

^A United States Environmental Protection Agency (US EPA) Method SW-846, 8015 (Modified)

^B US EPA Method 8240

^C US EPA Method 8270

^D US EPA Method 8080

^E US EPA Method 6010

^F Pensky Martin Method

NA-Not analyzed

ND - Not detected

°F - degrees Fahrenheit

mg/kg - milligrams per kilogram

mg/l - milligrams per liter

Action Levels:

Total Petroleum Hydrocarbons: Nevada Administrative Code 459.9973 TPH Action Level of 100 parts per million.

2.2.2 ANALYTICAL RESULTS

The rinseate generated from decontaminating the backhoe bucket contained TPH as diesel at a concentration of 0.730 mg/l (Sample ERUSTP2/1213-RINSE). TPH as diesel were detected in the soil sample from the east end of the excavation bottom at a concentration of 116 mg/kg (Sample ERUSTP2/1213-E). TPH as diesel were not detected (< 10 mg/kg) in the sample collected from the west excavation bottom (Sample ERUSTP2/1213-W). Laboratory analytical results are summarized in Table 1.

The soil pile sample had a TPH concentration as diesel of 671 mg/kg (12-13/PILE). TPH as gasoline and oil were not detected in the soil samples collected below the tank bottom or stockpile (Table 1).

2.2.3 OBSERVATIONS

The overall integrity of the tank appeared good. No dents, holes or pits were observed. Hydrocarbon odors were not observed. Soils removed from the excavation were slightly moist and well graded. Field notes are provided in Appendix D.

Headspace readings were collected using a Thermo Environmental Instruments, Inc., organic vapor monitor (OVM) Model 580B using an 11.8 electron volt lamp. The OVM was calibrated to 100 parts per million (ppm) Isobutylene at the beginning of each field day. The readings were collected by placing approximately 100 grams of soil into an airtight bag. After approximately 30 minutes the OVM tip was inserted into the bag to measure the volatile headspace. The highest reading was then documented in the field notebook. The sample taken at the west end of the excavation was less than six ppm and the sample taken at the east end of the excavation was less than five ppm. The headspace reading from the soil pile was 17.1 ppm. Field notes are provided in Appendix D.

2.2.4 BACKFILL

The excavation was backfilled on October 20, 1993 to preserve the structural integrity of Building 12-13 which was slightly undermined during the excavation and tank removal. Pea gravel was used to fill the excavation.

2.3 SPILL NOTIFICATION REPORT

The sample from beneath the east end of the tank exceeded the NAC 459.9973 Action Level of 100 mg/kg TPH. Notification of the release was reported to the NDEP by DOE/NV on November 30, 1993 and NDEM Case Number H931130E was assigned. The Spill Notification Report is provided in Appendix E.

3.0 REMEDIAL ACTIVITIES

3.1 EXCAVATION AND SAMPLING ACTIVITIES

The pea gravel that was used to backfill the excavation on October 20, 1993 was removed from above and around the tank and piping on December 7 and 8, 1994. Approximately 5.4 cubic meters (seven cubic yards) of impacted soil were removed from the east end of the excavation on December 8, 1994. The impacted soils were stockpiled on plastic adjacent to the tank excavation and kept separate from the pea gravel. Soil was covered with plastic and secured with sandbags at the end of each day.

One soil sample was collected from below the east end of the tank at a depth of approximately three meters (ten feet) below ground surface. This sample was taken to verify the removal of all impacted soils. One composite sample from two random locations was collected from the soil stock pile for characterization. Both samples were collected on December 8, 1994. Samples were analyzed for TPH as diesel using EPA Method 8015 Modified.

Samples were collected using a clean stainless steel scoop. They were placed into clean laboratory-supplied jars with Teflon lids, sealed and labeled prior to cooling to approximately four degrees centigrade in an ice chest. The samples were transported to the REEC Co Laboratory in Mercury, Nevada, following standard chain-of-custody procedures.

3.2 ANALYTICAL RESULTS

TPH as diesel were not detected above the laboratory detection limit (< 10 mg/kg) for soil sample 12-13-1/E collected from the east excavation bottom. The sample taken from the soil pile (12-13-1/SP1) had a diesel concentration of 20 mg/kg. The laboratory analytical data is provided in Appendix B (ACS Packet No. FY94-12-021).

3.3 OBSERVATIONS

Excavated soil consisted of damp, gravelly sand to sandy gravel. No hydrocarbon odors or soil staining was observed. Field notes documenting remedial activities are found in Appendix D.

3.4 BACKFILL

The tank excavation was backfilled for the second time on March 21, 1995 with the pea gravel that was removed from the excavation on December 7 and 8, 1994. The excavation was capped with nearby clean native soils. Associated tank piping was cut and sealed with grout.

4.0 RESIDUALS MANAGEMENT

4.1 SOIL DISPOSAL

The soil pile generated during the tank removal excavation on October 20, 1993, consisted of approximately 30.6 cubic meters (40 cubic yards). It was removed from the site on January 31, 1994, and transported to the Area 6 Hydrocarbon Landfill for disposal. The soil pile generated during the remedial activities on December 8, 1994, consisted of approximately 5.4 cubic meters (7 cubic yards). It was removed from the site May 4, 1995, and transported to the Area 6 Hydrocarbon Landfill for disposal. Soil disposal documentation is provided in Appendix F.

4.2 TANK SEGMENTATION, CLEANING, AND DISPOSAL

Tank 12-13-1 was segmented using explosive cutting tape on February 22, 1994. Prior to segmentation, the tank was confirmed to be inert using a CGA. After the tank was opened, it was cleaned using high pressure hot water. The rinseate was placed in new or reconditioned 208 liter (55-gallon) drums. Once clean, the tank was subsequently crushed and buried in the NTS U10c Class II sanitary landfill.

4.3 RINSEATE DISPOSAL

The rinseate from the sampling activities conducted on October 20, 1993, was removed from the site on December 1, 1994 and pumped into the Area 23 Sewage Lagoon System. Rinseate generated from the cleaning of the interior of the tank was solidified and transported to the Area 6 Hydrocarbon Landfill for disposal on April 3, 1995.

5.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 SUMMARY

Analytical results from the soil sample collected below the tank on the east end on October 20, 1993, exceeded the NAC Action Level of 100 mg/kg. A diesel concentration of 116 mg/kg was detected at a depth of 2.7 meters (nine feet) below ground surface.

Additional excavation and characterization was conducted on December 7 and 8, 1994. Approximately 3.8 cubic meters (five cubic yards) of hydrocarbon impacted soil was removed from the eastern portion of the excavation. TPH as diesel concentrations from the remedial excavation was not detected in the bottom sample collected.

An approximate total of 36 cubic meters (47 cubic yards) of soil generated from the tank removal and remediation activities were disposed of into the Area 6 Hydrocarbon Landfill.

5.2 CONCLUSIONS AND RECOMMENDATIONS

Based on analytical results, soils with elevated hydrocarbon concentrations detected in the vicinity of Tank 12-13-1 were excavated during the remedial activities. The site is recommended to be closed without further action based upon the site observations and analytical data collected from the additional soil excavation and characterization.

6.0 REFERENCES

Holmes and Narver, 1986, NTS Road and Facility Map, 1986 Update

NAC 1992a, Nevada Administrative Code, Chapter 459, Hazardous Materials, Storage Tanks, 459.9972(4)(a).

NAC 1992b, Nevada Administrative Code, Chapter 459, Hazardous Materials, Storage Tanks, 459.9973.

NAC 1994, Nevada Administrative Code, Chapter 459, Water Controls, Notification of Release of Pollutant, 459A.347.

REEC Co, 1994, 45-Day Report For Nevada Division of Emergency Management (NDEM) Case Number H931130E, Area 12 Boiler House, Underground Storage Tank Number 12-13-1, Reynolds Electrical & Engineering, Co., March 31, 1994.

RSN, 1986, Nevada Site Development Plan, Part I, May 1986.

U.S. EPA, 1994a, Code of Federal Regulations, 40 CFR 280.71, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks, Permanent Closure and Changes-in-Service.

U.S. EPA, 1994b, Code of Federal Regulations 40 CFR 280.72, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks, Assessing the Site at Closure or Change-in-Service.

U.S. EPA, 1994c, Code of Federal Regulations 40 CFR 280.50 and 280.53, Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks, Subpart E - Release Reporting, Investigation, and Confirmation.

APPENDIX A

**NOTIFICATION OF CLOSURE
ENVIRONMENTAL PROTECTION AGENCY
FORM 7530-1**

Reynolds Electrical & Engineering Co., Inc.

Post Office Box 98521 • Las Vegas, NV 89193-8521

IN REPLY REFER TO:
592-07-19

March 22, 1994

Donald R. Elle, Director
Environmental Protection Division
DOE Nevada Operations Office
Post Office Box 98518
Las Vegas, NV 89193-8518

NOTIFICATION OF CLOSURE FOR TWELVE ENVIRONMENTAL RESTORATION PROGRAM ABANDONED UNDERGROUND STORAGE TANKS (USTs)

Enclosed is the Environmental Protection Agency Form 7530-1, Notification for Underground Storage Tanks, which identifies twelve abandoned USTs that were permanently closed by removal prior to March 24, 1994. The tanks were required to be removed within one year of the March 24, 1993, notification to the Nevada Division of Environmental Protection (NDEP). The permanently closed tanks are:

11-1-1	12-8-1	12-8-2	12-9-1
12-9-2	12-13-1	23-110-1	23-112-1
25-3102-3	25-3205-1	27-5170-1	27-5310-1

Copies of the laboratory analytical results of soil samples collected below the bottom end of the tanks are enclosed and summarized in Table 1. Analytes for the soil samples were determined from evaluation of the analytical results from the contents of each of the tanks (example: Tank 11-1-1 contained diesel fuel with volatile organic compounds and metals not normally associated with diesel fuels [1,1,1-Trichloroethane and Mercury]; therefore the soil was analyzed for volatile organic compounds and Toxicity Characteristic Leaching Procedure metals). For tanks 12-8-1, 12-8-2, 12-9-1, and 12-9-2, additional analytes were requested at the time of the sampling of the soil because characterization of the tanks' content were not completed at the time of the soil sampling.

NDEP has been notified that 12-13-1, 25-3102-3, 27-5310-1, and 27-5170-1 tank sites have Total Petroleum Hydrocarbon concentrations in soil, which exceed the 100 mg/kg Action Level. Additional soil sampling at the indicated sites is required to evaluate site conditions. Work Plans are being developed for these sites.

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Donald R. Elle
592-07-19
Page 2
March 22, 1994

If you have any questions, please contact Dave Madsen at 295-7211.

Robert L. Dodge, Manager
Environmental Restoration &
Technology Development Department

RLD:DDM:ap

Enclosure
As stated

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ENVIRONMENTAL RESTORATION PROGRAM
ABANDONED UNDERGROUND STORAGE TANKS (PHASE 2 - FY93)
NOTIFICATION FOR UNDERGROUND STORAGE TANKS

Notification for Underground Storage Tanks		STATE USE ONLY
State Agency Name and Address Carson City, Capitol Complex, 201 S. Fall St., Nevada 89710		ID NUMBER
TYPE OF NOTIFICATION		DATE RECEIVED
☐ A. NEW FACILITY ☐ B. AMENDED ☒ C. CLOSURE		A. Date Entered Into Computer
122 No. of tanks at facility 6 No. of continuation sheets attached		B. Data Entry Clerk Initials
INSTRUCTIONS		C. Owner Was Contacted to
Please type or print in ink all items except "signature" in section V. This form must be completed for each location containing underground storage tanks. If more than five (5) tanks are owned at this location, photocopy the following sheets, and staple continuation sheets to the form.		Clarify Responses. Comments

GENERAL INFORMATION

Notification is required by Federal law for all underground tanks that have been used to store regulated substances since January 1, 1974, that are in the ground as of May 8, 1986, or that are brought into use after May 8, 1986. The information requested is required by Section 9002 of the Resource Conservation and Recovery Act, (RCRA), as amended.

The primary purpose of this notification program is to locate and evaluate underground tanks that store or have stored petroleum or hazardous substances. It is expected that the information you provide will be based on reasonably available records, or in the absence of such records, your knowledge, belief, or recollection.

Who Must Notify? Section 9002 of RCRA, as amended, requires that, unless exempted, owners of underground tanks that store regulated substances must notify designated State or local agencies of the existence of their tanks. Owner means—

a) in the case of an underground storage tank in use on November 8, 1984, or brought into use after that date, any person who owns an underground storage tank used for the storage, use, or dispensing of regulated substances, and

b) in the case of any underground storage tank in use before November 8, 1984, but no longer is use on that date, any person who owned such tank immediately before the discontinuation of its use.

c) if the State agency so requires, any facility that has undergone any changes to facility information or tank system status (only amended tank information needs to be included).

What Tanks Are Included? Underground storage tank is defined as any one or combination of tanks that (1) is used to contain an accumulation of "regulated substances," and (2) whose volume (including connected underground piping) is 10% or more beneath the ground. Some examples are underground tanks storing: 1. Gasoline, used oil, or diesel fuel, and 2. industrial solvents, pesticides, herbicides or fumigants.

What Tanks Are Excluded? Tanks removed from the ground are not subject to notification. Other tanks excluded from notification are:

1. farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;

2. tanks used for storing heating oil for consumptive use on the premises where stored;

3. septic tanks;
4. pipeline facilities (including gathering lines) regulated under the Natural Gas Pipeline Safety Act of 1968, or the Hazardous Liquid Pipeline Safety Act of 1979, or which is an intrastate pipeline facility regulated under State laws;
5. surface impoundments, pits, ponds, or lagoons;
6. storm water or waste water collection systems;
7. flow-through process tanks;
8. liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
9. storage tanks situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

What Substances Are Covered? The notification requirements apply to underground storage tanks that contain regulated substances. This includes any substance defined as hazardous in section 101 (14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), with the exception of those substances regulated as hazardous waste under Subtitle C of RCRA. It also includes petroleum, e.g., crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).

Where To Notify? Send completed forms to:

When To Notify? 1. Owners of underground storage tanks in use or that have been taken out of operation after January 1, 1974, but still in the ground, must notify by May 8, 1986. 2. Owners who bring underground storage tanks into use after May 8, 1986, must notify within 30 days of bringing the tanks into use. 3. If the State requires notification of any amendments to facility send information to State agency immediately.

Penalties: Any owner who knowingly fails to notify or submits false information shall be subject to a civil penalty not to exceed \$10,000 for each tank for which notification is not given or for which false information is submitted.

I. OWNERSHIP OF TANK(S)

Owner Name (Corporation, Individual, Public Agency, or Other Entity)

DOE Nevada Operations Office

Street Address

Post Office Box 98518

City State ZIP Code
Las Vegas Nv 89193-8518

County
Clark

Phone Number (Include Area Code)

(702) 295-1860

II. LOCATION OF TANK(S)

If required by State, give the geographic location of tanks by degrees, minutes, and seconds. Examples Lat. 42, 36, 12 N Long. 85, 24, 17 W

Latitude Not applicable Longitude Not Applicable

(If same as Section I, mark box here ☐)

Facility Name or Company Site Identifier, as applicable

Nevada Test Site

Street Address (P.O. Box not acceptable)

Highway 95

City State Zip code
Mercury Nv 89093

County Municipality
Nye

III. TYPE OF OWNER		IV. AN LANDS Not Applicable				
☒ Federal Government ☐ State Government ☐ Local Government	☐ Commercial ☐ Private	Tanks are located on land within an Indian Reservation or on other trust lands. ☐ Tanks are owned by native American nation, tribe, or individual. ☐	Tribe or Nation: _____ _____			
V. TYPE OF FACILITY						
Select the Appropriate Facility Description						
_____ Gas Station _____ Petroleum Distributor _____ Air Taxi (Airline) _____ Aircraft Owner _____ Auto Dealership	_____ Railroad <u>XX</u> Federal - Non-Military _____ Federal - Military _____ Industrial _____ Contractor	_____ Trucking/Transport _____ Utilities _____ Residential _____ Farm _____ Other (Explain) _____				
VI. CONTACT PERSON IN CHARGE OF TANKS						
Name	Job Title	Address	Phone Number (Include Area Code)			
D.R. Elle	Director	Env. Protection Division Post Office Box 98518 Las Vegas, Nv 89193-8518	(702) 295-1433			
VII. FINANCIAL RESPONSIBILITY						
I have met the financial responsibility requirements in accordance with 40 CFR Subpart H			Exempt			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; vertical-align: top;"> Check All that Apply ☐ Self Insurance ☐ Commercial Insurance ☐ Risk Retention Group </td> <td style="width: 33%; vertical-align: top;"> ☐ Guarantee ☐ Surety Bond ☐ Letter of Credit </td> <td style="width: 33%; vertical-align: top;"> ☐ State Funds ☐ Trust Fund ☐ Other Method Allowed Specify _____ </td> </tr> </table>				Check All that Apply ☐ Self Insurance ☐ Commercial Insurance ☐ Risk Retention Group	☐ Guarantee ☐ Surety Bond ☐ Letter of Credit	☐ State Funds ☐ Trust Fund ☐ Other Method Allowed Specify _____
Check All that Apply ☐ Self Insurance ☐ Commercial Insurance ☐ Risk Retention Group	☐ Guarantee ☐ Surety Bond ☐ Letter of Credit	☐ State Funds ☐ Trust Fund ☐ Other Method Allowed Specify _____				
VIII. CERTIFICATION (Read and sign after completing all sections)						
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.						
Name and official title of owner or owner's authorized representative (Print)	Signature	Date Signed				
Donald R. Elle, Director						
EPA estimates public reporting burden for this form to average 30 minutes per response including time for reviewing instructions, gathering and maintaining the data needed and completing and reviewing the form. Send comments regarding this burden estimate to Chief, Information Policy Branch PM-223, U.S. Environmental Protection Agency, 401 M Street, Washington D.C. 20460, marked "Attention Desk Officer for EPA." This form amends the previous notification form as printed in 40 CFR Part 280, Appendix I. Previous editions of this notification form may be used while supplies last.						

IX. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification Number	Tank No. _____	Tank No. _____	Tank No. _____	Tank No. _____	Tank No. _____
1. Status of Tank (mark only one)					
Currently in Use	☐	☐	☐	☐	☐
Temporarily Out of Use (Remember to fill out section X.)	☐	☐	☐	☐	☐
Permanently Out of Use (Remember to fill out section X.)	☒	☒	☒	☒	☒
Amendment of Information	☐	☐	☐	☐	☐
2. Date of Installation (mo./year)	12/61	3/68	3/68	11/60	11/60
3. Estimated Total Capacity (gallons)	125 Est.	10,000 Est.	10,000 Est.	10,000 Est.	10,000 Est.
4. Material of Construction (Mark all that apply)					
Asphalt Coated or Bare Steel	☒	☒	☒	☒	☒
Cathodically Protected Steel	☐	☐	☐	☐	☐
Epoxy Coated Steel	☐	☐	☐	☐	☐
Composite (Steel with Fiberglass)	☐	☐	☐	☐	☐
Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
Lined Interior	☐	☐	☐	☐	☐
Double Walled	☐	☐	☐	☐	☐
Polyethylene Tank Jacket	☐	☐	☐	☐	☐
Concrete	☐	☐	☐	☐	☐
Excavation Liner	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other, Please specify _____					
Has tank been repaired?	☐ Not Deter.	☐ Not Deter.	☐ Not Deter.	☐ Not Deter.	☐ Not Deter.
5. Piping (Material) (Mark all that apply)					
Bare Steel	☒	☒	☒	☒	☒
Galvanized Steel	☐	☐	☐	☐	☐
Fiberglass Reinforced Plastic	☐	☐	☐	☐	☐
Copper	☐	☐	☐	☐	☐
Cathodically Protected	☐	☐	☐	☐	☐
Double Walled	☐	☐	☐	☐	☐
Secondary Containment	☐	☐	☐	☐	☐
Unknown	☐	☐	☐	☐	☐
Other, Please specify _____					
6. Piping (Type) (Mark all that apply)					
Suction: no valve at tank	☐	☐	☐	☐	☐
Suction: valve at tank	☐	☐	☐	☐	☐
Pressure	☐	☐	☐	☐	☐
Gravity Feed	☐	☐	☐	☐	☐
Has piping been repaired?	☐ Not Deter.	☐ Not Deter.	☐ Not Deter.	☐ Not Deter.	☐ Not Deter.

IX. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification Number	Tank No. _____	Tank No. _____	Tank No. _____	Tank No. _____	Tank No. _____
1. Status of Tank (mark only one)					
Currently in Use					
Temporarily Out of Use (Remember to fill out section X.)					
Permanently Out of Use (Remember to fill out section X.)	XX	XX	XX	XX	XX
Amendment of Information					
2. Date of Installation (mo./year)	2/62	Not Determin.	Not Determin.	5/57	2/68
3. Estimated Total Capacity (gallons)	1500 Est.	1500 Est.	1500 Est.	560 Est.	10,000 Est.
4. Material of Construction (Mark all that apply)					
Asphalt Coated or Bare Steel	XX	XX	XX	XX	XX
Cathodically Protected Steel					
Epoxy Coated Steel					
Composite (Steel with Fiberglass)					
Fiberglass Reinforced Plastic					
Lined Interior					
Double Walled					
Polyethylene Tank Jacket					
Concrete					
Excavation Liner					
Unknown					
Other, Please specify					
Has tank been repaired?	Not Determin.	Not Determin.	Not Determin.	Not Determin.	Not Determin.
5. Piping (Material) (Mark all that apply)					
Bare Steel	XX	XX	XX	XX	XX
Galvanized Steel					
Fiberglass Reinforced Plastic					
Copper					
Cathodically Protected					
Double Walled					
Secondary Containment					
Unknown					
Other, Please specify					
6. Piping (Type) (Mark all that apply)	Not Determin.	Not Determin.	Not Determin.	Not Determin.	Not Determin.
Suction: no valve at tank					
Suction: valve at tank					
Pressure					
Gravity Feed					
Has piping been repaired?	Not Determin.	Not Determin.	Not Determin.	Not Determin.	Not Determin.

IX. DESCRIPTION OF UNDERGROUND STORAGE TANKS (Complete for each tank at this location.)

Tank Identification Number	Tank No. _____	Tank No. _____	Tank No. _____	Tank No. _____	Tank No. _____
1. Status of Tank (mark only one)					
Currently in Use					
Temporarily Out of Use (Remember to fill out section X.)					
Permanently Out of Use (Remember to fill out section X.)	XX	XX			
Amendment of Information					
2. Date of Installation (mo./year)	10/60	11/60			
3. Estimated Total Capacity (gallons)	2000 Est.	4000 Est.			
4. Material of Construction (Mark all that apply)					
Asphalt Coated or Bare Steel	XX	XX			
Cathodically Protected Steel					
Epoxy Coated Steel					
Composite (Steel with Fiberglass)					
Fiberglass Reinforced Plastic					
Lined Interior					
Double Walled					
Polyethylene Tank Jacket					
Concrete					
Excavation Liner					
Unknown					
Other, Please specify					
Has tank been repaired?	Not Deter.	Not Deter.			
5. Piping (Material) (Mark all that apply)					
Bare Steel	XX	XX			
Galvanized Steel					
Fiberglass Reinforced Plastic					
Copper		XX			
Cathodically Protected					
Double Walled					
Secondary Containment					
Unknown					
Other, Please specify					
6. Piping (Type) (Mark all that apply)					
Suction: no valve at tank					
Suction: valve at tank					
Pressure					
Gravity Feed					
Has piping been repaired?	Not Deter.	Not Deter.			

Tank Identification Number	Tank No. _____	Tank No. _____	Tank Nr _____	Tank No. _____	Tank No. _____
7. Substance Currently or Last Stored In Greatest Quantity by Volume					
Gasoline			XX		XX
Diesel	XX	XX		XX	
Gasohol					
Kerosene					
Heating Oil					
Used Oil					
Other, Please specify					
Hazardous Substance CERCLA name and/or, CAS number					
Mixture of Substances ... Please specify					

X. TANKS OUT OF USE, OR CHANGE IN SERVICE

1. Closing of Tank					
A. Estimated date last used (mo./day/year)	<u>Not Determ.</u>	<u>Not Determ.</u>	<u>Not Determ.</u>	<u>Not Determ.</u>	<u>Not Determ.</u>
B. Estimate date tank closed (mo./day/year)	<u>3/7/94</u>	<u>3/22/94</u>	<u>3/22/94</u>	<u>3/21/94</u>	<u>3/21/94</u>
C. Tank was removed from ground	XX	XX	XX	XX	XX
D. Tank was closed in ground					
E. Tank filled with inert material Describe					
F. Change in service					
2. Site Assessment Completed	XX	XX	XX	XX	XX
Evidence of a leak detected	No	No	No	No	No

Tank Identification Number	Tank No. _____	Tank No. _____	Tank No. _____	Tank No. _____	Tank No. _____
7. Substance Currently or Last Stored In Greatest Quantity by Volume					
Gasoline	☐	☐	☐	☐	☐
Diesel	☒	☒	☒	☐	☒
Gasohol	☐	☐	☐	☐	☐
Kerosene	☐	☐	☐	☐	☐
Heating Oil	☐	☐	☐	☐	☐
Used Oil	☐	☐	☐	☒	☐
Other, Please specify	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
Hazardous Substance	☐	☐	☐	☐	☐
CERCLA name and/or,	☐	☐	☐	☐	☐
CAS number	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
Mixture of Substances	☐	☐	☐	☐	☐
Please specify	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
X. TANKS OUT OF USE, OR CHANGE IN SERVICE					
1. Closing of Tank					
A. Estimated date last used (mo./day/year)	<u>Not Determ.</u>	<u>Not Determ.</u>	<u>Not Determ.</u>	<u>Not Determ.</u>	<u>Not Determ.</u>
B. Estimate date tank closed (mo./day/year)	<u>10/20/93</u>	<u>10/6/93</u>	<u>10/6/93</u>	<u>3/9/94</u>	<u>10/7/93</u>
C. Tank was removed from ground	☒	☒	☒	☒	☒
D. Tank was closed in ground	☐	☐	☐	☐	☐
E. Tank filled with inert material	☐	☐	☐	☐	☐
Describe	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
F. Change in service	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐
2. Site Assessment Completed	☒	☒	☒	☒	☒
Evidence of a leak detected	☒	☐	☐	☒	☐
	☐	☐	☐	☐	☐

Tank Identification Number	Tank No. _____	Tank No. _____	Tank ' _____	Tank No. _____	Tank No. _____
7. Substance Currently or Last Stored In Greatest Quantity by Volume					
Gasoline	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Diesel	<input type="text" value="XX"/>	<input type="text" value="XX"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Gasohol	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Kerosene	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Heating Oil	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Used Oil	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Other, Please specify	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hazardous Substance	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CERCLA name and/or,	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
CAS number	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Mixture of Substances	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Please specify	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
X. TANKS OUT OF USE, OR CHANGE IN SERVICE					
1. Closing of Tank					
A. Estimated date last used (mo./day/year)	<u>Not Determ.</u>	<u>Not Determ.</u>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B. Estimate date tank closed (mo./day/year)	<u>10/20/93</u>	<u>3/17/94</u>	<input type="text"/>	<input type="text"/>	<input type="text"/>
C. Tank was removed from ground	<input type="text" value="XX"/>	<input type="text" value="XX"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
D. Tank was closed in ground	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
E. Tank filled with inert material	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Describe	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
F. Change in service	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2. Site Assessment Completed	<input type="text" value="XX"/>	<input type="text" value="XX"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Evidence of a leak detected	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

XI. CERTIFICATION OF COM

NCE (COMPLETE FOR ALL NEW AND UPC

DATED TANKS AT THIS LOCATION)

Tank Identification Number	Tank No. _____	Tank No. _____	Tank No. _____	Tank No. _____	Tank No. _____
1. Installation	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
A. Installer certified by tank and piping manufacturers	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B. Installer certified or licensed by the implementing agency	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
C. Installation inspected by a registered engineer	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
D. Installation inspected and approved by implementing agency	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
E. Manufacturer's installation checklists have been completed	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
F. Another method allowed by State agency. Please specify.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2. Release Detection (Mark all that apply)	TANK	PIPING	TANK	PIPING	TANK
A. Manual tank gauging	<input type="text"/>		<input type="text"/>		<input type="text"/>
B. Tank tightness testing	<input type="text"/>		<input type="text"/>		<input type="text"/>
C. Inventory controls	<input type="text"/>		<input type="text"/>		<input type="text"/>
D. Automatic tank gauging	<input type="text"/>		<input type="text"/>		<input type="text"/>
E. Vapor monitoring	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
F. Groundwater monitoring	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
G. Interstitial monitoring double walled tank/piping	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
H. Interstitial monitoring/secondary containment	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
I. Automatic line leak detectors	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
J. Line tightness testing	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
K. Other method allowed by Implementing Agency. Please specify.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3. Spill and Overfill Protection					
A. Overfill device installed	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
B. Spill device installed	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<p>OATH: I certify the information concerning installation that is provided in section XI is true to the best of my belief and knowledge.</p> <p>Installer: <u>NOT APPLICABLE</u></p> <p>_____ Name Signature Date</p> <p>_____ Position Company</p>					

XI. CERTIFICATION OF COI

ANCE (COMPLETE FOR ALL NEW AND UP DED TANKS AT THIS LOCATION)

Tank Identification Number	Tank No. ____	Tank No. ____	Tank No. ____	Tank No. ____	Tank No. ____
1. Installation	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
A. Installer certified by tank and piping manufacturers	☐	☐	☐	☐	☐
B. Installer certified or licensed by the implementing agency	☐	☐	☐	☐	☐
C. Installation inspected by a registered engineer	☐	☐	☐	☐	☐
D. Installation inspected and approved by implementing agency	☐	☐	☐	☐	☐
E. Manufacturer's installation checklists have been completed	☐	☐	☐	☐	☐
F. Another method allowed by State agency. Please specify.	☐	☐	☐	☐	☐
2. Release Detection (Mark all that apply)	TANK	PIPING	TANK	PIPING	TANK
A. Manual tank gauging	☐	☐	☐	☐	☐
B. Tank tightness testing	☐	☐	☐	☐	☐
C. Inventory controls	☐	☐	☐	☐	☐
D. Automatic tank gauging	☐	☐	☐	☐	☐
E. Vapor monitoring	☐	☐	☐	☐	☐
F. Groundwater monitoring	☐	☐	☐	☐	☐
G. Interstitial monitoring double walled tank/piping	☐	☐	☐	☐	☐
H. Interstitial monitoring/secondary containment	☐	☐	☐	☐	☐
I. Automatic line leak detectors	☐	☐	☐	☐	☐
J. Line tightness testing	☐	☐	☐	☐	☐
K. Other method allowed by Implementing Agency. Please specify.	☐	☐	☐	☐	☐
3. Spill and Overfill Protection					
A. Overfill device installed	☐	☐	☐	☐	☐
B. Spill device installed	☐	☐	☐	☐	☐

OATH: I certify the information concerning installation that is provided in section XI is true to the best of my belief and knowledge.

Installer: NOT APPLICABLE

Name

Signature

Date

Position

Company

XI. CERTIFICATION OF COM

ANCE (COMPLETE FOR ALL NEW AND UP

DATED TANKS AT THIS LOCATION)

Tank Identification Number	Tank No. ____	Tank No. ____	Tank No. ____	Tank No. ____	Tank No. ____
1. Installation	Not Applicable	Not Applicable			
A. Installer certified by tank and piping manufacturers	☐	☐	☐	☐	☐
B. Installer certified or licensed by the implementing agency	☐	☐	☐	☐	☐
C. Installation inspected by a registered engineer	☐	☐	☐	☐	☐
D. Installation inspected and approved by implementing agency	☐	☐	☐	☐	☐
E. Manufacturer's installation checklists have been completed	☐	☐	☐	☐	☐
F. Another method allowed by State agency. Please specify.	☐	☐	☐	☐	☐
2. Release Detection (Mark all that apply)	TANK	PIPING	TANK	PIPING	TANK
A. Manual tank gauging	☐		☐		☐
B. Tank tightness testing	☐		☐		☐
C. Inventory controls	☐		☐		☐
D. Automatic tank gauging	☐		☐		☐
E. Vapor monitoring	☐	☐	☐	☐	☐
F. Groundwater monitoring	☐	☐	☐	☐	☐
G. Interstitial monitoring double walled tank/piping	☐	☐	☐	☐	☐
H. Interstitial monitoring/secondary containment	☐	☐	☐	☐	☐
I. Automatic line leak detectors	☐	☐	☐	☐	☐
J. Line tightness testing	☐	☐	☐	☐	☐
K. Other method allowed by Implementing Agency. Please specify.	☐	☐	☐	☐	☐
3. Spill and Overfill Protection					
A. Overfill device installed	☐	☐	☐	☐	☐
B. Spill device installed	☐	☐	☐	☐	☐
<p>OATH: I certify the information concerning installation that is provided in section XI is true to the best of my belief and knowledge.</p> <p>Installer: <u>NOT APPLICABLE</u></p> <p>_____ Name Signature Date</p> <p>_____ Position Company</p>					

ENVIRONMENTAL RESTORATION PROGRAM
ABANDONED UNDERGROUND STORAGE TANKS (PHASE 2 - FY93)
SUMMARY OF ANALYTICAL RESULTS FOR SOIL SAMPLES
COLLECTED AT THE BOTTOM ENDS OF
UNDERGROUND STORAGE TANKS

ENVIRONMENTAL RESTORATION PROGRAM ABANDONED UNDERGROUND STORAGE TANKS (PHASE 2 - FY93):
SUMMARY OF ANALYTICAL RESULTS FOR SOIL SAMPLES COLLECTED AT THE BOTTOM ENDS OF UNDERGROUND STORAGE TANKS

TANK AND SAMPLE NUMBER	TPH ¹ (mg/kg)	PCBS ² (mg/kg = ppm)	VOCs ³ (ug/kg)	Semi-VOCs ⁴ (ug/kg)	TCLP METALS ⁵ (mg/l)
Tank: 11-1-1 Sample: 1111E	D ⁶ < 10.0 G ⁷ < 5.0 O ⁸ < 10.0	NA ⁹	Methylene Chloride 79* Xylenes 7	NA	Barium 0.49 Silver 0.05
Tank: 11-1-1 Sample: 1111W	D < 10.0 G < 5.0 O 13.4	NA	Methylene Chloride 52* Toluene 25 Ethylbenzene 5 Xylenes 41	NA	Barium 0.44 Chromium < 0.016 Silver < 0.033
Tank: 12-8-1 Sample: 12-8-1-11.8S	D < 10.0 G < 5.0 O < 10.0	< 0.05	Methylene Chloride 2.8*	ND ¹⁰	Barium 0.12
Tank: 12-8-1 Sample: 12-8-1-11.6N	D < 10.0 G < 5.0 O < 10.0	< 0.05	Methylene Chloride 2.9* Acetone 15**	ND	Barium 0.039 Chromium < 0.031
Tank: 12-8-2 Sample: 12-8-2-12.0N	D < 10.0 G < 5.0 O < 10.0	< 0.05	Methylene Chloride 3.1*	ND	Barium 0.14
Tank: 12-8-2 Sample: 12-8-2-13.0S	D 96 G < 5.0 O < 10.0	< 0.05	Methylene Chloride 2.5* Acetone 16**	ND	Barium 0.11 Chromium < 0.031 Lead < 0.21
Tank: 12-9-1 Sample: 12-9-1-9.2E and 12-9-1-0.2E	D < 10.0 G < 5.0 O < 10.0	< 0.167	Acetone 13*	ND	Barium 0.097
Tank: 12-9-1 Sample: 12-9-1-13W	D < 10.0 G < 5.0 O < 10.0	< 0.00167	Acetone 28*	ND	Barium 0.079
Tank: 12-9-2 Sample: 12-9-2-12E	D < 10.0 G < 5.0 O < 10.0	< 0.167	Methylene Chloride 5* Acetone 13*	ND	Barium 0.090 Chromium < 0.031

TANK AND SAMPLE NUMBER	TPH ¹ (mg/kg)	PCBs ² (mg/kg = ppm)	VOCs ³ (ug/kg)	Semi-VOCs ⁴ (ug/kg)	TCLP METALS ⁵ (mg/l)
Tank: 12-9-2 Sample: 12-9-2-14W	D < 10.0 G < 5.0 O < 10.0	< 0.00166	Acetone 21*	ND	Barium 0.081 Chromium < 0.031
Tank: 12-13-1 Sample: ERUSTP2/ 1213W	D < 10.0	NA	NA	NA	NA
Tank: 12-13-1 Sample: ERUSTP2/ 1213E	D 116	NA	NA	NA	NA
Tank: 23-110-1 Sample: ER-USTPH2/ 110S	O 28.2 (see analysts note)	NA	NA	NA	NA
Tank: 23-110-1 Sample: ER-USTPH2/ 110N	O 34.3 (see analysts note)	NA	NA	NA	NA
Tank: 23-112-1 Sample: ER-USTPH2/ 112-N	O 32.1 (see analysts note)	NA	NA	NA	NA
Tank: 23-112-1 Sample: ER-USTPH2/ 112-S	O 45.5 (see analysts note)	NA	NA	NA	NA
Tank: 25-3102-3 Sample: 253102/S	D 22.8 O < 10.0	< 0.167	NA	NA	Barium 0.81 Chromium < 0.016 Silver < 0.033
Tank: 25-3102-3 Sample: 253102/N	D 2090 O < 10.0	< 0.167	NA	NA	Barium 1.0 Chromium < 0.016 Silver < 0.033
Tank: 25-3205-1 Sample: ER-USTPH2/ 3205-S-R	D < 10.0	NA	NA	NA	NA

TANK AND SAMPLE NUMBER	TPH ¹ (mg/kg)	PCBs ² (mg/kg = ppm)	VOCs ³ (ug/kg)	Semi-VOCs ⁴ (ug/kg)	TCLP METALS ⁵ (mg/l)
Tank: 25-3205-1 Sample: ER-USTPH2/ 3205-N-R	D < 10.0	NA	NA	NA	NA
Tank: 27-5170-1 Sample: ERUSTP2- 5170E	D 816	NA	NA	NA	NA
Tank: 27-5170-1 Sample: ERUSTP2- 5170W	D 471	NA	NA	NA	NA
Tank: 27-5310-1 Sample: 27310UST/N	D 2310 O < 10.0	NA	NA	NA	NA
Tank: 27-5310-1 Sample: 27310UST/S	D < 10.0 O 16.2	NA	NA	NA	NA

Notes: * Indicates constituent was detected in trip and/or method blanks and is considered a contaminant introduced into the sample either during sampling, transport, storage, and/or analysis

** Indicates acetone is a suspected contaminant introduced into the sample during sampling, transport, and/or analysis since acetone was not detected in the analyses of the tank contents (was not detected in the trip or method blanks either)

1 Total Petroleum Hydrocarbons (TPH): EPA Method 8015, Modified

2 Polychlorinated Biphenyls (PCB's): EPA Method 8080

3 Volatile Organic Compounds (VOC's): EPA Method 8240 or 8260

4 Semi-Volatile Organic Compounds (Semi-VOC's): EPA Method 8270

5 Toxicity Characteristic Leaching Procedure (TCLP) Metals: EPA Extraction Method 1311 and Method 6010

6 TPH as Diesel (D)

7 TPH as Gasoline (G)

8 TPH as Oil (O)

9 Not Analyzed (NA)

10 Not detected above analytical method/laboratory detection level

ANALYTICAL RESULTS FOR TANK NUMBERS
12-13-1 AND 27-5310-1

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

To S. J. Nacht
From G. A. Clark *GAC*
Date November 17, 1993
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are Analytical Services Department's results, requested by T. A. Wilczek, for the total petroleum hydrocarbons (gasoline/diesel/oil) analyses of four soil and two water samples collected on October 20, 1993, in Areas 12 and 27. Also enclosed are the results for the gross gamma analysis of these samples.

Please direct any questions you may have about the nonradioanalytical results to Roger Mitchell (295-7220) or Jerry Dugas (295-7997), and questions about the radioanalytical results to Al Latham (295-7472).

GAC:RNL1277:rn

Enclosures
As stated

cy: Central Files, w/o encls.
A. R. Latham, w/o encls.
L. S. Sygitowicz, w/o encls.
T. A. Wilczek, w/encls.
ACS Packet No. 93-10-101, w/o encls.

REECO ASD/ACS

REECO
BOB DODGE
ENVIRONMENTAL RESTORATION
TECHNOLOGY DEVELOPMENT
Attn: TOM WILCZEK

Order #: 93-10-101
Date: 11/18/93 09:11
Work ID: TPH/SOIL, WATER, PKT#C005626
Date Received: 10/20/93
Date Completed: 11/12/93

Purchase Order: 3754-022
Invoice Number:

Client Code: ERTD

REPORT TO TOM WILCZEK, ERTD

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	ERUSTP2/5170-E
02	ERUSTP2/5170-W
03	ERUSTP2/5170-RINSE
04	ERUSTP2/1213-W
05	ERUSTP2/1213-E
06	ERUSTP2/1213-RINSE
07	93-10-101-QC1 MS/SOIL

<u>Sample Number</u>	<u>Sample Description</u>
08	93-10-101-QC2 BLANK/SOIL
09	93-10-101-QC3 CAL VER/SOIL
10	93-10-101-QC4 MS/WATER
11	93-10-101-QC5 BLANK/WATER
12	93-10-101-QC6 CALVER/WATER
13	PACKET #C005626
14	PACKET #C005626

Certified By

Order # 93-10-101
11/18/93 09:11

REECO ASD/ACS
REGULAR TEST RESULTS BY TEST

Page 2

RADIOISOTOPE SCREEN

Minimum:

Maximum:

Method:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
13A	PACKET #C005626	SEE DATA	PACKAGE				

RADIONUCLIDE FINAL REPORT

Minimum:

0 Maximum: 999999999

Method:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
14A	PACKET #C005626	SEE DATA	PACKAGE				

TPH - DIESEL

Minimum:

0 Maximum: 999999999

Method: GC

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	ERUSTP2/5170-E	816	mg/Kg			11/04/93	TJR
02A	ERUSTP2/5170-W	471	mg/Kg			11/04/93	TJR
03A	ERUSTP2/5170-RINSE	2.20	mg/L			11/03/93	TJR
04A	ERUSTP2/1213-W	< 10.0	mg/Kg			11/04/93	TJR
05A	ERUSTP2/1213-E	116	mg/Kg			11/04/93	TJR
06A	ERUSTP2/1213-RINSE	0.730	mg/L			11/03/93	TJR
07A	93-10-101-QC1 MS/SOIL	92	% RECOVERY			11/04/93	TJR
08A	93-10-101-QC2 BLANK/SOIL	< 10.0	mg/Kg			11/04/93	TJR
09A	93-10-101-QC3 CAL VER/SOIL	110	% RECOVERY			11/04/93	TJR
10A	93-10-101-QC4 MS/WATER	NA	% RECOVERY				TJR
11A	93-10-101-QC5 BLANK/WATER	< 0.5	mg/L			11/03/93	TJR
12A	93-10-101-QC6 CALVER/WATER	76	% RECOVERY			11/03/93	TJR

TPH - GASOLINE

Minimum:

0 Maximum: 999999999

Method: GC

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	ERUSTP2/5170-E	< 5.0	mg/Kg			11/02/93	TJR
02A	ERUSTP2/5170-W	< 5.0	mg/Kg			11/02/93	TJR
03A	ERUSTP2/5170-RINSE	< 5.0	mg/L			11/02/93	TJR
04A	ERUSTP2/1213-W	< 5.0	mg/Kg			11/02/93	TJR
05A	ERUSTP2/1213-E	< 5.0	mg/Kg			11/02/93	TJR
06A	ERUSTP2/1213-RINSE	< 5.0	mg/L			11/02/93	TJR
07A	93-10-101-QC1 MS/SOIL	171	% RECOVERY			11/02/93	TJR
08A	93-10-101-QC2 BLANK/SOIL	< 5.0	mg/Kg			11/02/93	TJR
09A	93-10-101-QC3 CAL VER/SOIL	101	% RECOVERY			11/02/93	TJR
10A	93-10-101-QC4 MS/WATER	119	% RECOVERY			11/02/93	TJR
11A	93-10-101-QC5 BLANK/WATER	< 5.0	mg/L			11/02/93	TJR
12A	93-10-101-QC6 CALVER/WATER	101	% RECOVERY			11/02/93	TJR

TPH - OIL
Method: GC

Minimum: 0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	ERUSTP2/5170-E	< 10.0	mg/Kg			11/04/93	TJR
02A	ERUSTP2/5170-W	< 10.0	mg/Kg			11/04/93	TJR
03A	ERUSTP2/5170-RINSE	< 0.5	mg/L			11/03/93	TJR
04A	ERUSTP2/1213-W	< 10.0	mg/Kg			11/04/93	TJR
05A	ERUSTP2/1213-E	< 10.0	mg/Kg			11/04/93	TJR
06A	ERUSTP2/1213-RINSE	< 0.5	mg/L			11/03/93	TJR
07A	93-10-101-QC1 MS/SOIL	39	% RECOVERY			11/04/93	TJR
08A	93-10-101-QC2 BLANK/SOIL	< 10.0	mg/Kg			11/04/93	TJR
09A	93-10-101-QC3 CAL VER/SOIL	114	% RECOVERY			11/05/93	TJR
10A	93-10-101-QC4 MS/WATER	NA	% RECOVERY				TJR
11A	93-10-101-QC5 BLANK/WATER	< 0.5	mg/L			11/03/93	TJR
12A	93-10-101-QC6 CALVER/WATER	77	% RECOVERY			11/03/93	TJR

TPH - TOTAL
Method: GC

Minimum: 0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	ERUSTP2/5170-E	816	mg/Kg				
02A	ERUSTP2/5170-W	471	mg/Kg				
03A	ERUSTP2/5170-RINSE	2.20	mg/L				
04A	ERUSTP2/1213-W	< 25.0	mg/Kg				
05A	ERUSTP2/1213-E	116	mg/Kg				
06A	ERUSTP2/1213-RINSE	0.730	mg/L				
08A	93-10-101-QC2 BLANK/SOIL	< 25.0	mg/Kg				
11A	93-10-101-QC5 BLANK/WATER	< 6.0	mg/L				

TPH Analyst's Notes:

All analyses of the sample extracts, with the exception of ERUSTP2/1213-W, produced chromatograms indicating the presence of a component whose response maximum lies between that seen for the Diesel and Oil standards. However, as the geometry of the chromatogram is similar to that of Diesel, the Diesel calibration was used to quantitate the component. The reported values should be viewed as rough estimates of the contaminant present.

Analysis of the aqueous extracts was performed on the 3rd of November. The analyses of the Diesel and Oil Calibration Verification standards on that column returned at approximately 75 % of their expected values. The results for those samples were not adjusted.

The aqueous Diesel and Oil matrix spikes were extracted from samples of other work orders which were highly contaminated and therefore did not allow for the recovery of the spikes.

The soil Oil matrix spike was prepared from a sample of another set which was highly contaminated with Diesel and Oil. The spike could not be seen due to these levels.

Reynolds Electrical & Engineering Co., Inc.

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: A27 + A12WORK ORDER No.: 3754022PACKET No.: 93-10-101

ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	10/20/93/1027	ERUSTP2/5170-E	-01A	TPH (Full Perm) 8015 Mod. 250 ml	soil
2	10/20/93/1000	ERUSTP2/5170-W	-02A	TPH (Full Perm) 8015 Mod. 250 ml	soil
3	10/20/93/1045	ERUSTP2/5170-Rinse	-03A	TPH (Full Perm) 8015 Mod. 3L + 120 ml	water
4	10/20/93/1320	ERUSTP2/1213-W	-04A	TPH (Full Perm) 8015 Mod. 250 ml	soil
5	10/20/93/1340	ERUSTP2/1213-E	-05A	TPH (Full Perm) 8015 Mod. 250 ml	soil
6	10/20/93/1400	ERUSTP2/1213-Rinse	-06A	TPH (Full Perm) 8015 Mod. 3L + 120 ml	water
7	LAST ITEM				
8					
9					
10					

SAMPLER: Thomas A. Palazzolo

SIGNATURE

Thomas A. Palazzolo

PRINT NAME

ORGANIZATION (PRINT): REECO ACD/SMSLAB SURVEY
OK

RELINQUISHED BY: (SIGNATURE)	DATE/TIME RELINQUISHED	DATE/TIME RECEIVED	RECEIVED BY: (SIGN, PRINT NAME AND ORGANIZATION)
<u>Thomas A. Palazzolo</u>	10/20/93 1536	10/20/93 1535	<u>J. T. L.</u> J. T. L. TACON SW
<u>Catherine A. Castaneda</u>	10/20/93 1607	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	

Y	N	FOR LAB USE ONLY	FINAL DISPOSITION: _____
☒	☐	PACKAGES REC'D W/CUSTODY SEAL INTACT?	SIGNATURE: _____ DATE: 1 1
☒	☐	SAMPLE LABELS AND C-O-C AGREE?	

APPENDIX B

LABORATORY ANALYTICAL DATA PACKETS

Reynolds Electrical & Engineering Co., Inc.

Copy

MEMORANDUM

To F. E. Bingham THRU L. S. Sygitowicz
From G. A. Clark *GAC*
Date October 15, 1992
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are Analytical Services Department's results for the volatile organics, semivolatile organics, PCB organics, total petroleum hydrocarbons, total metals, pH, and flashpoint analyses of five water/oil samples collected on September 16, 1992, in Areas 11 and 12. These analyses were requested by D. Madsen.

Please direct any questions you may have about these analyses to Sample Management (Roger Mitchell, 295-7220 or Jerry Dugas, 295-7997).

GAC:RNL663:rn

Enclosures
As stated

cy: Central Files, w/o encls.
H. A. Hawthorne, w/o encls.
D. Madsen, w/encls. *[initials]*
ACS Packet No. 92-09-048, w/o encls.

Oct 16 3:17 PM '92

REECO ASD/ACS

REECO
FRANK BINGHAM
ENVIRONMENTAL COMPLIANCE
M/S 711
Attn: DAVE MADSEN

Order #: 92-09-048
Date: 10/14/92 14:07
Work ID: BNA,PCB,VOA,TPH,FLSHP,PH; A11
Date Received: 09/17/92
Date Completed: 10/13/92

Purchase Order: 3754-009
Invoice Number: 911762

Client Code: ENV_COMPLY

REPORT TO DAVE MADSEN, ENV_COMPLY.

SAMPLE IDENTIFICATION

Sample Number	Sample Description	Sample Number	Sample Description
01	11-1-1-TK	24	12-13-1-TK
03	11-1-1-TK	25	92SAB0916-1 TRIP BLANK
04	11-1-1-TK ORGANIC	26	92-09-048-QC1 METHOD BLANK
05	11-1-1-TK ORGANIC	27	92-09-048-QC2
06	11-1-1-TK	28	92-09-048-QC3 MSD
07	11-1-1-TK	33	92-09-048-QC7 MS
08	11-2-2-DRUM	34	92-09-048-QC8 MSD
09	11-2-2-DRUM	35	92-09-048-QC9 METHOD BLANK
10	11-2-2-DRUM	36	92-09-048-QC10 PCB CONTROL
11	11-2-1-DRUM OIL	37	92-09-048-QC11 DUPLICATE
12	11-2-1-DRUM ORGANIC	38	92-09-048-QC12 PREP BLANK
13	11-2-1-DRUM OIL	39	92-09-048-QC13 CAL VERIF
14	25-OGS/6-YA RINSATE WATER	40	92-09-048-QC14 MS
15	25-OGS/6-YA RINSATE WATER ANIC	47	92-09-048-CV INST CHK SPK
23	12-13-1-TK

Certified By

10/14/92 14:07

TEST RESULTS BY SAMPLE

Sample Description: 25-OGS/6-YA RINSATE WATER Lab No: 15A

Test Description: TOTAL METALS SCREEN, TCLP Method: ICP/COLD VAP Test Code: TOTMTL

Collected: 09/16/92

Category: TOTAL_METALS

PARAMETER	METHOD	RESULT	DET LIMIT
ARSENIC (As)	6010	<u>0.12</u>	<u>0.028</u>
BARIUM (Ba)	6010	<u>0.20</u>	<u>0.0009</u>
CADMIUM (Cd)	6010	<u>0.060</u>	<u>0.0043</u>
CHROMIUM (Cr)	6010	<u>< 0.020</u>	<u>0.0061</u>
LEAD (Pb)	6010	<u>44</u>	<u>0.031</u>
MERCURY (Hg)	7470-1	<u>0.00072</u>	<u>0.00013</u>
SELENIUM (Se)	6010	<u>ND</u>	<u>0.066</u>
SILVER (Ag)	6010	<u>ND</u>	<u>0.0048</u>

Notes and Definitions for this Report:

EXTRACTED 09/22/92DATE RUN 09/29/92ANALYST AJKUNITS MG/L

Order # 92-09-048
10/14/92 14:07

REECO ASD/ACS

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TEST RESULTS BY SAMPLE

Sample Description: 92-09-048-QC19 MS

Lab No: 45A

Test Description: TOTAL METALS SCREEN, TCLP Category: TOT_MTLS_QCP Test Code: TOTMTL

PARAMETER	METHOD	RESULT	DET LIMIT
ARSENIC (As)	6010	<u>89</u>	<u> </u>
BARIUM (Ba)	6010	<u>91</u>	<u> </u>
CADMIUM (Cd)	6010	<u>90</u>	<u> </u>
CHROMIUM (Cr)	6010	<u>91</u>	<u> </u>
LEAD (Pb)	6010	<u>52</u>	<u> </u>
MERCURY (Hg)	7470-1	<u>97</u>	<u> </u>
SELENIUM (Se)	6010	<u>98</u>	<u> </u>
SILVER (Ag)	6010	<u>90</u>	<u> </u>

Notes and Definitions for this Report:

EXTRACTED 09/22/92

DATE RUN 09/29/92

ANALYST AJK

UNITS % RECOVERY

Order # 92-09-048
10/14/92 14:07

REECO ASD/ACS

Page 4

TEST RESULTS BY SAMPLE

Sample Description: 92-09-048-QC20 METHOD BLNK Lab No: 46A

Test Description: TOTAL METALS SCREEN, TCLP Category: TOT_MTLS_QCP Test Code: TOTMTL

PARAMETER	METHOD	RESULT	DET LIMIT
ARSENIC (As)	6010	<u>ND</u>	<u>0.028</u>
BARIUM (Ba)	6010	<u>0.0065</u>	<u>30.0009</u>
CADMIUM (Cd)	6010	<u>ND</u>	<u>0.0043</u>
CHROMIUM (Cr)	6010	<u>ND</u>	<u>0.0061</u>
LEAD (Pb)	6010	<u>ND</u>	<u>0.031</u>
MERCURY (Hg)	7470-1	<u>ND</u>	<u>0.00013</u>
SELENIUM (Se)	6010	<u>ND</u>	<u>0.066</u>
SILVER (Ag)	6010	<u>ND</u>	<u>0.0048</u>

Notes and Definitions for this Report:

EXTRACTED 09/22/92

DATE RUN 09/29/92

ANALYST AJK

UNITS MG/L

10/14/92 14:07

TEST RESULTS BY SAMPLE

Sample Description: 92-09-048-CV INST CHK SPK Lab No: 47A

Test Description: TOTAL METALS SCREEN, TCLP Category: TOT_MTLS_QCP Test Code: TOTMTL

PARAMETER	METHOD	RESULT	DET LIMIT
ARSENIC (As)	6010	<u>100</u>	<u> </u>
BARIUM (Ba)	6010	<u>101</u>	<u> </u>
CADMIUM (Cd)	6010	<u>102</u>	<u> </u>
CHROMIUM (Cr)	6010	<u>101</u>	<u> </u>
LEAD (Pb)	6010	<u>102</u>	<u> </u>
MERCURY (Hg)	7470-1	<u>99</u>	<u> </u>
SELENIUM (Se)	6010	<u>97</u>	<u> </u>
SILVER (Ag)	6010	<u>105</u>	<u> </u>

Notes and Definitions for this Report:

EXTRACTED 09/22/92DATE RUN 09/29/92ANALYST AJKUNITS % RECOVERY

BASE/NEUTRAL/ACID ORGANICS
Method: GC_MS

Minimum:

Maximum:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	11-1-1-TK	SEE DATA	PACKAGE				
01B	11-1-1-TK	SEE DATA	PACKAGE				
18A	12-13-1-TK	SEE DATA	PACKAGE				
18B	12-13-1-TK	SEE DATA	PACKAGE				
26A	92-09-048-QC1 METHOD BLANK	SEE DATA	PACKAGE				
27B	92-09-048-QC2 MS	SEE DATA	PACKAGE				
28B	92-09-048-QC3 MSD	SEE DATA	PACKAGE				

FLASH POINT
Method: PENSKYMARTIN

Minimum:

Maximum:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
07A	11-1-1-TK	170	DEGREES F			09/29/92	PWP
07B	11-1-1-TK	182	DEGREES F			09/29/92	PWP
10A	11-2-2-DRUM	170	DEGREES F			09/29/92	PWP
13A	11-2-1-DRUM OIL	170	DEGREES F			09/29/92	PWP
17A	25-OGS/6-YA RINSATE WATER	151	DEGREES F			09/29/92	PWP
24A	12-13-1-TK	189	DEGREES F			09/29/92	PWP
24B	12-13-1-TK	164	DEGREES F			09/29/92	PWP
44A	92-09-048-QC18 WINTERGREEN	99	% Recovery			09/29/92	PWP

PCB 1242
Method: GC_ECD

Minimum:

0.0 Maximum: 999999.0

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
04A	11-1-1-TK ORGANIC	< 2.5	ppm				
04B	11-1-1-TK AQUEOUS	TEXT	ppm				
21A	12-13-1-TK ORGANIC	< 2.5	ppm				
21B	12-13-1-TK AQUEOUS	TEXT	ppm				
36A	92-09-048-QC10 PCB CONTROL	111	% RECOVERY				
37A	92-09-048-QC11 DUPLICATE	< 2.5	ppm				
38A	92-09-048-QC12 PREP BLANK	< 2.5	ppm				

PCB 1254
Method: GC_ECD

Minimum:

0.0 Maximum: 999999.0

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
04A	11-1-1-TK ORGANIC	< 2.5	ppm				
04B	11-1-1-TK AQUEOUS	TEXT	ppm				
21A	12-13-1-TK ORGANIC	< 2.5	ppm				
21B	12-13-1-TK AQUEOUS	TEXT	ppm				
36A	92-09-048-QC10 PCB CONTROL	102	% RECOVERY				
37A	92-09-048-QC11 DUPLICATE	< 2.5	ppm				
38A	92-09-048-QC12 PREP BLANK	< 2.5	ppm				

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REGULAR TEST RESULTS BY TEST

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PCB 1260 Minimum: 0.0 Maximum: 999999.0
Method: GC_ECD

Samp	Sample Description	Result	Units	Limit	Prepared	Analyzed	By
04A	11-1-1-TK ORGANIC	< 2.5	ppm				
04B	11-1-1-TK AQUEOUS	TEXT	ppm				
21A	12-13-1-TK ORGANIC	< 2.5	ppm				
21B	12-13-1-TK AQUEOUS	TEXT	ppm				
36A	92-09-048-QC10 PCB CONTROL	88	% RECOVERY				
37A	92-09-048-QC11 DUPLICATE	< 2.5	ppm				
38A	92-09-048-QC12 PREP BLANK	< 2.5	ppm				

TPH - DIESEL Minimum: 0 Maximum: 999999999
Method: GC

Samp	Sample Description	Result	Units	Limit	Prepared	Analyzed	By
05A	11-1-1-TK ORGANIC	854,000	mg/kg				
05B	11-1-1-TK AQUEOUS	11,000	mg/l				
09A	11-2-2-DRUM	807,000	mg/kg				
22A	12-13-1-TK ORGANIC	913,000	mg/kg				
22B	12-13-1-TK AQUEOUS	14,200	mg/l				
39A	92-09-048-QC13 CAL VERIF	98	% RECOVERY				
40A	92-09-048-QC14 MS	12,400	mg/l				
41A	92-09-048-QC15 DUPLICATE	794,000	mg/kg				
42A	92-09-048-QC16 METHOD BLNK	< 10.0	mg/kg				

TPH - GASOLINE Minimum: 0 Maximum: 999999999
Method: GC

Samp	Sample Description	Result	Units	Limit	Prepared	Analyzed	By
05A	11-1-1-TK ORGANIC	59.4	mg/kg				
05B	11-1-1-TK AQUEOUS	< 5.0	mg/kg				
09A	11-2-2-DRUM	98.8	mg/kg				
12A	11-2-1-DRUM ORGANIC	137	mg/kg				
16A	25-OGS/6-YA RINSATE WATER	< 5.0	mg/kg				
22A	12-13-1-TK ORGANIC	167	mg/kg				
22B	12-13-1-TK AQUEOUS	24.0	mg/kg				
39A	92-09-048-QC13 CAL VERIF	105	% RECOVERY				
40A	92-09-048-QC14 MS	120	% RECOVERY				
41A	92-09-048-QC15 DUPLICATE	55.9	mg/kg				
42A	92-09-048-QC16 METHOD BLNK	< 5.0	mg/kg				

TPH - OIL Minimum: 0 Maximum: 999999999
Method: GC

Samp	Sample Description	Result	Units	Limit	Prepared	Analyzed	By
05A	11-1-1-TK ORGANIC	< 10.0	mg/kg				
05B	11-1-1-TK AQUEOUS	< 0.5	mg/l				
09A	11-2-2-DRUM	< 10.0	mg/kg				
22A	12-13-1-TK ORGANIC	< 10.0	mg/kg				

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
22B	12-13-1-TK AQUEOUS	< 0.5	mg/l				
39A	92-09-048-QC13 CAL VERIF	104	% RECOVERY				
40A	92-09-048-QC14 MS	12,000	mg/l				
41A	92-09-048-QC15 DUPLICATE	< 10.0	mg/kg				
42A	92-09-048-QC16 METHOD BLNK	< 10.0	mg/kg				

TPH - TOTAL Minimum: 0 Maximum: 999999999
Method: GC

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
05A	11-1-1-TK ORGANIC	854,000	mg/kg				
05B	11-1-1-TK AQUEOUS	11,000	mg/l				
09A	11-2-2-DRUM	807,000	mg/kg				
22A	12-13-1-TK ORGANIC	913,000	mg/kg				
22B	12-13-1-TK AQUEOUS	14,200	mg/l				
41A	92-09-048-QC15 DUPLICATE	794,000	mg/kg				
42A	92-09-048-QC16 METHOD BLNK	< 25.0	mg/kg				

VOLATILE ORGANIC ANALYSIS Minimum: Maximum:
Method: GC_MS

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
03A	11-1-1-TK	SEE DATA	PACKAGE				
03B	11-1-1-TK	SEE DATA	PACKAGE				
08A	11-2-2-DRUM	SEE DATA	PACKAGE				
11A	11-2-1-DRUM OIL	SEE DATA	PACKAGE				
14A	25-OGS/6-YA RINSATE WATER	SEE DATA	PACKAGE				
20A	12-13-1-TK	SEE DATA	PACKAGE				
20B	12-13-1-TK	SEE DATA	PACKAGE				
25A	92SAB0916-1 TRIP BLANK	SEE DATA	PACKAGE				
27A	92-09-048-QC2	SEE DATA	PACKAGE				
28A	92-09-048-QC3 MSD	SEE DATA	PACKAGE				
33A	92-09-048-QC7 MS	SEE DATA	PACKAGE				
34A	92-09-048-QC8 MSD	SEE DATA	PACKAGE				
35A	92-09-048-QC9 METHOD BLANK	SEE DATA	PACKAGE				

pH Minimum: 0 Maximum: 14
Method: METER

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
06A	11-1-1-TK	NONE	SEE COMMENTS			09/17/92	LDR
06B	11-1-1-TK	NONE	SEE COMMENTS			09/17/92	LDR
23A	12-13-1-TK	NONE	SEE COMMENTS			09/17/92	LDR
23B	12-13-1-TK	NONE	SEE COMMENTS			09/17/92	LDR
43A	92-09-048-QC17 BUFFERS	4,10	BUFFERS			09/17/92	LDR

WET CHEMISTRY ANALYST'S COMMENTS

SAMPLE 11-1-1-TK AND 12-13-1-TK WERE ORGANIC AND THE pH COULD NOT BE MEASURED.

TPH ANALYST'S NOTES:

ALL SAMPLES ANALYSED EXHIBITED A GENERAL CHROMATOGRAM INDICATING THE PRESENCE OF DIESEL. MOST ANALYSES WERE DONE ON ORGANIC LIQUIDS, WHICH WERE WEIGHED INTO VOLUMETRIC FLASKS AND DILUTED TO VOLUME WITH THE SOLVENT. FOR THIS REASON, THE ORGANIC LIQUID RESULTS ARE REPORTED WITH THE UNITS "MG/KG".

SAMPLES 11-2-1-DRUM AND 25-OGS/6-YA WERE ANALYSED ONLY FOR GASOLINE, BUT ALSO EXHIBIT PEAKS OF HEAVIER HYDROCARBONS.

MATRIX SPIKE SAMPLES WERE PREPARED FOR THE AQUEOUS SAMPLES AND DUPLICATE ANALYSES WERE DONE FOR THE ORGANIC LIQUIDS. DUE TO THE LEVEL OF DIESEL IN THE AQUEOUS SAMPLES, THE MATRIX SPIKE RESULTS SHOULD BE CONSIDERED DUPLICATE ANALYSES. THE GASOLINE MATRIX SPIKE WAS AFFECTED BY THE AMOUNT OF DIESEL IN THE LIQUID AND RETURNED SLIGHTLY HIGHER THAN USUAL. FOR THIS REASON, CALIBRATION VERIFICATION STANDARDS WERE RUN AND THE RESULTS REPORTED IN ORDER TO VALIDATE THE ANALYSES. ALL DUPLICATE ORGANIC SAMPLES WERE PREPARED FROM SAMPLE 11-1-1-TK.

PCB ANALYST'S NOTES:

SAMPLES 11-1-1-TK AND 12-13-1-TK CONTAINED BOTH AN AQUEOUS AND ORGANIC PHASE. AN ALIQUOT OF THE ORGANIC PORTION OF BOTH SAMPLES WAS PREPARED FOR PCB ANALYSIS AS WELL AS THE AQUEOUS FRACTION OF 11-1-1-TK. INSUFFICIENT SAMPLE WAS SUBMITTED FOR EXTRACTION OF THE AQUEOUS PHASE OF SAMPLE 12-13-1-TK.

ANALYSIS OF THE AQUEOUS EXTRACT PRODUCED A LARGE RESPONSE, BUT NO IDENTIFIABLE AROCLOR PATTERNS ARE OBSERVED. THE CHROMATOGRAMS OF THE ORGANIC EXTRACTS ALSO EXHIBIT SIGNIFICANT RESPONSES, BUT NO AROCLOR PEAKS ARE PRESENT.

NO VALUES ARE REPORTED FOR THE AQUEOUS EXTRACT OF SAMPLE 11-1-1-TK AS NO METHOD DETECTION LIMITS HAVE BEEN DETERMINED ACCORDING TO METHOD 8080.

VOLATILES DATA

ANALYST NOTES: VOAS

Date: September 30, 1992

Lab Work Order No.: 92-09-048

lient Sample Id.: 11-1-1-TK (03A,03B), 11-2-2 DRUM, 11-2-1
DRUM, 25-OGS/6-YA, 12-13-1-TK (20A,20B), 92SAB0916-1 (TB).

Analyst: Philip Briggs

The samples were analyzed on a Hewlett Packard 5890 GC/5970 MSD, with a Tekmar purge and trap connected for direct injection on column. Instrumental parameters used are those specified in SW-846 method 8240. The target analytes are listed with their CAS numbers, and the amount of the target compound found in ug/L or ug/Kg, depending on the matrix. If the analyte was not found in the sample, the quantitation limit is reported followed by an n.d. qualifier. The qualifiers used in this reporting format are:

- n.d.-Indicates compound was analyzed for but not detected.
- J- Indicates an estimated value. Indicates the presence of a compound that meets the identification criteria, but the result is less than the sample quantitation limit but greater than zero.
- B- This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.
- E- This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.
- D- This flag identifies all compounds identified in an analysis at a secondary dilution factor.

The volatile compounds methylene chloride, acetone, and 2-butanone are considered to be common laboratory contaminants by the U.S. EPA. The U.S. EPA Contract Laboratory Program (CLP) Statement of Work for Organic Analysis, OLM01.1-.6, dated June 1991, Exhibit D, Section IV, paragraph 10.10 allows concentrations up to five times (5X) the Contract Required Quantitation Limit (CRQL) of 10 ppb (ie 50 ppb is allowed) of the common laboratory contaminants methylene chloride, acetone and 2-butanone to be present in the method blank before reanalysis is required. If these contaminants are found in samples as well as the method blank, they are to be qualified by a "B" to show they are possible laboratory contamination.

The matrix spike runs used 11-1-1-TK for the oils and 25-OGS/6-YA for the water analyses.

REECO ANALYTICAL CHEMISTRY LAB'S VOLATILE ORGANICS TEST RESULTS

Name Field: 11-1-1-TK W Blank:>VD784:PASS QaQc File: QVOLWM
 Misc Field: 92-09-048-03A 5.0 ML WATER SAMPLE
 Instrument: VOAl Datafile: >VD787 Idfile: ID_VC1 Quantfile: ^VD787

Injection time: 16:43 on 09-23-92 Quant Time: 17:16 on 09-23-92
 Continuing calibration time : 08:19 on 09-23-92 using the file: ^VW318::D1
 User dilfac:1 Quant dilfac: 1. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	UG/L	10.
Bromomethane	74-83-9	n.d.	UG/L	10.
Vinyl Chloride	75-01-4	n.d.	UG/L	10.
Chloroethane	75-00-3	n.d.	UG/L	10.
Methylene Chloride	75-09-2	n.d.	UG/L	5.
Acetone	67-64-1	200.B	UG/L	10.
Carbon Disulfide	75-15-0	n.d.	UG/L	5.
1,1-Dichloroethene	75-35-4	n.d.	UG/L	5.
1,1-Dichloroethane	75-34-3	n.d.	UG/L	5.
1,2-Dichloroethene (total)	540-59-0	n.d.	UG/L	5.
trans-1,2-Dichloroethene	540-59-0	n.d.	UG/L	5.
Chloroform	67-66-3	n.d.	UG/L	5.
1,2-Dichloroethane	107-02-2	6.	UG/L	5.
2-Butanone	78-93-3	37.	UG/L	10.
1,1,1-Trichloroethane	71-55-6	35.	UG/L	5.
Carbon Tetrachloride	56-23-5	n.d.	UG/L	5.
Vinyl Acetate	108-05-4	n.d.	UG/L	10.
Bromodichloromethane	75-27-4	n.d.	UG/L	5.
1,2-Dichloropropane	78-87-5	n.d.	UG/L	5.
cis-1,3-Dichloropropene	10061-01-5	n.d.	UG/L	5.
Trichloroethene	79-01-6	n.d.	UG/L	5.
Dibromochloromethane	124-48-1	n.d.	UG/L	5.
1,1,2-Trichloroethane	79-00-5	n.d.	UG/L	5.
Benzene	71-43-2	67.	UG/L	5.
trans-1,3-Dichloropropene	10061-02-6	n.d.	UG/L	5.
Bromoform	75-25-2	n.d.	UG/L	5.
4-Methyl-2-Pentanone	108-10-1	n.d.	UG/L	10.
2-Hexanone	591-78-6	n.d.	UG/L	10.
Tetrachloroethene	127-18-4	n.d.	UG/L	5.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	UG/L	5.
Toluene	108-88-3	200.	UG/L	5.
Chlorobenzene	108-90-7	n.d.	UG/L	5.
Ethylbenzene	100-41-4	58.	UG/L	5.
Styrene	100-42-5	n.d.	UG/L	5.
m,p-Xylene	133-02-7	240.	UG/L	5.
Xylene (total)	133-02-7	150.	UG/L	5.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S VOLATILE ORGANIC TEST RESULTS

Name Field: 11-1-1-TK P Blank:>VD784:PASS QaQc File: QVOLSM.
 Misc Field: 92-09-048-03B 0.2GR/10CCMEOH//50UL ANALYZED
 Instrument: VOA1 Datafile: >VD786 Idfile: ID_VC1 Quantfile: ^VD786

Injection time: 16:03 on 09-23-92 Quant Time: 16:35 on 09-23-92
 Continuing calibration time : 08:19 on 09-23-92 using the file: ^VW318::D1
 User dilfac:5000 Quant dilfac: 5000. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	MG/L	50.
Bromomethane	74-83-9	n.d.	MG/L	50.
Vinyl Chloride	75-01-4	n.d.	MG/L	50.
Chloroethane	75-00-3	n.d.	MG/L	50.
Methylene Chloride	75-09-2	n.d.	MG/L	25.
Acetone	67-64-1	n.d.	MG/L	50.
Carbon Disulfide	75-15-0	n.d.	MG/L	25.
1,1-Dichloroethene	75-35-4	n.d.	MG/L	25.
1,1-Dichloroethane	75-34-3	n.d.	MG/L	25.
1,2-Dichloroethene (total)	540-59-0	n.d.	MG/L	25.
trans-1,2-Dichloroethene	540-59-0	n.d.	MG/L	25.
Chloroform	67-66-3	n.d.	MG/L	25.
1,2-Dichloroethane	107-02-2	n.d.	MG/L	25.
2-Butanone	78-93-3	n.d.	MG/L	50.
1,1,1-Trichloroethane	71-55-6	39.	MG/L	25.
Carbon Tetrachloride	56-23-5	n.d.	MG/L	25.
Vinyl Acetate	108-05-4	n.d.	MG/L	50.
Bromodichloromethane	75-27-4	n.d.	MG/L	25.
1,2-Dichloropropane	78-87-5	n.d.	MG/L	25.
cis-1,3-Dichloropropene	10061-01-5	n.d.	MG/L	25.
Trichloroethene	79-01-6	n.d.	MG/L	25.
Dibromochloromethane	124-48-1	n.d.	MG/L	25.
1,1,2-Trichloroethane	79-00-5	n.d.	MG/L	25.
Benzene	71-43-2	n.d.	MG/L	25.
trans-1,3-Dichloropropene	10061-02-6	n.d.	MG/L	25.
Bromoform	75-25-2	n.d.	MG/L	25.
4-Methyl-2-Pentanone	108-10-1	n.d.	MG/L	50.
2-Hexanone	591-78-6	n.d.	MG/L	50.
Tetrachloroethene	127-18-4	n.d.	MG/L	25.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	MG/L	25.
Toluene	108-88-3	240.	MG/L	25.
Chlorobenzene	108-90-7	n.d.	MG/L	25.
Ethylbenzene	100-41-4	180.	MG/L	25.
Styrene	100-42-5	n.d.	MG/L	25.
m,p-Xylene	133-02-7	830.	MG/L	25.
Xylene (total)	133-02-7	400.	MG/L	25.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S VOLATILE ORGANIC TEST RESULTS

Name Field: 11-1-1-TK P MS Blank:>AD790:PASS QaQc File: QVOLSM
 Misc Field: 92-09-048-33A MTRX SPK 0.2 GR/10CC//50UL
 Instrument: VOA1 Datafile: >AD799 Idfile: ID_VC1 Quantfile: ^AD799

Injection time: 19:12 on 09-24-92 Quant Time: 11:08 on 09-25-92
 Continuing calibration time: 10:16 on 09-24-92 using the file: ^VW320::D1
 User dilfac:5000 Quant dilfac: 5000. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	MG/L	50.
Bromomethane	74-83-9	n.d.	MG/L	50.
Vinyl Chloride	75-01-4	n.d.	MG/L	50.
Chloroethane	75-00-3	n.d.	MG/L	50.
Methylene Chloride	75-09-2	n.d.	MG/L	25.
Acetone	67-64-1	n.d.	MG/L	50.
Carbon Disulfide	75-15-0	n.d.	MG/L	25.
1,1-Dichloroethene	75-35-4	210.	MG/L	25.
1,1-Dichloroethane	75-34-3	n.d.	MG/L	25.
1,2-Dichloroethene (total)	540-59-0	46.	MG/L	25.
trans-1,2-Dichloroethene	540-59-0	n.d.	MG/L	25.
Chloroform	67-66-3	n.d.	MG/L	25.
1,2-Dichloroethane	107-02-2	n.d.	MG/L	25.
2-Butanone	78-93-3	n.d.	MG/L	50.
1,1,1-Trichloroethane	71-55-6	37.	MG/L	25.
Carbon Tetrachloride	56-23-5	n.d.	MG/L	25.
Vinyl Acetate	108-05-4	n.d.	MG/L	50.
Bromodichloromethane	75-27-4	n.d.	MG/L	25.
1,2-Dichloropropane	78-87-5	n.d.	MG/L	25.
cis-1,3-Dichloropropene	10061-01-5	n.d.	MG/L	25.
Trichloroethene	79-01-6	260.	MG/L	25.
Dibromochloromethane	124-48-1	n.d.	MG/L	25.
1,1,2-Trichloroethane	79-00-5	n.d.	MG/L	25.
Benzene	71-43-2	240.	MG/L	25.
trans-1,3-Dichloropropene	10061-02-6	n.d.	MG/L	25.
Bromoform	75-25-2	n.d.	MG/L	25.
4-Methyl-2-Pentanone	108-10-1	n.d.	MG/L	50.
2-Hexanone	591-78-6	n.d.	MG/L	50.
Tetrachloroethene	127-18-4	31.	MG/L	25.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	MG/L	25.
Toluene	108-88-3	450.	MG/L	25.
Chlorobenzene	108-90-7	250.	MG/L	25.
Ethylbenzene	100-41-4	160.	MG/L	25.
Styrene	100-42-5	n.d.	MG/L	25.
m,p-Xylene	133-02-7	660.	MG/L	25.
Xylene (total)	133-02-7	340.	MG/L	25.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S VOLATILE ORGANIC TEST RESULTS

Name Field: 11-1-1-TK P MSD Blank:>VD790:PASS QaQc File: QVOLWM
 Misc Field: 92-09-048-34A MTRX SPK DUPL .2 GR/10CC//50UL
 Instrument: VOA1 Datafile: >AD800 Idfile: ID_VC1 Quantfile: ^AD800

Injection time: 19:50 on 09-24-92 Quant Time: 11:11 on 09-25-92
 Continuing calibration time : 10:16 on 09-24-92 using the file: ^VW320::D1
 User dilfac:5000 Quant dilfac: 5000. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	MG/L	50.
Bromomethane	74-83-9	n.d.	MG/L	50.
Vinyl Chloride	75-01-4	n.d.	MG/L	50.
Chloroethane	75-00-3	n.d.	MG/L	50.
Methylene Chloride	75-09-2	n.d.	MG/L	25.
Acetone	67-64-1	n.d.	MG/L	50.
Carbon Disulfide	75-15-0	n.d.	MG/L	25.
1,1-Dichloroethene	75-35-4	210.	MG/L	25.
1,1-Dichloroethane	75-34-3	n.d.	MG/L	25.
1,2-Dichloroethene (total)	540-59-0	43.	MG/L	25.
trans-1,2-Dichloroethene	540-59-0	n.d.	MG/L	25.
Chloroform	67-66-3	n.d.	MG/L	25.
1,2-Dichloroethane	107-02-2	n.d.	MG/L	25.
2-Butanone	78-93-3	n.d.	MG/L	50.
1,1,1-Trichloroethane	71-55-6	37.	MG/L	25.
Carbon Tetrachloride	56-23-5	n.d.	MG/L	25.
Vinyl Acetate	108-05-4	n.d.	MG/L	50.
Bromodichloromethane	75-27-4	n.d.	MG/L	25.
1,2-Dichloropropane	78-87-5	n.d.	MG/L	25.
cis-1,3-Dichloropropene	10061-01-5	n.d.	MG/L	25.
Trichloroethene	79-01-6	250.	MG/L	25.
Dibromochloromethane	124-48-1	n.d.	MG/L	25.
1,1,2-Trichloroethane	79-00-5	n.d.	MG/L	25.
Benzene	71-43-2	240.	MG/L	25.
trans-1,3-Dichloropropene	10061-02-6	n.d.	MG/L	25.
Bromoform	75-25-2	n.d.	MG/L	25.
4-Methyl-2-Pentanone	108-10-1	n.d.	MG/L	50.
2-Hexanone	591-78-6	n.d.	MG/L	50.
Tetrachloroethene	127-18-4	31.	MG/L	25.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	MG/L	25.
Toluene	108-88-3	450.	MG/L	25.
Chlorobenzene	108-90-7	240.	MG/L	25.
Ethylbenzene	100-41-4	150.	MG/L	25.
Styrene	100-42-5	n.d.	MG/L	25.
m,p-Xylene	133-02-7	660.	MG/L	25.
Xylene (total)	133-02-7	320.	MG/L	25.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S VOLATILE ORGANIC TEST RESULTS

Name Field: 11-2-1 DRUM Blank:>AD790:PASS QaQc File: QVOLWM
 Misc Field: 92-09-048-11A 0.2 GR/10CC//50 UL ANALYZED
 Instrument: VOA1 Datafile: >AD794 Idfile: ID_VC1 Quantfile: ^AD794

Injection time: 16:03 on 09-24-92 Quant Time: 16:35 on 09-24-92
 Continuing calibration time : 10:16 on 09-24-92 using the file: ^VW320::D1
 User dilfac:5000 Quant dilfac: 5000. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	MG/L	50.
Bromomethane	74-83-9	n.d.	MG/L	50.
Vinyl Chloride	75-01-4	n.d.	MG/L	50.
Chloroethane	75-00-3	n.d.	MG/L	50.
Methylene Chloride	75-09-2	n.d.	MG/L	25.
Acetone	67-64-1	n.d.	MG/L	50.
Carbon Disulfide	75-15-0	n.d.	MG/L	25.
1,1-Dichloroethene	75-35-4	n.d.	MG/L	25.
1,1-Dichloroethane	75-34-3	n.d.	MG/L	25.
1,2-Dichloroethene (total)	540-59-0	n.d.	MG/L	25.
trans-1,2-Dichloroethene	540-59-0	n.d.	MG/L	25.
Chloroform	67-66-3	n.d.	MG/L	25.
1,2-Dichloroethane	107-02-2	n.d.	MG/L	25.
2-Butanone	78-93-3	n.d.	MG/L	50.
1,1,1-Trichloroethane	71-55-6	n.d.	MG/L	25.
Carbon Tetrachloride	56-23-5	n.d.	MG/L	25.
Vinyl Acetate	108-05-4	n.d.	MG/L	50.
Bromodichloromethane	75-27-4	n.d.	MG/L	25.
1,2-Dichloropropane	78-87-5	n.d.	MG/L	25.
cis-1,3-Dichloropropene	10061-01-5	n.d.	MG/L	25.
Trichloroethene	79-01-6	n.d.	MG/L	25.
Dibromochloromethane	124-48-1	n.d.	MG/L	25.
1,1,2-Trichloroethane	79-00-5	n.d.	MG/L	25.
Benzene	71-43-2	110.	MG/L	25.
trans-1,3-Dichloropropene	10061-02-6	n.d.	MG/L	25.
Bromoform	75-25-2	n.d.	MG/L	25.
4-Methyl-2-Pentanone	108-10-1	n.d.	MG/L	50.
2-Hexanone	591-78-6	n.d.	MG/L	50.
Tetrachloroethene	127-18-4	n.d.	MG/L	25.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	MG/L	25.
Toluene	108-88-3	930.	MG/L	25.
Chlorobenzene	108-90-7	n.d.	MG/L	25.
Ethylbenzene	100-41-4	520.	MG/L	25.
Styrene	100-42-5	n.d.	MG/L	25.
m,p-Xylene	133-02-7	1400.	MG/L	25.
Xylene (total)	133-02-7	860.	MG/L	25.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S VOLATILE ORGANIC TEST RESULTS

Name Field: 11-2-2 DRUM Blank:>AD790:PASS QaQc File: QVOLWM
 Misc Field: 92-09-048-08A 0.2 GR/10CC//50 UL ANALYZED
 Instrument: VOAL Datafile: >AD793 Idfile: ID_VCI Quantfile: ^AD793

Injection time: 15:25 on 09-24-92 Quant Time: 15:57 on 09-24-92
 Continuing calibration time : 10:16 on 09-24-92 using the file: ^VW320::D1
 User dilfac:5000 Quant dilfac: 5000. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	MG/L	50.
Bromomethane	74-83-9	n.d.	MG/L	50.
Vinyl Chloride	75-01-4	n.d.	MG/L	50.
Chloroethane	75-00-3	n.d.	MG/L	50.
Methylene Chloride	75-09-2	n.d.	MG/L	25.
Acetone	67-64-1	n.d.	MG/L	50.
Carbon Disulfide	75-15-0	n.d.	MG/L	25.
1,1-Dichloroethene	75-35-4	n.d.	MG/L	25.
1,1-Dichloroethane	75-34-3	n.d.	MG/L	25.
1,2-Dichloroethene (total)	540-59-0	n.d.	MG/L	25.
trans-1,2-Dichloroethene	540-59-0	n.d.	MG/L	25.
Chloroform	67-66-3	n.d.	MG/L	25.
1,2-Dichloroethane	107-02-2	n.d.	MG/L	25.
2-Butanone	78-93-3	n.d.	MG/L	50.
1,1,1-Trichloroethane	71-55-6	n.d.	MG/L	25.
Carbon Tetrachloride	56-23-5	n.d.	MG/L	25.
Vinyl Acetate	108-05-4	n.d.	MG/L	50.
Bromodichloromethane	75-27-4	n.d.	MG/L	25.
1,2-Dichloropropane	78-87-5	n.d.	MG/L	25.
cis-1,3-Dichloropropene	10061-01-5	n.d.	MG/L	25.
Trichloroethene	79-01-6	n.d.	MG/L	25.
Dibromochloromethane	124-48-1	n.d.	MG/L	25.
1,1,2-Trichloroethane	79-00-5	n.d.	MG/L	25.
Benzene	71-43-2	46.	MG/L	25.
trans-1,3-Dichloropropene	10061-02-6	n.d.	MG/L	25.
Bromoform	75-25-2	n.d.	MG/L	25.
4-Methyl-2-Pentanone	108-10-1	n.d.	MG/L	50.
2-Hexanone	591-78-6	n.d.	MG/L	50.
Tetrachloroethene	127-18-4	n.d.	MG/L	25.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	MG/L	25.
Toluene	108-88-3	610.	MG/L	25.
Chlorobenzene	108-90-7	n.d.	MG/L	25.
Ethylbenzene	100-41-4	570.	MG/L	25.
Styrene	100-42-5	n.d.	MG/L	25.
m,p-Xylene	133-02-7	1400.	MG/L	25.
Xylene (total)	133-02-7	n.d.	MG/L	25.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTR. LAB'S VOLATILE ORGANICS TEST RESULTS

Name Field: 25-OGS/6-YA Blank:>VD784:PASS QaQc File: QVOLWM
 Misc Field: 92-09-048-14A 5 MLS
 Instrument: VOA1 Datafile: >VD788 Idfile: ID_VC1 Quantfile: ^VD788

Injection time: 17:25 on 09-23-92 Quant Time: 17:57 on 09-23-92
 Continuing calibration time : 08:19 on 09-23-92 using the file: ^VW318::D1
 User dilfac:1 Quant dilfac: 1. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	UG/L	10.
Bromomethane	74-83-9	n.d.	UG/L	10.
Vinyl Chloride	75-01-4	n.d.	UG/L	10.
Chloroethane	75-00-3	n.d.	UG/L	10.
Methylene Chloride	75-09-2	n.d.	UG/L	5.
Acetone	67-64-1	64.B	UG/L	10.
Carbon Disulfide	75-15-0	n.d.	UG/L	5.
1,1-Dichloroethene	75-35-4	n.d.	UG/L	5.
1,1-Dichloroethane	75-34-3	n.d.	UG/L	5.
1,2-Dichloroethene (total)	540-59-0	n.d.	UG/L	5.
trans-1,2-Dichloroethene	540-59-0	n.d.	UG/L	5.
Chloroform	67-66-3	n.d.	UG/L	5.
1,2-Dichloroethane	107-02-2	n.d.	UG/L	5.
2-Butanone	78-93-3	54.	UG/L	10.
1,1,1-Trichloroethane	71-55-6	n.d.	UG/L	5.
Carbon Tetrachloride	56-23-5	n.d.	UG/L	5.
Vinyl Acetate	108-05-4	n.d.	UG/L	10.
Bromodichloromethane	75-27-4	n.d.	UG/L	5.
1,2-Dichloropropane	78-87-5	n.d.	UG/L	5.
cis-1,3-Dichloropropene	10061-01-5	n.d.	UG/L	5.
Trichloroethene	79-01-6	n.d.	UG/L	5.
Dibromochloromethane	124-48-1	n.d.	UG/L	5.
1,1,2-Trichloroethane	79-00-5	n.d.	UG/L	5.
Benzene	71-43-2	n.d.	UG/L	5.
trans-1,3-Dichloropropene	10061-02-6	n.d.	UG/L	5.
Bromoform	75-25-2	n.d.	UG/L	5.
4-Methyl-2-Pentanone	108-10-1	n.d.	UG/L	10.
2-Hexanone	591-78-6	n.d.	UG/L	10.
Tetrachloroethene	127-18-4	n.d.	UG/L	5.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	UG/L	5.
Toluene	108-88-3	75.	UG/L	5.
Chlorobenzene	108-90-7	n.d.	UG/L	5.
Ethylbenzene	100-41-4	n.d.	UG/L	5.
Styrene	100-42-5	n.d.	UG/L	5.
m,p-Xylene	133-02-7	n.d.	UG/L	5.
Xylene (total)	133-02-7	n.d.	UG/L	5.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S VOLATILE ORGANICS TEST RESULTS

Name Field: 25OGS/6-YA W MS Blank:>VD790:ZERO QaQc File: QVOLWM
 Misc Field: 92-09-048-27A MTRX SPK 5.0 MLS
 Instrument: VOA1 Datafile: >AD797 Idfile: ID_VC1 Quantfile: ^AD797

Injection time: 17:56 on 09-24-92 Quant Time: 10:59 on 09-25-92
 Continuing calibration time : 10:16 on 09-24-92 using the file: ^VW320::D1
 User dilfac:1 Quant dilfac: 1. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	UG/L	10.
Bromomethane	74-83-9	n.d.	UG/L	10.
Vinyl Chloride	75-01-4	n.d.	UG/L	10.
Chloroethane	75-00-3	n.d.	UG/L	10.
Methylene Chloride	75-09-2	n.d.	UG/L	5.
Acetone	67-64-1	66.	UG/L	10.
Carbon Disulfide	75-15-0	n.d.	UG/L	5.
1,1-Dichloroethene	75-35-4	49.	UG/L	5.
1,1-Dichloroethane	75-34-3	n.d.	UG/L	5.
1,2-Dichloroethene (total)	540-59-0	10.	UG/L	5.
trans-1,2-Dichloroethene	540-59-0	n.d.	UG/L	5.
Chloroform	67-66-3	n.d.	UG/L	5.
1,2-Dichloroethane	107-02-2	n.d.	UG/L	5.
2-Butanone	78-93-3	61.	UG/L	10.
1,1,1-Trichloroethane	71-55-6	n.d.	UG/L	5.
Carbon Tetrachloride	56-23-5	n.d.	UG/L	5.
Vinyl Acetate	108-05-4	n.d.	UG/L	10.
Bromodichloromethane	75-27-4	n.d.	UG/L	5.
1,2-Dichloropropane	78-87-5	n.d.	UG/L	5.
cis-1,3-Dichloropropene	10061-01-5	n.d.	UG/L	5.
Trichloroethene	79-01-6	55.	UG/L	5.
Dibromochloromethane	124-48-1	n.d.	UG/L	5.
1,1,2-Trichloroethane	79-00-5	n.d.	UG/L	5.
Benzene	71-43-2	54.	UG/L	5.
trans-1,3-Dichloropropene	10061-02-6	n.d.	UG/L	5.
Bromoform	75-25-2	n.d.	UG/L	5.
4-Methyl-2-Pentanone	108-10-1	n.d.	UG/L	10.
2-Hexanone	591-78-6	n.d.	UG/L	10.
Tetrachloroethene	127-18-4	7.	UG/L	5.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	UG/L	5.
Toluene	108-88-3	140.	UG/L	5.
Chlorobenzene	108-90-7	56.	UG/L	5.
Ethylbenzene	100-41-4	n.d.	UG/L	5.
Styrene	100-42-5	n.d.	UG/L	5.
m,p-Xylene	133-02-7	n.d.	UG/L	5.
Xylene (total)	133-02-7	n.d.	UG/L	5.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S VOLATILE ORGANICS TEST RESULTS

Name Field: 250GS/6-YA W MSD Blank:>VD790:ZERO QaQc File: QVOLWM
 Misc Field: 92-09-048-28A MTRX SPK DUPL 5.0 MLS
 Instrument: VOA1 Datafile: >AD798 Idfile: ID_VC1 Quantfile: ^AD798

Injection time: 18:34 on 09-24-92 Quant. Time: 11:04 on 09-25-92
 Continuing calibration time : 10:16 on 09-24-92 using the file: ^VW320::D1
 User dilfac:1 Quant dilfac: 1. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	UG/L	10.
Bromomethane	74-83-9	n.d.	UG/L	10.
Vinyl Chloride	75-01-4	n.d.	UG/L	10.
Chloroethane	75-00-3	n.d.	UG/L	10.
Methylene Chloride	75-09-2	n.d.	UG/L	5.
Acetone	67-64-1	59.	UG/L	10.
Carbon Disulfide	75-15-0	n.d.	UG/L	5.
1,1-Dichloroethene	75-35-4	49.	UG/L	5.
1,1-Dichloroethane	75-34-3	n.d.	UG/L	5.
1,2-Dichloroethene (total)	540-59-0	10.	UG/L	5.
trans-1,2-Dichloroethene	540-59-0	n.d.	UG/L	5.
Chloroform	67-66-3	n.d.	UG/L	5.
1,2-Dichloroethane	107-02-2	n.d.	UG/L	5.
2-Butanone	78-93-3	62.	UG/L	10.
1,1,1-Trichloroethane	71-55-6	n.d.	UG/L	5.
Carbon Tetrachloride	56-23-5	n.d.	UG/L	5.
Vinyl Acetate	108-05-4	n.d.	UG/L	10.
Bromodichloromethane	75-27-4	n.d.	UG/L	5.
1,2-Dichloropropane	78-87-5	n.d.	UG/L	5.
cis-1,3-Dichloropropene	10061-01-5	n.d.	UG/L	5.
Trichloroethene	79-01-6	55.	UG/L	5.
Dibromochloromethane	124-48-1	n.d.	UG/L	5.
1,1,2-Trichloroethane	79-00-5	n.d.	UG/L	5.
Benzene	71-43-2	53.	UG/L	5.
trans-1,3-Dichloropropene	10061-02-6	n.d.	UG/L	5.
Bromoform	75-25-2	n.d.	UG/L	5.
4-Methyl-2-Pentanone	108-10-1	n.d.	UG/L	10.
2-Hexanone	591-78-6	n.d.	UG/L	10.
Tetrachloroethene	127-18-4	7.	UG/L	5.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	UG/L	5.
Toluene	108-88-3	120.	UG/L	5.
Chlorobenzene	108-90-7	55.	UG/L	5.
Ethylbenzene	100-41-4	n.d.	UG/L	5.
Styrene	100-42-5	n.d.	UG/L	5.
m,p-Xylene	133-02-7	n.d.	UG/L	5.
Xylene (total)	133-02-7	n.d.	UG/L	5.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S VOLATILE ORGANIC TEST RESULTS

Name Field: 12-13-1-TK Blank:>AD790:PASS QaQc File: QVOLSM
 Misc Field: 92-09-048-20A 0.2 GR/10CC//50 UL ANALYZED
 Instrument: VOA1 Datafile: >AD795 Idfile: ID_VC1 Quantfile: ^AD795

Injection time: 16:41 on 09-24-92 Quant Time: 17:13 on 09-24-92
 Continuing calibration time : 10:16 on 09-24-92 using the file: ^VW320::D1
 User dilfac:5000 Quant dilfac: 5000. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	MG/L	50.
Bromomethane	74-83-9	n.d.	MG/L	50.
Vinyl Chloride	75-01-4	n.d.	MG/L	50.
Chloroethane	75-00-3	n.d.	MG/L	50.
Methylene Chloride	75-09-2	n.d.	MG/L	25.
Acetone	67-64-1	n.d.	MG/L	50.
Carbon Disulfide	75-15-0	n.d.	MG/L	25.
1,1-Dichloroethene	75-35-4	n.d.	MG/L	25.
1,1-Dichloroethane	75-34-3	n.d.	MG/L	25.
1,2-Dichloroethene (total)	540-59-0	n.d.	MG/L	25.
trans-1,2-Dichloroethene	540-59-0	n.d.	MG/L	25.
Chloroform	67-66-3	n.d.	MG/L	25.
1,2-Dichloroethane	107-02-2	n.d.	MG/L	25.
2-Butanone	78-93-3	n.d.	MG/L	50.
1,1,1-Trichloroethane	71-55-6	n.d.	MG/L	25.
Carbon Tetrachloride	56-23-5	n.d.	MG/L	25.
Vinyl Acetate	108-05-4	n.d.	MG/L	50.
Bromodichloromethane	75-27-4	n.d.	MG/L	25.
1,2-Dichloropropane	78-87-5	n.d.	MG/L	25.
cis-1,3-Dichloropropene	10061-01-5	n.d.	MG/L	25.
Trichloroethene	79-01-6	n.d.	MG/L	25.
Dibromochloromethane	124-48-1	n.d.	MG/L	25.
1,1,2-Trichloroethane	79-00-5	n.d.	MG/L	25.
Benzene	71-43-2	110.	MG/L	25.
trans-1,3-Dichloropropene	10061-02-6	n.d.	MG/L	25.
Bromoform	75-25-2	n.d.	MG/L	25.
4-Methyl-2-Pentanone	108-10-1	n.d.	MG/L	50.
2-Hexanone	591-78-6	n.d.	MG/L	50.
Tetrachloroethene	127-18-4	n.d.	MG/L	25.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	MG/L	25.
Toluene	108-88-3	690.	MG/L	25.
Chlorobenzene	108-90-7	n.d.	MG/L	25.
Ethylbenzene	100-41-4	410.	MG/L	25.
Styrene	100-42-5	n.d.	MG/L	25.
m,p-Xylene	133-02-7	1100.	MG/L	25.
Xylene (total)	133-02-7	590.	MG/L	25.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S VOLATILE ORGANICS TEST RESULTS

Name Field: 12-13-1-TK WATER Blank:>VD790:ZERO QaQc File:QVOLWM
 Misc Field: 92-09-048-20B 2.5 MLS WATER ANALYZED
 Instrument: VOA1 Datafile: >AD796 Idfile: ID_VC1 Quantfile: ^AD796

Injection time: 17:19 on 09-24-92 Quant Time: 17:51 on 09-24-92
 Continuing calibration time : 10:16 on 09-24-92 using the file: ^VW320::D1
 User dilfac:2 Quant dilfac:2 Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	UG/L	20.
Bromomethane	74-83-9	n.d.	UG/L	20.
Vinyl Chloride	75-01-4	n.d.	UG/L	20.
Chloroethane	75-00-3	n.d.	UG/L	20.
Methylene Chloride	75-09-2	n.d.	UG/L	10.
Acetone	67-64-1	310.	UG/L	20.
Carbon Disulfide	75-15-0	n.d.	UG/L	10.
1,1-Dichloroethene	75-35-4	n.d.	UG/L	10.
1,1-Dichloroethane	75-34-3	n.d.	UG/L	10.
1,2-Dichloroethene (total)	540-59-0	n.d.	UG/L	10.
trans-1,2-Dichloroethene	540-59-0	n.d.	UG/L	10.
Chloroform	67-66-3	n.d.	UG/L	10.
1,2-Dichloroethane	107-02-2	n.d.	UG/L	10.
2-Butanone	78-93-3	94.	UG/L	20.
1,1,1-Trichloroethane	71-55-6	n.d.	UG/L	10.
Carbon Tetrachloride	56-23-5	n.d.	UG/L	10.
Vinyl Acetate	108-05-4	n.d.	UG/L	20.
Bromodichloromethane	75-27-4	n.d.	UG/L	10.
1,2-Dichloropropane	78-87-5	n.d.	UG/L	10.
cis-1,3-Dichloropropene	10061-01-5	n.d.	UG/L	10.
Trichloroethene	79-01-6	n.d.	UG/L	10.
Dibromochloromethane	124-48-1	n.d.	UG/L	10.
1,1,2-Trichloroethane	79-00-5	n.d.	UG/L	10.
Benzene	71-43-2	180.	UG/L	10.
trans-1,3-Dichloropropene	10061-02-6	n.d.	UG/L	10.
Bromoform	75-25-2	n.d.	UG/L	10.
4-Methyl-2-Pentanone	108-10-1	n.d.	UG/L	20.
2-Hexanone	591-78-6	n.d.	UG/L	20.
Tetrachloroethene	127-18-4	n.d.	UG/L	10.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	UG/L	10.
Toluene	108-88-3	340.	UG/L	10.
Chlorobenzene	108-90-7	n.d.	UG/L	10.
Ethylbenzene	100-41-4	76.	UG/L	10.
Styrene	100-42-5	n.d.	UG/L	10.
m,p-Xylene	133-02-7	220.	UG/L	10.
Xylene (total)	133-02-7	120.	UG/L	10.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTR. LAB'S VOLATILE ORGANICS TEST RESULTS

Name Field: 92SAB0916-1 TRPBLK Blank:>VD784:PASS QaQc File: QVOLWM
 Misc Field: 92-09-048-25A
 Instrument: VOA1 Datafile: >VD785 Idfile: ID_VC1 Quantfile: ^VD785

Injection time: 13:44 on 09-23-92 Quant Time: 14:15 on 09-23-92
 Continuing calibration time : 08:19 on 09-23-92 using the file: ^VW318::D1
 User dilfac:1 Quant dilfac: 1. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Units	Detection Limit
Chloromethane	74-87-3	n.d.	UG/L	10.
Bromomethane	74-83-9	n.d.	UG/L	10.
Vinyl Chloride	75-01-4	n.d.	UG/L	10.
Chloroethane	75-00-3	n.d.	UG/L	10.
Methylene Chloride	75-09-2	n.d.	UG/L	5.
Acetone	67-64-1	n.d.	UG/L	10.
Carbon Disulfide	75-15-0	n.d.	UG/L	5.
1,1-Dichloroethene	75-35-4	n.d.	UG/L	5.
1,1-Dichloroethane	75-34-3	n.d.	UG/L	5.
1,2-Dichloroethene (total)	540-59-0	n.d.	UG/L	5.
trans-1,2-Dichloroethene	540-59-0	n.d.	UG/L	5.
Chloroform	67-66-3	n.d.	UG/L	5.
1,2-Dichloroethane	107-02-2	n.d.	UG/L	5.
2-Butanone	78-93-3	n.d.	UG/L	10.
1,1,1-Trichloroethane	71-55-6	n.d.	UG/L	5.
Carbon Tetrachloride	56-23-5	n.d.	UG/L	5.
Vinyl Acetate	108-05-4	n.d.	UG/L	10.
Bromodichloromethane	75-27-4	n.d.	UG/L	5.
1,2-Dichloropropane	78-87-5	n.d.	UG/L	5.
cis-1,3-Dichloropropene	10061-01-5	n.d.	UG/L	5.
Trichloroethene	79-01-6	n.d.	UG/L	5.
Dibromochloromethane	124-48-1	n.d.	UG/L	5.
1,1,2-Trichloroethane	79-00-5	n.d.	UG/L	5.
Benzene	71-43-2	n.d.	UG/L	5.
trans-1,3-Dichloropropene	10061-02-6	n.d.	UG/L	5.
Bromoform	75-25-2	n.d.	UG/L	5.
4-Methyl-2-Pentanone	108-10-1	n.d.	UG/L	10.
2-Hexanone	591-78-6	n.d.	UG/L	10.
Tetrachloroethene	127-18-4	n.d.	UG/L	5.
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	UG/L	5.
Toluene	108-88-3	n.d.	UG/L	5.
Chlorobenzene	108-90-7	n.d.	UG/L	5.
Ethylbenzene	100-41-4	n.d.	UG/L	5.
Styrene	100-42-5	n.d.	UG/L	5.
m,p-Xylene	133-02-7	n.d.	UG/L	5.
Xylene (total)	133-02-7	n.d.	UG/L	5.

n.d. - not detected

Approved by: _____

Blank Run Report
REFCO ANALYTICAL CHEMISTRY LAB'S VOLATILE ORGANICS TEST RESULTS

Name Field: VBLK01 QaQc File: QVOLWM
Misc Field: METHOD BLANK
Instrument: VOA1 Datafile: >VD784 Idfile: ID VC1 Quantfile: ^VD784

Injection time: 12:35 on 09-23-92 Quant Time: 13:37 on 09-23-92
Continuing calibration time : 08:19 on 09-23-92 using the file: ^VW318:D1
User dirlfac:1 Quant dirlfac: 1. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Allowed	Blank Flag
Chloromethane	74-87-3	n.d.	10.0	ok
Bromomethane	74-83-9	n.d.	12.0	ok
Vinyl Chloride	75-01-4	n.d.	10.0	ok
Chloroethane	75-00-3	n.d.	10.0	ok
Methylene Chloride	75-09-2	n.d.	25.0	ok
Acetone	67-64-1	6.	50.0	ok
Carbon Disulfide	75-15-0	n.d.	5.0	ok
1,1-Dichloroethene	75-35-4	n.d.	5.0	ok
1,1-Dichloroethane	75-34-3	n.d.	5.0	ok
1,2-Dichloroethene (total)	540-59-0	n.d.	5.0	ok
trans-1,2-Dichloroethene	540-59-0	n.d.	5.0	ok
Chloroform	67-66-3	n.d.	5.0	ok
1,2-Dichloroethane	107-02-2	n.d.	5.0	ok
2-Butanone	78-93-3	n.d.	50.0	ok
1,1,1-Trichloroethane	71-55-6	n.d.	5.0	ok
Carbon Tetrachloride	56-23-5	n.d.	5.0	ok
Vinyl Acetate	108-05-4	n.d.	5.0	ok
Bromodichloromethane	75-27-4	n.d.	5.0	ok
1,2-Dichloropropane	78-87-5	n.d.	5.0	ok
cis-1,3-Dichloropropene	10061-01-5	n.d.	5.0	ok
Trichloroethene	79-01-6	n.d.	5.0	ok
Dibromochloromethane	124-48-1	n.d.	5.0	ok
1,1,2-Trichloroethane	79-00-5	n.d.	5.0	ok
Benzene	71-43-2	n.d.	5.0	ok
trans-1,3-Dichloropropene	10061-02-6	n.d.	5.0	ok
Bromoform	75-25-2	n.d.	5.0	ok
4-Methyl-2-Pentanone	108-10-1	n.d.	5.0	ok
2-Hexanone	591-78-6	n.d.	5.0	ok
Tetrachloroethene	127-18-4	n.d.	5.0	ok
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	5.0	ok
Toluene	108-88-3	n.d.	25.0	ok
Chlorobenzene	108-90-7	n.d.	5.0	ok
Ethylbenzene	100-41-4	n.d.	5.0	ok
Styrene	100-42-5	n.d.	5.0	ok
m,p-Xylene	133-02-7	n.d.	5.0	ok
Xylene (total)	133-02-7	n.d.	5.0	ok

n.d. - not detected

Approved by: _____

Blank Run Report

Name Field: VBLK01

OaOc File: OVQLWM

Misc Field: METHOD BLANK

Instrument: VOA1 Datafile: >VD790 Idfile: ID VC1 Quantfile: ^VD790

Datafile: >VD790

Idfile: ID VC1

Quantfile: ^VD790

Injection time: 11:04 on 09-24-92

Quant Time: 11:36 on 09-24-92

Continuing calibration time : 10:16 on 09-24-92

using the file: ^VW320::D1

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User dilfac:1
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Quant dilfac:

1. Multi-calibration: 14:49 on 05-12-92

Compound Name	CAS Number	Result	Allowed	Blank Flag
Chloromethane	74-87-3	n.d.	10.0	ok
Bromomethane	74-83-9	n.d.	12.0	ok
Vinyl Chloride	75-01-4	n.d.	10.0	ok
Chloroethane	75-00-3	n.d.	10.0	ok
Methylene Chloride	75-09-2	n.d.	25.0	ok
Acetone	67-64-1	n.d.	50.0	ok
Carbon Disulfide	75-15-0	n.d.	5.0	ok
1,1-Dichloroethene	75-35-4	n.d.	5.0	ok
1,1-Dichloroethane	75-34-3	n.d.	5.0	ok
1,2-Dichloroethene (total)	540-59-0	n.d.	5.0	ok
trans-1,2-Dichloroethene	540-59-0	n.d.	5.0	ok
Chloroform	67-66-3	n.d.	5.0	ok
1,2-Dichloroethane	107-02-2	n.d.	5.0	ok
2-Butanone	78-93-3	n.d.	50.0	ok
1,1,1-Trichloroethane	71-55-6	n.d.	5.0	ok
Carbon Tetrachloride	56-23-5	n.d.	5.0	ok
Vinyl Acetate	108-05-4	n.d.	5.0	ok
Bromodichloromethane	75-27-4	n.d.	5.0	ok
1,2-Dichloropropane	78-87-5	n.d.	5.0	ok
cis-1,3-Dichloropropene	10061-01-5	n.d.	5.0	ok
Trichloroethene	79-01-6	n.d.	5.0	ok
Dibromochloromethane	124-48-1	n.d.	5.0	ok
1,1,2-Trichloroethane	79-00-5	n.d.	5.0	ok
Benzene	71-43-2	n.d.	5.0	ok
trans-1,3-Dichloropropene	10061-02-6	n.d.	5.0	ok
Bromoform	75-25-2	n.d.	5.0	ok
4-Methyl-2-Pentanone	108-10-1	n.d.	5.0	ok
2-Hexanone	591-78-6	n.d.	5.0	ok
Tetrachloroethene	127-18-4	n.d.	5.0	ok
1,1,2,2-Tetrachloroethane	79-34-5	n.d.	5.0	ok
Toluene	108-88-3	n.d.	25.0	ok
Chlorobenzene	108-90-7	n.d.	5.0	ok
Ethylbenzene	100-41-4	n.d.	5.0	ok
Styrene	100-42-5	n.d.	5.0	ok
m,p-Xylene	133-02-7	n.d.	5.0	ok
Xylene (total)	133-02-7	n.d.	5.0	ok

n.d. - not detected

Approved by: _____

SEMIVOLATILES DATA

ANALYST NOTES: BNAs

Date: October, 12, 1992

Lab Work Order No.: 92-09-048

Client Sample ID: 11-1-1-TK water, 12-13-1-TK water, SBLK 0921, 11-1-1-TK oil, 12-13-1-TK oil, 12-13-1-TK MS, 12-13-1-TK MSD

The samples were analyzed on a Hewlett Packard 5890 GC/5988. Data were collected on an HP1000/RTE-A data system. Instrumental parameters used are those specified in SW-846 method 8270.

The target analytes are listed with their CAS numbers, and the amount of the target compound found in ug/L or ug/Kg depending on the matrix. If the analyte was not found in the sample, the quantitation limit is reported followed by an n.d. qualifier. The other qualifiers used in this reporting format are:

n.d.-Indicates compound was analyzed for but not detected.

J- Indicates an estimated value. There is a compound present which meets the identification criteria, but the result is less than the sample quantitation limit and greater than zero.

B- This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination.

E- This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis.

D- This flag identifies all compounds identified in an analysis at a secondary dilution factor.

The four oil samples had no problems during analysis. However, the water samples showed serious matrix effects with most of the surrogates and internal standards failing QA/QC.

REECO ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 1

Name Field: 11-1-1-TK OIL

Operator: KRAIG

Misc Field: 9209048-01A

Instrument: BNA1

Datafile: >SD115

Idfile: ID_BC1

Quantfile: ^SD115

Injection time: 14:21 on 10-07-92

Quant Time: 15:12 on 10-07-92

Continuing calibration time : 12:04 on 10-07-92

using the file: ^SC154::D4

User dilfac:44.2 Quant dilfac:

1. Multi-calibration: 10:28 on 09-22-92

Compound Name	CAS Number	Result	Units	Detection Limit
Phenol	108-95-2	n.d.	ug/L	220.
bis(2-Chloroethyl)ether	111-44-4	n.d.	ug/L	220.
2-Chlorophenol	95-57-8	n.d.	ug/L	220.
1,3-Dichlorobenzene	541-73-1	n.d.	ug/L	220.
1,4-Dichlorobenzene	106-46-7	n.d.	ug/L	220.
Benzyl alcohol	100-51-6	n.d.	ug/L	220.
1,2-Dichlorobenzene	95-50-1	n.d.	ug/L	220.
2-Methylphenol	95-48-7	n.d.	ug/L	220.
2,2'-oxybis(1-Chloropropane)	108-60-1	n.d.	ug/L	220.
bis(2-Chloroisopropyl)ether	39638-32-9	n.d.	ug/L	220.
4-Methylphenol	106-44-5	n.d.	ug/L	220.
N-Nitroso-di-n-propylamine	621-64-7	n.d.	ug/L	220.
Hexachloroethane	67-72-1	n.d.	ug/L	220.
Nitrobenzene	98-95-3	n.d.	ug/L	220.
Isophorone	78-59-1	n.d.	ug/L	220.
2-Nitrophenol	88-75-5	n.d.	ug/L	220.
2,4-Dimethylphenol	105-67-9	n.d.	ug/L	220.
Benzoic acid	65-85-0	n.d.	ug/L	1100.
bis(2-Chloroethoxy)methane	111-91-1	n.d.	ug/L	220.
2,4-Dichlorophenol	120-83-2	n.d.	ug/L	220.
1,2,4-Trichlorobenzene	120-82-1	n.d.	ug/L	220.
Naphthalene	91-20-3	n.d.	ug/L	220.
4-Chloroaniline	106-47-8	n.d.	ug/L	220.
Hexachlorobutadiene	87-68-3	n.d.	ug/L	220.
4-Chloro-3-methylphenol	59-50-7	n.d.	ug/L	220.
2-Methylnaphthalene	91-57-6	1340.	ug/L	220.
Hexachlorocyclopentadiene	77-47-4	n.d.	ug/L	220.
2,4,6-Trichlorophenol	88-06-2	n.d.	ug/L	220.
2,4,5-Trichlorophenol	95-95-4	n.d.	ug/L	1100.
2-Chloronaphthalene	91-58-7	n.d.	ug/L	220.
2-Nitroaniline	88-74-4	n.d.	ug/L	1100.
Dimethylphthalate	131-11-3	n.d.	ug/L	220.
Acenaphthylene	208-96-8	n.d.	ug/L	220.
2,6-Dinitrotoluene	606-20-2	n.d.	ug/L	220.
3-Nitroaniline	99-09-2	n.d.	ug/L	1100.
Acenaphthene	83-32-9	n.d.	ug/L	220.
2,4-Dinitrophenol	51-28-5	n.d.	ug/L	1100.
4-Nitrophenol	100-02-7	n.d.	ug/L	1100.
Dibenzofuran	132-64-9	n.d.	ug/L	220.
2,4-Dinitrotoluene	121-14-2	n.d.	ug/L	220.
Diethylphthalate	84-66-2	n.d.	ug/L	220.
4-Chlorophenyl-phenylether	7005-72-3	n.d.	ug/L	220.
Fluorene	86-73-7	n.d.	ug/L	220.
4-Nitroaniline	100-01-6	n.d.	ug/L	1100.

REECO ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 2

Name Field: 11-1-1-TK OIL

Operator: KRAIG

Misc Field: 9209048-01A

Instrument: BNA1

Datafile: >SD115

Idfile: ID_BC1

Quantfile: ^SD115

Compound Name	CAS Number	Result	Units	Detection Limit
4,6-Dinitro-2-methylphenol	534-52-1	n.d.	ug/L	1100.
N-Nitrosodiphenylamine	86-30-6	n.d.	ug/L	220.
4-Bromophenyl-phenylether	101-55-3	n.d.	ug/L	220.
Hexachlorobenzene	118-74-1	n.d.	ug/L	220.
Pentachlorophenol	87-86-5	n.d.	ug/L	1100.
Phenanthrene	85-01-8	n.d.	ug/L	220.
Anthracene	120-12-7	n.d.	ug/L	220.
Carbazole	86-74-8	n.d.	ug/L	220.
Di-n-butylphthalate	84-74-2	n.d.	ug/L	220.
Fluoranthene	206-44-0	n.d.	ug/L	220.
Pyrene	129-00-0	n.d.	ug/L	220.
Butylbenzylphthalate	85-68-7	n.d.	ug/L	220.
3,3'-Dichlorobenzidine	91-94-1	n.d.	ug/L	440.
Benzo(a)anthracene	56-55-3	n.d.	ug/L	220.
Chrysene	218-01-9	n.d.	ug/L	220.
bis(2-Ethylhexyl)phthalate	117-81-7	n.d.	ug/L	220.
Di-n-octylphthalate	117-84-0	n.d.	ug/L	220.
Benzo(b)fluoranthene	205-99-2	n.d.	ug/L	220.
Benzo(k)fluoranthene	207-08-9	n.d.	ug/L	220.
Benzo(a)pyrene	50-32-8	n.d.	ug/L	220.
Indeno(1,2,3-cd)pyrene	193-39-5	n.d.	ug/L	220.
Dibenzo(a,h)anthracene	53-70-3	n.d.	ug/L	220.
Benzo(g,h,i)perylene	191-24-2	n.d.	ug/L	220.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 1

Name Field: 11-1-1-TK WATER Operator: KRAIG
 Misc Field: 9209048-01B 2ND RUN
 Instrument: BNA2 Datafile: >SD275 Idfile: ID_BC2 Quantfile: ^SD275

Injection time: 18:49 on 10-07-92 Quant Time: 08:57 on 10-08-92
 Continuing calibration time : 16:44 on 10-07-92 using the file: ^SC243::D5
 User dilfac:21 Quant dilfac: 1. Multi-calibration: 15:20 on 06-24-92

Compound Name	CAS Number	Result	Units	Detection Limit
Phenol	108-95-2	n.d.	ug/L	110.
bis(2-Chloroethyl)ether	111-44-4	n.d.	ug/L	110.
2-Chlorophenol	95-57-8	n.d.	ug/L	110.
1,3-Dichlorobenzene	541-73-1	n.d.	ug/L	110.
1,4-Dichlorobenzene	106-46-7	n.d.	ug/L	110.
Benzyl alcohol	100-51-6	n.d.	ug/L	110.
1,2-Dichlorobenzene	95-50-1	n.d.	ug/L	110.
2-Methylphenol	95-48-7	n.d.	ug/L	110.
2,2'-oxybis(1-Chloropropane)	108-60-1	n.d.	ug/L	110.
bis(2-Chloroisopropyl)ether	39638-32-9	n.d.	ug/L	110.
4-Methylphenol	106-44-5	n.d.	ug/L	110.
N-Nitroso-di-n-propylamine	621-64-7	n.d.	ug/L	110.
Hexachloroethane	67-72-1	n.d.	ug/L	110.
Nitrobenzene	98-95-3	n.d.	ug/L	110.
Isophorone	78-59-1	n.d.	ug/L	110.
2-Nitrophenol	88-75-5	n.d.	ug/L	110.
2,4-Dimethylphenol	105-67-9	n.d.	ug/L	110.
Benzoic acid	65-85-0	n.d.	ug/L	530.
bis(2-Chloroethoxy)methane	111-91-1	n.d.	ug/L	110.
2,4-Dichlorophenol	120-83-2	n.d.	ug/L	110.
1,2,4-Trichlorobenzene	120-82-1	n.d.	ug/L	110.
Naphthalene	91-20-3	n.d.	ug/L	110.
4-Chloroaniline	106-47-8	n.d.	ug/L	110.
Hexachlorobutadiene	87-68-3	n.d.	ug/L	110.
4-Chloro-3-methylphenol	59-50-7	n.d.	ug/L	110.
2-Methylnaphthalene	91-57-6	n.d.	ug/L	110.
Hexachlorocyclopentadiene	77-47-4	n.d.	ug/L	110.
2,4,6-Trichlorophenol	88-06-2	n.d.	ug/L	110.
2,4,5-Trichlorophenol	95-95-4	n.d.	ug/L	530.
2-Chloronaphthalene	91-58-7	n.d.	ug/L	110.
2-Nitroaniline	88-74-4	n.d.	ug/L	530.
Dimethylphthalate	131-11-3	n.d.	ug/L	110.
Acenaphthylene	208-96-8	n.d.	ug/L	110.
2,6-Dinitrotoluene	606-20-2	n.d.	ug/L	110.
3-Nitroaniline	99-09-2	n.d.	ug/L	530.
Acenaphthene	83-32-9	n.d.	ug/L	110.
2,4-Dinitrophenol	51-28-5	n.d.	ug/L	530.
4-Nitrophenol	100-02-7	n.d.	ug/L	530.
Dibenzofuran	132-64-9	n.d.	ug/L	110.
2,4-Dinitrotoluene	121-14-2	n.d.	ug/L	110.
Diethylphthalate	84-66-2	n.d.	ug/L	110.
4-Chlorophenyl-phenylether	7005-72-3	n.d.	ug/L	110.
Fluorene	86-73-7	n.d.	ug/L	110.
4-Nitroaniline	100-01-6	n.d.	ug/L	530.

REECO ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 2

Name Field: 11-1-1-TK WATER

Operator: KRAIG

Misc Field: 9209048-01B 2ND RUN

Instrument: BNA2

Datafile: >SD275

Idfile: ID_BC2

Quantfile: ^SD275

Compound Name	CAS Number	Result	Units	Detection Limit
4,6-Dinitro-2-methylphenol	534-52-1	n.d.	ug/L	530.
N-Nitrosodiphenylamine	86-30-6	n.d.	ug/L	110.
4-Bromophenyl-phenylether	101-55-3	n.d.	ug/L	110.
Hexachlorobenzene	118-74-1	n.d.	ug/L	110.
Pentachlorophenol	87-86-5	n.d.	ug/L	530.
Phenanthrene	85-01-8	n.d.	ug/L	110.
Anthracene	120-12-7	n.d.	ug/L	110.
Carbazole	86-74-8	n.d.	ug/L	110.
Di-n-butylphthalate	84-74-2	n.d.	ug/L	110.
Fluoranthene	206-44-0	n.d.	ug/L	110.
Pyrene	129-00-0	n.d.	ug/L	110.
Butylbenzylphthalate	85-68-7	n.d.	ug/L	110.
3,3'-Dichlorobenzidine	91-94-1	n.d.	ug/L	210.
Benzo(a)anthracene	56-55-3	n.d.	ug/L	110.
Chrysene	218-01-9	n.d.	ug/L	110.
bis(2-Ethylhexyl)phthalate	117-81-7	n.d.	ug/L	110.
Di-n-octylphthalate	117-84-0	n.d.	ug/L	110.
Benzo(b)fluoranthene	205-99-2	n.d.	ug/L	110.
Benzo(k)fluoranthene	207-08-9	n.d.	ug/L	110.
Benzo(a)pyrene	50-32-8	n.d.	ug/L	110.
Indeno(1,2,3-cd)pyrene	193-39-5	n.d.	ug/L	110.
Dibenzo(a,h)anthracene	53-70-3	n.d.	ug/L	110.
Benzo(g,h,i)perylene	191-24-2	n.d.	ug/L	110.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 1

Name Field: 12-13-1-TK OIL

Operator: KRAIG

Misc Field: 9209048-18A

Instrument: BNA1

Datafile: >SD116

Idfile: ID_BC1

Quantfile: ^SD116

Injection time: 15:23 on 10-07-92

Quant Time: 16:14 on 10-07-92

Continuing calibration time : 12:04 on 10-07-92

using the file: ^SC154::D4

User dilfac:45.9 Quant dilfac:

1. Multi-calibration: 10:28 on 09-22-92

Compound Name	CAS Number	Result	Units	Detection Limit
Phenol	108-95-2	n.d.	ug/L	230.
bis(2-Chloroethyl)ether	111-44-4	n.d.	ug/L	230.
2-Chlorophenol	95-57-8	n.d.	ug/L	230.
1,3-Dichlorobenzene	541-73-1	n.d.	ug/L	230.
1,4-Dichlorobenzene	106-46-7	n.d.	ug/L	230.
Benzyl alcohol	100-51-6	n.d.	ug/L	230.
1,2-Dichlorobenzene	95-50-1	n.d.	ug/L	230.
2-Methylphenol	95-48-7	n.d.	ug/L	230.
2,2'-oxybis(1-Chloropropane)	108-60-1	n.d.	ug/L	230.
bis(2-Chloroisopropyl)ether	39638-32-9	n.d.	ug/L	230.
4-Methylphenol	106-44-5	n.d.	ug/L	230.
N-Nitroso-di-n-propylamine	621-64-7	n.d.	ug/L	230.
Hexachloroethane	67-72-1	n.d.	ug/L	230.
Nitrobenzene	98-95-3	n.d.	ug/L	230.
Isophorone	78-59-1	n.d.	ug/L	230.
2-Nitrophenol	88-75-5	n.d.	ug/L	230.
2,4-Dimethylphenol	105-67-9	n.d.	ug/L	230.
Benzoic acid	65-85-0	n.d.	ug/L	1100.
bis(2-Chloroethoxy)methane	111-91-1	n.d.	ug/L	230.
2,4-Dichlorophenol	120-83-2	n.d.	ug/L	230.
1,2,4-Trichlorobenzene	120-82-1	n.d.	ug/L	230.
Naphthalene	91-20-3	n.d.	ug/L	230.
4-Chloroaniline	106-47-8	n.d.	ug/L	230.
Hexachlorobutadiene	87-68-3	n.d.	ug/L	230.
4-Chloro-3-methylphenol	59-50-7	n.d.	ug/L	230.
2-Methylnaphthalene	91-57-6	1000.	ug/L	230.
Hexachlorocyclopentadiene	77-47-4	n.d.	ug/L	230.
2,4,6-Trichlorophenol	88-06-2	n.d.	ug/L	230.
2,4,5-Trichlorophenol	95-95-4	n.d.	ug/L	1100.
2-Chloronaphthalene	91-58-7	n.d.	ug/L	230.
2-Nitroaniline	88-74-4	n.d.	ug/L	1100.
Dimethylphthalate	131-11-3	n.d.	ug/L	230.
Acenaphthylene	208-96-8	n.d.	ug/L	230.
2,6-Dinitrotoluene	606-20-2	n.d.	ug/L	230.
3-Nitroaniline	99-09-2	n.d.	ug/L	1100.
Acenaphthene	83-32-9	n.d.	ug/L	230.
2,4-Dinitrophenol	51-28-5	n.d.	ug/L	1100.
4-Nitrophenol	100-02-7	n.d.	ug/L	1100.
Dibenzofuran	132-64-9	n.d.	ug/L	230.
2,4-Dinitrotoluene	121-14-2	n.d.	ug/L	230.
Diethylphthalate	84-66-2	n.d.	ug/L	230.
4-Chlorophenyl-phenylether	7005-72-3	n.d.	ug/L	230.
Fluorene	86-73-7	n.d.	ug/L	230.
4-Nitroaniline	100-01-6	n.d.	ug/L	1100.

REECO ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 2

Name Field: 12-13-1-TK OIL

Operator: KRAIG

Misc Field: 9209048-18A

Instrument: BNA1

Datafile: >SD116

Idfile: ID_BC1

Quantfile: ^SD116

Compound Name	CAS Number	Result	Units	Detection Limit
4,6-Dinitro-2-methylphenol	534-52-1	n.d.	ug/L	1100.
N-Nitrosodiphenylamine	86-30-6	n.d.	ug/L	230.
4-Bromophenyl-phenylether	101-55-3	n.d.	ug/L	230.
Hexachlorobenzene	118-74-1	n.d.	ug/L	230.
Pentachlorophenol	87-86-5	n.d.	ug/L	1100.
Phenanthrene	85-01-8	n.d.	ug/L	230.
Anthracene	120-12-7	n.d.	ug/L	230.
Carbazole	86-74-8	n.d.	ug/L	230.
Di-n-butylphthalate	84-74-2	n.d.	ug/L	230.
Fluoranthene	206-44-0	n.d.	ug/L	230.
Pyrene	129-00-0	n.d.	ug/L	230.
Butylbenzylphthalate	85-68-7	n.d.	ug/L	230.
3,3'-Dichlorobenzidine	91-94-1	n.d.	ug/L	460.
Benzo(a)anthracene	56-55-3	n.d.	ug/L	230.
Chrysene	218-01-9	n.d.	ug/L	230.
bis(2-Ethylhexyl)phthalate	117-81-7	n.d.	ug/L	230.
Di-n-octylphthalate	117-84-0	n.d.	ug/L	230.
Benzo(b)fluoranthene	205-99-2	n.d.	ug/L	230.
Benzo(k)fluoranthene	207-08-9	n.d.	ug/L	230.
Benzo(a)pyrene	50-32-8	n.d.	ug/L	230.
Indeno(1,2,3-cd)pyrene	193-39-5	n.d.	ug/L	230.
Dibenzo(a,h)anthracene	53-70-3	n.d.	ug/L	230.
Benzo(g,h,i)perylene	191-24-2	n.d.	ug/L	230.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 1

Name Field: 12-13-1-TK WATER Operator: KRAIG
 Misc Field: 9209048-18B 2ND RUN
 Instrument: BNA2 Datafile: >SD276 Idfile: ID_BC2 Quantfile: ^SD276

Injection time: 19:51 on 10-07-92 Quant Time: 09:13 on 10-08-92
 Continuing calibration time : 16:44 on 10-07-92 using the file: ^SC243::D5
 User dilfac:45.9 Quant dilfac: 1. Multi-calibration: 15:20 on 06-24-92

Compound Name	CAS Number	Result	Units	Detection Limit
Phenol	108-95-2	n.d.	ug/L	230.
bis(2-Chloroethyl)ether	111-44-4	n.d.	ug/L	230.
2-Chlorophenol	95-57-8	n.d.	ug/L	230.
1,3-Dichlorobenzene	541-73-1	n.d.	ug/L	230.
1,4-Dichlorobenzene	106-46-7	n.d.	ug/L	230.
Benzyl alcohol	100-51-6	n.d.	ug/L	230.
1,2-Dichlorobenzene	95-50-1	n.d.	ug/L	230.
2-Methylphenol	95-48-7	n.d.	ug/L	230.
2,2'-oxybis(1-Chloropropane)	108-60-1	n.d.	ug/L	230.
bis(2-Chloroisopropyl)ether	39638-32-9	n.d.	ug/L	230.
4-Methylphenol	106-44-5	n.d.	ug/L	230.
N-Nitroso-di-n-propylamine	621-64-7	n.d.	ug/L	230.
Hexachloroethane	67-72-1	n.d.	ug/L	230.
Nitrobenzene	98-95-3	n.d.	ug/L	230.
Isophorone	78-59-1	n.d.	ug/L	230.
2-Nitrophenol	88-75-5	n.d.	ug/L	230.
2,4-Dimethylphenol	105-67-9	n.d.	ug/L	230.
Benzoic acid	65-85-0	n.d.	ug/L	1100.
bis(2-Chloroethoxy)methane	111-91-1	n.d.	ug/L	230.
2,4-Dichlorophenol	120-83-2	n.d.	ug/L	230.
1,2,4-Trichlorobenzene	120-82-1	n.d.	ug/L	230.
Naphthalene	91-20-3	n.d.	ug/L	230.
4-Chloroaniline	106-47-8	n.d.	ug/L	230.
Hexachlorobutadiene	87-68-3	n.d.	ug/L	230.
4-Chloro-3-methylphenol	59-50-7	n.d.	ug/L	230.
2-Methylnaphthalene	91-57-6	n.d.	ug/L	230.
Hexachlorocyclopentadiene	77-47-4	n.d.	ug/L	230.
2,4,6-Trichlorophenol	88-06-2	n.d.	ug/L	230.
2,4,5-Trichlorophenol	95-95-4	n.d.	ug/L	1100.
2-Chloronaphthalene	91-58-7	n.d.	ug/L	230.
2-Nitroaniline	88-74-4	n.d.	ug/L	1100.
Dimethylphthalate	131-11-3	n.d.	ug/L	230.
Acenaphthylene	208-96-8	n.d.	ug/L	230.
2,6-Dinitrotoluene	606-20-2	n.d.	ug/L	230.
3-Nitroaniline	99-09-2	n.d.	ug/L	1100.
Acenaphthene	83-32-9	n.d.	ug/L	230.
2,4-Dinitrophenol	51-28-5	n.d.	ug/L	1100.
4-Nitrophenol	100-02-7	n.d.	ug/L	1100.
Dibenzofuran	132-64-9	n.d.	ug/L	230.
2,4-Dinitrotoluene	121-14-2	n.d.	ug/L	230.
Diethylphthalate	84-66-2	n.d.	ug/L	230.
4-Chlorophenyl-phenylether	7005-72-3	n.d.	ug/L	230.
Fluorene	86-73-7	n.d.	ug/L	230.
4-Nitroaniline	100-01-6	n.d.	ug/L	1100.

REECo ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 2

Name Field: 12-13-1-TK WATER Operator: KRAIG
 Misc Field: 9209048-18B 2ND RUN
 Instrument: BNA2 Datafile: >SD276 Idfile: ID_BC2 Quantfile: ^SD276

Compound Name	CAS Number	Result	Units	Detection Limit
4,6-Dinitro-2-methylphenol	534-52-1	n.d.	ug/L	1100.
N-Nitrosodiphenylamine	86-30-6	n.d.	ug/L	230.
4-Bromophenyl-phenylether	101-55-3	n.d.	ug/L	230.
Hexachlorobenzene	118-74-1	n.d.	ug/L	230.
Pentachlorophenol	87-86-5	n.d.	ug/L	1100.
Phenanthrene	85-01-8	n.d.	ug/L	230.
Anthracene	120-12-7	n.d.	ug/L	230.
Carbazole	86-74-8	n.d.	ug/L	230.
Di-n-butylphthalate	84-74-2	n.d.	ug/L	230.
Fluoranthene	206-44-0	n.d.	ug/L	230.
Pyrene	129-00-0	n.d.	ug/L	230.
Butylbenzylphthalate	85-68-7	n.d.	ug/L	230.
3,3'-Dichlorobenzidine	91-94-1	n.d.	ug/L	460.
Benzo(a)anthracene	56-55-3	n.d.	ug/L	230.
Chrysene	218-01-9	n.d.	ug/L	230.
bis(2-Ethylhexyl)phthalate	117-81-7	n.d.	ug/L	230.
Di-n-octylphthalate	117-84-0	n.d.	ug/L	230.
Benzo(b)fluoranthene	205-99-2	n.d.	ug/L	230.
Benzo(k)fluoranthene	207-08-9	n.d.	ug/L	230.
Benzo(a)pyrene	50-32-8	n.d.	ug/L	230.
Indeno(1,2,3-cd)pyrene	193-39-5	n.d.	ug/L	230.
Dibenzo(a,h)anthracene	53-70-3	n.d.	ug/L	230.
Benzo(g,h,i)perylene	191-24-2	n.d.	ug/L	230.

n.d. - not detected

Approved by: _____

Name Field: 12-13-1-TK MS OIL Operator: KRAIG
 Misc Field: 9209048-27A
 Instrument: BNA1 Datafile: >SD117 Idfile: ID_BC1 Quantfile: ^SD117

Injection time: 16:25 on 10-07-92 Quant Time: 17:16 on 10-07-92
 Continuing calibration time : 12:04 on 10-07-92 using the file: ^SC154::D4
 User dilfac:42.2 Quant dilfac: 1. Multi-calibration: 10:28 on 09-22-92

Compound Name	CAS Number	Result	Units	Detection Limit
Phenol	108-95-2	840.	ug/L	210.
bis(2-Chloroethyl)ether	111-44-4	n.d.	ug/L	210.
2-Chlorophenol	95-57-8	830.	ug/L	210.
1,3-Dichlorobenzene	541-73-1	410.	ug/L	210.
1,4-Dichlorobenzene	106-46-7	390.	ug/L	210.
Benzyl alcohol	100-51-6	n.d.	ug/L	210.
1,2-Dichlorobenzene	95-50-1	n.d.	ug/L	210.
2-Methylphenol	95-48-7	n.d.	ug/L	210.
2,2'-oxybis(1-Chloropropane)	108-60-1	n.d.	ug/L	210.
bis(2-Chloroisopropyl)ether	39638-32-9	n.d.	ug/L	210.
4-Methylphenol	106-44-5	n.d.	ug/L	210.
N-Nitroso-di-n-propylamine	621-64-7	500.	ug/L	210.
Hexachloroethane	67-72-1	n.d.	ug/L	210.
Nitrobenzene	98-95-3	n.d.	ug/L	210.
Isophorone	78-59-1	58.	ug/L	210.
2-Nitrophenol	88-75-5	n.d.	ug/L	210.
2,4-Dimethylphenol	105-67-9	n.d.	ug/L	210.
Benzoic acid	65-85-0	n.d.	ug/L	1100.
bis(2-Chloroethoxy)methane	111-91-1	n.d.	ug/L	210.
2,4-Dichlorophenol	120-83-2	n.d.	ug/L	210.
1,2,4-Trichlorobenzene	120-82-1	370.	ug/L	210.
Naphthalene	91-20-3	290.	ug/L	210.
4-Chloroaniline	106-47-8	110.	ug/L	210.
Hexachlorobutadiene	87-68-3	n.d.	ug/L	210.
4-Chloro-3-methylphenol	59-50-7	820.	ug/L	210.
2-Methylnaphthalene	91-57-6	1100.	ug/L	210.
Hexachlorocyclopentadiene	77-47-4	n.d.	ug/L	210.
2,4,6-Trichlorophenol	88-06-2	n.d.	ug/L	210.
2,4,5-Trichlorophenol	95-95-4	n.d.	ug/L	1100.
2-Chloronaphthalene	91-58-7	n.d.	ug/L	210.
2-Nitroaniline	88-74-4	n.d.	ug/L	1100.
Dimethylphthalate	131-11-3	n.d.	ug/L	210.
Acenaphthylene	208-96-8	n.d.	ug/L	210.
2,6-Dinitrotoluene	606-20-2	n.d.	ug/L	210.
3-Nitroaniline	99-09-2	n.d.	ug/L	1100.
Acenaphthene	83-32-9	450.	ug/L	210.
2,4-Dinitrophenol	51-28-5	n.d.	ug/L	1100.
4-Nitrophenol	100-02-7	n.d.	ug/L	1100.
Dibenzofuran	132-64-9	82.	ug/L	210.
2,4-Dinitrotoluene	121-14-2	320.	ug/L	210.
Diethylphthalate	84-66-2	n.d.	ug/L	210.
4-Chlorophenyl-phenylether	7005-72-3	n.d.	ug/L	210.
Fluorene	86-73-7	150.	ug/L	210.
4-Nitroaniline	100-01-6	n.d.	ug/L	1100.

REECO ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 2

Name Field: 12-13-1-TK MS OIL

Operator: KRAIG

Misc Field: 9209048-27A

Instrument: BNA1

Datafile: >SD117

Idfile: ID_BC1

Quantfile: ^SD117

Compound Name	CAS Number	Result	Units	Detection Limit
4,6-Dinitro-2-methylphenol	534-52-1	n.d.	ug/L	1100.
N-Nitrosodiphenylamine	86-30-6	n.d.	ug/L	210.
4-Bromophenyl-phenylether	101-55-3	n.d.	ug/L	210.
Hexachlorobenzene	118-74-1	n.d.	ug/L	210.
Pentachlorophenol	87-86-5	400.	ug/L	1100.
Phenanthrene	85-01-8	230.	ug/L	210.
Anthracene	120-12-7	230.	ug/L	210.
Carbazole	86-74-8	n.d.	ug/L	210.
Di-n-butylphthalate	84-74-2	n.d.	ug/L	210.
Fluoranthene	206-44-0	n.d.	ug/L	210.
Pyrene	129-00-0	230.	ug/L	210.
Butylbenzylphthalate	85-68-7	n.d.	ug/L	210.
3,3'-Dichlorobenzidine	91-94-1	n.d.	ug/L	420.
Benzo(a)anthracene	56-55-3	n.d.	ug/L	210.
Chrysene	218-01-9	n.d.	ug/L	210.
bis(2-Ethylhexyl)phthalate	117-81-7	n.d.	ug/L	210.
Di-n-octylphthalate	117-84-0	n.d.	ug/L	210.
Benzo(b)fluoranthene	205-99-2	n.d.	ug/L	210.
Benzo(k)fluoranthene	207-08-9	n.d.	ug/L	210.
Benzo(a)pyrene	50-32-8	n.d.	ug/L	210.
Indeno(1,2,3-cd)pyrene	193-39-5	n.d.	ug/L	210.
Dibenzo(a,h)anthracene	53-70-3	n.d.	ug/L	210.
Benzo(g,h,i)perylene	191-24-2	n.d.	ug/L	210.

n.d. - not detected

Approved by: _____

Name Field: 12-13-1-TK MSD OIL Operator: KRAIG
 Misc Field: 9209048-28A
 Instrument: BNA1 Datafile: >SD118 Idfile: ID_BC1 Quantfile: ^SD118

Injection time: 17:27 on 10-07-92 Quant Time: 18:18 on 10-07-92
 Continuing calibration time : 12:04 on 10-07-92 using the file: ^SC154::D4
 User dilfac:50 Quant dilfac: 1. Multi-calibration: 10:28 on 09-22-92

Compound Name	CAS Number	Result	Units	Detection Limit
Phenol	108-95-2	1100.	ug/L	250.
bis(2-Chloroethyl)ether	111-44-4	n.d.	ug/L	250.
2-Chlorophenol	95-57-8	1000.	ug/L	250.
1,3-Dichlorobenzene	541-73-1	410.	ug/L	250.
1,4-Dichlorobenzene	106-46-7	400.	ug/L	250.
Benzyl alcohol	100-51-6	n.d.	ug/L	250.
1,2-Dichlorobenzene	95-50-1	n.d.	ug/L	250.
2-Methylphenol	95-48-7	n.d.	ug/L	250.
2,2'-oxybis(1-Chloropropane)	108-60-1	n.d.	ug/L	250.
bis(2-Chloroisopropyl)ether	39638-32-9	n.d.	ug/L	250.
4-Methylphenol	106-44-5	n.d.	ug/L	250.
N-Nitroso-di-n-propylamine	621-64-7	680.	ug/L	250.
Hexachloroethane	67-72-1	n.d.	ug/L	250.
Nitrobenzene	98-95-3	n.d.	ug/L	250.
Isophorone	78-59-1	n.d.	ug/L	250.
2-Nitrophenol	88-75-5	n.d.	ug/L	250.
2,4-Dimethylphenol	105-67-9	n.d.	ug/L	250.
Benzoic acid	65-85-0	n.d.	ug/L	1300.
bis(2-Chloroethoxy)methane	111-91-1	n.d.	ug/L	250.
2,4-Dichlorophenol	120-83-2	n.d.	ug/L	250.
1,2,4-Trichlorobenzene	120-82-1	350.	ug/L	250.
Naphthalene	91-20-3	330.	ug/L	250.
4-Chloroaniline	106-47-8	130.	ug/L	250.
Hexachlorobutadiene	87-68-3	n.d.	ug/L	250.
4-Chloro-3-methylphenol	59-50-7	1200.	ug/L	250.
2-Methylnaphthalene	91-57-6	1300.	ug/L	250.
Hexachlorocyclopentadiene	77-47-4	n.d.	ug/L	250.
2,4,6-Trichlorophenol	88-06-2	n.d.	ug/L	250.
2,4,5-Trichlorophenol	95-95-4	n.d.	ug/L	1300.
2-Chloronaphthalene	91-58-7	n.d.	ug/L	250.
2-Nitroaniline	88-74-4	n.d.	ug/L	1300.
Dimethylphthalate	131-11-3	n.d.	ug/L	250.
Acenaphthylene	208-96-8	n.d.	ug/L	250.
2,6-Dinitrotoluene	606-20-2	n.d.	ug/L	250.
3-Nitroaniline	99-09-2	n.d.	ug/L	1300.
Acenaphthene	83-32-9	550.	ug/L	250.
2,4-Dinitrophenol	51-28-5	n.d.	ug/L	1300.
4-Nitrophenol	100-02-7	n.d.	ug/L	1300.
Dibenzofuran	132-64-9	96.	ug/L	250.
2,4-Dinitrotoluene	121-14-2	410.	ug/L	250.
Diethylphthalate	84-66-2	n.d.	ug/L	250.
4-Chlorophenyl-phenylether	7005-72-3	n.d.	ug/L	250.
Fluorene	86-73-7	180.	ug/L	250.
4-Nitroaniline	100-01-6	n.d.	ug/L	1300.

REECO ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 2

Name Field: 12-13-1-TK MSD OIL

Operator: KRAIG

Misc Field: 9209048-28A

Instrument: BNA1

Datafile: >SD118

Idfile: ID_BC1

Quantfile: ^SD118

Compound Name	CAS Number	Result	Units	Detectio Limit
4,6-Dinitro-2-methylphenol	534-52-1	n.d.	ug/L	1300.
N-Nitrosodiphenylamine	86-30-6	170.	ug/L	250.
4-Bromophenyl-phenylether	101-55-3	n.d.	ug/L	250.
Hexachlorobenzene	118-74-1	n.d.	ug/L	250.
Pentachlorophenol	87-86-5	450.	ug/L	1300.
Phenanthrene	85-01-8	230.	ug/L	250.
Anthracene	120-12-7	240.	ug/L	250.
Carbazole	86-74-8	n.d.	ug/L	250.
Di-n-butylphthalate	84-74-2	n.d.	ug/L	250.
Fluoranthene	206-44-0	n.d.	ug/L	250.
Pyrene	129-00-0	130.	ug/L	250.
Butylbenzylphthalate	85-68-7	n.d.	ug/L	250.
3,3'-Dichlorobenzidine	91-94-1	n.d.	ug/L	500.
Benzo(a)anthracene	56-55-3	n.d.	ug/L	250.
Chrysene	218-01-9	n.d.	ug/L	250.
bis(2-Ethylhexyl)phthalate	117-81-7	n.d.	ug/L	250.
Di-n-octylphthalate	117-84-0	n.d.	ug/L	250.
Benzo(b)fluoranthene	205-99-2	n.d.	ug/L	250.
Benzo(k)fluoranthene	207-08-9	n.d.	ug/L	250.
Benzo(a)pyrene	50-32-8	n.d.	ug/L	250.
Indeno(1,2,3-cd)pyrene	193-39-5	n.d.	ug/L	250.
Dibenzo(a,h)anthracene	53-70-3	n.d.	ug/L	250.
Benzo(g,h,i)perylene	191-24-2	n.d.	ug/L	250.

n.d. - not detected

Approved by: _____

REECO ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 1

Name Field: SBLK 0921 Operator: KRAIG
 Misc Field: 9209048-26A
 Instrument: BNA2 Datafile: >SD269 Idfile: ID_BC2 Quantfile: ^SD269

Injection time: 09:28 on 10-07-92 Quant Time: 16:21 on 10-07-92
 Continuing calibration time : 05:08 on 10-07-92 using the file: ^SCS22::QT
 User dilfac:2 Quant dilfac: 1. Multi-calibration: 15:20 on 06-24-92

Compound Name	CAS Number	Result	Units	Detection Limit
Phenol	108-95-2	n.d.	ug/L	10.
bis(2-Chloroethyl) ether	111-44-4	n.d.	ug/L	10.
2-Chlorophenol	95-57-8	n.d.	ug/L	10.
1,3-Dichlorobenzene	541-73-1	n.d.	ug/L	10.
1,4-Dichlorobenzene	106-46-7	n.d.	ug/L	10.
Benzyl alcohol	100-51-6	n.d.	ug/L	10.
1,2-Dichlorobenzene	95-50-1	n.d.	ug/L	10.
2-Methylphenol	95-48-7	n.d.	ug/L	10.
2,2'-oxybis(1-Chloropropane)	108-60-1	n.d.	ug/L	10.
bis(2-Chloroisopropyl) ether	39638-32-9	n.d.	ug/L	10.
4-Methylphenol	106-44-5	n.d.	ug/L	10.
N-Nitroso-di-n-propylamine	621-64-7	n.d.	ug/L	10.
Hexachloroethane	67-72-1	n.d.	ug/L	10.
Nitrobenzene	98-95-3	n.d.	ug/L	10.
Isophorone	78-59-1	n.d.	ug/L	10.
2-Nitrophenol	88-75-5	n.d.	ug/L	10.
2,4-Dimethylphenol	105-67-9	n.d.	ug/L	10.
Benzoic acid	65-85-0	n.d.	ug/L	50.
bis(2-Chloroethoxy) methane	111-91-1	n.d.	ug/L	10.
2,4-Dichlorophenol	120-83-2	n.d.	ug/L	10.
1,2,4-Trichlorobenzene	120-82-1	n.d.	ug/L	10.
Naphthalene	91-20-3	n.d.	ug/L	10.
4-Chloroaniline	106-47-8	n.d.	ug/L	10.
Hexachlorobutadiene	87-68-3	n.d.	ug/L	10.
4-Chloro-3-methylphenol	59-50-7	n.d.	ug/L	10.
2-Methylnaphthalene	91-57-6	n.d.	ug/L	10.
Hexachlorocyclopentadiene	77-47-4	n.d.	ug/L	10.
2,4,6-Trichlorophenol	88-06-2	n.d.	ug/L	10.
2,4,5-Trichlorophenol	95-95-4	n.d.	ug/L	50.
2-Chloronaphthalene	91-58-7	n.d.	ug/L	10.
2-Nitroaniline	88-74-4	n.d.	ug/L	50.
Dimethylphthalate	131-11-3	n.d.	ug/L	10.
Acenaphthylene	208-96-8	n.d.	ug/L	10.
2,6-Dinitrotoluene	606-20-2	n.d.	ug/L	10.
3-Nitroaniline	99-09-2	n.d.	ug/L	50.
Acenaphthene	83-32-9	n.d.	ug/L	10.
2,4-Dinitrophenol	51-28-5	n.d.	ug/L	50.
4-Nitrophenol	100-02-7	n.d.	ug/L	50.
Dibenzofuran	132-64-9	n.d.	ug/L	10.
2,4-Dinitrotoluene	121-14-2	n.d.	ug/L	10.
Diethylphthalate	84-66-2	n.d.	ug/L	10.
4-Chlorophenyl-phenylether	7005-72-3	n.d.	ug/L	10.
Fluorene	86-73-7	n.d.	ug/L	10.
4-Nitroaniline	100-01-6	n.d.	ug/L	50.

REECO ANALYTICAL CHEMISTRY LAB'S SEMIVOLATILE ORGANICS TEST RESULTS
 EPA METHOD:625/8270 LAB SOPS:F.D.05.01 & F.D.03.02 - Page - 2

Name Field: SBLK 0921 Operator: KRAIG
 Misc Field: 9209048-26A
 Instrument: BNA2 Datafile: >SD269 Idfile: ID_BC2 Quantfile: ^SD269

Compound Name	CAS Number	Result	Units	Detection Limit
4,6-Dinitro-2-methylphenol	534-52-1	n.d.	ug/L	50.
N-Nitrosodiphenylamine	86-30-6	n.d.	ug/L	10.
4-Bromophenyl-phenylether	101-55-3	n.d.	ug/L	10.
Hexachlorobenzene	118-74-1	n.d.	ug/L	10.
Pentachlorophenol	87-86-5	n.d.	ug/L	50.
Phenanthrene	85-01-8	n.d.	ug/L	10.
Anthracene	120-12-7	n.d.	ug/L	10.
Carbazole	86-74-8	n.d.	ug/L	10.
Di-n-butylphthalate	84-74-2	n.d.	ug/L	10.
Fluoranthene	206-44-0	n.d.	ug/L	10.
Pyrene	129-00-0	n.d.	ug/L	10.
Butylbenzylphthalate	85-68-7	n.d.	ug/L	10.
3,3'-Dichlorobenzidine	91-94-1	n.d.	ug/L	20.
Benzo(a)anthracene	56-55-3	n.d.	ug/L	10.
Chrysene	218-01-9	n.d.	ug/L	10.
bis(2-Ethylhexyl)phthalate	117-81-7	n.d.	ug/L	10.
Di-n-octylphthalate	117-84-0	n.d.	ug/L	10.
Benzo(b)fluoranthene	205-99-2	n.d.	ug/L	10.
Benzo(k)fluoranthene	207-08-9	n.d.	ug/L	10.
Benzo(a)pyrene	50-32-8	n.d.	ug/L	10.
Indeno(1,2,3-cd)pyrene	193-39-5	n.d.	ug/L	10.
Dibenzo(a,h)anthracene	53-70-3	n.d.	ug/L	10.
Benzo(g,h,i)perylene	191-24-2	n.d.	ug/L	10.

n.d. - not detected

Approved by: _____

SUPPORTING DATA

①

20C

Reynolds Electrical & Engineering Co., Inc.

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: A-11 Tweezer WORK ORDER No.: 3754-009 PACKET No.: 92-09-048

ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
* 1	9-16-92/1145	11-1-1-TK	-01A	BJA 2050	4X 1 L-2 Phase Oil/Water
2		11-1-1-TK	x -02A	Full Metals	2X 1 L-2 Phase Oil/Water
3		11-1-1-TK	-03A	VOL 2050	4X 70 ml → 2 oil, 2 Water
* 4		11-1-1-TK	-04A	KB 2050	1 L + 40 ml 1 oil, 1 Water
5		11-1-1-TK	-05A	TPH 205	Full Scan 3 L to 100 ml oil, water
6		11-1-1-TK	-06A	PH 9095	2X 250 ml 1 oil, 1 Water
7		11-1-1-TK	-07A	Fast Print 1010	2X 250 ml 1 oil, 1 Water
8	9-16-92/1215	11-2-2-DROM	-08A	VOL	Diesel - 2X 40 ml
9		11-2-2-DROM	x	Full Metals	Diesel - 1 liter
10		11-2-2-DROM	-09A	TPH	Diesel - 100 ml

SAMPLER

SIGNATURE

ORGANIZATION (PRINT):

REC'D ACS/SHS

PRINT NAME

Steven A. Robo
X sent to Data Chem 92-09-049 see
Split + sent to Data Chem 92-09-049

RELINQUISHED BY: (SIGNATURE)	DATE/TIME RELINQUISHED	DATE/TIME RECEIVED	RECEIVED BY: (SIGN, PRINT NAME AND ORGANIZATION)
<u>Steven A. Robo</u>	9/17/92 1025	09/17/92 1025	<u>Catherine A. Castaneda</u>
<u>Catherine A. Castaneda</u>	09/17/92 1500	09/17/92 1500	<u>Catherine A. Castaneda ACS</u>
<u>Catherine A. Castaneda</u>	09/17/92 1606	09/17/92 1606	<u>Mary Wisniewski</u>
<u>E. B. Rozell</u>	09/17/92 1621	09/17/92 1621	<u>MARY WISNIEWSKI</u>
	1 1	1 1	<u>E. B. Rozell ACS</u>
	1 1	1 1	<u>Catherine A. Castaneda</u>
	1 1	1 1	<u>Catherine A. Castaneda ACS</u>
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	

Y	N	FOR LAB USE ONLY	FINAL DISPOSITION: _____
N	A	PACKAGES REC'D W/CUSTODY SEAL INTACT?	SIGNATURE: _____ DATE: 1 1
X		SAMPLE LABELS AND C-O-C AGREE?

Reynolds Electrical & Engineering Co., Inc.

②

2°C

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: A.11, 10C water, A.12 WORK ORDER No.: 3754-009 PACKET No.: 92-09-048

ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	9-16-92/1215	11-2-2-DRUM	-10A	Flash Point	Diesel - 250ml
2	9-16-92/1245	11-2-1-DRUM	-11A	VOA	2x40ml Oil - Diesel?
3	↓	11-2-1-DRUM	x	Total HCs	1 Liter Diesel
4	↓	11-2-1-DRUM	-12A	TPH →	Diesel 120ml
5	↓	11-2-1-DRUM	-13A	Flash Point	250ml Diesel
6	9-16-92/1420	25-065/6-TA	-14A	VOA	Rinseate Water 2x40ml
7	↓	25-065/6-TA	-15A	Total HCs	1 Liter
8	↓	25-065/6-TA	-16A	TPH (G+S)	120ml + 2L
9	↓	25-065/6-TA	-17A	Flash Point	250ml
10	9-16-92/1530	12-13-1-TX	-18A	SWA	4x1L - 2 Phase Oil/Water

SAMPLER:

SIGNATURE

PRINT NAME

ORGANIZATION (PRINT):

Reeco ACS/SMS

Sent to DataChem 92-09-049

RELINQUISHED BY: (SIGNATURE)	DATE/TIME RELINQUISHED	DATE/TIME RECEIVED	RECEIVED BY: (SIGN, PRINT NAME AND ORGANIZATION)
<i>Steven A. Babo</i>	9/17/92 1025	09/17/92 1025	Catherine A. Castaneda
Catherine A. Castaneda	09/18/92 0920	09/18/92 0920	MARK WISNIEWSKI ACS
	/ /	/ /	
	/ /	/ /	
	/ /	/ /	
	/ /	/ /	
	/ /	/ /	
	/ /	/ /	

Y	N	FOR LAB USE ONLY	FINAL DISPOSITION: _____
H	A	PACKAGES REC'D W/CUSTODY SEAL INTACT?	SIGNATURE: _____ DATE: / /
X		SAMPLE LABELS AND C-O-C AGREE?	

Reynolds Electrical & Engineering Co., Inc.

2°C

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: A.12, B.12-13

WORK ORDER No.: 3754009

PACKET No.: 92-09-048

ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	9-16-92/1530	12-13-1-TK	X -19A	Total Metals	2X 1L - 2 Phase Oil/Water
2		12-13-1-TK	-20A	VOA	4X 40ml 2oil, 2water
3		12-13-1-TK	-21A	PCB	1L + 40ml 1oil, 1water
4		12-13-1-TK	-22A	TAH	Full Scan 3L + 2 100ml oil
5		12-13-1-TK	-23A	PH	2X 250ml 1oil, 1water
6		12-13-1-TK	-24A	Flash Point	2X 250ml 1oil, 1water
7	9-16-92/0745	92SAR0916-1	-25A	VOA TRI-BLAYS	2X 40ml HCl-Regent
8	last	Item			
9					
10					Rod Survey K10

SAMPLER:

SIGNATURE

PRINT NAME

ORGANIZATION (PRINT):

Ree. Co ACS/SMS

Split + sent to Data Chem 92-09-049

RELINQUISHED BY:
(SIGNATURE)

DATE/TIME
RELINQUISHED

DATE/TIME
RECEIVED

RECEIVED BY:
(SIGN, PRINT NAME AND ORGANIZATION)

[Signature]

9/17/92
1025

09/17/92
1025

Catherine A. Castaneda
Catherine A. Castaneda ACS

Catherine A. Castaneda

09/17/92
1606

09/17/92
1606

E. H. of self
Catherine A. Castaneda ACS

E. H. of self

09/17/92
1621

09/17/92
1621

Catherine A. Castaneda
Catherine A. Castaneda ACS

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1 1

Y N

FOR LAB USE ONLY

FINAL DISPOSITION:

PACKAGES REC'D W/CUSTODY SEAL INTACT?

SIGNATURE:

DATE: / /

SAMPLE LABELS AND C-O-C AGREE?

REYNOLDS ELECTRICAL AND ENGINEERING COMPANY
ANALYTICAL SERVICES DEPARTMENT
SAMPLE ANALYSIS REQUEST SHEET

=====

W.O.#: 3754-009 DATE SUBMITTED: 9/15/92 DATE REQUIRED: 9/16/92

REQUESTOR: D. D. MADSEN PHONE: 5-7211 DEPT: ECO M/S: 711

SAMPLING LOCATION: SEE BELOW CONTACT: M.P. LIPSTATE PHONE: 5-3545 AREA: SEE BELOW

RAD ANALYSIS REQUIRED: YES ☒ NO ☐ PRIORITY CODE: Rush

CHEMICAL ANALYSIS REQUIRED: YES ☒ NO ☐ PRIORITY:

TYPE REPORT REQUIRED:

☒ 1. TCL results only.

☐ 2. TCL and QC results.

☐ 3. TCL and TIC results.

☐ 4. TCL, TIC, and QC results.

☐ 5. CLP-TYPE Report.

DESCRIPTION OF WASTE:

1. NUMBER OF SAMPLES:

2. TYPE(S) OF WASTE CONTAINERS: (3) underground storage tanks
and (1) 55 gallon drum

SPECIAL INSTRUCTIONS: only one MS + MSD to be analyzed for batch,
sample numbers + analyses requested on back - Note for Data Chem
for samples submitted for Total Metals Analysis (only need TCLP metals
to be reported)

DATE REPORT IS REQUIRED: 10/1/92 REQUESTOR SIGNATURE: [Signature]

=====

SAMPLER: S. Babo ASD PACKET #: 92-09-049

DATE COLLECTED: 9-16-92

LAB ID #	FIELD SAMPLE #	MATRIX	SAMPLE SIZE	ANALYSES REQUESTED (METHOD # REQUIRED)
	<u>92 SAB0916-1</u>	<u>Rad</u>	<u>2x 40ml</u>	<u>KA Trip B/LWR</u>
<u>(See Back Page)</u>				

COMMENTS: _____

<u>Area</u>	<u>Sample #</u>	<u>Analysis</u>	<u>Product in tank</u>
26	26-02-01-TK	• VOA - Method 8240 4x40ml - Oil/Water • BNA - Method 8270 4x1L - 2 Phase Oil/Water 1L • Tot. Metals - Method 6010 - 2x40ml 2x40ml 40ml • PCB's - Method 8080 1L + 40ml - Oil/Water 28x120ml • TPH (Full) - Method 8015, Mod. Fried 3 Liters + 2 120ml 28x500 250 pH - Method 9045 2x250ml 28x350 Flash Pt - Method 1010 2x250ml 28x500 Gamma Scan - 2x500ml	Wasthi-
12 (3)	12-13-1-TK	- Same as above	Suspect to be diesel/heav oil
11 (1)	11-1-1-TK	- Same as above	Suspect to be diesel/heav oil
9 100 (2)	25-065/6-YA	- VOA - Method 8240 Tot. Metals - Method 6010 - include Mercury TPH (Gas) - Method 8015, Mod. Fried Flash Pt - Method 1010	Lead, Gasoline, Aviation, kerosene in tank cleaning
11-2-1-DRUM 11-2-2-DRUM		} Same as 25-065/6-YA	

m Page No.

Sample Locations: Area 26 Bldg. 2105; Area 11 Tweezer Facility; 10C Crater; Area 12, Bldg. 12-13.

Times: 0900, 1145, 1215, 1245, 1420, and 1530 hours

Tests: VOA, BNA, Total Metals, PCBs, TPH (Full, bds & Diesel), Ph, Flash Point, Gamma

For: Dave Madsen, ECO & Mike Lipstate, NTS General

Matrices: Oil & Water (2 Phase, in some cases), Diesel

Weather: Pth, Cldy / Calm - Breezy / Warm 60's-80's °F

W.D.#: 3754-009

Sample #s: ~~26-02-01-TK~~, 11-1-1-TK, 11-2-1-DR

11-2-2-DR, 25-065/6-7A, 12-13-1-TK

0740 - Collect 1 set VOA trip blanks, ACS Lab

Preserve with 3 drops HCl → 40ml Reagent H₂O

0840 - Arrive at Area 26 Bldg. 2105. A Foreman

and a laborer removed the top of the UST

at the SE corner of the building. The tank

was completely empty, so no sample was taken

Tom Wilcox of ECO arrived at 0845 to

accompany me for the day. Left site at 0900

1000 - Arrived at Area 11 Tweezer facility, with

Buddy & Gene of NTS General & Tom Wilcox

ECO. With great difficulty removed cap

of UST. Buddy & Gene left at 1045. Began

to sample "these" heating oil in UST. After

turning the solid wood to a wooden dip stick

discovered that liquid in UST was actually

2-phase (heating oil & water). Spoke with

Roger Mitchell, ACS & Dave Madsen, ECO

on the phone. It was decided to get a

2 phase sample for BNA & Total Metals, then

try to separate the oil from the water &

get twice as many samples for the rest of the

This was done, and was very time consuming

sampled 2 drums filled with "dirty diesel"

to the north of Bldg. 11-2. Sampled for

VOA & TPH - Diesel, Flashpoint, and total Metals

(Continued on Next Page)

To Page No.

pressed & Understood by me,

Date

Invented by

Date

From Page No. _____

Left site at 1300 hrs.

1405 - Arrive at 19C Crater (WMA Sanitary Landfill)
Sampled Rinse water from 55-gallon drum
(201065/6-7A) for UOA, TPH (Gus), Flash point
and Total Metals with Coliwasa. - 1420 hrs.

Left site at 1430 hrs.

1450 - Arrive at Area 12, Bldg. 12-13. Discovered
UST to north of building was also full of
a 2 phase liquid (Diesel/Water?) Sampled
with Coliwasa, much in the same way
Sample 11-11-TK was done. Sample #: 12-13-17K
UOA, TPH (Full Scan), BUA, Total metals, ACBS,
Ph, Flash Point, Gamma

Left site at 4:00 P.M. (1600 hrs.)

All samples stored at 4°C until
turned into Lab.

Witnessed & Understood by me,

Date

Invented by

Date

To Page No.

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM Oct 22 11:53 AM '92

To F. E. Bingham THRU L. S. Sygitowicz *SWW For LSS*
From G. A. Clark *SWW For GAC*
Date October 20, 1992
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are DataChem's results for the total metals analyses of six oil/water samples collected on September 16, 1992, at the Area 11 Tweezer Facility. These analyses were requested by D. Madsen.

Please direct any questions you may have about these analyses to Sample Management (Roger Mitchell, 295-7220 or Jerry Dugas, 295-7997).

GAC:RNL667:rn

Enclosures
As stated

cy: Central Files, w/o encls.
H. A. Hawthorne, w/o encls.
D. Madsen, w/encls. ~~_____~~
ACS Packet No. 92-09-049, w/o encls.

TOTAL QUALITY IS OUR BUSINESS

REEC_o
AN EG&G COMPANY

REECO ASD/ACS

REECO
FRANK BINGHAM
ENVIRONMENTAL COMPLIANCE
H/S 711
Attn: DAVE MADSEN

Order #: 92-09-049
Date: 10/19/92 15:51
Work ID: TOTAL METALS/OIL; A11,
Date Received: 09/17/92
Date Completed: 10/12/92

Purchase Order: 3754-009
Invoice Number:

Client Code: ENV_COMPLY

REPORT TO DAVE MADSEN, ENV_COMPLY.
SAMPLES SENT TO DATACHEM FOR ANALYSIS.
SEE DATACHEM #S92-0710-AB FOR RESULTS.

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	11-1-1-TK
02	11-2-2-DRUM

<u>Sample Number</u>	<u>Sample Description</u>
03	11-2-1-DRUM
04	12-13-1-TK

Certified By

Order # 92-09-049

REECO ASD/ACS

Sample: 01A 11-1-1-TK

Collected: 09/16/92 Category: TOTAL_METALS

Test Description
SEND OUT METAL ANALYSIS

Result
DATACHEN

Limit

Units Analyzed By
#S92-0710-AB

Sample: 02A 11-2-2-DRUM

Collected: 09/16/92 Category: TOTAL_METALS

Test Description
SEND OUT METAL ANALYSIS

Result
DATACHEN

Limit

Units Analyzed By
#S92-0710-AB

Sample: 03A 11-2-1-DRUM

Collected: 09/16/92 Category: TOTAL_METALS

Test Description
SEND OUT METAL ANALYSIS

Result
DATACHEN

Limit

Units Analyzed By
#S92-0710-AB

Sample: 04A 12-13-1-TK

Collected: 09/16/92 Category: TOTAL_METALS

Test Description
SEND OUT METAL ANALYSIS

Result
DATACHEN

Limit

Units Analyzed By
#S92-0710-AB

Order # 92-09-049
10/19/92 15:51

REECO ASD/ACS
REGULAR TEST RESULTS BY TEST

Page 3

SEND OUT METAL ANALYSIS
Method: DATACHEM

Minimum:

Maximum:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	11-1-1-TK	DATACHEM	#S92-0710-AB				
02A	11-2-2-DRUM	DATACHEM	#S92-0710-AB				
03A	11-2-1-DRUM	DATACHEM	#S92-0710-AB				
04A	12-13-1-TK	DATACHEM	#S92-0710-AB				

TOTAL METALS DATA

ENVIRONMENTAL WASTE REPORT

Form EPRG-A

Page 1 of 2

Part 1 of 1

Date 10/12/92Agency Identification Number S92-0710-ABAccount No. 03018

REECO

P. O. Box 98521, M/S 713

Las Vegas, NV 89193-8521

Attention: Jerry Dugas

Dave Madsen
Env. Comply

p.o. # 3754-009

Telephone (702) 295-7997

Sampling Collection and Shipment

Sampling Site A-11 Date of Collection September 16, 1992Date Samples Received at Laboratory September 19, 1992

Analytical Results

Parameter Name	Field Number	Lab Number	11-1-1-TK-T EL 4087	11-2-2-DRUM EL 4088	11-2-1-DRUM EL 4089	12-13-1-TK-T EL 4090	11-1-1-TK-B EL 4091	12-13-1-TK-B EL 4092	METHOD BLANK	Limit of Detection
Arsenic (As)										
10/08/1992										
6010 [1]	3051 [1]		ND*	ND*	ND*	ND*	ND*	ND*	ND*	50
Barium (Ba)										
10/08/1992										
6010 [1]	3051 [1]		ND*	ND*	ND*	ND*	ND*	ND*	ND*	2
Chromium (Cr)										
10/08/1992										
6010 [1]	3051 [1]		ND*	ND*	ND*	ND*	ND*	ND*	ND*	2
Cadmium (Cd)										
10/08/1992										
6010 [1]	3051 [1]		ND*	ND*	ND*	ND*	ND*	ND*	ND*	1
Lead (Pb)										
10/08/1992										
6010 [1]	3051 [1]		ND*	ND*	ND*	ND*	ND*	ND*	ND*	10
Selenium (Se)										
10/08/1992										
6010 [1]	3051 [1]		ND*	ND*	ND*	ND*	ND*	ND*	ND*	30
Silver (Ag)										
10/08/1992										
6010 [1]	3051 [1]		ND*	ND*	ND*	ND*	ND*	ND*	ND*	

† See comment on last page.

ND Parameter not detected.

NR Parameter not requested.

† Analyses completed on or before this date.

** Parameter not analyzed (See comment page).

() Parameter between LOD and LOQ.

[] Method Reference (See comments page.)

Analyst: Loren P. Higby

Reviewer: John T. Korshisnik

Laboratory Supervisor: Brent E. Stephens

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547 / (801) 266-7700
A Sorenson Company

ENVIRONMENTAL WASTE REPORT

Form EPRG-A

Page 1 of 2

Part 1 of 1

Date 10/14/92Agency Identification Number S92-0710-BBAccount No. 03018

REECO

P. O. Box 98521, M/S 713
Las Vegas, NV 89193-8521
Attention: Jerry Dugas

Telephone (702) 295-7997

Sampling Collection and Shipment

Sampling Site A-11 Date of Collection September 16, 1992Date Samples Received at Laboratory September 19, 1992

Analytical Results

Parameter Name	Analysis Date	Units	Method	Prep Method	Field Number	Lab Number	11-1-1-TK-T	11-2-2-DRUM	11-2-1-DRUM	12-13-1-TK-T	11-1-1-TK-B	12-13-1-TK-B	METHOD BLANK	Limit of Detection
Mercury (Hg)	09/25/1992		7470(MOD)				EL 4087	EL 4088	EL 4089	EL 4090	EL 4091	EL 4092		
		$\mu\text{g/g}$					0.08	0.14	ND*	0.02	ND*	ND*	ND*	0.02

† See comment on last page.

ND Parameter not detected.

NR Parameter not requested.

1 Analyses completed on or before this date.

** Parameter not analyzed (See comment page).

() Parameter between LOD and LOQ.

[] Method Reference (See comments page.)

Analyst: Kristie F. BitnerReviewer: Jeffery S. WardLaboratory Supervisor: Brent E. Stephens

960 West LeVoy Drive / Salt Lake City, Utah 84123-2547 / (801) 266-7700
A Sorenson Company

SUPPORTING DATA

Reynolds Electrical & Engineering Co., Inc.

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: <u>A-11 Tweezer</u>		WORK ORDER No.: <u>3754-009</u>		PACKET No.: <u>92-09-049</u>	
ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	<u>09/16/92/1145</u>	<u>11-1-1-TK</u>	<u>-01A</u>	<u>TOTAL HTHS.</u>	<u>oil 2 1/2 liter</u>
2	<u>1215</u>	<u>11-2-2-Drum</u>	<u>-02A</u>		<u>Diesel 1 liter</u>
3	<u>1245</u>	<u>11-2-1-Drum</u>	<u>-03A</u>		<u>Diesel 1 liter</u>
4	<u>1530</u>	<u>12-13-1-TK</u>	<u>-04A</u>		<u>oil 2 1/2 liter</u>
5					
6					
7					
8					
9					
10					<u>Red Survey 110</u>

SAMPLER: N/A SIGNATURE

N/A PRINT NAME

ORGANIZATION (PRINT): REECO

*NOTE: Part of W# 92-09-048

RELINQUISHED BY: (SIGNATURE)	DATE/TIME RELINQUISHED	DATE/TIME RECEIVED	RECEIVED BY: (SIGN, PRINT NAME AND ORGANIZATION)
<u>Catherine D. Costanza</u>	<u>09/17/92</u> <u>1025</u>	<u>09/17/92</u> <u>1025</u>	<u>Walk- In Refrigerator</u>
<u>Walk- In Refrigerator</u>	<u>09/18/92</u> <u>1100</u>	<u>09/18/92</u> <u>1100</u>	<u>Federal Express</u> <u>2654683544</u>
	<u>1 1</u>	<u>1 1</u>	
	<u>1 1</u>	<u>1 1</u>	
	<u>1 1</u>	<u>1 1</u>	
	<u>1 1</u>	<u>1 1</u>	
	<u>1 1</u>	<u>1 1</u>	
	<u>1 1</u>	<u>1 1</u>	

Y	N	FOR LAB USE ONLY	FINAL DISPOSITION: _____
☒	☐	PACKAGES REC'D W/CUSTODY SEAL INTACT?	SIGNATURE: _____ DATE: <u>1 1</u>
☒	☐	SAMPLE LABELS AND C-O-C AGREE?	

REYI LOS ELECTRICAL AND ENGINEERING COMPANY
ANALYTICAL SERVICES DEPARTMENT
SAMPLE ANALYSIS REQUEST SHEET

=====

W.O.#: 3754-009 DATE SUBMITTED: 9/15/92 DATE REQUIRED: 9/16/92

REQUESTOR: D. D. MADSEN PHONE: 5-7211 DEPT: ECO M/S: 711

SAMPLING LOCATION: SEE BELOW CONTACT: M.P. LIPSTATE PHONE: 5-3545 AREA: SEE BELOW

RAD ANALYSIS REQUIRED: YES ☒ NO ☐ PRIORITY CODE: Rush

CHEMICAL ANALYSIS REQUIRED: YES ☒ NO ☐ PRIORITY: _____

TYPE REPORT REQUIRED: DESCRIPTION OF WASTE:

☒ 1. TCL results only. 1. NUMBER OF SAMPLES: _____

____ 2. TCL and QC results. 2. TYPE(S) OF WASTE CONTAINERS: (3) underground storage tanks

____ 3. TCL and TIC results. and (1) 55 gallon drum

____ 4. TCL, TIC, and QC results.

____ 5. CLP-TYPE Report.

SPECIAL INSTRUCTIONS: only one MS + MSD to be analyzed for batch,
sample numbers + analyses requested on back - Note for Data Chem
for samples submitted for Total Metals Analysis (only need TCLP metals
to be reported)

DATE REPORT IS REQUIRED: 10/1/92 REQUESTOR SIGNATURE: [Signature]

=====

SAMPLER: S. Babo ASD PACKET #: _____

DATE COLLECTED: 9-16-92

LAB ID #	FIELD SAMPLE #	MATRIX	SAMPLE SIZE	ANALYSES REQUESTED (METHOD # REQUIRED)
	<u>92SAB0916-1</u>	<u>H₂O</u>	<u>2x 40ml</u>	<u>KA Trip Blank</u>
	<u>(See Back Page)</u>			

COMMENTS: _____

From Page No. _____

Left site at 1300 hrs.

1405 - Arrive at 19C water (WHD Sanitary Landfill)
Sampled Rinse water from 55-gallon drum
(25+065/6-7A) for UOA, TPH (Gas), Flash point
and Total Metals with Coliwasa. - 1420 hrs.

Left site at 1430 hrs.

1450 - Arrive at Area 12, Bldg. 12-13. Discovered
UST to north of building was also full of
a 2 phase liquid (Diesel/Water?) Sampled
with Coliwasa, much in the same way
Sample 11-11-TK was done. Sample #: 12-13-1TK
UOA, TPH (Full Scan), BUA, Total metals, ACBS,
Ph, Flash Point, Gamma

Left site at 4:00 P.M. (1600 hrs.)

All samples stored at 4°C until
turned into Lab.

©

Sample Locations: Area 26 Bldg. 2105; Area 11 Tweezer Facility; 10C Crater; Area 12, Bldg. 12-13

Times: 0900, 1145, 1215, 1245, 1420, and 1530 hours

Tests: VOA, BNA, Total Metals, PCBs, TPH (Full, bds & Diesel), Ph, Flash Point, Gamma

For: Dave Madsen, ECO & Mike Lipstate, NTS General

Matrices: Oil & Water (2 Phase, in some cases) Diesel

Weather: Pth, Cldy / Calm - Breezy / Warm 60s-80s °F

W.O.#: 3754-009

Sample #s: 26-02-01-TK, 11-1-1-TK, 11-2-1-DR

11-2-2-DR, 25-065/6-YA, 12-13-1-TK

0740 - Collect 1 set VOA trip blanks, ACS Lab. Preserve with 3 drops HCl → 40ml Reagent H₂O

0840 - Arrive at Area 26, Bldg. 2105. A foreman and a laborer removed the top of the UST

at the SE corner of the building. The tank was completely empty, so no sample was taken

Tom Wilcox of ECO arrived at 0845 to accompany me for the day. Left site at 0900

1000 - Arrived at Area 11 Tweezer facility, with Buddy & Gene of NTS General & Tom Wilcox

ECO. With great difficulty, removed cap of UST. Buddy & Gene left at 1045. Both

to sample "heating oil" in UST. After tipping the solid to a wooden dip stick

discovered that liquid in UST was actually 2-phase (heating oil & water). Spoke with

Roger Mitchell, ACS & Dave Madsen, ECO on the phone. It was decided to get a

2 phase sample for BNA & total metals, then try to separate the oil from the water, &

get twice as many samples for the rest of the day. This was done, and was very time consuming

sampled 2 drums filled with "dirty diesel" to the north of Bldg. 11-2. Sampled for

VOA & TPH - Diesel, Flashpoint, and total metal

(Continued on Next Page)

To Page No. _____

Processed & Understood by me, _____

Date _____

Invented by _____

Date _____

Reynolds Electrical & Engineering Co., Inc.

Copy

MEMORANDUM

To S. J. Nacht
From G. A. Clark *GAC*
Date November 17, 1993
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are Analytical Services Department's results, requested by T. A. Wilczek, for the total petroleum hydrocarbons (gasoline/diesel/oil) analyses of four soil and two water samples collected on October 20, 1993, in Areas 12 and 27. Also enclosed are the results for the gross gamma analysis of these samples.

Please direct any questions you may have about the nonradioanalytical results to Roger Mitchell (295-7220) or Jerry Dugas (295-7997), and questions about the radioanalytical results to Al Latham (295-7472).

GAC:RNL1277:rn

Enclosures
As stated

cy: Central Files, w/o encls.
A. R. Latham, w/o encls.
L. S. Sygitowicz, w/o encls.
T. A. Wilczek, w/encls.
ACS Packet No. 93-10-101, w/o encls.

TOTAL QUALITY IS OUR BUSINESS

REECO

AN EG&G COMPANY

REECO ASD/ACS

REECO
BOB DODGE
ENVIRONMENTAL RESTORATION
TECHNOLOGY DEVELOPMENT
Attn: TOM WILCZEK

Order #: 93-10-101
Date: 11/18/93 09:11
Work ID: TPH/SOIL, WATER, PKT#C005626
Date Received: 10/20/93
Date Completed: 11/12/93

Purchase Order: 3754-022
Invoice Number:

Client Code: ERTD

REPORT TO TOM WILCZEK, ERTD

SAMPLE IDENTIFICATION

<u>Sample Number</u>	<u>Sample Description</u>
01	ERUSTP2/5170-E
02	ERUSTP2/5170-W
03	ERUSTP2/5170-RINSE
04	ERUSTP2/1213-W
05	ERUSTP2/1213-E
06	ERUSTP2/1213-RINSE
07	93-10-101-QC1 MS/SOIL

<u>Sample Number</u>	<u>Sample Description</u>
08	93-10-101-QC2 BLANK/SOIL
09	93-10-101-QC3 CAL VER/SOIL
10	93-10-101-QC4 MS/WATER
11	93-10-101-QC5 BLANK/WATER
12	93-10-101-QC6 CALVER/WATER
13	PACKET #C005626
14	PACKET #C005626

Certified By

RADIOISOTOPE SCREEN
Method:

Minimum:

Maximum:

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
13A	PACKET #C005626	SEE DATA	PACKAGE				

RADIONUCLIDE FINAL REPORT
Method:

Minimum:

0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
14A	PACKET #C005626	SEE DATA	PACKAGE				

TPH - DIESEL
Method: GC

Minimum:

0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	ERUSTP2/5170-E	816	mg/Kg			11/04/93	TJR
02A	ERUSTP2/5170-W	471	mg/Kg			11/04/93	TJR
03A	ERUSTP2/5170-RINSE	2.20	mg/L			11/03/93	TJR
04A	ERUSTP2/1213-W	< 10.0	mg/Kg			11/04/93	TJR
05A	ERUSTP2/1213-E	116	mg/Kg			11/04/93	TJR
06A	ERUSTP2/1213-RINSE	0.730	mg/L			11/03/93	TJR
07A	93-10-101-QC1 MS/SOIL	92	% RECOVERY			11/04/93	TJR
08A	93-10-101-QC2 BLANK/SOIL	< 10.0	mg/Kg			11/04/93	TJR
09A	93-10-101-QC3 CAL VER/SOIL	110	% RECOVERY			11/04/93	TJR
10A	93-10-101-QC4 MS/WATER	NA	% RECOVERY				TJR
11A	93-10-101-QC5 BLANK/WATER	< 0.5	mg/L			11/03/93	TJR
12A	93-10-101-QC6 CALVER/WATER	76	% RECOVERY			11/03/93	TJR

TPH - GASOLINE
Method: GC

Minimum:

0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	ERUSTP2/5170-E	< 5.0	mg/Kg			11/02/93	TJR
02A	ERUSTP2/5170-W	< 5.0	mg/Kg			11/02/93	TJR
03A	ERUSTP2/5170-RINSE	< 5.0	mg/L			11/02/93	TJR
04A	ERUSTP2/1213-W	< 5.0	mg/Kg			11/02/93	TJR
05A	ERUSTP2/1213-E	< 5.0	mg/Kg			11/02/93	TJR
06A	ERUSTP2/1213-RINSE	< 5.0	mg/L			11/02/93	TJR
07A	93-10-101-QC1 MS/SOIL	171	% RECOVERY			11/02/93	TJR
08A	93-10-101-QC2 BLANK/SOIL	< 5.0	mg/Kg			11/02/93	TJR
09A	93-10-101-QC3 CAL VER/SOIL	101	% RECOVERY			11/02/93	TJR
10A	93-10-101-QC4 MS/WATER	119	% RECOVERY			11/02/93	TJR
11A	93-10-101-QC5 BLANK/WATER	< 5.0	mg/L			11/02/93	TJR
12A	93-10-101-QC6 CALVER/WATER	101	% RECOVERY			11/02/93	TJR

TPH - OIL
Method: GC

Minimum: 0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	ERUSTP2/5170-E	< 10.0	mg/Kg			11/04/93	TJR
02A	ERUSTP2/5170-W	< 10.0	mg/Kg			11/04/93	TJR
03A	ERUSTP2/5170-RINSE	< 0.5	mg/L			11/03/93	TJR
04A	ERUSTP2/1213-W	< 10.0	mg/Kg			11/04/93	TJR
05A	ERUSTP2/1213-E	< 10.0	mg/Kg			11/04/93	TJR
06A	ERUSTP2/1213-RINSE	< 0.5	mg/L			11/03/93	TJR
07A	93-10-101-QC1 MS/SOIL	39	% RECOVERY			11/04/93	TJR
08A	93-10-101-QC2 BLANK/SOIL	< 10.0	mg/Kg			11/04/93	TJR
09A	93-10-101-QC3 CAL VER/SOIL	114	% RECOVERY			11/05/93	TJR
10A	93-10-101-QC4 MS/WATER	NA	% RECOVERY				TJR
11A	93-10-101-QC5 BLANK/WATER	< 0.5	mg/L			11/03/93	TJR
12A	93-10-101-QC6 CALVER/WATER	77	% RECOVERY			11/03/93	TJR

TPH - TOTAL
Method: GC

Minimum: 0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	ERUSTP2/5170-E	816	mg/Kg				
02A	ERUSTP2/5170-W	471	mg/Kg				
03A	ERUSTP2/5170-RINSE	2.20	mg/L				
04A	ERUSTP2/1213-W	< 25.0	mg/Kg				
05A	ERUSTP2/1213-E	116	mg/Kg				
06A	ERUSTP2/1213-RINSE	0.730	mg/L				
08A	93-10-101-QC2 BLANK/SOIL	< 25.0	mg/Kg				
11A	93-10-101-QC5 BLANK/WATER	< 6.0	mg/L				

TPH Analyst's Notes:

All analyses of the sample extracts, with the exception of ERUSTP2/1213-W, produced chromatograms indicating the presence of a component whose response maximum lies between that seen for the Diesel and Oil standards. However, as the geometry of the chromatogram is similar to that of Diesel, the Diesel calibration was used to quantitate the component. The reported values should be viewed as rough estimates of the contaminant present.

Analysis of the aqueous extracts was performed on the 3rd of November. The analyses of the Diesel and Oil Calibration Verification standards on that column returned at approximately 75 % of their expected values. The results for those samples were not adjusted.

The aqueous Diesel and Oil matrix spikes were extracted from samples of other work orders which were highly contaminated and therefore did not allow for the recovery of the spikes.

The soil Oil matrix spike was prepared from a sample of another set which was highly contaminated with Diesel and Oil. The spike could not be seen due to these levels.

SUPPORTING DATA

Reynolds Electrical & Engineering Co., Inc.

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: <u>A27 + A12</u>			WORK ORDER No.: <u>3754022</u>		PACKET No.: <u>93-10-101</u>
ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	10/20/93/1027	ERUSTP2/5170-E	-01A	TPH (full perm) 8015 mod. 250 ml	soil
2	10/20/93/1000	ERUSTP2/5170-W	-02A	TPH (full perm) 8015 mod. 250 ml	soil
3	10/20/93/1045	ERUSTP2/5170-Rinse	-03A	TPH (full perm) 8015 mod. 3L + 120 ml	water
4	10/20/93/1320	ERUSTP2/1213-W	-04A	TPH (full perm) 8015 mod. 250 ml	soil
5	10/20/93/1340	ERUSTP2/1213-E	-05A	TPH (full perm) 8015 mod. 250 ml	soil
6	10/20/93/1400	ERUSTP2/1213-Rinse	-06A	TPH (full perm) 8015 mod. 3L + 120 ml	water
7	LAST ITEM				
8					
9					
10					

SAMPLER: Thomas A. Palazzolo

SIGNATURE

Thomas A. Palazzolo

PRINT NAME

ORGANIZATION (PRINT): RECO ACD/SMSLAD Survey
OK

RELINQUISHED BY: (SIGNATURE)	DATE/TIME RELINQUISHED	DATE/TIME RECEIVED	RECEIVED BY: (SIGN, PRINT NAME AND ORGANIZATION)
<u>Thomas A. Palazzolo</u>	10/20/93 1536	10/20/93 1535	<u>J. T. H.</u> <u>T. A. G. S. W.</u>
<u>Catherine A. Cantarella</u>	10/24/93 1607	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	

Y	N	FOR LAB USE ONLY	FINAL DISPOSITION: _____ SIGNATURE: _____ DATE: 1 1
M	N	PACKAGES REC'D W/CUSTODY SEAL INTACT?	
X		SAMPLE LABELS AND C-O-C AGREE?	

DISTRIBUTION: White (Original) - retained by laboratory performing final analysis
Yellow - retained by laboratory performing intermediate analysis

RE-2231 (12/89)

(Jen)
10-14-93
10:20 AM.

COMMENTS: _____

From Page No 191 Westmeyer, O'Brien 20, 1993

At the request of Tom Wilcox, ERS, gateway met him at Bldg.
5170 rd. lane 67 for sampling at a tank pool. The tank was
scheduled to come up all 9 m. Service at the gate at 8:30 and then
was a fire-up of equipment + people feeding fuel 8:55 PM. Upon arrival
I took a backpacking camp at 20' by the road near the Bldg
for a PID reading later on. The HPLC was removed from it
+ collected for the sampling job, S/V 8/16/37. The tank came up
about one time. The bucket for dry down to night + was
open about once a 55-gal drum to collect the rain
water. At 10:00, sample ERUST P2/5170-W was collected from
the west end of the station, 250 ml in VFA jar soon +
a 5"x8" baggie full for total plate counting later on
at 10:27, sample ERUST P2/5170-E was collected as above
from the east end of the station. At 10:30 the backpacking
baggage was loaded in the PID; 42 ppm. The W reading
at 10:31 was < 7 ppm. The bucket was lowered after the first
oil sample + again after replacing some of the separated oil to
oil fraction. This mixture went into two samples in garden,
ERUST P2/5170-RINSE, 3L + 120 ml in VFA jar + 500 ml
in green. By the time I got the mixture water and ice down to
leaf me to leave at 27. Left the gate at 12:00 + noticed Tom
Piergo to meet me in area 12. Arrived in #12 at 1:00,
The tank was just coming up at Bldg 12:13. I took a tank
plate reading of the -E sample from 27. 12 ppm. Tom arrived at
he took a backpacking sample right from the tank pool, according
to Tom's direction. This will be used at 1:00. Note: OK 55-gal
drum in A-27 had a poly liner in it (removing now to me). Check
with chemist + let Tom W. know if the plate readings w/TPH
months. The bucket went down to 9 ft. + was lowered in sample
ERUST P2/1213-W, (center to changed by Tom W. from N/S to E/W.)
Take at 13:20, 250 ml in TPH (full drum) + baggie for hydrophobic
reading. Poly liner was used in this 55-gal. drum for another
collection also. Backpacking PID reading at 4:40 would sample ERUS
P2/1213E, taken in same place. Mixture water was sampled at 4:40
ERUST P2/1213-RINSE, 3L + 120 ml in TPH + green. Samples were cleaned,
labeled + immediately put in the -W PID reading was < 6; -E < 5 ppm.
Total area 12 C

To Page No.

Date _____

10/20/93

invented by

Recorded by H. Harvey

10/22/93

To Page No.

Reynolds Electrical & Engineering Co., Inc.

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: A274 A 12WORK ORDER No. 3754-022PACKET No.: C5624

ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	10/20/93/1045	ERHSTP2/5172	RINSE	gum	572 ml
2	10/20/93/1400	ERHSTP2/1213	RINSE	gum	572 ml
3		LAST ITEM			
4					
5					
6					
7					
8					
9					
10					

SAMPLER: Janet H. Harvey

SIGNATURE

Janet H. HARVEY
PRINT NAMEORGANIZATION (PRINT): REEV ACD/SHS

RELINQUISHED BY: (SIGNATURE)	DATE/TIME RELINQUISHED	DATE/TIME RECEIVED	RECEIVED BY: (SIGN, PRINT NAME AND ORGANIZATION)
<u>Janet H. Harvey</u>	10/20/93 1515	10/20/93 1515	<u>Mr. [unclear]</u>
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	

Y	N	FOR LAB USE ONLY	FINAL DISPOSITION: _____
✓		PACKAGES REC'D W/CUSTODY SEAL INTACT?	SIGNATURE: _____ DATE: / /
✓		SAMPLE LABELS AND C-O-C AGREE?	

DISTRIBUTION: White (Original) - retained by laboratory performing final analysis
Yellow - retained by laboratory performing intermediate analysis

RE-2231 (12/89)

Reynolds Electrical & Engineering Co., Inc.

Copy

MEMORANDUM

To S. J. Nacht
From G. A. Clark *GAC*
Date December 9, 1993
Subject SAMPLE ANALYTICAL RESULTS

DEC 14 3 56 PM '93

Enclosed are Analytical Services Department's results, requested by T. A. Wilczek, for the total petroleum hydrocarbons (gasoline/diesel/oil) analyses of seven soil samples collected on November 9, 1993, in Areas 12, 23, 25, and 27.

Please direct any questions you may have about these results to Roger Mitchell (295-7220) or Jerry Dugas (295-7997).

GAC:RNL1326:rn

Enclosures
As stated

cy: Central Files, w/o encls.
A. R. Latham, w/o encls.
L. S. Sygitowicz, w/o encls.
T. A. Wilczek, w/encls.
ACS Packet No. 93-11-051, w/o encls.

TOTAL QUALITY IS OUR BUSINESS

REECO

AN EG&G COMPANY

REECO ASD/ACS

REECO
BOB DODGE
ENVIRONMENTAL RESTORATION
TECHNOLOGY DEVELOPMENT
Attn: TOM WILCZEK

Order #: 93-11-051
Date: 12/09/93 10:54
Work ID: TPH/SOIL; A23,27,25,12
Date Received: 11/09/93
Date Completed: 12/02/93

Purchase Order: 3754-022
Invoice Number:

Client Code: ERTD

REPORT TO TOM WILCZEK, ERTD.

SAMPLE IDENTIFICATION

Sample Number	Sample Description
01	23-110/PILE
02	23-112/PILE
03	12-8/PILE
04	12-9/PILE
05	12-13/PILE
06	25-3205/PILE

Sample Number	Sample Description
07	27-5170/PILE
08	93-11-051-QC1 MS
09	93-11-051-QC2 METHOD BLANK
10	93-11-051-CAL VER1
11	93-11-051-CAL VER2

Certified By

TPH - DIESEL
Method: GC

Minimum: 0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed By</u>
01A	23-110/PILE	< 10.0	mg/Kg			11/23/93 TJR
02A	23-112/PILE	< 10.0	mg/Kg			11/23/93 TJR
03A	12-8/PILE	< 10.0	mg/Kg			11/24/93 TJR
04A	12-9/PILE	< 10.0	mg/Kg			11/23/93 TJR
05A	12-13/PILE	671	mg/Kg			11/23/93 TJR
06A	25-3205/PILE	133	mg/Kg			11/23/93 TJR
07A	27-5170/PILE	505	mg/Kg (TEXT)			11/24/93 TJR
08A	93-11-051-QC1 MS	NA	% RECOVERY			
09A	93-11-051-QC2 METHOD BLANK	< 10.0	mg/Kg			11/23/93 TJR
10A	93-11-051-CAL VER1	103	% RECOVERY			11/23/93 TJR
11A	93-11-051-CAL VER2	110	% RECOVERY			11/24/93 TJR

TPH - GASOLINE
Method: GC

Minimum: 0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed By</u>
01A	23-110/PILE	< 5.0	mg/Kg			11/19/93 TJR
02A	23-112/PILE	< 5.0	mg/Kg			11/19/93 TJR
03A	12-8/PILE	< 5.0	mg/Kg			11/19/93 TJR
04A	12-9/PILE	< 5.0	mg/Kg			11/19/93 TJR
05A	12-13/PILE	< 5.0	mg/Kg			11/19/93 TJR
06A	25-3205/PILE	< 5.0	mg/Kg			11/19/93 TJR
07A	27-5170/PILE	< 5.0	mg/Kg			11/20/93 TJR
09A	93-11-051-QC2 METHOD BLANK	< 5.0	mg/Kg			11/19/93 TJR
10A	93-11-051-CAL VER1	108	% RECOVERY			11/20/93 TJR

TPH - GASOLINE MATRIX SPK
Method: GC

Minimum: 0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed By</u>
01A	23-110/PILE	113	% RECOVERY			11/19/93 TJR
02A	23-112/PILE	115	% RECOVERY			11/19/93 TJR
03A	12-8/PILE	142	% RECOVERY			11/19/93 TJR
04A	12-9/PILE	113	% RECOVERY			11/19/93 TJR
05A	12-13/PILE	133	% RECOVERY			11/19/93 TJR
06A	25-3205/PILE	99	% RECOVERY			11/20/93 TJR
07A	27-5170/PILE	134	% RECOVERY			11/20/93 TJR

TPH - OIL
Method: GC

Minimum: 0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed By</u>
01A	23-110/PILE	70.4	mg/Kg (TEXT)			11/23/93 TJR
02A	23-112/PILE	< 10.0	mg/Kg			11/23/93 TJR
03A	12-8/PILE	144	mg/Kg			11/24/93 TJR
04A	12-9/PILE	< 10.0	mg/Kg			11/23/93 TJR

Order # 93-11-051
12/09/93 10:54

REECO ASD/ACS
REGULAR TEST RESULTS BY TEST

Page 3

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
05A	12-13/PILE	< 10.0	mg/Kg			11/23/93	TJR
06A	25-3205/PILE	< 10.0	mg/Kg			11/23/93	TJR
07A	27-5170/PILE	< 10.0	mg/Kg			11/24/93	TJR
08A	93-11-051-QC1 MS	77	% RECOVERY			11/23/93	TJR
09A	93-11-051-QC2 METHOD BLANK	< 10.0	mg/Kg			11/23/93	TJR
10A	93-11-051-CAL VER1	99	% RECOVERY			11/23/93	TJR
11A	93-11-051-CAL VER2	109	% RECOVERY			11/24/93	TJR

TPH - TOTAL
Method: GC

Minimum: 0 Maximum: 999999999

<u>Samp</u>	<u>Sample Description</u>	<u>Result</u>	<u>Units</u>	<u>Limit</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>By</u>
01A	23-110/PILE	70.4	mg/Kg (TEXT)				
02A	23-112/PILE	< 25.0	mg/Kg				
03A	12-8/PILE	144	mg/Kg				
04A	12-9/PILE	< 25.0	mg/Kg				
05A	12-13/PILE	671	mg/Kg				
06A	25-3205/PILE	133	mg/Kg				
07A	27-5170/PILE	505	mg/Kg (TEXT)				
09A	93-11-051-QC2 METHOD BLANK	< 25.0	mg/Kg				

TPH ANALYST'S NOTES:

DIESEL/OIL ANALYSIS OF SAMPLE 23-110/PILE (-01A) PRODUCED A CHROMATOGRAM WHICH EXHIBITS A SLIGHT RESPONSE IN THE ELUTION WINDOW USED FOR OIL QUANTITATION, BUT DOES NOT RESEMBLE THE OIL STANDARDS' CHROMATOGRAPHY. THE COMPONENT'S RESPONSE HAS BEEN QUANTITATED WITH THE OIL CALIBRATION BUT CANNOT BE CLASSIFIED AS OIL. THE REPORTED RESULT SHOULD BE VIEWED AS A ROUGH CONCENTRATION ESTIMATE OF THE UNKNOWN PRESENT.

THE RESPONSE SEEN IN THE DIESEL/OIL ANALYSIS OF SAMPLE 27-5170/PILE (-07A) FALLS BETWEEN THOSE SEEN WITH THE DIESEL AND OIL STANDARDS. THE OVERALL CHROMATOGRAM SHAPE RESEMBLES THAT OF DIESEL, THEREFORE THE DIESEL CALIBRATION WAS USED FOR QUANTITATING. HOWEVER, THE CONSTITUENT CANNOT BE QUALIFIED AS DIESEL AND THE RESULT SHOULD BE CONSIDERED AN ESTIMATE.

THE OIL MATRIX SPIKE WAS EXTRACTED FROM A PORTION OF -07A. THE CHROMATOGRAPHY AND SPIKE RECOVERY WAS ADVERSELY AFFECTED BY THE ELUTION PROXIMITY OF THE SAMPLE COMPONENT TO THE OIL STANDARD. BOTH THE SAMPLE AND THE OIL MATRIX SPIKE WERE QUANTITATED WITH THE OIL CALIBRATION AND THE DIFFERENCE TAKEN TO DETERMINE THE RECOVERY.

THE DIESEL MATRIX SPIKE WAS EXTRACTED FROM A SAMPLE OF A DIFFERENT WORK ORDER. THE SAMPLE WAS HIGHLY CONTAMINATED WHICH DID NOT ALLOW FOR ADEQUATE RECOVERY OF THE SPIKE. CALIBRATION VERIFICATION STANDARDS WERE ANALYZED WITH THE SAMPLES IN ORDER TO VALIDATE THE METHODS USED.

SUPPORTING DATA

Reynolds Electrical & Engineering Co., Inc.

SAMPLE CHAIN-OF-CUSTODY RECORD

LOCATION OF SAMPLING: 123, 27, 25, 12 Various sites (Piles) WORK ORDER No. 3754-022 PACKET No. 93-11-051

ITEM No.	DATE/TIME SAMPLED	FIELD SAMPLE I.D.	LABORATORY SAMPLE I.D.	ANALYSIS REQUESTED	COMMENTS
1	11/09/93 0820	23-110/Pile	-01A	TPH 8015 mod 250ml	soil 13.6
2	0845	23-112/Pile	-02A		17.1
3	1315	12-8/Pile	-03A		56.
4	1250	12-9/Pile	-04A		29.0
5	1230	12-13/Pile	-05A	TPH diesel 8015 mod 250ml	17.1
6	1050	25-3205/Pile	-06A		18.1
7	0934	27-5170/Pile	-07A		28.1
8					
9					
10					

SAMPLER:

SIGNATURE

PRINT NAME

ORGANIZATION (PRINT):

RELINQUISHED BY:
(SIGNATURE)

DATE/TIME
RELINQUISHED

DATE/TIME
RECEIVED

RECEIVED BY:
(SIGN, PRINT NAME AND ORGANIZATION)

	11/09/93 1625	11/09/93 1625	Catherine D. Castaneda Catherine D. Castaneda ACS
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	
	1 1	1 1	

Y	N	FOR LAB USE ONLY	FINAL DISPOSITION: _____
U	A	PACKAGES REC'D W/CUSTODY SEAL INTACT?	SIGNATURE: _____ DATE: / /
X		SAMPLE LABELS AND C-O-C AGREE?	

DISTRIBUTION: White (Original) - retained by laboratory performing final analysis
Yellow - retained by laboratory performing intermediate analysis
Pink - retained by sampler

RE-2231 (12/89)

REYES ELECTRICAL & ENGINEERING CO., INC.
SAMPLING AND ANALYSIS INFORMATION FORM

PROJECT DESCRIPTION

WORK ORDER No: <u>3754-022</u>	PROJECT MANAGER: <u>Tom Wilczek</u>	PROJECT I.D.: <u>ERUSTPH2</u>
DATE SAMPLING NEEDED: <u>11/9/93</u>	TELEPHONE: <u>5396</u>	DEPARTMENT: <u>ER+TDD</u> M/S: <u>966</u>
SAMPLING LOCATION: <u>A's 12/23/25/27</u>		ON-SITE CONTACT: <u>SAME</u>
OFFICE LOCATION: <u>MERC Bldg. 155</u>		CONTACT TELEPHONE: <u>5396</u>
DETAILED SITE DESCRIPTION: <u>Soil Piles Located on NTS: W. of 12-8 Construction SHOP, NW of 12-9 Medical Facility, NE of 12-13 Boiler House, W. of 23-110 ENGINEERING, SE. of 23-112 Safety, NE of Bldg. 25-3205 Test Cell C Compound, N of 27-5170 Boiler House.</u>		

SITE SAFETY, HEALTH, AND RADIOLOGICAL EVALUATION

RADIOLOGICAL HAZARDS	☒ NO HAZARD	☐ HAZARDOUS CONDITION EXISTS
SAFETY HAZARDS	☒	☐ (SEE REVERSE SIDE OF FORM FOR APPROPRIATE ACTION IF POTENTIAL HAZARDOUS CONDITION EXISTS)
I. H. HAZARDS	☒	☐

ANALYSIS DESCRIPTION

SPECIAL INSTRUCTIONS (NUMBER OF SAMPLES, SPECIFIC LOCATIONS, COMPOSITING REQUIREMENTS, ETC): ONE Composite Sample from each location [GRAB 3 samples between 6"-2' Deep into Pile @ 3 separate Random Locations - Then composite 3 samples into one from each pile] 7 Soil Samples in all. Also BRING PID FOR Headspace Analysis. Sampler responsible for Arranging their own Access to A/27

REPORT REQUIREMENTS

DATE FINAL REPORT REQUIRED: <u>12/8/93</u>	PRELIMINARY REPORT REQUIRED? ☒ <u>Y</u> <u>N</u> on <u>12/1/93</u>
REPORT TYPE: ☒ 1. TARGET COMPOUND (TC) RESULTS ONLY	4. TCL, TIC AND QC RESULTS
2. TC AND QC RESULTS	5. CLP FORMAT REPORT
3. TC AND TENTATIVELY IDENTIFIED COMPOUND (TIC) RESULTS	

PROJECT MANAGER SIGNATURE: Thomas A. Wilczek DATE 11/8/93

ASD MANAGEMENT CONCURRENCE: _____ DATE 1/1

LAB ID #	FIELD SAMPLE #	MATRIX	SAMPLE SIZE	ANALYSES REQUESTED (METHOD # REQUIRED)
	<u>23-110 / PILE</u>			<u>TPH (Full Scan) 8015 Mod.</u>
	<u>23-112 / PILE</u>			<u>TPH (Full Scan) 8015 Mod.</u>
	<u>12-8 / PILE</u>			<u>TPH (Full Scan) 8015 Mod.</u>
	<u>12-9 / PILE</u>			<u>TPH (Full Scan) 8015 Mod.</u>
	<u>12-13 / PILE</u>			<u>TPH (DIESEL + GAS) 8015 Mod.</u>
	<u>25-3205 / PILE</u>			<u>TPH (DIESEL) 8015 Mod.</u>
	<u>27-5170 / PILE</u>			<u>TPH (DIESEL + GAS) 8015 Mod.</u>

TITLE A23, A27, A25, A12 Piles

Project No. _____

Book No. _____

63

From Page No. 11/09/93 0800 - 1400 75° calm

Requester Tom Wilcek

Sampler MT Hawk

All samples composited from points indicated by "x" mark on piles.

Various soil samples of dirt piles around site. No preservative added. All on ice immediately. No odd smells or discoloration on any samples. Typical dirt appearance. All sites checked previously by Radsafe. Points of composite taken randomly by me per Tom W. Sample #s provided by Tom. All samples for TPH.

#23-110/Pile N.W. corner of BLDG 110 A23 13.5ppm 0820 TPH 8015 mod

#23-112/Pile Between BLDG 114 and 112, A23 14.7 0845

#12-8/Pile Just West of BLDG 8, A12, Fenced off 36.6 1315

#12-9/Pile behind West of medical BLDG 9 A12 29.0 1250

#12-13/Pile behind West of BLDG 12-43 17.1 1230 TPH 8015 mod diesel & gas

Pile not covered Took composite grabs with stainless Auger. Approximately 3ft. in depth.

To Page No. _____

Witnessed & Understood by me,	Date	Invented by	Date
		<u>MT Hawk</u>	<u>11/09/93</u>
		Recorded by	

From Page No. 63

ID #25-3205/pile location S.E. most corner of Test cell "C"
 compound, inside fence at
 tank excavation BLDG 3205, Pld 18.6 tix 109 analysis T.P.H. 8015
 diesel 905

#27-5170/pile directly behind (north) of BLDG 5170 from Tank pull. 28.6 0934

Witnessed & Understood by me,

Date

Invented by

Date

Recorded by

To Page No.

11/29/93

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

To S. J. Nacht
From J. L. Cowley JLC
Date January 12, 1995
Subject SAMPLE ANALYTICAL RESULTS

Enclosed are DATACHEM's results, requested by Jerry Bonn, for the total petroleum hydrocarbons (diesel) analysis of 2 oil samples collected on December 8, 1994, at Dorm B in Area 23.

Please direct any questions you may have to your Client Service Representative, Jerry Dugas, at 295-7220.

JLC:80:ds

Enclosure
As Stated

cy w/o encl.

Central Files, M/S 530

A. R. Latham, M/S 612

ACS Packet No. FY94-12-021

cy w/encl.

J. F. Bonn, ERTD, M/S 969

TOTAL QUALITY IS OUR BUSINESS

REEC

AN **EG&G** COMPANY

REECO ASD/ACS

REECO
BOB DODGE
ENVIRONMENTAL RESTORATION
TECHNOLOGY DEVELOPMENT
Attn: JERRY BONN

Order #: 94-12-021
Date: 01/11/95 15:06
Work ID: TPH(DIESEL ONLY)/SOIL; A23
Date Received: 12/12/94
Date Completed: 12/28/94

Purchase Order: 3754-038
Invoice Number:

DCL #S94-0844

Client Code: ERTD

REPORT TO JERRY BONN, ERTD.
SAMPLES SENT TO DATACHEM FOR ANALYSIS 12/13/94.

SAMPLE IDENTIFICATION

Sample Number	Sample Description
01	12-13-1/E
02	12-13-1/SP1

Sample Number	Sample Description
03	BL-47672-1 DCL BLANK

Certified By

TPH DIESEL RESULTS

Case Narrative
DCL Set ID #(s): S94-0844-CC
Client: REECO
Packet # 94-12-021
Account #: 3018
23 December, 1994
94-12-021

Analysis Method #: SW8015 modified.

General Set Information: None.

Sample Preparation: 4 hour shake.

Continuing Calibration Verification: Met QC criteria.

Reagent Blank Analysis: Met QC criteria.

Method Blank Analysis: Met QC criteria.

Laboratory Control Sample Analysis: Met QC criteria.

MS/MSD Analysis: Met QC criteria.

Data Flagging Codes: None were used.

Miscellaneous Comments: None

Signature

This report is 7
total pages.

FORM G (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
SURROGATE SUMMARY

Form RLIMS63G-V1.0
PDOR 12229415165107
Page 6

G94CH026

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: µg/g
Report Basis.....: ☒ As Received ☐ Dried

Report Date.....: 12/22/94 15:16

DCL Analysis Group: G94CH026
Analysis Method....: EPA 8015MOD

DCL Prep Group.....: G94CH026
Preparation Method:

Surrogate Recoveries

Surr. ID	o-Terphenyl											
QC Limits	50.0/125.											
DCL Sample Number	Analyte Result	Spiked Amount	% Rec.	Q	Analyte Result	Spiked Amount	% Rec.	Q	Analyte Result	Spiked Amount	% Rec.	Q
BL-47672-1	35.9	40.0	89.8									
EN 4640	34.9	40.0	87.3									
EN 4641	34.5	40.0	86.3									
EN 4641MS	37.2	40.0	92.9									
EN 4641MSD	32.9	40.0	82.4									
QC-47672-1	38.2	40.0	95.6

FORM C (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
BLANK SAMPLE

Form RLIMS63C-V1.0
PDOR 12229414213422
Page 9

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: $\mu\text{g/g}$
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G94CH026
Date Prepared.....: 12/16/94 00:00
Preparation Method....:

Report Date.....: 12/22/94 14:21
DCL Sample Name....: BL-47672-1

DCL Analysis Group: G94CH026
Analysis Method....: EPA 8015MOD
Instrument Type....: GC
Instrument ID.....:
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	Result	CRDL
TPH-Diesel	12/21/94 17:33	2.27	10

FORM F (TYPE I)
SINGLE METHOD ANALYSES
QUALITY CONTROL DATA SHEET
MATRIX SPIKE SAMPLE
MATRIX SPIKE DUPLICATE SAMPLE

Form RLIMS63F-V1.0
PDOR 12229414213422
Page 10

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: $\mu\text{g/g}$
Report Basis.....: ☒ As Received ☐ Dried

DCL Preparation Group: G94CH026
Date Prepared.....: 12/16/94 00:00
Preparation Method....:

Report Date.....: 12/22/94 14:21
DCL Sample Name....: EN 4641MS

DCL Analysis Group: G94CH026
Analysis Method....: EPA 8015MOD
Instrument Type....: GC
Instrument ID.....:
Column Type.....: Not Applicable

Analytical Results

Analyte	Date Analyzed	Sample Result	Spiked Result	Spike Added	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	12/21/94 20:02	19.5	472.	500.	90.5	50.0/125.	

S94CH00P

DCL Sample Name....: EN 4641MSD

Analytical Results

Analyte	Date Analyzed	Duplicate Result	Percent Recovery	Mean	Range	RPD	QC Limits	QC Flag
TPH-Diesel	12/21/94 20:52	435.	83.0	453.	37.2	8.6	0.000/50.0

FORM B (TYPE I)
SINGLE METHOD ANALYSES

QUALITY CONTROL DATA SHEET
LABORATORY CONTROL SAMPLE (LCS)

Form RLIMS63B-V1.0
PDOR 12229414213422
Page 11

Client Name.....: REECO
Release Number.....: Not Provided

Matrix.....: SOIL
Reporting Units.....: $\mu\text{g/g}$
Report Basis.....: ☒ As Received ☐ Dried
LCS Source.....:

Report Date.....: 12/22/94 14:21
DCL Sample Name....: QC-47672-1

DCL Analysis Group: G94CH026
Analysis Method....: EPA 8015MOD
Instrument Type....: GC
Instrument ID.....:
Column Type.....: Not Applicable

DCL Preparation Group: G94CH026
Date Prepared.....: 12/16/94 00:00
Preparation Method....:

- Analytical Results

Analyte	Date Analyzed	Target	Result	Percent Recovery	QC Limits	QC Flag
TPH-Diesel	12/21/94 16:44	500.	450.	90.0	50.0/125.	

SUPPORTING DATA

DATA PACKAGE REVIEW

ACS PACKET NUMBER: 94-12-021

CLIENT: ERTD - J. BONN

LABORATORY: DATACHEM

DATE REVIEWED: 12-28-94

REVIEWED BY:

TPH (DIESEL)

MATRIX: SOIL

ARE TPH DATA ACCEPTABLE: YES

ARE CRITERIA MET

1. QC SAMPLES ACCEPTABLE	<u>YES</u>
2. MATRIX SPIKE ACCEPTABLE	<u>YES</u>
3. METHOD BLANK ACCEPTABLE	<u>YES</u>
4. HOLDING TIMES ACCEPTABLE	<u>YES</u>

		<u># DAYS</u>	<u>ACCEPTABLE</u>
a. Date Sampled:	<u>12-8-94</u>	<u>0</u>	<u>0</u>
b. Date ACS Received:	<u>12-12-94</u>	<u>4</u>	<u>YES</u>
c. Date Contract Lab Received:	<u>12-14-94</u>	<u>6</u>	<u>YES</u>
d. Date Extracted:			<u>14</u>
e. Date Analyzed:	<u>12-21-94</u>	<u>13</u>	<u>40</u>

5. CALCULATIONS ACCEPTABLE:	<u>YES</u>
6. Correct conc. units used:	<u>YES</u>
7. FORMS ACCEPTABLE:	<u>YES</u>
8. Chain-of-Custody Agrees:	<u>YES</u>

COMMENTS: _____

EFRE-2261 (03/93)

12/12/94

ASD/Sample Management Section

REYNOLDS ELECTRICAL AND ENGINEERING CO., INC.

LABORATORY SERVICES REQUEST

REV 6-74

INSTRUCTIONS ON BACK
PAGE 1 OF 1

400

[illegible]

REYNOLDS ELECTRICAL AND ENGINEERING CO. INC
SMS - SAMPLE RECEIVING CHECKLIST

PACKET NO: 94-12-021
DATE RECEIVED: 12/12/94
BY: CAC

		YES	NO
1.	DO SAMPLE LABELS AGREE WITH CHAIN-OF-CUSTODY?	<u>X</u>	_____
	IF NOT, LIST DISCREPANCIES NOTED:		
	_____		
	_____		
2.	A. DOES LABEL REFLECT PROPER SAMPLE PRESERVATION?.....	<u>✓</u>	_____
	ARE SAMPLE VOLUMES ADEQUATE?	<u>X</u>	_____
	IF NOT, LIST DISCREPANCIES NOTED:		
	_____		
	_____		
3.	ARE SAMPLES FROM A KNOWN OR SUSPECTED RAD EXCLUSION AREA....	_____	<u>X</u>
	A. HAS A SMS RADIOLOGICAL SAMPLE SURVEY BEEN PERFORMED...	<u>X</u>	_____
	B. IS SAMPLE <1000 dpm/100 cm ² or 450 pCi/mL?.....	<u>X</u>	_____
	IF NOT, HAS SAMPLE BEEN SENT TO RC LAB FOR RESULTS?...	<u>U/A</u>	_____
4.	CHAIN-OF-CUSTODY		
	A. SAMPLES RECEIVED IN GOOD CONDITION/PROPERLY COLLECTED/
PRESERVED (GLASS FOR ORGANICS/PLASTIC FOR METALS).....	<u>X</u>	_____
	1) IS THERE ZERO HEADSPACE FOR VOA SAMPLES?.....	<u>U/A</u>	_____
	IF NOT, LIST DISCREPANCIES NOTED:		
	_____		
	_____		
	B. SAMPLE CUSTODY SEALS (IF ANY) ARE INTACT.....	_____	<u>X</u>
	C. IS COOLER TEMPERATURE RECORDED ON CHAIN-OF-CUSTODY?...	<u>X</u>	_____
	D. HAS WORK ORDER # BEEN PROVIDED?.....	<u>X</u>	_____
	E. HAS A SAMPLING LOCATION BEEN PROVIDED?.....	<u>X</u>	_____
	F. HAS THE DATE AND TIME SAMPLED BEEN PROVIDED?.....	<u>X</u>	_____
	G. IS THE C-O-C SIGNED, DATED AND TIME ENTERED BY
PERSON TURNING IN THE SAMPLES?.....	<u>X</u>	_____
5.	ASD - Sample Collection Sheet or IH Sample Data Sheet		
	A. IS THE SAMPLE/COLLECTION/DATA SHEET PROVIDED?.....	_____	<u>X</u>
	B. IS THE FOLLOWING INFORMATION PROVIDED?		
	1. WORK ORDER NUMBER.....	<u>U/A</u>	_____
	2. SAMPLING LOCATION.....	_____	_____
	3. IS SAMPLE FROM RAD EXCLUSION AREA.....	_____	_____
	IS RAD ANALYSIS REQUESTED?.....	_____	_____
	IF YES, DOES REQUEST SHOW ASD AS CONTACT.....	_____	_____
	4. IS TURN-AROUND TIME OR DUE DATE PROVIDED?.....	_____	_____
	5. DOES CHAIN-OF-CUSTODY AND SAMPLE DATA SHEET
AGREE ON CUSTOMER REQUESTED ANALYSES.....	_____	<u>✓</u>
6.	FOR IH ANALYSES: HAS AIR VOLUME BEEN PROVIDED?.....	<u>U/A</u>	_____
7.	FOR BLOOD-LEAD: ARE NAMES AND SSNs PROVIDED?.....	<u>✓</u>	_____
8.	FOR METALS: IS SAMPLE PRESERVED W/HNO ₃ TO pH <2 ?.....	<u>✓</u>	_____

ANALYTICAL REQUEST FORM

APPENDIX C

WASTE MANIFESTS

Reynolds Electrical & Engineering Co., Inc.

NTS ONSITE WASTE TRANSPORT MANIFEST		MANIFEST DOCUMENT NO. 9 3 2 2 1	PAGE 1 OF 1	3754-013
1. GENERATOR'S NAME, ORGANIZATION, AND LOCATION (IF REECO, INCLUDE DEPT. NO.) (PLEASE PRINT): Abandoned Site, U.S.T. Site 12-13-1 Reea 12, Boiler House, NTS GENERATOR'S PHONE ()			2. DATE OF ACCUMULATION OR TRANSPORT Sep 22, 1993	
3a. TRANSPORTER NAME (PLEASE PRINT) Direct to: Rollins Custom Environmental Transport			3b. VEHICLE I.D. NUMBER *****N7A*****	
4. U.S. DOT DESCRIPTION (INCLUDE PROPER SHIPPING NAME, HAZARD CLASS AND ID NUMBER, EPA WASTE CODE, AND WASTE STREAM AND PACKAGE IDENTIFICATION NUMBERS)			5. CONTAINERS NO. TYPE	6. TOTAL QUANTITY 7. UNIT WT/VOL
A.	HM XX	RQ, Waste Combustible Liquid, n.o.s. Combustible Liquid, NA 1993, (Diesel Fuel w/ Metals, D008, D009, F002, F003, F005) 12-ABDN-042-AM-93-001	001 TT	2000 Gal.
B.				
C.				
D.				
USE CONTINUATION PAGES FOR ADDITIONAL ITEMS AS NECESSARY				
8. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION: a) 93778 Materials directly transferred to Rollins for transshipment to OPC at Los Angeles, CA. *****FOR TRACKING PURPOSES ONLY*****				
9. GENERATOR'S CERTIFICATION: I HEREBY CERTIFY THAT THE CONTENTS OF THIS CONSIGNMENT ARE FULLY AND ACCURATELY DESCRIBED ABOVE BY PROPER SHIPPING NAME AND ARE CLASSIFIED, PACKED, MARKED, AND LABELED, AND ARE IN ALL RESPECTS IN PROPER CONDITION FOR HIGHWAY TRANSPORT ACCORDING TO APPLICABLE REGULATIONS. I FURTHER CERTIFY THAT THE CONTENTS INFORMATION ABOVE IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE THROUGH PROCESS KNOWLEDGE OR LABORATORY ANALYSIS. I CERTIFY THAT, WHERE APPLICABLE, I HAVE APPROPRIATELY SEGREGATED WASTES AND HAVE MADE A GOOD-FAITH EFFORT TO MINIMIZE THE AMOUNT OF WASTE GENERATED AT WORK LOCATIONS UNDER MY PURVIEW.				
10. GENERATOR'S SIGNATURE: *****NOT APPLICABLE*****			DATE *****N/A*****	
11. TRANSPORTER'S SIGNATURE *****NOT APPLICABLE*****			DATE *****N/A*****	
12. DISCREPANCY INDICATION:				
13. DISPOSAL/ACCUMULATION SITE SIGNATURE (ACKNOWLEDGES ACCEPTANCE OF WASTE) 			DATE 9-22-93	

DISTRIBUTION: White — DWMD Area 5
Canary — Generator

RE-2232A (10/90)

APPENDIX D

FIELD NOTES

UST FIELD CONFIRMATION

(Provide sketch of surface features on back of sheet)

DATE: 9/16/92 (3:00 pm)

ECO PERSONNEL: TAW

LOCATION (NEAREST LANDMARK): No of Bldg. 12-13. By Area 12 Cafeteria
Parking Lot. Area 12.

CONTENTS: Diesel + H₂O (Two phase Liquid)

STATUS (ACTIVE, INACTIVE): UNK (PROBABLE INACTIVE)

VENT PIPES: ONE - Found on W. SIDE of Bldg 12-13

FILL PIPES: ONE - IMBEDDED IN 30"X30" CONCRETE PAD

DEPTH TO BOTTOM OF TANK: APPROX 9'6" FROM BOTTOM OF TANK TO TOP OF FILL TUBE

DEPTH TO TOP OF TANK: PRODUCT IN BOTTOM 28" OF TANK. (APPROX 3" OF H₂O / 25" OF DIESEL)

ORIENTATION: UNK (PASS. E-W)

CAPACITY: UNK

CONSTRUCTION MATERIAL (TANK): METAL

LEAK DETECTION EQUIPMENT: NONE

PIPING MATERIAL: NONE

PIPING DESTINATION: UNK

FACILITY OPERATOR: UNK

COMMENTS: No Gauge Found TO NEAR TANK TO estimate the volume of Product.

9/16/92

Arrived @ Area 12^V @ 3:00 pm. Found
tube fairly easily. Proceeded to test
for presence of liquids w/ Dipstick.

Liquids found in Bottom 28" of tube.

Use Kalawana sampler to bring up
product. Discovered it was a two-phase
liquid mixture of Diesel + H₂O.

Requested Sampler take two full sets
of samples, one each for diesel + another

for water. Samples from tube 12-13 were
obtained @ ~ 3:30 pm. They were labeled

It is estimated that 3" of liquid is water,
and the remaining 25" of liquid is diesel.

Samples were bagged and cooled accordingly.
Tube was recapped. Left site @ 4:00 pm.

Sample Locations: Area 26 Bldg. 2105; Area 11 Tweezer Facility; 10 Crater; Area 12, Bldg. 13-13

Times: 0900, 1145, 1215, 1245, 1420, and 1530 hours

Tests: VOA, BNA, Total Metals, PCBs, TPH (Full, bds & Diesel), Ph, Flash Point, bds

For: Dave Madsen, ECO & Mike Lipstate, NTS General

Matrices: Oil & Water (2 phase, in some cases), Diesel

Weather: Pth, Clwy / Calm - Breezy / Warm 60s-80s °F

W.O.#: 3754-009

Sample #s: ~~26-02-01-TK~~, 11-1-1-TK, 11-2-1-DRU, 11-2-2-DRU, 25-065/6-YA, 12-13-1-TK

0740 - Collect 1 set VOA trip blanks, ACS Lab Preserve with 3 drops HCl → 40ml Reagent H₂O

0840 - Arrive at Area 26, Bldg. 2105. A Foreman and a laborer removed the top of the UST at the SE corner of the building. The tank was completely empty, so no sample was taken. Tom Wilcox of ECO arrived at 0845 to accompany me for the day. Left site at 0900.

1000 - Arrive at Area 11 Tweezer facility, with Buddy & Gene of NTS General & Tom Wilcox, ECO. With great difficulty, removed cap of UST. Buddy & Gene left at 1045. Began to sample these "heating oil" in UST. After turning the coil was found a wooden dip stick.

11-1-1-TK

Discovered that liquid in UST was actually 2-phase (heating oil & water). Spoke with Roger Mitchell, ACS & Dave Madsen, ECO on the phone. It was decided to get a 2 phase sample for BNA & Total Metals, then try to separate the oil from the water & get twice as many samples for the rest of the tests.

This was done, and was very time consuming. Sampled 2 drums filled with "dirty diesel" to the north of Bldg. 11-2. Sampled for VOA & TPH - Diesel, Flashpoint, and Total Metals.

(Continued on Next Page)

From Page No. _____

Left site at 1300 hrs.

1405 - Arrive at 19C Crater (WMA Sanitary Landfill)
Sampled Rinse water from 55-gallon drum
(201065/6-TA) for UOA, TPH (Gas), Flash point
and Total Metals with ColiWasa. - 1420 hrs.

Left site at 1430 hrs.

1450 - Arrive at Area 12, Bldg. 12-13. Discovered
UST to north of building was also full of
a 2 phase liquid (Diesel/Water?) Sampled
with ColiWasa, much in the same way

Sample 11-11-TK was done. Sample #: 12-13-1TK
UOA, TPH (Full Scan), BUA, Total metals, ACBS,
Ph, Flash Point, Gamma

Left site at 4:00 P.M. (1600 hrs.)

All samples stored at 4°C until
turned into Lab.

9/21/
1992

- Jerry Dugan so called D²M. Dave not in today, so I returned his called call @ 5-7997. He regards to the tank sampling activity last week for UST's No. 11-2-2 & 12-13-1. It seems that ASD has enough of the oil phase to run MS/MSD, but are lacking enough volume of water to run MS/MSD for BNA analysis of the water phases. I explained to Jerry how the samples were taken from the two tanks and how the sampler thought there was enough volume of both oil & water. Jerry said he would call me back. also, he said he had a sample from 12-13-1-TNK that had 900 mls of oil & 100 mls of H₂O., and was supposed to be a water sample. I told him it must be mislabeled not because with that large amount of oil, and how we sampled, it must be an oil sample to be analyzed.

- Gave SJN status of ASD issue as

9/21/92

Jerry Dugas called back. Said that they may not have enough water to run VOA's or RNA's. After looking at Bottles for both 11-2-1 / & 12-13-1, the best case for 1 L. bottles was 30% H₂O / 70% oil mixture. They have enough oil to run all analyses plus

MS/MSD is for oil. Since they don't know about H₂O, they will analyze as much as they can, and will call me if they have a problem or not enough water. They need at least 4 liters of H₂O for each Tank.

9/22/93 Met w/ Steve Kelleman
@ office. Met up with Bob
Bull & Dave Gagne (Rollins driver)
@ ~ 8:10
@ ~ 8:20.

Tanker # 1W9TLM3N9L 1021193
DOT E-8822 / Test Date 1V1K 1092
Ca. Plate # 1UG6856
Abandoned 1993

- Left for A/D @ ~ 11:30. Arrived in
A/D @ ~ 12:30. Began pumping
product from 12-13-1. Struck w/
a dipstick, the tank contains less than
3' feet of product. The driver
used a 1 1/2" strayer to access all
the way to bottom. Driver estimates
~1000 gals of product. Struck tank
again, no product discovered.

10/20/93 - Arrived @ 12-13-10:15
Tank rigged & ready
+ go. LFL-37% O₂ = 4.5
+ pretty hot had surveyed
tank sides the tank is 70.

10/20/93

appears to be in good shape
No leaks, holes or pits.

As UST - 12-13-14 ... being
pulled. ... & came up & broke
above water line.

Due to the nature of the ...
the tank was ...
end

So it would clear the water

10/20/93 and elec. line trench was

then placed on side next to
pit, and re-rigged to be the end
trench is 4' dia, 15' 8" long.

12-13-1 yarded @ Noon.

The trench was surveyed by RPT
and cleared for 10C transport.

Released RPT's Elong (1+1) &

Sanitary (RPT) @ 12:15 pm.

- on E-End, in a ~ 3" ϕ pipe

~~aperture~~^{TD} embedded along side of
curb ~ 3' down, was placed

with sand pipe and filled

with tar. Also sealed the trench

on water board part of the

old pipe used to expose the pipe

around

10/20/93

Enclosure filled on W End

dry & ~ 9' deep. (Turbid water)

@ 8'. Decanted Bucket

at 1:10

Product from UST was

put into clean 55-gal

drum. Prod. 1:10 water 6-7 gal

of product + product into drum

Sample 12-13-1 West end taken at

N ↑

12-13-East

Taken at 1:40 pm

9' deep

Soil was
moist, but
no diesel
odor

Soil moist
with fuel
gasoline. No
diesel odors.

Time for TPH (fuel) and
hydrocarbons.

The Backhoe Bucket was

decanted for last time @ 1:50.

Sample 12-13-1 Time taken @ 1:55.

10/20/43
 In water we found *Procladius*
 1st in ground to surface May 12, 13

12-13-23 - from the 6

12-13-W End, from the 6

12-13-E End, lost from 5 pm

1st sld @ 2:15.

Ground @ 10c @ 2:30

all Ticks were checked

only found and removed up.

1st sld @ 2:40
 1st sld @ 2:40
 1st sld @ 2:40

From Page No. 191 Wednesday, October 20, 1993

At the request of Tom Wileczek, ERS, J. Harvey met him at Bldg. 5170 in Area 27 for sampling at a tank pull. The tank was scheduled to come up at 9:00. I arrived at the gate at 8:30 and there was a line-up of equipment + people heading for Bldg. 5170. Upon arrival I took a background sample ~ 20' off the road near the Bldg. for a PID reading later on. The HNU was borrowed from I.H. + calibrated for this sampling job, S/N 801637. The tank came up almost on time. The backhoe then dug down to ~ 8 ft. + was soon cleaned over a 55-gal drum to collect the rinse water. At 10:00, sample ERUST P2/5170-W was collected from the west end of the excavation, 250 ml for TPH full scan + a 5" x 8" baggie half full for headspace reading later on. At 10:27, sample ERUST P2/5170-E was collected as above from the east end of the excavation. At 10:30 the background baggie was checked w/ the PID; 42 ppm. The -W reading at 10:31 was < 7 ppm. The backhoe was decanned after the 2nd soil sample + again after replacing some of the excavated soil to safe position. This rinse water was then sampled as follows: ERUST P2/5170-Rinse, 3L + 120 ml for TPH full scan + 500 ml for gamma. By the time I got the rinse water on ice I was the last one to leave #27. I left the gate at 12:00 + advised Tom Palozola to meet me in Area 12. Arrived in Area 12 at 12:00. The tank was just coming up at Bldg. 1213. I took a headspace reading on the -E sample from 27. 12 ppm. Tom arrived and he took a background sample uphill from the tank pull, according to Tom W's direction. This will be read at 13:00. NOTE: The 55-gal drum in Area 27 had a poly liner in it (something new to me). Check with chemist + let Tom W. know if this will interfere w/ TPH results. The backhoe went down to 9 ft. + was decanned for sample ERUST P2/1213-W, (coordinates changed by Tom W. from N15 to E/W.) Taken at 13:20, 250 ml for TPH (full scan) + baggie for headspace reading. Poly liner was used in this 55-gal. drum for rinse water collection also. Background PID reading at 14:00 was 6 ppm. Sample ERUST P2/1213-E, taken as above @ 13:40. The rinse water was sampled at 14:00 ERUST P2/1213-Rinse, 3L + 120 ml for TPH + gamma. Samples were cleaned, labeled + immediately put on ice. -W PID reading was < 6; -E < 5 ppm. Left area 12 @

To Page No. _____

Witnessed & Understood by me,

Date

10/20/93

Invented by

Recorded by

J. Harvey

Date

10/24/93

TITLE A23, A27, A25, A12 Piles

Project No. _____

Book No. _____

6:

From Page No. 11/09/93 0800-1400 75° calm

Requester Tom Wilsek

Sampler M. Hawk

All samples composited from points indicated by "x" mark on piles.

Various soil samples of dirt piles around site. No preservative added. All on ice immediately. No odd smells or discoloration on any samples. Typical dirt appearance. All sites checked previously by Radsafe. Points of composite taken randomly by me per Tom's

Sample #s provided by Tom. All samples for TPH, PID read, time, BOD5 mod, TPH Soil Sam.

#23-110/pile

#23-112/pile

Between BLDG 114 and 112, A23

11.7
7.2
11.9

0845

Compass rose for #23-112/pile: N (up), E (left), W (right), S (down).

#12-8/pile

Just West of BLDG 8, A12, Fenced off.

36.6

1315

Compass rose for #12-8/pile: N (up), E (left), W (right), S (down).

#12-9/pile

behind West of medical BLDG 9 A12

29.0

1250

Compass rose for #12-9/pile: N (up), E (left), W (right), S (down).

#12-13/pile

behind West of BLDG 12-43

17.1

1230

TPH-BOD5 mod
diesel & gas

Compass rose for #12-13/pile: N (up), E (left), W (right), S (down).

Pile not covered. Took composite grabs with stainless. Approximately 3ft in depth.

To Page No. _____

Witnessed & Understood by me,

Date

Invented by

Date

Recorded by

11/09/93

11/9/93

- Arrived @ 12-13-1 at ~12:30

one drum of UST
Product

one drum of UST Nurse
Both on pallets behind
rope.

PID = 17.1 ppm

592-055 - UST Nurse

592-056 - UST Product

592-057 - Soil pile

12-13 / Pile Sample taken at ~12:38.

Taken ~ 3'-4' into pile, ^(w/ stainless steel auger) due

to lack of covering over soil
labelled state w/ 592-057 and
stuck in ground ~ front of pile

Back - Mercy @ ~2:15.

- Called Mike Lepstat,

Told him he would ^{1th} have
needs to leave Soil pile

recovered @ 12-13. No soil
would be done by end of
week.

11/29/93 Reviewed copy of
Analytical for Soil of
Ph II UST's 27-5170-1 ID-13-1.

Exceeded 100 ppm Diesel @
Both sites. So^u Notified DNR.
He said must be reported, but
to notify WOD and request help
on notification procedure. Left
message for Rob to call me
back this A.M. (9:30). He is out
in the afternoon.

Called Pete Sanders @ 9:40 am.
Notified him of the two sites.
Said he is forthcoming.

- Notified Janet Applegate-Air
of Spills. in A.M. She said

she would like the reporter
to show up in the weekly we
send her.

11/29/93

- ODM told me to call

Clayton Barron as DOE/NV

line mgr to notify her

Called Clayton Barron @ 1:40
to notify him of UST spills
(NV line mgr.)

Faxed copies of the 2 reports

to: Pete Sanders @ 50838

Janet Wang @ 51113

Clayton Barron @ 56292

John Robertson @ 56392

at ~ 4:30 pm. Unsure if

~~new~~^{two} faxes were received
or not.

- Updated Bob Dodge as to

the discovered spills @ UST

27-5170-1 12-13-1

11/30/43 Worked on ^{draft} accurate report
for UST 27-5170 + 12-13.

Researched Facility mgr's
for 2 UST's that have
spills. Bldg 5170 is Bin #996484,
Site Maint. Dept

Bldg 12-13 is Bin #998690, Housing,
Custodial + Food Services Dept

Researched Based on Facility
Mgr. Program Procedure 111.27

1/18/94,

- Spoke to Rich Miller -
he said that Ispata
contacted him to have soil
piles removed from various
sites around NTS. Miller
said he was only planning
to remove 110 to A16 hydro -
- carbon landfill + 112 to G/23
sanitary landfill. I also
requested to leave 12-8/12-13/
23-3205/+27-5170 also
removed to A16 hydrocarbon

landfill. Sent Rich a

speedy - memo & fax document
these desirables & requested
tasks

2/22/44

3 drums in Pool

#1 592-055 - desert Rock

JP-5 jet fuel

#2 592-061 Photo Resisto

#592-062

#3 592-066 Labelled

as equipment Resisto.

No NTS Construction personnel

on-site as of 8:45. Only

Steve Bolio & myself. At

~ 8:46. Ellery Torgson (FK)

showed up. Cannot leave

in monitor LEC/C² of tanks

until NTS Construction shows

up with the 1st truck.

Inspected tanks - all are grounded

All are tipped with the

higher end being northerly,

except for 22-DRA-3, which

V27/94

- Rich Miller called.

Gave me Status of UST #

Soil pile removals.

TH 12-23-110-1 Gone to Hydro last till

21-5770-1

"

"

25-3205-1

"

" today

12-8-1+2 = Maybe Gone today

12-13-1 =

"

"

23-112-1 - Gone next week.

2/12/94

- Rich Miller called. ^{all} Area

12 piles picked up on Thursday
of last week. Pile #23-112-1

being picked up today.

2/21/94 Day 5 - President's Day.

2/22/94 - Made copies of Ph II UST
data sheets. Packed for today's
UST shoot. Left Mercury at
~ 7:30 am

dy Arrived @ 100 crater @ 8:30 am
S. 6 tanks on pad. Weather
cd conditions: Sunny, cold - 32°F
and brisk wind from North.

Water pooled up on SW corner
of pad. Thick ice frozen on it.
~ 3" of water (deepest portion)
in SW corner.

2/22/94

has the southerly end being
the higher end.

Winds gusty up to 30 mph.

@ 9:00 - Woody Burling & Burl

Joey showed up

@ 9:20 - Hoop & Clyde (UTS)

Constructor showed up

@ 9:25 - Fire Dept. showed up.

3 photos taken of UST's on
pad.

at 9:35 - Sent Hoop & Clyde
to get Safety Harness.

Rich Liptak showed up @ ~ 10:00 am.

Nitrogen truck arrived @ ~ 9:50 am.

Dean Merian showed up @ ~ 10:10 am.

Began inerting 12-13-1. 6.9% O₂

LEL = 0

@ 10:25 - Began inerting 25-3205-1

@ 11:00 am - LEL = 0, O₂ = 7%. Allay

2/22/94

concurrent it was O.K.

Began entry 23-110-1 @ 11:10 am.

4 sealed 23-110-1. LEL = 0,

O₂ = 6.6 %.

Note = all tanks ^{ends} sealed with

Tape & plugged to prevent
leakage of N₂ out of tanks.

Barbara Goy asked if

we could stop by tomorrow

to look over copy of Draft

inspection report she will

prepare. Told her I will

send Steve B. to look at

it.

23-112-1 finished @ 11:20

LEL = 0, O₂ = 6.8 %.

Flanagan & Dave Shupe showed

up @ 11:30. So did Lois Marting.

Repped OST 27-5170-1 with

2/22/94

Explosives. Area evacuated.

Tank 27-5170-1 cut @ 27-5170-1th

11:45 am. Clean cut observed.

No flash, minimal smoke.

Drove down to inspect cut. The
tank had some small (less than
the size of a dime) holes.

US 12-13-1 Blown room.

discovered on it. These holes

were not observed before the

shoot, but ^{the} were blown away
when the end was shut off.

- When 12-13-1 was blown, was

a fiery explosion, some smoke.

~~The fire~~^{the} There was no sustained
flame except for when the explosion
occurred.

Reynolds Electrical & Engineering Co., Inc.

MEMORANDUM

To T. A. Wilczek THRU W. G. Flangas THRU *[Signature]* W. Wuellner
From R. J. Miller *[Signature]*
Date February 7, 1994
Subject WORK REQUEST UPDATE

FOD-NTS Construction has completed the work you requested in your memorandum dated January 18, 1994. We provide the following details.

1. Area 27 - 5170 pile, Brady Number 592-050, to Area 6 hydrocarbon landfill
Completed January 26, 1994
2. Area 25 - 3205 pile, Brady Number 592-054, to Area 6 hydrocarbon landfill
Completed January 27, 1994
3. Area 12 - 8 pile, Brady Number 592-061, to Area 6 hydrocarbon landfill
Completed January 27, 1994
4. Area 12 - 13 pile, Brady Number 592-057, to Area 6 hydrocarbon landfill
Completed January 31, 1994
5. Area 23 - 110 pile Brady Number 592-001, to Area 6 hydrocarbon landfill
Completed January 18, 1994
6. Area 23 - 112 pile, Brady Number 592-003, to Area 23 landfill storage
Completed February 2, 1994

If you have any questions please call me at 5-3926.

RJM:pjh0207-94

cy: Central Files

TOTAL QUALITY IS OUR BUSINESS

REEC_o
AN EG&G COMPANY

TITLE _____

From Page No. _____

12/17/94 WEDNESDAY

~ 7:30 A.M. MEET AT HES BY PASS. YARD TO BRUSH OFF EXCAVATION BACKFILLING. EXCAVATION FILLED W/ 1/4" GRAVEL & CAPPED W/ CLEAN BORROW SOIL. BACKHOLE TO MOBE TO A15-CM-1 SITE

10:30 CHECK IN W/D. MASON AT VIOC TANK. SHOOT. THANKS SUCCESS FULLY BEING BLOWN. NOISE NOT ON SITE.

11:30 BACKHOLE ARRIVES AT 15-CM-1. COMPLETE BACKFILLING EXCAVATION USING EXCAVATOR SOIL & TYPE III. SITE RESTORED W/ EXCAVATION OF PLASTIC TO BE REMOVED.

1300 MOBE TO A12 FOR ADDITIONAL CHARACTERIZATION/ REINFORCEMENT OF VST 12-13-1.

~ 1230 BEGIN EXCAVATING. P&A GRAVEL FROM 12-15-1. SLOW DIGGING. DUE TO KNOWN LINES W/IN VST EXCAVATION. (POSSIBLE WATER LINES - AS VIEWED IN FILE PHOTOS)

LOCATED LINES - LINE ~1.5" RUNNING N-S ACROSS EXCAVATION. HAS BEEN CUT & CAPPED. VERIFIED THAT LINE WAS ABANDONED BY REMOVING CAPS. NO MOISTURE IN LINES. NO OBVIOUS USAGE. LINES PUSHED BACK TO ALLOW BETTER ACCESS TO EAST END OF EXCAVATION. A.002 LINE FROM N.E. CORNER TO S.W. CORNER LOCATED INTACT & LEFT INTACT. ~1" METAL P.I.P.S.

1530 SECURED SITE - WILL CONTINUE EXCAVATION IN A.M.

[Signature]

12/17/94

To Page No. _____

Witnessed & Understood by me, _____

Date _____

Invented by _____

Date _____

Recorded by _____

To Page No. _____

Project No. _____

Book No. _____

TITLE _____

From Page No. _____

12/8/94 DUES

0900 Arrive @ 12-13-1 UST site. Continue ground
excavation. VISA Survey done to verify extent of
excavation.

11:30 Excavation near composite - Stockpile & Samples
of Soil from East End of Excavation on
1/8 acre.

12:05 Collect 12-13-1/E @ 10' - Groundwater, sand,
silty gravel, damp, no hydrocarbon odor.
NO PID on site - none available.

12:15 Collect 12-13-1/SPI Composite Sample from
Stockpile Soil.
Both Samples collected were contained
in 50 ml laboratory bottles & placed on ice.
Samples will be submitted to ASD for transfer
to Data Chem.

12:40 Stockpile covered - Western Soil Res.
Touched up & ARSA Packed off.

13:00 Off Site

[Signature]
12/8/94

To Page No. _____

Witnessed & Understood by me, _____

Date _____

Invented by _____

Date _____

Recorded by _____

Witnessed _____

TITLE _____

From Page _____

Project No. _____

TITLE _____

Book No. _____

137

From Page No. _____

To Page No. _____

Witnessed & Understood by me, _____

Date _____

Invented by _____

Date _____

From Page No. _____

1250 NOTHING FOUND IN ADD'L LOCATIONS.

1330 ELECTRICIANS DRO UP IN ANOTHER AREA - WILL LIKELY NOT MAKE IT TO SITE. LOCATED $1\frac{3}{4}$ " COPPER PIPE STICKING OUT OF GROUND APPEARS SIMILAR TO WHAT WE HAD SEEN AROUND REC. TANK USE AREA. PIPE IS WEST OF LOCATION SHOWN ON MAP ~160'. EXCAVATED AROUND PIPE NORTH TO DETERMINE IF IT WAS SUPPLY LINE FOR WHAT WOULD HAVE BEEN AN ABOVE GROUND TANK. EXCAVATED TRENCH ~80' NORTH & CONFIRMED THAT $1\frac{1}{4}$ " LINE WAS CONNECTED $\frac{3}{4}$ " LINE & ALSO CONTINUED NORTH TO OTHER PILING & TRAILERS. MINOR ODORS NOTED WHILE EXCAVATING. LINE APPEARED DRY. LINE WAS IN SAME TRENCH AS SEWER & 1" METAL LINE. $1\frac{3}{4}$ " LINE WAS ~3' BG'S.

1530 TRENCH BACKFILLED AFTER PHOTOS TAKEN. MOVED BACKHILL BACK TO MORGENTHAU FOR TRANSPORT TO A.I.S. IN A.M.

1615 DUE TO HIGH WINDS & POTENTIAL RAIN REQUESTED FOR TEST & USED EPA FARM SAMPLING HAS BEEN POSTPONED TO 3/22 (MON). CONFIRMED THE FOLLOWING TO CANCELL: V. DUNN (PH 5-7675), K. PATTEN (PH 5-4214), C. PATTEN (STATION CLEAN) 5-3555.

3-21-95: TUESDAY, WINDS 20-40+ mph SE, INTERMITTENT RAIN

0900 MET LABORERS @ UIC TO FINISH DRUM SOLIDIFICATION. DRUMS SOLIDIFIED W/ PENA SCS/ADVA SCS. WILL COORDINATE W/ WOOD. FOR DISPOSAL TO ALG H.C. LANDFILL. DRUM 592-056 WAS INADVERTENTLY SOLIDIFIED. DRUM HAS GAS CONCENTRATION WHICH EXCEEDED CURRENT ACCEPTABLE CONCENTRATIONS FOR ACCEPTANCE TO ALG LANDFILL. DRUM WILL CONTINUE TO BE STORED & MANAGED PENDING ACCEPTABLE DISPOSAL.

1050 CREW W/ BACKHILL MOVED TO AREA 12. WILL BACKHILL LUBE SHOP EXCAVATION TO PREVENT FURTHER UNDERMINING OF CONCRETE SLAB. VST 12-16-4.

1540 COMPLETED BACKFILLING OF 12-16-4 TANK EXCAVATION; 12-13-1 TANK EXCAVATION (SOIL FILL PENETRATING ON SITE FOR ALG H.C. LANDFILL). EXPOSED ALG-4 SLABS FOR SAMPLING.

To Page No. _____

Witnessed & Understood by me, _____

Date _____

Invented by _____

Date _____

Recorded by _____

Work Order (1090-143)

Tuesday, 5-9-95

0700 Heading to Area 12. Will remove soil piles from the Gas Station, tank 12-26-1, 2, 3 & from Power House, tank 12-13-1. Both piles will be transported to the Area 6 Hydrocarbon Landfill.

0815 Arrive at Gas Station - Willie & Mike Powers

0830 2 Teamsters arrive - Gene Noyes & Bud Sevier (laborers) arrive. Equipment operator is over at Batch Plant and will be over as soon as possible. (John Dudley)

10 There are 3 piles located east of the gas station. The northern most pile is to be removed today. The others can go back into the excavation.

0910 Begin Load #1 - Brady Label # 592-212 (Note: this # applies to all 3 piles.)

15 Load #2 filled

0935 Waiting for RadSafe so they can issue green tags.

Had operator begin backfilling excavation with pea gravel.

20 Sharon ^{visitor} from RadSafe arrives. Negative results. Issues green tags

Load #1 Tag# A1970 Brady 592-212

Load #2 Tag# A1971 " "

1000 Loads leave. Went over to the Power House with Sharon to scan that piles. Issue tags.

25 1110 Trucks return. Begin loading

Load #3 Tag# A1972 Brady 592-212

Load #4 Tag# A1973 " "

1130 Trucks leave. Resume backfilling

SIGNATURE

DATE

5-9-95

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

Continued from Page 50

Pile #1 → Area 6 Hydrocarbon Landfill

1150 Lunch

1220 Resume backfilling

1310 Trucks arrive

Load #5 Green Tag # A1974 Brady # 592-212

Load #6 Green Tag # A1969 Brady # 592-212 + 592-360

Each truck has capacity of 24 cubic yards.

Total from pile #1 ~ 130 cy (592-212)

Total from Power House ~ 5 cy (592-360)

1430 Complete loading of hydrocarbon impacted soils

John has completed the removal of the 2 pea gravel piles. It filled the excavation to approximately 4 feet from the top. Continued backfilling with pile #3

1440 Spoke with Dave Lory (x3761) to schedule 1 truck to fill remove soils that won't fit in excavation

SIGNATURE

DATE

5-9-95

DISCLOSED TO AND UNDERSTOOD BY

DATE

WITNESS

DATE

& a scrap truck to haul off concrete. Need to call him in the A.M. to verify

1530 Mike returns. Fill one load from pile #2 to go to 10c landfill.

5 John completed removal of pile #3 + part of pile #2 and placed in excavation. Compacted as he went.

Bud + Gene collected plastic from the piles that had blown off - very broken up + disintegrated. The drums were also scattered around. Collected + placed on pallets.

10 1600 Head back to Mercury. Met Willie, the other driver, on the way out. He was bringing out a load of Type II soil for the top one foot of fill.

15 Wednesday 5-10-95

0700 Called Dave Lory. He's got a scrap dump headed out to Area 12 Gas Station to pick up the concrete. Try + have a dump for soil before noon.

20 0730 Head to Area 12

0820 Met with Bud + Gene. John Dudley will load concrete.

0900 Load of concrete to 10c landfill. Continue backfilling excavation from the remainder of pile #2

25 1000 Truck back-load more concrete

1020 Concrete to 10c. Continue backfilling. Cancelled other truck. Will be able to put rest of pile in excavation.

SIGNATURE		DATE 5-10-95	
DISCLOSED TO AND UNDERSTOOD BY	DATE	WITNESS	DATE

✓
2.
51

DRUM/BUCKET/PILE HISTORY REPORT

DRUM INFORMATION AS OF:

DRUM NUMBER: 592-360 SIZE IN GALLONS: _____ OR CUBIC YARDS: ~7

Drum_color: _____ Label Type: _____ Drum Type: _____

Contents: DIESEL IMPACTED SOIL from Rensselaer
EXCAVATION OF 12-13-1 VST

LOCATED AT: A12

SAMPLE INFORMATION-----

REQUEST DATE: _____

DATE SAMPLED: _____

SAMPLE NUMBER: _____

SAMPLE TAKEN BY: _____

RESULTS RECEIVED: _____

SAMPLE RESULTS:

SIGNED BY:

LEDGE: (List all information known, including origin).

DISPOSITION INFORMATION-----

WASTE DESCRIPTION: DIESEL IMPACTED SOIL

WOD CALLED:

Who_called: Rob Boettcher

Picked_up: 5/9/95

SIGNED BY: Jay B.

HYDROCARBON LAB

APPENDIX E

SPILL NOTIFICATION REPORT

DOE Nevada Field Office
SPILL NOTIFICATION REPORT

 DEM# H93113DE
LAD# 93A12-24

DOE/NV

Sections A, L, and M are to be completed by DOE/NV.

A. REPORTER	1. DOE Staff Member Reporting: <u>Peter Sanders</u>						2. Phone: <u>(702) 295-1037</u>	
	3. Organization Name: <u>DOE Nevada Field Office</u>							
	Organization: ☐ 4. Discharger ☐ 5. Public ☐ 6. State ☐ 7. Local ☒ 8. Federal							
B. DIS-CHARGER	9. Address: <u>P.O. Box 98518</u>							
	10. City: <u>Las Vegas</u>		11. County: <u>Clark</u>		12. State: <u>NV</u>		13. Zip: <u>89193-8518</u>	
	14. ☐ As above in A If 3 applies ☐ 15. Private ☐ 16. Public ☐ 17. Local ☐ 18. State ☒ 19. Federal Contractor							
C. INCIDENT LOCATION	20. Discharger Name: <u>Reynolds Electrical & Engineering Co., Inc.</u>							
	21. Address: <u>P.O. Box 98521</u>							
	22. City: <u>Las Vegas</u>		23. County: <u>Clark</u>		24. State: <u>NV</u>		25. Zip: <u>89193-8521</u>	
D. DATE	26. Person Notifying DOE: <u>Thomas Wilczek</u>							
	27. Phone: <u>(702) 295-5396</u>							
	28. ☐ As Above in B ☐ 29. Street or Approx. Location: <u>Nevada Test Site, Area 12, Building 12-13</u>							
E. MATERIAL	30. Township, Range, and Section (or NV coordinates): <u>Approx. N 890,000 and E 650,000</u>							
	31. City: <u>N/A</u>		32. County: <u>Nye</u>		33. State: <u>NV</u>		34. Zip: <u>N/A</u>	
	35. Spill Date (mm/dd/yy): <u>Not Determined (See 84.)</u>							
F. SOURCE	36. Spill Time: <u>Not Determ. (See 84.)</u>							
	37. Material: ☐ Unknown		38. Material Type: ☐ H = Hazardous Material ☒ X = Other ☐ O = Oil		CHRIS Code: <u>ODS</u>		UN/ DOT No.: <u>3.1/41.1270</u>	
	39. Material Type (Name): <u>Diesel</u>		40. CAS No.: <u>Not Avail</u>		41. Quantity Released: <u>Not Avail</u>		42. Units (Circle 1): <u>lbs gal</u>	
G. MEDIUM	43. bbl oth		44. bbl oth		45. bbl oth		46. bbl oth	
	47. bbl oth		48. bbl oth		49. bbl oth		50. bbl oth	
	51. bbl oth		52. bbl oth		53. bbl oth		54. bbl oth	
H. CAUSE	55. Source of Spill: ☐ 60. Highway ☐ 61. Air Transport ☐ 62. Railway ☐ 63. Vessel ☒ 64. Pipeline ☐ 65. UST ☐ 66. Fixed Facility ☐ 67. Offshore ☐ 68. Unknown							
	69. Source Description: <u>NTS UST 12-13-1</u>							
	70. Vehicle ID or Carrier No.: <u>N/A</u>							
I. DAM	71. Medium Affected: ☐ 72. Air ☒ 73. Land ☐ 74. Water ☐ 75. Groundwater ☐ 76. Within Facility Only							
	77. Nearest well or reservoir used for drinking purposes: <u>Well No. 8, Approx. 7+ miles SE of site</u>							
	Reported Cause: ☐ 77. Transportation Accident ☐ 78. Equipment Failure ☐ 79. Operational Error ☐ 80. Natural Phenomenon ☒ 81. Pumping ☐ 82. Other							
J. ACTIONS	83. Description: <u>UST (12-13-1) was removed on 10/20/93 under the Environmental Restoration Abandoned UST Removal Program (Phase 2). Analytical results received on 11/29/93 indicate 116 mg/kg TPH (EPA Method 8015, Mod.) for the soil sample collected approximately 1 foot below the east bottom end of tank number 12-13-1. The time and volume of product released is not available.</u>							
	84. Damages: <u>85. No. of Injuries: N/A</u> <u>86. No. of Debris: N/A</u> ☐ 87. Property Damage: <u>\$50,000</u>							
	88. Response Action Taken: <u>Additional sampling is required to evaluate site conditions. The excavated soil from the tank cavity has been placed on and covered with plastic at the site.</u>							
K. REPORTER NOTIFICATIONS	89. ☐ Call Notification: Nevada Occurrence Reporting System Operations Center, 295-1422 or 295-1246.							
	90. Person Contacted:				91. Date:			
	92. Case Number:				93. Time:			
DOE/NV NOTIFICATIONS	94. ☒ Call Notification: DOE/NV/Line Manager.				95. Date: <u>11/29/93</u>			
	96. Person Contacted: <u>Clayton Barrow</u>				97. Time: <u>1340</u>			
	98. Phone: <u>(702) 295-7960</u>				99. Date: <u>11/29/93</u>			
DOE/NV NOTIFICATIONS	100. ☒ Call Notification: DOE/NV/Environmental Protection Division, 295-1433.				101. Date: <u>11/29/93</u>			
	102. Person Contacted: <u>Pete Sanders</u>				103. Time: <u>0940</u>			
	104. Phone: <u>(702) 295-1037</u>				105. Date: <u>11/30/93</u>			
DOE/NV NOTIFICATIONS	106. ☐ Call Notification: Nevada Division of Environmental Protection, (702) 887-5872.				107. Date: <u>11/30/93</u>			
	108. Person Contacted: <u>Marilyn Meyer</u>				109. Time: <u>3:48pm</u>			
	110. Case Number: <u>NA</u>				111. Date: <u>NA</u>			
DOE/NV NOTIFICATIONS	112. ☐ Call Notification: Nevada Division of Emergency Management, (702) 887-4240.				113. Date: <u>NA</u>			
	114. Person Contacted: <u>Tom Manning</u>				115. Time: <u>3:45pm</u>			
	116. Case Number: <u>H93113DE</u>				117. Date: <u>NA</u>			
DOE/NV NOTIFICATIONS	118. ☐ Call Notification: National Response Center, (800) 424-8908; when applicable.				119. Date: <u>NA</u>			
	120. Person Contacted: <u>NA</u>				121. Time: <u>NA</u>			
	122. Case Number: <u>NA</u>				123. Date: <u>11/30/93</u>			
DOE/NV NOTIFICATIONS	124. Signature: <u>Peter Sanders</u>				125. Time: <u>3:59pm</u>			
	126. Date: <u>11/30/93</u>				127. Time: <u>3:59pm</u>			
	128. Case Number: <u>NA</u>				129. Date: <u>11/30/93</u>			

APPENDIX F

LANDFILL DISPOSAL DOCUMENTATION

is an acknowledgment that a Bill of Lading has been issued and is not the Original Bill of Lading, nor a copy or duplicate, covering the property named herein, and is intended solely for filing or record.

Carrier No.

Date 01-27-94

~~REYNOLDS ELECTRICAL & ENGINEERING CO., INC~~
(Name of carrier) (SCAC)

FROM: R. J. MILLER
Shipper FOD - HTS CONSTRUCTION

Street

Street

Destination **AREA 6 HYDROCARBON LANDFILL** Zip Code

Origin AREA 12 UST UPGRADE BLDGS. 12-3 & 12-13

Route

Vehicle
NumberPLACARDS TENDERED: YES ☐ NO ☐REMIT
C.O.D. TO:
ADDRESS

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding

5 _____ per _____

_____ Signature

COD

Am: S

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

Signature of Contractor

TOTAL CHARGES:

FREIGHT CHARGES	
Freight	1.00
Insurance	0.00
Warehouse	0.00
Handling	0.00
Other	0.00
Total	1.00

WEIGHT PREPAID ☐ Check box if charges
except when box is ☐ are to be
noted as charges ☐ collect

RECEIVED, subject to the classifications and lawfully filed "carriers in silence" on the date of the issue of this Bill of Lading, the property described above in apparent good order except as noted in contents and contents of contents of packages unknown, marked, consigned, and assumed as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agreed to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of said property over all or any portion of

said route to destination and as to each party at any time interested in all or any said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shopper hereby certifies that he is familiar with all the packaging terms and conditions in the governing classification and the SDC terms and conditions are hereby agreed to by the shopper and accepted for himself and his assigns.

SHIPPER

CARRIER

PER

PER

DATE _____

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521

90049

Commodity Handfill Date 1-27-94
From BLDG-12-B Carrier _____
To _____ Driver _____
Vehicle License Nos. 495
81948 TRAILERS By RL
TRUCK WEIGHER
RE-6200 (12/88)

LOCATION

Gross
Tare
Net

103060
32070
70990

★ U.S. GPO: 1992-686-854

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521

90053

Commodity Handfill Date 1-27-94
From BLDG-12-B Carrier _____
To _____ Driver _____
Vehicle License Nos. 496
82766 TRAILERS By RL
TRUCK WEIGHER
RE-6200 (12/88)

LOCATION

Gross
Tare
Net

86580
34900
51680

★ U.S. GPO: 1992-686-854

WEIGHER

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521

90115

Commodity 1-2-94
Date 1-2-94
Carrier Landfill
Driver Landfill
Vehicle License Nos. 496
TRUCK 82766
TRAILERS 496
By RL
RE-6200 (12/88)

LOCATION

Gross 85880
Tare 34900
Net 48980

★ U.S. GPO: 1992-686-854

★ U.S. GPO: 1992-686-854

LOCATION

Gross 96720
Tare 32070
Net 64650

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521

90114

Commodity 1-2-94
Date 1-2-94
From A-12 Bldg 12-13
Carrier Landfill
To Landfill
Driver Landfill
Vehicle License Nos. 495
81948
TRUCK 495
TRAILERS 495
By RL
RE-6200 (12/88)

WEIGHER

★ U.S. GPO: 1992-686-854

LOCATION

Gross 88480
Tare 34900
Net 53580

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521

90054

Commodity 1-2-94
Date 1-2-94
From A-12 BLDG 12-8
Carrier Landfill
To Landfill
Driver Landfill
Vehicle License Nos. 496
82766
TRUCK 496
TRAILERS 496
By RL
RE-6200 (12/88)

WEIGHER

★ U.S. GPO: 1992-686-854

LOCATION

Gross 88720
Tare 34900
Net 53820

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521

90102

Commodity 1-3-94
Date 1-3-94
From A-12 Bldg 12-8
Carrier Landfill
To Landfill
Driver Landfill
Vehicle License Nos. 496
82766
TRUCK 496
TRAILERS 496
By RL
RE-6200 (12/88)

WEIGHER

★ U.S. GPO: 1992-686-854

LOCATION

Gross 103720
Tare 32070
Net 61650

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521

90052

Commodity 1-2-94
Date 1-2-94
From A-12 BLDG 12-8
Carrier Landfill
To Landfill
Driver Landfill
Vehicle License Nos. 495
81948
TRUCK 495
TRAILERS 495
By RL
RE-6200 (12/88)

WEIGHER

DATE: 1/27/94 NO. A 0538

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: WJRD
ORGANIZATION: A-12 Doocu
SURVEY LOCATION: A-12
FROM: BDdy 12 8
TO: A-6 Land Fill

- ☒ UNRESTRICTED
☐ OFF-SITE
☐ ON-SITE
☐ SALVAGE
☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL

WJRD

CONTROLLED

DESCRIPTION: Lead & Dirt

REMARKS:

2/p 1/28/94

DATE: 1/27/94 NO. A 0502

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: WARD
ORGANIZATION: Reco
SURVEY LOCATION: A-12
FROM: Bldg 12-8
TO: A-6 LAND FILL

- ☒ UNRESTRICTED
☐ OFF-SITE
☒ ON-SITE
☐ SALVAGE
☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL

Wew

☐ CONTROLLED

DESCRIPTION: Load of Dirt

REMARKS:

EXP. 1/28/94

DATE: 1/27/94 NO. A 0536

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: WARD
ORGANIZATION: Reco
SURVEY LOCATION: A-12
FROM: Bldg 12-13
TO: _____

- ☒ UNRESTRICTED
☐ OFF-SITE
☒ ON-SITE
☐ SALVAGE
☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL

Wew

☐ CONTROLLED

DESCRIPTION: Load of Dirt

REMARKS:

EXP. 1/28/94

DATE: 1/27/94 NO. A 0537

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: WARD
ORGANIZATION: Reynolds
SURVEY LOCATION: A-12
FROM: BLDG 12 8
TO: A-6 Landfill

☒ UNRESTRICTED

- ☐ OFF-SITE
☒ ON-SITE
☐ SALVAGE
☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL

Wew

☐ CONTROLLED

DESCRIPTION: Load of Dirt

LAST EXC

REMARKS:

EXP 1/28/94

DATE: 1/27/94 NO. A 0535

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: WARD
ORGANIZATION: Reynolds
SURVEY LOCATION: A-12
FROM: BLDG 12-13
TO: A-6 Landfill

☒ UNRESTRICTED

- ☐ OFF-SITE
☒ ON-SITE
☐ SALVAGE
☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL

Wew

☐ CONTROLLED

DESCRIPTION: Load of Dirt

LAST EXC

REMARKS:

EXP 1/28/94

DATE: 1/27/94 NO. A 0539

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: WARD

ORGANIZATION: Reco

SURVEY LOCATION: A-12

FROM: Bld 12-8

TO: A-6 Land Fill

☒ UNRESTRICTED

☐ OFF-SITE

☒ ON-SITE

☐ SALVAGE

☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL

UW

☐ CONTROLLED

DESCRIPTION: Load of DIRT

REMARKS:

EXP 1/28/94

DATE: 1/27/94 NO. A 0501

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: WARD

ORGANIZATION: Reco

SURVEY LOCATION: A-12

FROM: Bld 12-8

TO: A-6 Land Fill

☒ UNRESTRICTED

☐ OFF-SITE

☒ ON-SITE

☐ SALVAGE

☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL

UW

☐ CONTROLLED

DESCRIPTION: Load of DIRT

REMARKS:

90102

Las Vegas, NV 89193-8521
Post Office Box 98521

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

Post Office Box 98521
Las Vegas, NV 89193-8521

90052

LOCATION

Gross

Tare

Net

103720
32070
61650

Commodity

Date

From

Carrier

To

Driver

Vehicle License Nos.

81948

495

TRUCK

TRAILERS

By

WEIGHER

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

Post Office Box 98521
Las Vegas, NV 89193-8521

90054

LOCATION

Gross

Tare

Net

88480
34900
53580

Commodity

Date

From

Carrier

To

Driver

Vehicle License Nos.

82766

496

TRUCK

TRAILERS

By

WEIGHER

90049

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

Post Office Box 98521
Las Vegas, NV 89193-8521

Date

Carrier

Driver

By

TRUCK

TRAILERS

RE-6200 (12/88)

WEIGHER

Gross

Tare

Net

103060
32070
70990

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

Post Office Box 98521
Las Vegas, NV 89193-8521

90053

Date

Carrier

Driver

By

TRUCK

TRAILERS

RE-6200 (12/88)

WEIGHER

Gross

Tare

Net

86580
34900
51680

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

Post Office Box 98521
Las Vegas, NV 89193-8521

90115

Date

Carrier

Driver

By

TRUCK

TRAILERS

RE-6200 (12/88)

WEIGHER

Gross

Tare

Net

83880
34900
48980

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.

Post Office Box 98521
Las Vegas, NV 89193-8521

90114

Date

Carrier

Driver

By

TRUCK

TRAILERS

RE-6200 (12/88)

WEIGHER

Gross

Tare

Net

96720
32070
64650

☆ U.S. GPO: 1992-686-854

☆ U.S. GPO: 1992-686-854

☆ U.S. GPO: 1992-686-854

☆ U.S. GPO: 1992-686-854

JERRY BONIN
5-7341

1. Package will include the following items:

UST 12-13-1 Rem.

	Brady # 592-360		Brady #		Brady #		Brady #	
	YES	NO	YES	NO	YES	NO	YES	NO
b. Characterisation letter	X							
c. Analytical Results	X							
d. Process Knowledge		X						
e. Is the package complete?	X							
f. Basic Description	~ 7 C.Y.							

2. SCHEDULE A DATE AND TIME FOR DISPOSAL

a. Date Scheduled: MAY 9, 1995 C. Load Number

b. Brady Numbers: 592-360

Start Date: MAY 9, 1995 End Date: MAY 9, 1995

3. AT THE LANDFILL, THE GENERATOR MUST HAVE:

	YES	NO
a. Bill of landing # 6	✓	
b. Rad Sticker	✓	
c. Weight ticket	✓	
d. Work Order Number	✓	

WEIGHT TOTAL 43,020 lbs.

WORK ORDER # 3754-038 SUB/ACCT. FREQ.

4. COMPLETE PACKAGE

	YES	NO
a. Weight entered into database	✓	
b. Enter weight for monthly ATV	✓	
c. Filled in sequence	✓	
d. File in Storage Cabinet	✓	

Signature/Date:

Robert J. Smith
5/9/95

AREA 6 HYDROCARBON LANDFILL ACCEPTANCE CHECKLIST

Packet Ident. 1132

Package will include the following items:

	Brady # <u>592-212</u>		Brady #		Brady #		Brady #	
	YES	NO	YES	NO	YES	NO	YES	NO
b. Characterisation letter	X							
c. Analytical Results	X							
d. Process Knowledge		X						
e. Is the package complete?	X							
f. Basic Description	~ 45 C.Y.							

SCHEDULE A DATE AND TIME FOR DISPOSAL

a. Date Scheduled: MAY 9, 1992 C. Load Number

b. Brady Numbers: 592-212

Start Date: End Date:

AT THE LANDFILL, THE GENERATOR MUST HAVE:

	YES	NO		
a. Bill of lading #1-5	/		WEIGHT TOTAL	<u>240,740 lbs.</u>
b. Rad Sticker	/		WORK ORDER #	
c. Weight ticket	/		1090-143	SUB/ACCT. FREQ.
d. Work Order Number	/			

COMPLETE PACKAGE

	YES	NO
a. Weight entered into database	/	
b. Enter weight for monthly ATV	/	
c. Filed in sequence	/	
d. File in Storage Cabinet	/	

Signature/Date: *Robert J. Hunkeler*

STRAIGHT BILL OF LADING— SHORT FORM

ORIGINAL— NOT NEGOTIABLE

#5 & #6 Shipper's No. _____

Carrier's Name: _____

Carrier's No. _____

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of lading.

at Area 12 Gas Station/Bunker 5-9 19 95 FROM Angela Olson
 the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own railroad, water line, highway route or routes, or within the territory of its highway operations, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned TO <u>Dick Norvell</u>		(Mail or street address for purposes of notification only)			
Destination <u>Area 6 Hydrocarbon Landfill</u>		City _____		State _____	
County _____		State _____		Zip _____	
Route _____		Delivery Address ★ _____		(*To be filled in only when shipper desires and governing tariffs provide for delivery thereat.)	
Delivering Carrier _____		Car or Vehicle Initials and No. _____			
Collect on Delivery \$ _____		And Remit to _____			
Street _____		City _____		State _____	
No. Packages	H.M.	Kind of Package, Description of Articles, Special Marks, and Exceptions	*Weight (Subject to Correction)	Class or Rate	Check Column
		<u>Hydrocarbon Impacted Soil Loads #5 & 6</u>			
		<u>Brady # 592-212 ; 592-360</u>			
		<u>Green Tag # A1974 ; A1969</u>			
		<u>~ 20 cy each</u>			

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shippers weight.
 NOTE — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
 The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____

Shipper, Per _____ Agent _____

Permanent post-office address of shipper: _____ Per _____

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
 The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor.)

C. O. D. Charges to be

Paid by

☐ Shipper ☐ Consignee

If charges are to be prepaid, write or stamp here, "To be Prepaid."

Received \$ _____ to apply in prepayment of the charges on the property described herein.

Agent or Cashier

Per _____
 (The signature here acknowledges only the amount prepaid.)

Charges Advanced:

\$ _____

*The fibre containers used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Rule 41 of the Uniform Freight Classification and Rule 5 of the National Motor Freight Classification.

† Shipper's imprint in lieu of stamp; not a part of bill of lading approved by the Interstate Commerce Commission.

☆ U.S. GPO: 1994-583-986

LOCATION
Gross
Tare
Net
78840
35820
43020

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521
92405
Commodity
From
To
Vehicle License Nos.
TRUCK
TRAILERS
BY
WEIGHER
RE-6200 (12/88)

DATE: 05/09/95 NO. A 1974

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: LaStar
ORGANIZATION: ReCo
SURVEY LOCATION: A-12
FROM: A-12 GHS station
TO: H-4 hydrocarbon landfill

- ☒ UNRESTRICTED
☐ OFF-SITE
☒ ON-SITE
☐ SALVAGE
☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL

LaStar

- ☐ CONTROLLED

DESCRIPTION: load dump
TRUCK TRUCK
24 cubic yard

LaStar

REMARKS: 05-10-95

☆ U.S. GPO:1994-583-986

Gross 87980
Tare 35520
Net 52460

LOCATION A-12

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521
92404

Commodity _____
From _____
To Landfill
Vehicle License Nos. 81949 495
TRUCK TRAILERS BY RE
WEIGHER

RE-6200 (12/89)

Carrier _____
Driver _____
Date 5-9-95

DATE: 05/09/95 NO. A 1973

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: Locher

ORGANIZATION: Reeco

SURVEY LOCATION: A-12

FROM: 1-12 GAS Station

TO: 1-6 Pyrocarbon 10nd F.LC

- ☒ UNRESTRICTED
☐ OFF-SITE
☒ ON-SITE
☐ SALVAGE
☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL
RE

☐ CONTROLLED
DESCRIPTION: Land dump
Truck (24 cubic yard)

REMARKS: 0510-45

STRAIGHT BILL OF LADING— SHORT FORM

ORIGINAL — NOT NEGOTIABLE

Shipper's No. _____

Carrier's Name: _____

Carrier's No. _____

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of lading,

at Area 12 Gas Station (Date) 5-9 19 95 FROM Angela Olson

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own railroad, water line, highway route or routes, or within the territory of its highway operations, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned TO Dick Norvell (Mail or street address for purposes of notification only.)
 On Collect on Delivery Shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.
 Destination Area 12 Hydrocarbon Landfill Street _____ City _____
 County _____ State _____ Zip _____
 Route _____ Delivery Address ★ _____
 (*To be filled in only when shipper desires and governing tariffs provide for delivery thereat.)

Delivering Carrier _____ Car or Vehicle Initials and No. _____

Collect on Delivery \$ _____ And Remit to _____

No Packages	H.M.	Kind of Package, Description of Articles, Special Marks, and Exceptions	Weight (Subject to Correction)	Class or Rate	Check Column
		<u>Hydrocarbon Impacted Soil Load #2</u>			
		<u>Brady # 592-212</u>			
		<u>Green Tag # A1971</u>			
		<u>~24cy</u>			

If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shippers weight.
 NOTE — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____

Shipper, Per _____

Agent _____

Permanent post-office address of shipper, _____

Per _____

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor.) _____

C. O. D. Charges to be

Paid by

☐ Shipper ☐ Consignee

If charges are to be prepaid, write or stamp here, "To be Prepaid."

Received \$ _____ to apply in prepayment of the charges on the property described hereon

Agent or Cashier _____

Per (The signature here acknowledges only the amount prepaid.) _____

Charges Advanced: _____

\$ _____

1 "The fibre containers used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Rule 41 of the Uniform Freight Classification and Rule 5 of the National Motor Freight Classification."

1 Shipper's imprint in lieu of stamp; not a part of bill of lading approved by the Interstate Commerce Commission.

DATE: 05/09/95 NO. A 1972

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: Castor
ORGANIZATION: ReCo
SURVEY LOCATION: A-12
FROM: A-12 GHS Station
TO: A-6 High Carbon Kindling

- ☒ UNRESTRICTED
☐ OFF-SITE
☒ ON-SITE
☐ SALVAGE
☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL

del

☐ CONTROLLED

DESCRIPTION: 100 dump truck

8 cubic yards

REMARKS: 05-10-95

☆ U.S. GPO: 1994-583-986

LOCATION: A-12
Gross
825.20
Tare
358.20
Net
467.00

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521
92403
Commodity: _____
From: _____
To: landfill
Vehicle License Nos: 35
TRUCK TRAILERS
BY RH
Date: 5-9-95
Carrier: _____
Driver: _____
WEIGHER

STRAIGHT BILL OF LADING— SHORT FORM

ORIGINAL— NOT NEGOTIABLE

#3

Shipper's No. _____

Carrier's Name: _____

Carrier's No. _____

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of lading.

at Area 12 Gas Station (Date) 5-9 19 95 FROM Angela Olson

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own railroad, water line, highway route or routes, or within the territory of its highway operations, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned TO Pick Norwell (Mail or street address for purposes of notification only.)
 On Collection Delivery Shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.
 Destination Area 6 Hydrocarbon Landfill City _____
 County _____ State _____ Zip _____
 Route _____ Delivery Address ★ _____
 (*To be filled in only when shipper desires and governing tariffs provide for delivery thereof.)

Delivering Carrier _____ Car or Vehicle Initials and No. _____

Collect on Delivery \$ _____ And Remit to _____

No. Packages	H.M.	Kind of Package, Description of Articles, Special Marks, and Exceptions	Weight (Subject to Correction)	Class or Rate	Check Column
		<u>Hydrocarbon Impacted Soil Load #1</u>			
		<u>Brady # 592-212</u>			
		<u>Green Tag # A1970</u>			
		<u>~ 24cy</u>			

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor.) _____

C. O. D. Charges to be

Paid by

☐ Shipper ☐ Consignee

If charges are to be prepaid, write or stamp here, "To be Prepaid."

Received \$ _____ to apply in prepayment of the charges on the property described herein.

Agent or Cashier

Per _____
 (The signature here acknowledges only the amount prepaid.)

Charges Advanced:

\$ _____

† The fibre containers used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Rule 41 of the Uniform Freight Classification and Rule 6 of the National Motor Freight Classification.

† Shipper's imprint in lieu of stamp; not a part of bill of lading approved by the Interstate Commerce Commission.

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shippers weight.
 NOTE — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____

Shipper, Per _____

Agent _____

Permanent post-office address of shipper, _____

Per _____

1

☆U.S. GPO:1994-583-986

LOCATION A-12 SS

Gross 82860
Tare 35520
Net 47340

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 88621
Las Vegas, NV 89183-8521

Commodity 92402

From A-6 Landfill Date 5-9-95

To 81949 Carrier 495

Vehicle License Nos. 495 Driver By

TRUCK TRAILERS BY RE-6200 (12/89)

WEIGHER

DATE: 05-09/95 NO. A 1971

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: Castor

ORGANIZATION: Perco

SURVEY LOCATION: A-12

FROM: A-12 GAS Station

TO: A-6 Hydrocarbon Landfill

- ☒ UNRESTRICTED
- ☐ OFF-SITE
- ☐ ON-SITE
- ☐ SALVAGE
- ☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL

De

☐ CONTROLLED

DESCRIPTION: 100 dump Truck

2 cubic yard

REMARKS: 05/10/95

STRAIGHT BILL OF LADING— SHORT FORM

ORIGINAL—NOT NEGOTIABLE

#2

Shipper's No. _____

Carrier's Name: _____

Carrier's No. _____

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading,

at Area 12 Gas Station (Date) 5-9 19 95 FROM Angela Olson

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own railroad, water line, highway route or routes, or within the territory of its highway operations, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned TO Dick Norwell (Mail or street address for purposes of notification only.)
 On Collect on Delivery Shipments, the letters "COD" must appear before consignee's name or as otherwise provided in Item 430, Sec. 1.
 Destination Area 6 Hydrocarbon Land Fill Street _____ City _____
 County _____ State _____ Zip _____
 Route _____ Delivery Address ★ _____
 (*To be filled in only when shipper desires and governing tariffs provide for delivery thereat)
 Delivering Carrier _____ Car or Vehicle Initials and No. _____
 Collect on Delivery \$ _____ And Remit to _____

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
 The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor.)

C. O. D. Charges to be

Paid by

☐ Shipper☐ Consignee

If charges are to be prepaid, write or stamp here, "To be Prepaid."

No. Packages	H.M.	Kind of Package, Description of Articles, Special Marks, and Exceptions	Weight (Subject to Correction)	Class or Rate	Check Column
		<u>Hydrocarbon Impacted Soil Load #3</u>			
		<u>Brady # 592-212</u>			
		<u>Green Tag # A1972</u>			
		<u>u24cy</u>			

Received \$ _____ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per _____
 (The signature here acknowledges only the amount prepaid.)

Charges Advanced:

\$ _____

1 *The fibre containers used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Rule 41 of the Uniform Freight Classification and Rule 5 of the National Motor Freight Classification.

† Shipper's Imprint in lieu of stamp; not a part of bill of lading approved by the Interstate Commerce Commission.

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shippers weight.
 NOTE — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per

Shipper, Per _____

Agent _____

Permanent post-office address of shipper, _____

Per _____

1

☆ U.S. GPO:1994-583-986

LOCATION A-12
Gross 83220
Tare 35520
Net 47700

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521
92401
Commodity _____ Date 5-9-95
From _____ Carrier _____
To Landfill Driver _____
Vehicle License Nos. 495
By RA
TRUCK 81949 TRAILERS _____
RE-6200 (1288) WEIGHER _____

DATE: 05/09/95 NO. A 1970

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: LOLIV
ORGANIZATION: Reco
SURVEY LOCATION: A-12
FROM: 12 GAS station
TO: Chen G Hydrocarbon landfill

- ☒ UNRESTRICTED
☐ OFF-SITE
☒ ON-SITE
☐ SALVAGE
☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL

DAI

☐ CONTROLLED

DESCRIPTION: 100 dump
truck (24 cubic yards)

REMARKS: 05-10/95

STRAIGHT BILL OF LADING— SHORT FORM

ORIGINAL — NOT NEGOTIABLE

Shipper's No. _____

Carrier's Name: _____

Carrier's No. _____

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of lading,

at Area 12 Gas Station (Date) 5-9 19 95 FROM Angela Olson

the property described below, in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as shown below, which said company (the word company being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its own railroad, water line, highway route or routes, or within the territory of its highway operations, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the conditions not prohibited by law, whether printed or written, herein contained, including the conditions on back hereof, which are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned TO Pick Norveid

(Mail or street address for purposes of notification only.)

Destination Area 6 Hydrocarbon Landfill

City _____ State _____ Zip _____
 County _____
 Route _____ Delivery Address ★ _____

Delivering Carrier _____ Car or Vehicle Initials and No. _____
 (*To be filled in only when shipper desires and governing tariffs provide for delivery thereat)

Collect on Delivery \$ _____ And Remit to _____
 Street _____ City _____ State _____

No Packages	HM	Kind of Package, Description of Articles, Special Marks, and Exceptions	Weight (Subject to Correction)	Class or Rate	Check Column
		Hydrocarbon Impacted Soil Load <u>44</u>			
		Brady # <u>592-212</u>			
		Green Tag # <u>A1973</u>			
		<u>in 24 cy</u>			

*If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is carrier's or shippers weight.
 NOTE — Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____

Shipper, Per _____ Agent _____
 Permanent post-office address of shipper, _____ Per _____

Subject to Section 7 of conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:
 The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor.)

C. O. D. Charges to be

Paid by
☐ Shipper ☐ Consignee

If charges are to be prepaid, write on stamp here, "To be Prepaid."

Received \$ _____ to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per _____
 (The signature here acknowledges only the amount prepaid)

Charges Advanced:

\$ _____

1 "The fibre containers used for this shipment conform to the specifications set forth in the box maker's certificate thereon, and all other requirements of Rule 41 of the Uniform Freight Classification and Rule 6 of the National Motor Freight Classification."
 1 Shipper's imprint in lieu of stamp; not a part of bill of lading approved by the Interstate Commerce Commission.

☆ U.S. GPO:1994-583-986

Gross
82360
Tare
35820
Net
46540

LOCATION
A-13

Commodity _____
From _____
To Leadville
Vehicle License Nos. 84841
TRUCK _____
TRAILERS _____
By RH
Date 5-8-95
Carrier _____
Driver _____
WEIGHER
RE-6200 (12/89)

REYNOLDS ELECTRICAL & ENGINEERING CO., INC.
Post Office Box 98521
Las Vegas, NV 89193-8521

92400

DATE: 05/09/95 NO. A 1969

Reynolds Electrical & Engineering Co., Inc.
Radiological Control Department-Ramatrol

Material Clearance

MONITOR: Latter
ORGANIZATION: Reeco
SURVEY LOCATION: A-12
FROM: GPS Station / powder house
TO: Oil & Hydrocarbon Landfill

- ☒ UNRESTRICTED
☐ OFF-SITE
☐ ON-SITE
☐ SALVAGE
☐ EXCESS

THIS MATERIAL HAS BEEN SURVEYED FOR
RADIOACTIVITY AND MEETS DOE
STANDARDS FOR RELEASE TO PUBLIC
USE

INITIAL
pc

☐ CONTROLLED

DESCRIPTION: Lead dump
TRUCK 24 cubic yard

REMARKS: 05-10-95

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