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WESTERN REFINING COMPANY L.P.

REMEDY COMPLETION REPORT

SWMU #8, RAILROAD RACK LAGOON

Giant Refining Company – Ciniza Refinery
McKinley County, New Mexico



Submitted to:

State of New Mexico
Environment Department
Hazardous Waste Bureau

2905 Rodeo Park Drive East Bldg 1

Copies to:

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State of New Mexico

Oil Conservation Division, Environmental Bureau
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Santa Fe, New Mexico 87505

Submitted on: February 15, 2006

Prepared by:

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Responsible Facility Representative:

Ed Rios, Refinery Manager



331
338

Remedy Completion Report

For Railroad Rack Lagoon (SWMU No. 8)

Giant Refining Company, Ciniza Refinery

NMED ID# NMD000333211

HWB-GRCC-04-004

February 13, 2006

James Lieb
Environmental Engineer

Ed Rios
General Manager

Executive Summary

Cleanup and closure of a rail road rack loading lagoon (SWMU No. 8) located at the Ciniza Refinery of Giant Industries commenced in November 2004. Soils were excavated from the sides and bottom of the lagoon. Soil samples obtained in the excavated lagoon and in the area of an inlet pipe showed SVOCs present at two locations in the walls and bottom at levels exceeding NMGW thresholds. Additional excavation work to remove the impacted soil and to remove an associated concrete inlet pipe was completed in September 2005. Sample results from the completed excavation work showed negligible SVOCs remaining in the soil.

Because the cleanup of the SWMU No. 8 has met NMED's cleanup criteria, Giant is requesting that the NMED grant a No Further Action (NFA) for the SWMU No.8.

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Introduction

Giant Industries, Inc. owns and operates an oil refinery (Ciniza Refinery) located at Exit 39 of I-40 in Jamestown, New Mexico approximately 17 miles east of Gallup. Figure 1 shows the location of the refinery. A former railroad rack lagoon area was identified in a RCRA facility assessment in 1987 as an area of contamination. Three RCRA investigations were conducted on the railroad rack lagoon in the 1990s. These investigations showed low concentrations of SVOCs to be present in soil in the lagoon area.

Excavation of the railroad lagoon was begun in November 2004. Per the requirements of the State of New Mexico Environment Department (NMED), lagoon soils were excavated and a total of 14 samples taken from undisturbed soils at the bottom and sides of the excavation. The samples were analyzed for general chemistry parameters, VOCs including analysis for DRO and MRO, and RCRA metals. Samples for which cumulative RO and MRO exceeded 500 mg/kg required additional analysis for SVOCs. The analysis of the soil samples showed that low concentrations of SVOCs were present in two sampled locations along the north and south sides of the lagoon (E-1-Wall S and W-1-Wall N).

Additional excavation work was commenced in August 2005 to remove the contaminated soil from the two sampled locations at the sides of the excavation (E-1-Wall S and W-1-Wall N) and to remove the inlet pipe. The results of the post-excavation sampling conducted on soil samples from the sides and inlet pipe showed non-detectable level of VOCs remaining.

This report contains the results of the sample analysis, diagrams, conclusions and recommendations.

Background

In 1987, a RCRA Facility Assessment was conducted at the Ciniza Refinery. As part of that assessment, the Railroad Rack Lagoon SWMU #8 was identified consisting of the railroad rack lagoon, and its overflow ditch and fan-out. The area is located to the north of the refinery tank farm area. Figure 2 is a site plan showing the location of the SWMU No. 8 at the Ciniza refinery site.

The railroad rack lagoon was placed in service sometime during the 1950's to 1960's and continued operation over three decades. The lagoon was constructed to receive and hold wastewater from the railroad loading rack. Waste water from the rack entered into a 18" concrete sewer type pipe via a grate covered manhole and was conveyed via the pipe into the lagoon. The concrete pipe measured 250 feet in length. The Railroad Rack Lagoon was an earthen basin measuring approximately 40'x130'x'6 with an approximate capacity of 261,000 gallons. Wastewater entered via the 18" concrete pipe on the south end and exited at the north end via an overflow ditch. Effluent from the lagoon was distributed across a fan-out area which measured 200 feet by 200 feet in area.

Between November 1990 and October 1992, three RCRA Facility Investigations (Phase I, Phase II, and Phase III) were conducted and submitted along with four Corrective Action Plans (CAP) to EPA for review and comment. During these investigations, 39 soil samples were taken at the Railroad Rack Lagoon (SWMU #8) and analyzed, nine contained low levels of VOC's and/or SVOC's. The VOC's consisted of ethylbenzene and xylenes, and the SVOC's consisted of naphthalene, methylnaphthalene, and phenanthrene. However, according to the Phase I RFI Supplemental Report dated August 21, 1991, "considering the Railroad Rack Lagoon has existed as an unlined impoundment for at least 35 years, the extent of VOC/SVOC affected soil and levels detected are minimal."

On December 17, 1993, EPA approved the Phase I, Phase II, and the CAP with modifications. The CAP included diverting drainage water around the railroad rack lagoon into the refinery waste water system, plugging the old system, transferring the lagoon liquids to the refinery wastewater system, and treating the contaminated soil. EPA's modifications included "sampling within the footprint of the lagoon (five borings) and around the periphery of the lagoon (six borings). It also required in the overflow ditch (three borings to seven feet) and the fan out area (four borings to seven feet). Results were submitted in the 1994 Annual Monitoring Report. Moreover, Giant must notify EPA and submit a survey plat when final closure has been initiated.

On June 28, 1994 Giant notified EPA the piping modifications to the Railroad Rack Lagoon system were completed and the remaining water from the lagoon was being disposed of in Giant's wastewater system. Giant solicited proposals for the survey requirement. Giant stated their intention to continue with the corrective action plan for the SWMU #8 during the first quarter 1995.

In 1999 a Request for Expenditure (RFE) was initiated for continued remediation of the Tank Farm and Railroad Rack Lagoon. It would fund the preparation of closure reports, No Further Action (NFA) petitions, survey plats, and closure certifications by a professional engineer.

Giant commenced excavation of the railroad lagoon in November 2004. Per the requirements of the NMED, lagoon soils were excavated and a total of 14 samples taken from undisturbed soils at the bottom and sides of the excavation. The samples were analyzed for general chemistry parameters, VOCs including analysis for DRO and MRO, and RCRA metals as listed on the Skinner list. NMED required additional analysis for SVOs in samples where cumulative DRO and MRO exceeded 500 mg/kg. The analysis of the soil samples showed low concentrations of VOCs to be present remaining in two sampled locations along the north and south sides of the lagoon (E-1-Wall S and W-1-Wall N). Table 1 is a summary of the analytical results for the samples.

Giant commenced additional excavation work in August 2005 to remove the contaminated soil from the two sampled locations at the sides of the excavation (E-1-Wall S and W-1-Wall N) and to remove the inlet pipe. The results of the final post-excavation sampling conducted on soil samples from the E-1-Wall S and W-1-Wall-N sides of the excavation and along the length of the inlet pipe showed there to be non-detectable level of VOCs remaining. Tables 6 and 9 summarize the results of the final sampling and show that the cleanup resulted in soil meeting the regulatory criteria. In October 2005, the lagoon and pipe excavations were filled in with clean fill soil brought in by Fuh's Trucking.

Scope of Services (Work Performed) and Field Investigation Results

The excavation work on the SWMU No. 8 occurred in two phases.

Initial Lagoon Excavation

The initial lagoon excavation was performed in November 2004 on November 11th, 12th, 15th, and 16th. Giant contracted Fuh's Trucking to excavate the lagoon and transport soils. Fuh's removed a fence that surrounded the lagoon area. The excavation of soils in the lagoon included soil from the bottom and each of the four sides. The lagoon as originally constructed measured approximately 130 feet long by 30 feet wide by 6 feet deep. Fuh's Trucking used a mechanical excavator shovel to excavate the soils such that the lagoon excavation measured 170 feet long by 40 feet wide by 12 feet deep. The equivalent quantity of soil removed was approximately $((170' \times 40' \times 12') - (130' \times 30' \times 6')) \times 1 \text{ yard} / (3' \times 3' \times 3') = 2,119$ yards soil. The extent to which soils were excavated was determined based on visual and olfactory observations of the excavated soil. Soils showing staining were removed then field screening was performed on undisturbed soil using visual and olfactory observations prior to confirmatory sampling. The soils were trucked by Fuh's Trucking to the central and NE OCD Non-Hazardous landfarm on Giant property. The landfarm areas are shown in Figure 2. Photos of the lagoon were taken during the excavation and are included in Appendix 8.

November 18, 2004 Sampling

In November 2004, Giant performed sampling in the excavated lagoon following the sampling plan approved by the NMED for the lagoon closure. On November 18, 2004, Giant took samples from 14 locations in the excavated lagoon. The lagoon sampling locations are shown on Figure 3, Figure 4, and Figure 5. Six of the 14 samples were collected from the bottom of the lagoon and were labeled as RR-B-1, RR-B-2, RR-S-1, RR-N-1, RR-E-1, and RR-W-1. Six of the samples were collected from the lagoon sidewalls at approximately 8 feet depth and labeled as RR-N-1-Wall, RR-S-1-Wall, RR-E-1-Wall N, RR-E-1-Wall S, RR-W-1-Wall N, and RR-W-1-Wall S. Two samples collected from beneath the inlet pipe east of RR-S-

1 were labeled as RR-BP-1 and RR-BP-2. All the samples were taken from undisturbed soil.

Quality control samples including sample duplicates, control spikes and blank samples were analyzed by Hall Environmental. Each sample was sealed and placed in a cooler filled with ice and delivered to Hall Environmental Analysis Laboratory in Albuquerque under chain-of-custody. Hall Environmental analyzed each sample for the following parameters:

EPA Method 9056A: Anions
EPA Method 8015B: Diesel Range Organics
EPA Method 8012B: Volatiles
EPA Method 7471: Mercury
EPA Method 6010C: Soil Metals
EPA Method 150.1: pH

The volatiles analytical results are summarized in Table 1. The RCRA Metals analytical results are summarized in Table 2. The Anions are summarized in Table 3. The laboratory report is in Appendix 1.

Because the two lagoon sidewall samples and the two pipe samples exceeded the NMED's cleanup criteria, additional excavation work was determined to be necessary at points RR-E-1-Wall S and RR-W-1-Wall N. Figure 6 shows the locations of the proposed additional lagoon sampling. In email from Steve Morris to NMED on January 12, 2005, Giant proposed to excavate soil from each of the two sidewall locations to dimensions of 25 feet by 8 feet wide by 12 to 14 feet deep. From each sidewall location, one sample would be taken from the wall and one sample from the bottom. Giant also proposed to remove the concrete inlet pipe and underlying impacted soils. The pipe conveyed waste water from a manhole at the railroad rack to the lagoon over a length of 250 feet. The pipe was installed 3 feet underground and underlain with 6 inches of sand. Pictures of the excavated pipe are in Appendix 8.

Initial Pipe Excavation

In the January 12th email, Giant proposed to excavate the pipe in 25 foot sections and use field screening to determine when to take confirmatory samples. In an email of January 24, 2005, NMED directed Giant to field screen and take samples from the sides and underlying soil at points every 50 feet and approximately 6 inches beneath the surface. At each area where contaminated soil was removed,

three samples were to be taken (one from each wall and one from the bottom of the excavation). Figure 7 and Figure 8 shows the locations of the additional pipe sampling. Confirmatory samples from the lagoon and pipe would be taken from undisturbed soil based on visual and olfactory observations of the soil.

Excavation Second Phase

The second phase of excavation of the SWMU No. 8 was initiated in August 2005 and completed in September 2005. Fuh's Trucking began the additional excavation of the two sidewall locations in the lagoon and removal of pipe on August 15, 2005. Six inches of soil was excavated from the previous excavation limit in the lagoon at the two sidewall locations. Approximately $((2 \times (25' \times 8' \times 14') \times 1 \text{ yard}) / (3' \times 3' \times 3')) = 207$ yards of soil were removed and deposited in the central and NE OCD Non-Hazardous landfarm by Fuh's Trucking.

August 18, 2005 Sampling

On August 18, 2005, the concrete inlet pipe was dug out and cleaned. The underlying soil was removed to a depth of at least 6 inches before sampling began. The pipe was cleaned, broken up, sampled and used for rip-rap at evaporation pond 6. On August 18 samples were taken from undisturbed soil every 50 feet along the length of the removed pipe. The pipe samples were labeled as Inlet Pipe 1WS, 1WN, 1B+M, 2WS, 2WN, 2B+M, 3WS, 3WN, 3B+M, 4WS, 4WN and 4BTM. Figure 7 and Figure 8 (use Drawing 11105-2 that Steve Morris emailed to me) show the locations of the samples. Visual and olfactory observations were used to determine when confirmation samples were taken.

Quality control samples including sample duplicates, control spikes and blank samples were analyzed by Hall Environmental. Each sample was sealed and placed in a cooler filled with ice and delivered to Hall Environmental Analysis Laboratory in Albuquerque under chain-of-custody. Hall Environmental analyzed each sample for the following parameters:

EPA Method 8015B: Diesel Range Organics
EPA Method 8012B: Volatiles
EPA Method 8270: Semi-volatiles

The volatiles analytical results for samples from the inlet pipe are summarized in Table 4. As shown in Table 4, sample results for the inlet pipe excavation showed DRO+MRO greater than the 500 mg/kg threshold in samples 1WS, 1WN, 3WS, 3WN, 3B+M, 4WS, and 4WN. The laboratory analytical report is in Appendix 2.

August 19, 2005 Sampling

On August 19, confirmation samples were taken from undisturbed soil at each sidewall location and were labeled as North Wall, South Wall, North Bottom, and South Bottom. Figure 6 shows the locations of confirmatory sampling. Visual observations and olfactory observations were used to determine when confirmation samples were taken. All the samples were taken from undisturbed soil. Quality control samples including sample duplicates, control spikes and blank samples were analyzed by Hall Environmental.

Each sample was sealed and placed in a cooler filled with ice and delivered to Hall Environmental Analysis Laboratory in Albuquerque under chain-of-custody. Appendix 3 contains the laboratory analytical data. The volatiles analytical results for samples from the sidewall excavations of the lagoon are summarized in Table 5.

August 22, 2005 Sampling

Per NMED directive, any samples where the mid-range and diesel range organic concentrations exceeded 500 mg/kg were required to be tested for SVOCs. Samples from the North Wall, South Wall, and North bottom showed DRO+MRO greater than 500 mg/kg threshold and were therefore also tested for SVOCs. The sample from the South Bottom was 15 mg/kg. Because the DRO+MRO results for three of the four sample locations were greater than the 500 mg/kg threshold, Giant re-excavated the lagoon sidewalls and re-sampled on August 22. Figure 6 shows the locations of confirmatory field sampling. All the samples were taken from undisturbed soil.

Quality control samples including sample duplicates, control spikes and blank samples were analyzed by Hall Environmental. Each sample was sealed and placed in a cooler filled with ice and delivered to Hall Environmental Analysis

Laboratory in Albuquerque under chain-of-custody. The laboratory report is in Appendix 4.

The results of the lagoon re-sampling on August 22, 2005 are summarized in Table 6. The results show that the lagoon excavation resulted in removal of all the impacted soils and the remaining soils meet the NMED cleanup criteria.

On August 22, 2005 Giant sampled the cleaned concrete inlet pipe and submitted a sample to Hall Environmental Analysis Lab for TCLP analysis. The results are summarized in Table 7. The results of the TCLP are less than the regulatory limits for each of the tested parameters. Appendix 5 contains the laboratory analysis report.

August 30, 2005 Sampling

Because samples 1WS, 1WN, 3WS, 3WN, 3B+M, 4WS, and 4WN tested above 500 mg/kg, Giant re-excavated these particular areas of the pipe to a depth at least six inches deeper than the previous excavation and re-sampled on August 30, 2005. Visual and olfactory observations were used prior to confirmatory sampling. Giant sampled the re-excavated pipe on August 30, 2005. The sample areas were labeled as RR-1, RR-2, RR-3, RR-4, RR-5, RR-6, RR-7, RR-8, RR-9, and RR-10. Figure 9 shows the locations of the resample. Table 8 is a summary of the results of the sampling.

The analytical report is in Appendix 6. All the samples were taken from undisturbed soil. Quality control samples including sample duplicates, control spikes and blank samples were analyzed by Hall Environmental. Each sample was sealed and placed in a cooler filled with ice and delivered to Hall Environmental Analysis Laboratory in Albuquerque under chain-of-custody.

September 15, 2005 Sampling

Samples taken at points RR-1, RR-2, RR-3, RR-4, RR-5, RR-6, and RR-7 showed MRO+DRO values greater than 500 mg/kg. Therefore the areas where these samples were taken were re-excavated by Fuh's Trucking to a depth at least 6 inches beyond the previous excavation. Confirmatory samples were taken on September 15 and labeled as RR-1A, RR-2A, RR-3A, RR-4A, RR-5A, RR-6A, and RR-7A. Visual and olfactory observations were used prior to confirmatory

sampling. Figures 10 and 11 show the locations where the samples were taken. Table 9 is a summary of the results of the analysis for these samples.

All the samples were taken from undisturbed soil. Quality control samples including sample duplicates, control spikes and blank samples were analyzed by Hall Environmental. Each sample was sealed and placed in a cooler filled with ice and delivered to Hall Environmental Analysis Laboratory in Albuquerque under chain-of-custody. Appendix 7 contains the laboratory analytical report containing the sample test results.

Surface Conditions

The Ciniza Refinery is situated in the high desert plain on the western flank of the continental divide. The surrounding land is comprised primarily of public lands that are used for cattle and sheep grazing at a density of less than six cattle or 30 sheep per section. Surface xerophytic vegetation consists predominately of native grasses, shrubs (creosote, sage, salt brush), cacti (*Opuntia* sps.), and small trees (junipers and pinyon pine). Rainfall averages less than 7 inches per year.

Local topography consists of a gradually inclined down-slope from high ground in the southeast to a lowland fluvial plain in the northwest. Surface soils generally consist of fluvial and alluvial deposits consisting primarily of clay and silt with minor inter-bedded sand layers. The highest point on refinery property is located at the southeast corner boundary (approximately 7,040 feet elevation) while the lowest point is located at the northwest corner boundary (approximately 6,860 feet). The refinery processing and administration buildings are located on a level man-made terrace at an elevation of approximately 6,950 feet.

Subsurface Conditions

The 810 acre refinery property is located on layered geologic rock formations. Immediately underlying surface soils is a major rock layer known as the Chinle Formation. The Chinle Formation is composed primarily of very low permeability claystones and siltstones that typically comprise the shales of this formation. As such, the Chinle Formation effectively serves as an aquiclude. Inter-bedded within the Chinle Formation is the Sonsela Sandstone bed which represents the uppermost potential aquifer in the region.

Excavation Abandonment

On October 11th and 12th, 2005 Fuh's trucking filled in the excavated lagoon and pipe with clean overburden soil and contoured the soil to the level of the surrounding undisturbed soil. On October 13, 2005, Fuh's Trucking personnel reinstalled the fence that surrounded the lagoon.

Groundwater Conditions

The Sonsela Sandstone bed lies within and parallels the dip of the Chinle Formation. As such, its high point is located southeast of the refinery and it slopes downward to the northwest as it passes under the refinery. Due to the confinement of the Chinle Formation aquiclude, the Sonsela Sandstone bed acts as a water-bearing reservoir and is artesian at its lower extremis. Artesian conditions exist throughout the central and western portions of the refinery property.

Groundwater flow within the Chinle Formation is extremely slow and typically averages less than 10^{-10} centimeters per second (less than 0.01 foot per year). Groundwater flow within the surface soil layer above the Chinle Formation is highly variable due to the presence of complex and irregular stratigraphy, including sand stringers, cobble beds, and dense clay layers. As such, hydraulic conductivity may range from less than 10^{-2} centimeter per second in the gravelly soils immediately overlying the Chinle Formation to 10^{-8} centimeter per second in the clay soil layers located near the surface.

Shallow groundwater located under the refinery property generally flows along the upper contact of the Chinle Formation. The prevailing flow direction is from the southeast and trending toward the northwest; however, a subsurface ridge has been identified and is thought to deflect some water flow in a northeasterly direction in the vicinity of the refinery tank farm.

No groundwater was encountered during the excavation of the RR Rack lagoon and pipe.

Surface Water Conditions

Surface water in the area consists predominately of the man-made evaporation ponds and aeration basins located on the west side of the refinery, a cattle

watering pond (Jon Myer's pond) located east of the refinery, and the South Fork of the Puerco River and its tributary arroyos. The various ponds and basins typically contain water throughout the year. The south Fork of the Puerco River and its tributaries are typically intermittent and generally only contain water during periods of rainfall.

The RR Rack piping system was dedicated solely to the RR Rack conveying waste water to the lagoon. There were no connections between the pipe and surface water drainages.

Regulatory Criteria

Giant followed the New Mexico Soil Screening Criteria as the cleanup goal for the RR Rack site closure. Soil sample test results are summarized in tables and included with the applicable soil screening criteria that are also conveniently listed for comparison purposes in the summary tables. The soil screening criteria selected for comparison purposes are from the residential column of the Table A-1 in the NMED's Technical Background Document for Development of Soil Screening Levels, Rev 3.0 (Aug 2005; updated August 2005). In consultation with NMED, site specific criteria and risk based criteria were not used for this site.

Giant also followed New Mexico's water quality standards in its cleanup. If soil samples showed levels of contaminants greater than the NMWQS criteria, then the soil was excavated further until subsequent sampling showed contaminants less than the NMWQS. Tables summarizing Giant's sampling results also include the NMWQS criteria as well as the soil screening level criteria for comparison purposes.

Conclusions

Giant excavated the soils from the RR Rack lagoon and the concrete pipe in two phases that began in November 2004 with excavation of the walls and bottom of the lagoon. Sampling results of the initial lagoon excavation (Table 3) showed that contaminants at two points in the walls (E-1-Wall S and W-1-Wall N) and two points in the bottom (BP-1 and BP-2) remained greater than the NMWQS. In August 2005, Giant re-excavated these locations. Sampling conducted on these points on August 22, 2005 showed that the August 2005 excavation was successful in removing contamination in the lagoon to less than the NMWQS and the NM soil screening criteria. Table 6 and Table 9 summarize the final confirmatory sampling results of the lagoon and inlet concrete pipe and compare them to the regulatory cleanup criteria.

Giant removed the concrete pipe and underlying soil in August 2005. Sampling of the initial pipe excavation conducted August 30, 2005 showed contaminants greater than the NMWQS (Table 8) at 7 sample locations (RR-1, RR-2, RR-3, RR-4, RR-5, RR-6, and RR-7). Giant re-excavated these points and re-sampled on September 15, 2005. Results of the re-sampling (Table 9) showed that contaminant level in the undisturbed soil is less than the NMWQS and NM soil screening criteria.

Because the sampling results from the final rounds of sampling on the lagoon and inlet pipe were less than the applicable regulatory criteria, Giant believes that the completed SWMU No. 8 clean up meets the NMED's standards for a No Further Action (NFA) designation. Therefore, Giant requests that the NMED grant a NFA for the SWMU No. 8.

Recommendations

Because the cleanup of the SWMU No. 8 has met all the NMED's regulatory cleanup criteria, Giant believes that no further action is necessary. The site is fenced off in an area of the refinery with restricted access. The fence is posted with no access signs.

Appendix 1: Hall Environmental Laboratory Report- December 13, 2004



COVER LETTER

December 03, 2004

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-3833
FAX (505) 722-0210

RE: Railroad Rack Lagoon SWMU

Order No.: 0411218

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 13 samples on 11/19/2004 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co
Project: Railroad Rack Lagoon SWMU
Lab Order: 0411218

CASE NARRATIVE

Analytical Comments for METHOD 300_S, SAMPLE 0411218-09A MS: Unable to recover o-PO4-P due to possible matrix interference. IN12-04070 Analytical Comments for METHOD 300_S, SAMPLE 0411218-09A MSD: Unable to recover o-PO4-P due to possible matrix interference. IN12-04070

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-N-1
Lab Order: 0411218 **Collection Date:** 11/18/2004 8:00:00 AM
Project: Railroad Rack Lagoon SWMU
Lab ID: 0411218-01 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	18	3.0		mg/Kg	10	11/30/2004 11:48:28 AM
Chloride	320	3.0		mg/Kg	10	11/30/2004 11:48:28 AM
Nitrogen, Nitrate (As N)	4.9	3.0		mg/Kg	10	11/30/2004 11:48:28 AM
Sulfate	680	15		mg/Kg	10	11/30/2004 11:48:28 AM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 11:48:28 AM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 11:48:28 AM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/23/2004 12:13:36 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/23/2004 12:13:36 PM
Surr: DNOP	78.7	60-124		%REC	1	11/23/2004 12:13:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/23/2004 3:37:35 PM
Benzene	ND	0.025		mg/Kg	1	11/23/2004 3:37:35 PM
Toluene	ND	0.025		mg/Kg	1	11/23/2004 3:37:35 PM
Ethylbenzene	ND	0.025		mg/Kg	1	11/23/2004 3:37:35 PM
Xylenes, Total	ND	0.025		mg/Kg	1	11/23/2004 3:37:35 PM
Surr: 4-Bromofluorobenzene	99.8	74-118		%REC	1	11/23/2004 3:37:35 PM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	2.5		mg/Kg	1	11/23/2004 12:16:56 PM
Barium	250	0.99		mg/Kg	10	11/24/2004 4:28:22 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 12:16:56 PM
Calcium	18000	130		mg/Kg	5	11/23/2004 4:51:19 PM
Chromium	7.0	0.30		mg/Kg	1	11/23/2004 12:16:56 PM
Lead	14	0.25		mg/Kg	1	11/23/2004 12:16:56 PM
Magnesium	5200	25		mg/Kg	1	11/23/2004 12:16:56 PM
Potassium	2100	50		mg/Kg	1	11/23/2004 12:16:56 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 12:16:56 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 12:16:56 PM
Sodium	2000	25		mg/Kg	1	11/23/2004 12:16:56 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.25	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-E-1
 Lab Order: 0411218 Collection Date: 11/18/2004 8:15:00 AM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-02 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	6.1	3.0		mg/Kg	10	11/30/2004 12:05:17 PM
Chloride	54	3.0		mg/Kg	10	11/30/2004 12:05:17 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:05:17 PM
Sulfate	74	15		mg/Kg	10	11/30/2004 12:05:17 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:05:17 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 12:05:17 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	81	10		mg/Kg	1	11/22/2004 8:26:19 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/22/2004 8:26:19 PM
Surr: DNOP	71.3	60-124		%REC	1	11/22/2004 8:26:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.20		mg/Kg	2	11/23/2004 4:07:37 PM
Benzene	ND	0.050		mg/Kg	2	11/23/2004 4:07:37 PM
Toluene	ND	0.050		mg/Kg	2	11/23/2004 4:07:37 PM
Ethylbenzene	ND	0.050		mg/Kg	2	11/23/2004 4:07:37 PM
Xylenes, Total	ND	0.050		mg/Kg	2	11/23/2004 4:07:37 PM
Surr: 4-Bromofluorobenzene	103	74-118		%REC	2	11/23/2004 4:07:37 PM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	2.5		mg/Kg	1	11/23/2004 12:20:55 PM
Barium	290	0.96		mg/Kg	10	11/24/2004 4:32:37 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 12:20:55 PM
Calcium	16000	130		mg/Kg	5	11/23/2004 4:55:16 PM
Chromium	5.8	0.30		mg/Kg	1	11/23/2004 12:20:55 PM
Lead	5.7	0.25		mg/Kg	1	11/23/2004 12:20:55 PM
Magnesium	4600	25		mg/Kg	1	11/23/2004 12:20:55 PM
Potassium	1300	50		mg/Kg	1	11/23/2004 12:20:55 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 12:20:55 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 12:20:55 PM
Sodium	1300	25		mg/Kg	1	11/23/2004 12:20:55 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	9.23	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level 3 / 23

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-S-1
 Lab Order: 0411218 Collection Date: 11/18/2004 8:30:00 AM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-03 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	4.6	3.0		mg/Kg	10	11/30/2004 12:22:06 PM
Chloride	27	3.0		mg/Kg	10	11/30/2004 12:22:06 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:22:06 PM
Sulfate	28	15		mg/Kg	10	11/30/2004 12:22:06 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:22:06 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 12:22:06 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	31	10		mg/Kg	1	11/22/2004 8:57:58 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/22/2004 8:57:58 PM
Surr: DNOP	94.8	60-124		%REC	1	11/22/2004 8:57:58 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/23/2004 4:37:38 PM
Benzene	ND	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Toluene	ND	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Ethylbenzene	ND	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Xylenes, Total	0.082	0.025		mg/Kg	1	11/23/2004 4:37:38 PM
Surr: 4-Bromofluorobenzene	104	74-118		%REC	1	11/23/2004 4:37:38 PM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	2.5		mg/Kg	1	11/23/2004 12:29:00 PM
Barium	300	0.96		mg/Kg	10	11/24/2004 4:34:44 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 12:29:00 PM
Calcium	17000	250		mg/Kg	10	11/23/2004 5:02:14 PM
Chromium	5.6	0.30		mg/Kg	1	11/23/2004 12:29:00 PM
Lead	5.1	0.25		mg/Kg	1	11/23/2004 12:29:00 PM
Magnesium	4400	25		mg/Kg	1	11/23/2004 12:29:00 PM
Potassium	1400	50		mg/Kg	1	11/23/2004 12:29:00 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 12:29:00 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 12:29:00 PM
Sodium	870	25		mg/Kg	1	11/23/2004 12:29:00 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	9.05	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level 4 / 23

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-W-1
 Lab Order: 0411218 Collection Date: 11/18/2004 8:45:00 AM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-04 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	4.6	3.0		mg/Kg	10	11/30/2004 12:38:53 PM
Chloride	37	3.0		mg/Kg	10	11/30/2004 12:38:53 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:38:53 PM
Sulfate	ND	15		mg/Kg	10	11/30/2004 12:38:53 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:38:53 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 12:38:53 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	12	10		mg/Kg	1	11/22/2004 9:29:35 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/22/2004 9:29:35 PM
Surr: DNOP	95.9	60-124		%REC	1	11/22/2004 9:29:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/23/2004 5:07:40 PM
Benzene	ND	0.025		mg/Kg	1	11/23/2004 5:07:40 PM
Toluene	ND	0.025		mg/Kg	1	11/23/2004 5:07:40 PM
Ethylbenzene	ND	0.025		mg/Kg	1	11/23/2004 5:07:40 PM
Xylenes, Total	ND	0.025		mg/Kg	1	11/23/2004 5:07:40 PM
Surr: 4-Bromofluorobenzene	103	74-118		%REC	1	11/23/2004 5:07:40 PM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	5.0		mg/Kg	2	11/24/2004 2:11:48 PM
Barium	310	0.99		mg/Kg	10	11/24/2004 4:41:39 PM
Cadmium	ND	0.20		mg/Kg	2	11/24/2004 2:11:48 PM
Calcium	16000	50		mg/Kg	2	11/24/2004 2:11:48 PM
Chromium	7.0	0.60		mg/Kg	2	11/24/2004 2:11:48 PM
Lead	7.8	0.50		mg/Kg	2	11/24/2004 2:11:48 PM
Magnesium	4800	50		mg/Kg	2	11/24/2004 2:11:48 PM
Potassium	1300	100		mg/Kg	2	11/24/2004 2:11:48 PM
Selenium	ND	5.0		mg/Kg	2	11/24/2004 2:11:48 PM
Silver	ND	0.50		mg/Kg	2	11/24/2004 2:11:48 PM
Sodium	1300	50		mg/Kg	2	11/24/2004 2:11:48 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	9.13	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level 5 / 23

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co

Client Sample ID: RR-N-1-Wall

Lab Order: 0411218

Collection Date: 11/18/2004 9:00:00 AM

Project: Railroad Rack Lagoon SWMU

Lab ID: 0411218-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	3.4	3.0		mg/Kg	10	11/30/2004 12:55:42 PM
Chloride	300	3.0		mg/Kg	10	11/30/2004 12:55:42 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:55:42 PM
Sulfate	610	15		mg/Kg	10	11/30/2004 12:55:42 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 12:55:42 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 12:55:42 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/22/2004 10:01:18 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/22/2004 10:01:18 PM
Surr: DNOP	97.8	60-124		%REC	1	11/22/2004 10:01:18 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/23/2004 5:37:45 PM
Benzene	ND	0.025		mg/Kg	1	11/23/2004 5:37:45 PM
Toluene	ND	0.025		mg/Kg	1	11/23/2004 5:37:45 PM
Ethylbenzene	ND	0.025		mg/Kg	1	11/23/2004 5:37:45 PM
Xylenes, Total	ND	0.025		mg/Kg	1	11/23/2004 5:37:45 PM
Surr: 4-Bromofluorobenzene	100	74-118		%REC	1	11/23/2004 5:37:45 PM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	2.5		mg/Kg	1	11/23/2004 12:40:59 PM
Barium	280	1.0		mg/Kg	10	11/24/2004 4:43:49 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 12:40:59 PM
Calcium	18000	250		mg/Kg	10	11/23/2004 5:18:23 PM
Chromium	7.6	0.30		mg/Kg	1	11/23/2004 12:40:59 PM
Lead	5.3	0.25		mg/Kg	1	11/23/2004 12:40:59 PM
Magnesium	5800	25		mg/Kg	1	11/23/2004 12:40:59 PM
Potassium	2700	50		mg/Kg	1	11/23/2004 12:40:59 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 12:40:59 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 12:40:59 PM
Sodium	1500	25		mg/Kg	1	11/23/2004 12:40:59 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.37	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-S-1-Wall
 Lab Order: 0411218 Collection Date: 11/18/2004 9:15:00 AM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-06 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	4.7	3.0		mg/Kg	10	11/30/2004 1:12:30 PM
Chloride	76	3.0		mg/Kg	10	11/30/2004 1:12:30 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 1:12:30 PM
Sulfate	380	15		mg/Kg	10	11/30/2004 1:12:30 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 1:12:30 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 1:12:30 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/22/2004 10:34:12 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/22/2004 10:34:12 PM
Surr: DNOP	81.5	60-124		%REC	1	11/22/2004 10:34:12 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/23/2004 6:07:55 PM
Benzene	ND	0.025		mg/Kg	1	11/23/2004 6:07:55 PM
Toluene	ND	0.025		mg/Kg	1	11/23/2004 6:07:55 PM
Ethylbenzene	ND	0.025		mg/Kg	1	11/23/2004 6:07:55 PM
Xylenes, Total	ND	0.025		mg/Kg	1	11/23/2004 6:07:55 PM
Surr: 4-Bromofluorobenzene	104	74-118		%REC	1	11/23/2004 6:07:55 PM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	2.5		mg/Kg	1	11/23/2004 12:49:06 PM
Barium	300	0.97		mg/Kg	10	11/24/2004 4:45:57 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 12:49:06 PM
Calcium	17000	250		mg/Kg	10	11/23/2004 5:21:12 PM
Chromium	6.9	0.30		mg/Kg	1	11/23/2004 12:49:06 PM
Lead	5.9	0.25		mg/Kg	1	11/23/2004 12:49:06 PM
Magnesium	5400	25		mg/Kg	1	11/23/2004 12:49:06 PM
Potassium	2000	50		mg/Kg	1	11/23/2004 12:49:06 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 12:49:06 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 12:49:06 PM
Sodium	1000	25		mg/Kg	1	11/23/2004 12:49:06 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.55	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level 7 / 23

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Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-E-1-Wall N
 Lab Order: 0411218 Collection Date: 11/18/2004 9:30:00 AM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-07 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS Analyst: MAP						
Fluoride	36	3.0		mg/Kg	10	11/30/2004 2:02:56 PM
Chloride	76	3.0		mg/Kg	10	11/30/2004 2:02:56 PM
Nitrogen, Nitrate (As N)	6.6	3.0		mg/Kg	10	11/30/2004 2:02:56 PM
Sulfate	270	15		mg/Kg	10	11/30/2004 2:02:56 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 2:02:56 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 2:02:56 PM
EPA METHOD 8015B: DIESEL RANGE Analyst: JMP						
Diesel Range Organics (DRO)	150	10		mg/Kg	1	11/23/2004 12:46:34 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/23/2004 12:46:34 PM
Surr: DNOP	110	60-124		%REC	1	11/23/2004 12:46:34 PM
EPA METHOD 8021B: VOLATILES Analyst: NSB						
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/23/2004 6:37:48 PM
Benzene	ND	0.025		mg/Kg	1	11/23/2004 6:37:48 PM
Toluene	ND	0.025		mg/Kg	1	11/23/2004 6:37:48 PM
Ethylbenzene	ND	0.025		mg/Kg	1	11/23/2004 6:37:48 PM
Xylenes, Total	ND	0.025		mg/Kg	1	11/23/2004 6:37:48 PM
Surr: 4-Bromofluorobenzene	99.7	74-118		%REC	1	11/23/2004 6:37:48 PM
EPA METHOD 7471: MERCURY Analyst: CMC						
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS Analyst: CMC						
Arsenic	ND	2.5		mg/Kg	1	11/23/2004 3:28:41 PM
Barium	260	0.96		mg/Kg	10	11/24/2004 4:48:09 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 3:28:41 PM
Calcium	15000	130		mg/Kg	5	11/23/2004 5:24:02 PM
Chromium	6.3	0.30		mg/Kg	1	11/23/2004 3:28:41 PM
Lead	6.2	0.25		mg/Kg	1	11/23/2004 3:28:41 PM
Magnesium	4600	25		mg/Kg	1	11/23/2004 3:28:41 PM
Potassium	1700	50		mg/Kg	1	11/23/2004 3:28:41 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 3:28:41 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 3:28:41 PM
Sodium	1200	25		mg/Kg	1	11/23/2004 3:28:41 PM
EPA METHOD 150.1: PH Analyst: CMC						
pH	8.58	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co

Client Sample ID: RR-W-1-Wall N

Lab Order: 0411218

Collection Date: 11/18/2004 10:45:00 AM

Project: Railroad Rack Lagoon SWMU

Lab ID: 0411218-09

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	14	1.5		mg/Kg	5	11/30/2004 2:19:45 PM
Chloride	290	1.5		mg/Kg	5	11/30/2004 2:19:45 PM
Nitrogen, Nitrate (As N)	4.3	1.5		mg/Kg	5	11/30/2004 2:19:45 PM
Sulfate	860	7.5		mg/Kg	5	11/30/2004 2:19:45 PM
Nitrogen, Nitrite (As N)	ND	1.5		mg/Kg	5	11/30/2004 2:19:45 PM
Phosphorus, Orthophosphate (As P)	ND	7.5		mg/Kg	5	11/30/2004 2:19:45 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	450	10		mg/Kg	1	11/23/2004 1:18:13 PM
Motor Oil Range Organics (MRO)	140	50		mg/Kg	1	11/23/2004 1:18:13 PM
Surr: DNOP	87.4	60-124		%REC	1	11/23/2004 1:18:13 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/23/2004 7:07:39 PM
Benzene	ND	0.025		mg/Kg	1	11/23/2004 7:07:39 PM
Toluene	ND	0.025		mg/Kg	1	11/23/2004 7:07:39 PM
Ethylbenzene	ND	0.025		mg/Kg	1	11/23/2004 7:07:39 PM
Xylenes, Total	ND	0.025		mg/Kg	1	11/23/2004 7:07:39 PM
Surr: 4-Bromofluorobenzene	101	74-118		%REC	1	11/23/2004 7:07:39 PM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	0.037	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	2.5		mg/Kg	1	11/23/2004 3:32:35 PM
Barium	460	1.0		mg/Kg	10	11/24/2004 4:50:16 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 3:32:35 PM
Calcium	32000	250		mg/Kg	10	11/23/2004 5:27:54 PM
Chromium	27	0.30		mg/Kg	1	11/23/2004 3:32:35 PM
Lead	11	0.25		mg/Kg	1	11/23/2004 3:32:35 PM
Magnesium	4300	25		mg/Kg	1	11/23/2004 3:32:35 PM
Potassium	1200	50		mg/Kg	1	11/23/2004 3:32:35 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 3:32:35 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 3:32:35 PM
Sodium	1100	25		mg/Kg	1	11/23/2004 3:32:35 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.21	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co

Client Sample ID: RR-W-1-Wall S

Lab Order: 0411218

Collection Date: 11/18/2004 11:00:00 AM

Project: Railroad Rack Lagoon SWMU

Lab ID: 0411218-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	7.9	3.0		mg/Kg	10	11/30/2004 4:00:30 PM
Chloride	33	3.0		mg/Kg	10	11/30/2004 4:00:30 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 4:00:30 PM
Sulfate	39	15		mg/Kg	10	11/30/2004 4:00:30 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 4:00:30 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 4:00:30 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	310	10		mg/Kg	1	11/23/2004 6:44:57 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/23/2004 6:44:57 AM
Surr: DNOP	111	60-124		%REC	1	11/23/2004 6:44:57 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	10	11/23/2004 7:37:29 PM
Benzene	ND	0.25		mg/Kg	10	11/23/2004 7:37:29 PM
Toluene	ND	0.25		mg/Kg	10	11/23/2004 7:37:29 PM
Ethylbenzene	ND	0.25		mg/Kg	10	11/23/2004 7:37:29 PM
Xylenes, Total	ND	0.25		mg/Kg	10	11/23/2004 7:37:29 PM
Surr: 4-Bromofluorobenzene	104	74-118		%REC	10	11/23/2004 7:37:29 PM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	2.5		mg/Kg	1	11/23/2004 3:40:28 PM
Barium	320	0.96		mg/Kg	10	11/24/2004 4:52:24 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 3:40:28 PM
Calcium	17000	250		mg/Kg	10	11/23/2004 5:30:43 PM
Chromium	3.1	0.30		mg/Kg	1	11/23/2004 3:40:28 PM
Lead	2.9	0.25		mg/Kg	1	11/23/2004 3:40:28 PM
Magnesium	4200	25		mg/Kg	1	11/23/2004 3:40:28 PM
Potassium	1000	50		mg/Kg	1	11/23/2004 3:40:28 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 3:40:28 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 3:40:28 PM
Sodium	920	25		mg/Kg	1	11/23/2004 3:40:28 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.89	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

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Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co **Client Sample ID:** RR-B-1
Lab Order: 0411218 **Collection Date:** 11/18/2004 11:30:00 AM
Project: Railroad Rack Lagoon SWMU
Lab ID: 0411218-11 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	4.5	3.0		mg/Kg	10	11/30/2004 4:17:19 PM
Chloride	34	3.0		mg/Kg	10	11/30/2004 4:17:19 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 4:17:19 PM
Sulfate	ND	15		mg/Kg	10	11/30/2004 4:17:19 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 4:17:19 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 4:17:19 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	99	10		mg/Kg	1	11/23/2004 7:18:07 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/23/2004 7:18:07 AM
Surr. DNOP	89.5	60-124		%REC	1	11/23/2004 7:18:07 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	5	11/23/2004 8:07:19 PM
Benzene	ND	0.13		mg/Kg	5	11/23/2004 8:07:19 PM
Toluene	ND	0.13		mg/Kg	5	11/23/2004 8:07:19 PM
Ethylbenzene	ND	0.13		mg/Kg	5	11/23/2004 8:07:19 PM
Xylenes, Total	0.52	0.13		mg/Kg	5	11/23/2004 8:07:19 PM
Surr. 4-Bromofluorobenzene	103	74-118		%REC	5	11/23/2004 8:07:19 PM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	2.5		mg/Kg	1	11/23/2004 3:44:35 PM
Barium	260	1.0		mg/Kg	10	11/24/2004 4:54:36 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 3:44:35 PM
Calcium	15000	130		mg/Kg	5	11/23/2004 5:33:33 PM
Chromium	5.9	0.30		mg/Kg	1	11/23/2004 3:44:35 PM
Lead	5.6	0.25		mg/Kg	1	11/23/2004 3:44:35 PM
Magnesium	4600	25		mg/Kg	1	11/23/2004 3:44:35 PM
Potassium	1300	50		mg/Kg	1	11/23/2004 3:44:35 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 3:44:35 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 3:44:35 PM
Sodium	1400	25		mg/Kg	1	11/23/2004 3:44:35 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	9.06	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT:	Giant Refining Co	Client Sample ID:	RR-B-2
Lab Order:	0411218	Collection Date:	11/18/2004 12:30:00 PM
Project:	Railroad Rack Lagoon SWMU		
Lab ID:	0411218-12	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						
						Analyst: MAP
Fluoride	7.5	3.0		mg/Kg	10	11/30/2004 4:34:08 PM
Chloride	17	3.0		mg/Kg	10	11/30/2004 4:34:08 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 4:34:08 PM
Sulfate	680	15		mg/Kg	10	11/30/2004 4:34:08 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 4:34:08 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 4:34:08 PM
EPA METHOD 8015B: DIESEL RANGE						
						Analyst: JMP
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	11/23/2004 7:49:46 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	11/23/2004 7:49:46 AM
Surr: DNOP	88.7	60-124		%REC	1	11/23/2004 7:49:46 AM
EPA METHOD 8021B: VOLATILES						
						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	11/24/2004 11:49:10 PM
Benzene	ND	0.025		mg/Kg	1	11/24/2004 11:49:10 PM
Toluene	ND	0.025		mg/Kg	1	11/24/2004 11:49:10 PM
Ethylbenzene	ND	0.025		mg/Kg	1	11/24/2004 11:49:10 PM
Xylenes, Total	ND	0.025		mg/Kg	1	11/24/2004 11:49:10 PM
Surr: 4-Bromofluorobenzene	102	74-118		%REC	1	11/24/2004 11:49:10 PM
EPA METHOD 7471: MERCURY						
						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						
						Analyst: CMC
Arsenic	ND	2.5		mg/Kg	1	11/23/2004 3:56:24 PM
Barium	320	0.97		mg/Kg	10	11/24/2004 4:56:47 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 3:56:24 PM
Calcium	17000	250		mg/Kg	10	11/23/2004 5:37:24 PM
Chromium	5.1	0.30		mg/Kg	1	11/23/2004 3:56:24 PM
Lead	5.1	0.25		mg/Kg	1	11/23/2004 3:56:24 PM
Magnesium	4200	25		mg/Kg	1	11/23/2004 3:56:24 PM
Potassium	1000	50		mg/Kg	1	11/23/2004 3:56:24 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 3:56:24 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 3:56:24 PM
Sodium	1300	25		mg/Kg	1	11/23/2004 3:56:24 PM
EPA METHOD 150.1: PH						
						Analyst: CMC
pH	8.75	0.010		pH Units	1	12/1/2004

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-BP-1
 Lab Order: 0411218 Collection Date: 11/18/2004 1:00:00 PM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-13 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	5.4	3.0		mg/Kg	10	11/30/2004 5:24:33 PM
Chloride	60	3.0		mg/Kg	10	11/30/2004 5:24:33 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 5:24:33 PM
Sulfate	ND	15		mg/Kg	10	11/30/2004 5:24:33 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 5:24:33 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 5:24:33 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	3600	100		mg/Kg	10	11/23/2004 11:40:40 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	11/23/2004 11:40:40 AM
Surr: DNOP	83.2	60-124		%REC	10	11/23/2004 11:40:40 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	5.0		mg/Kg	50	11/23/2004 9:36:56 PM
Benzene	2.5	1.3		mg/Kg	50	11/23/2004 9:36:56 PM
Toluene	27	1.3		mg/Kg	50	11/23/2004 9:36:56 PM
Ethylbenzene	17	1.3		mg/Kg	50	11/23/2004 9:36:56 PM
Xylenes, Total	110	1.3		mg/Kg	50	11/23/2004 9:36:56 PM
Surr: 4-Bromofluorobenzene	113	74-118		%REC	50	11/23/2004 9:36:56 PM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	0.082	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: CMC
Arsenic	ND	2.5		mg/Kg	1	11/23/2004 4:13:16 PM
Barium	240	0.99		mg/Kg	10	11/24/2004 5:01:04 PM
Cadmium	0.10	0.10		mg/Kg	1	11/23/2004 4:13:16 PM
Calcium	16000	130		mg/Kg	5	11/23/2004 5:40:11 PM
Chromium	5.5	0.30		mg/Kg	1	11/23/2004 4:13:16 PM
Lead	12	0.25		mg/Kg	1	11/23/2004 4:13:16 PM
Magnesium	3300	25		mg/Kg	1	11/23/2004 4:13:16 PM
Potassium	1000	50		mg/Kg	1	11/23/2004 4:13:16 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 4:13:16 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 4:13:16 PM
Sodium	590	25		mg/Kg	1	11/23/2004 4:13:16 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.25	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co Client Sample ID: RR-BP-2
 Lab Order: 0411218 Collection Date: 11/18/2004 1:30:00 PM
 Project: Railroad Rack Lagoon SWMU
 Lab ID: 0411218-14 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 9056A: ANIONS						Analyst: MAP
Fluoride	8.1	3.0		mg/Kg	10	11/30/2004 5:41:22 PM
Chloride	59	3.0		mg/Kg	10	11/30/2004 5:41:22 PM
Nitrogen, Nitrate (As N)	ND	3.0		mg/Kg	10	11/30/2004 5:41:22 PM
Sulfate	24	15		mg/Kg	10	11/30/2004 5:41:22 PM
Nitrogen, Nitrite (As N)	ND	3.0		mg/Kg	10	11/30/2004 5:41:22 PM
Phosphorus, Orthophosphate (As P)	ND	15		mg/Kg	10	11/30/2004 5:41:22 PM
EPA METHOD 8015B: DIESEL RANGE						Analyst: JMP
Diesel Range Organics (DRO)	2700	100		mg/Kg	10	11/29/2004 8:50:00 PM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	11/29/2004 8:50:00 PM
Surr: DNOP	78.9	60-124		%REC	10	11/29/2004 8:50:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	5.0		mg/Kg	50	11/23/2004 10:07:11 PM
Benzene	2.2	1.3		mg/Kg	50	11/23/2004 10:07:11 PM
Toluene	25	1.3		mg/Kg	50	11/23/2004 10:07:11 PM
Ethylbenzene	15	1.3		mg/Kg	50	11/23/2004 10:07:11 PM
Xylenes, Total	100	1.3		mg/Kg	50	11/23/2004 10:07:11 PM
Surr: 4-Bromofluorobenzene	113	74-118		%REC	50	11/23/2004 10:07:11 PM
EPA METHOD 7471: MERCURY						Analyst: CMC
Mercury	ND	0.033		mg/Kg	1	11/30/2004
EPA METHOD 6010C: SOIL METALS						Analyst: NMO
Arsenic	ND	2.5		mg/Kg	1	11/30/2004 2:20:51 PM
Barium	170	0.99		mg/Kg	10	11/24/2004 5:03:13 PM
Cadmium	ND	0.10		mg/Kg	1	11/23/2004 4:17:13 PM
Calcium	13000	130		mg/Kg	5	11/23/2004 5:46:03 PM
Chromium	4.4	0.30		mg/Kg	1	11/23/2004 4:17:13 PM
Lead	7.4	0.25		mg/Kg	1	11/23/2004 4:17:13 PM
Magnesium	3000	25		mg/Kg	1	11/23/2004 4:17:13 PM
Potassium	940	50		mg/Kg	1	11/23/2004 4:17:13 PM
Selenium	ND	2.5		mg/Kg	1	11/23/2004 4:17:13 PM
Silver	ND	0.25		mg/Kg	1	11/23/2004 4:17:13 PM
Sodium	570	25		mg/Kg	1	11/23/2004 4:17:13 PM
EPA METHOD 150.1: PH						Analyst: CMC
pH	8.51	0.010		pH Units	1	12/1/2004

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co
Work Order: 0411218
Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Method Blank

Sample ID	MB-6967	Batch ID: 6967	Test Code: E300	Units: mg/Kg	Analysis Date	11/30/2004 10:41:18 A	Prep Date	11/30/2004			
Client ID:			Run ID: LC_041130A		SeqNo:	323552					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.3									
Chloride	ND	0.3									
Nitrogen, Nitrate (As N)	ND	0.3									
Sulfate	ND	1.5									
Nitrogen, Nitrite (As N)	ND	0.3									
Phosphorus, Orthophosphate (As P)	ND	1.5									

Sample ID	MB-6969	Batch ID: 6969	Test Code: E300	Units: mg/Kg	Analysis Date	11/30/2004 3:26:53 PM	Prep Date	11/30/2004			
Client ID:			Run ID: LC_041130A		SeqNo:	323569					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	ND	0.3									
Chloride	ND	0.3									
Nitrogen, Nitrate (As N)	ND	0.3									
Sulfate	ND	1.5									
Nitrogen, Nitrite (As N)	ND	0.3									
Phosphorus, Orthophosphate (As P)	ND	1.5									

Sample ID	MB-6944	Batch ID: 6944	Test Code: SW8015	Units: mg/Kg	Analysis Date	11/22/2004 5:41:51 PM	Prep Date	11/22/2004			
Client ID:			Run ID:	FID(17A) 2_041122A	SeqNo:	322601					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	8.438	0	10	0	84.4	60	124	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
 Work Order: 0411218
 Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Method Blank

Sample ID	MB-6930	Batch ID:	6930	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	11/23/2004 12:37:21 P	Prep Date	11/19/2004
Client ID:		Run ID:	PIDFID_041123A	SeqNo:	322790						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1									
Benzene	ND	0.025									
Toluene	ND	0.025									
Ethylbenzene	ND	0.025									
Xylenes, Total	ND	0.025									
Surr: 4-Bromofluorobenzene	0.9942	0	1	0	99.4	74	118	0			

Sample ID	MB-6972	Batch ID:	6972	Test Code:	SW7471	Units:	mg/Kg	Analysis Date	11/30/2004	Prep Date	11/30/2004	
Client ID:		Run ID:	MI-LA254_041130A	SeqNo:	323375							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.033									

Sample ID	MB-6954	Batch ID:	6954	Test Code:	SW6010A	Units:	mg/Kg	Analysis Date	11/23/2004 11:10:00 A	Prep Date	11/22/2004
Client ID:		Run ID:	ICP_041123A	SeqNo:	322690						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	2.5									
Cadmium	0.05491	0.1									J
Calcium	12.41	25									J
Chromium	ND	0.3									
Lead	ND	0.25									
Magnesium	ND	25									
Potassium	ND	50									
Selenium	ND	2.5									
Silver	ND	0.25									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0411218
Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Method Blank

Sample ID	MB-6954	Batch ID: 6954	Test Code: SW6010A	Units: mg/Kg	Analysis Date	11/24/2004 4:05:08 PM	Prep Date	11/22/2004				
Client ID:			Run ID: ICP_041124A		SeqNo:	323121						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium		ND	0.1									

Sample ID	MB-6954	Batch ID: 6954	Test Code: SW6010A	Units: mg/Kg	Analysis Date	11/24/2004 2:15:41 PM	Prep Date	11/22/2004				
Client ID:			Run ID: ICP_041123B		SeqNo:	323162						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium		ND	25									

17/23

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co
Work Order: 0411218
Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Sample Duplicate

Sample ID	0411218-09A DUP	Batch ID:	6967	Test Code:	E300	Units:	mg/Kg	Analysis Date	11/30/2004 2:36:34 PM	Prep Date	11/30/2004
Client ID:	RR-W-1-Wall N	Run ID:	LC_041130A	SeqNo:	323566						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	13.08	1.5	0	0	0	0	0	14.15	7.88	20	
Chloride	289.5	1.5	0	0	0	0	0	291.3	0.625	20	
Nitrogen, Nitrate (As N)	3.285	1.5	0	0	0	0	0	4.337	27.6	20	R
Sulfate	859	7.5	0	0	0	0	0	863.5	0.516	20	
Nitrogen, Nitrite (As N)	ND	1.5	0	0	0	0	0	0	0	20	
Phosphorus, Orthophosphate (As P)	ND	7.5	0	0	0	0	0	0	0	20	

18/23

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

I

Hall Environmental Analysis Laboratory

Date: 03-Dec-04

CLIENT: Giant Refining Co
 Work Order: 0411218
 Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-6967	Batch ID: 6967	Test Code: E300	Units: mg/Kg	Analysis Date	11/30/2004 10:58:07 A	Prep Date	11/30/2004			
Client ID:		Run ID:	LC_041130A		SeqNo:	323553					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.372	0.3	1.5	0	91.5	90	110	0			
Chloride	15.84	0.3	15	0	106	90	110	0			
Nitrogen, Nitrate (As N)	7.983	0.3	7.5	0	106	90	110	0			
Sulfate	32.25	1.5	30	0	108	90	110	0			
Nitrogen, Nitrite (As N)	2.984	0.3	3	0	99.5	90	110	0			
Phosphorus, Orthophosphate (As P)	14.85	1.5	15	0	99.0	90	110	0			

Sample ID	LCS-6969	Batch ID: 6969	Test Code: E300	Units: mg/Kg	Analysis Date	11/30/2004 3:43:42 PM	Prep Date	11/30/2004			
Client ID:		Run ID:	LC_041130A		SeqNo:	323570					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluoride	1.397	0.3	1.5	0	93.2	90	110	0			
Chloride	14.95	0.3	15	0	99.7	90	110	0			
Nitrogen, Nitrate (As N)	7.953	0.3	7.5	0	106	90	110	0			
Sulfate	30.98	1.5	30	0	103	90	110	0			
Nitrogen, Nitrite (As N)	2.878	0.3	3	0	95.9	90	110	0			
Phosphorus, Orthophosphate (As P)	15.24	1.5	15	0	102	90	110	0			

Sample ID	LCS-6944	Batch ID: 6944	Test Code: SW8015	Units: mg/Kg	Analysis Date	11/22/2004 6:14:46 PM	Prep Date	11/22/2004			
Client ID:		Run ID:	FID(17A) 2_041122A		SeqNo:	322602					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	34.85	10	50	0	69.7	67.4	117	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

19/23

CLIENT: Giant Refining Co
 Work Order: 0411218
 Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID	LCSD-6944	Batch ID: 6944	Test Code: SW8015	Units: mg/Kg	Analysis Date	11/22/2004 6:47:44 PM	Prep Date	11/22/2004			
Client ID:			Run ID: FID(17A) 2_041122A		SeqNo:	322603					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38.26	10	50	0	76.5	67.4	117	34.85	9.33	17.4	

Sample ID	LCS-6930	Batch ID: 6930	Test Code: SW8021	Units: mg/Kg	Analysis Date	11/23/2004 1:07:20 PM	Prep Date	11/19/2004			
Client ID:			Run ID: PIDFID_041123A		SeqNo:	322792					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.4318	0.025	0.42	0	103	77	122	0			
Toluene	2.009	0.025	1.9	0	106	81	115	0			
Ethylbenzene	0.4138	0.025	0.41	0	101	84	117	0			
Xylenes, Total	1.927	0.025	1.9	0	101	84	116	0			

Sample ID	LCS-6972	Batch ID: 6972	Test Code: SW7471	Units: mg/Kg	Analysis Date	11/30/2004	Prep Date	11/30/2004			
Client ID:			Run ID: MI-LA254_041130A		SeqNo:	323376					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1791	0.033	0.1667	0	107	75	125	0			

Sample ID	LCSD-6972	Batch ID: 6972	Test Code: SW7471	Units: mg/Kg	Analysis Date	11/30/2004	Prep Date	11/30/2004			
Client ID:			Run ID: MI-LA254_041130A		SeqNo:	323394					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.1796	0.033	0.1667	0	108	75	125	0.1791	0.242	20	

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

CLIENT: Giant Refining Co
 Work Order: 0411218
 Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-6954	Batch ID: 6954	Test Code: SW6010A	Units: mg/Kg	Analysis Date	11/23/2004 11:22:33 A	Prep Date	11/22/2004			
Client ID:			Run ID: ICP_041123A	SeqNo: 322691							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	26.73	2.5	25	0	107	80	120	0			
Cadmium	25.59	0.1	25	0.05491	102	80	120	0			
Calcium	2311	25	2500	12.41	91.9	80	120	0			
Chromium	25.74	0.3	25	0	103	80	120	0			
Lead	25.63	0.25	25	0	103	80	120	0			
Magnesium	2371	25	2500	0	94.8	80	120	0			
Potassium	2484	50	2500	0	99.4	80	120	0			
Selenium	27.77	2.5	25	0	111	80	120	0			
Silver	25.75	0.25	25	0	103	80	120	0			

Sample ID	LCSD-6954	Batch ID: 6954	Test Code: SW6010A	Units: mg/Kg	Analysis Date	11/23/2004 11:25:36 A	Prep Date	11/22/2004			
Client ID:	Run ID: ICP_041123A		SeqNo: 322692								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	26.84	2.5	25	0	107	80	120	26.73	0.426	20	
Cadmium	25.25	0.1	25	0.05491	101	80	120	25.59	1.33	20	
Calcium	2302	25	2500	12.41	91.6	80	120	2311	0.394	20	
Chromium	25.22	0.3	25	0	101	80	120	25.74	2.02	20	
Lead	25.12	0.25	25	0	100	80	120	25.63	2.00	20	
Magnesium	2348	25	2500	0	93.9	80	120	2371	0.979	20	
Potassium	2450	50	2500	0	98.0	80	120	2484	1.39	20	
Selenium	26.92	2.5	25	0	108	80	120	27.77	3.13	20	
Silver	25.74	0.25	25	0	103	80	120	25.75	0.0495	20	

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

CLIENT: Giant Refining Co
Work Order: 0411218
Project: Railroad Rack Lagoon SWMU

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-6954	Batch ID: 6954	Test Code: SW6010A	Units: mg/Kg	Analysis Date	11/23/2004 11:22:33 A	Prep Date	11/22/2004				
Client ID:		Run ID: ICP_041123B			SeqNo:	322871						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium		2763	25	2500	0	111	80	120	0			

Sample ID	LCSD-6954	Batch ID: 6954	Test Code: SW6010A	Units: mg/Kg	Analysis Date	11/23/2004 11:25:36 A	Prep Date	11/22/2004				
Client ID:		Run ID: ICP_041123B			SeqNo:	322872						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium		2726	25	2500	0	109	80	120	2763	1.34	20	

Sample ID	LCS-6954	Batch ID: 6954	Test Code: SW6010A	Units: mg/Kg	Analysis Date	11/24/2004 4:23:50 PM	Prep Date	11/22/2004				
Client ID:		Run ID: ICP_041124A			SeqNo:	323122						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium		24.55	0.1	25	0	98.2	80	120	0			

Sample ID	LCSD-6954	Batch ID: 6954	Test Code: SW6010A	Units: mg/Kg	Analysis Date	11/24/2004 4:26:06 PM	Prep Date	11/22/2004				
Client ID:		Run ID: ICP_041124A			SeqNo:	323123						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium		23.86	0.1	25	0	95.4	80	120	24.55	2.85	20	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

Work Order Number 0411218

Received by AT

Checklist completed by

Abonigalis 11/19/07
Signature Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐ Not Shipped ☒
Custody seals intact on sample bottles?	Yes ☒	No ☐	N/A ☐
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
Water - VOA vials have zero headspace?	No VOA vials submitted ☒	Yes ☐	No ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒

Container/Temp Blank temperature?

6°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

Client: Scott Refining Company - Covington
 Address: Route 3 Box 7
Gallop, NH 07301

Project Name: Railroad Rock
Jagom SWM

Project #:
 Project Manager: Steve Glerum

Phone #: 505 722 3833

Fax #: 505 722 0210

Sampler: Steve Glerum
 Samples Col'd?: ☒ Yes ☐ No

Date	Time	Matrix	Sample I.D. No.	Number Volume	Preservative	HEAL No.
11/18/04	0800	Soil	RR-N-1	2		041218
"	0815	"	RR-E-1	2		1
"	0830	"	RR-S-1	2		2
"	0845	"	RR-W-1	2		3
"	0900	"	RR-N-1-Wall	2		4
"	0915	"	RR-S-1-Wall	2		5
"	0930	"	RR-E-1-Wall	2		6
"	1030	"	RR-E-1-Wall S	2		7
"	1045	"	RR-W-1-Wall W	2		8
"	1100	"	RR-W-1-Wall S	2		9
"	1130	"	RR-B-1	2		10
"	1230	"	RR-B-2	2		11
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)	Received By: (Signature)		
11/19/04	1340	<u>Steve Glerum</u>	<u>Steve Glerum</u>	<u>Steve Glerum</u>	11/19/04	1340



HALL ENVIRONMENTAL ANALYSIS LABORATORY
 4901 Hawkins NE, Suite D
 Albuquerque, New Mexico 87109
 Tel. 505.345.3975 Fax 505.345.4107
 www.hallenvironmental.com

ANALYSIS REQUEST

BTEX + MTBE + TMB's (8021)	
BTEX + MTBE + TPH (Gasoline Only)	
TPH Method 8015B MOD (Gas/Diesel)	
TPH (Method 418.1)	
Volatiles Full List (8021)	8021 B
EDB (Method 504.1)	
EDC (Method 8021)	
8310 (PNA or PAH)	
RCRA 8 Metals	Total
Cations (Na, K, Ca, Mg)	
Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	
8081 Pesticides / PCB's (8082)	
8260 (VOA)	
8270 (Semi-VOA)	
8015 DROXORO	
Soil pH	
Air Bubbles or Headspace (Y or N)	

Remarks:

San Cham = Cations, Anions, and Soil pH
 per S.M. date 11-1-04, 11/19/04

Client: <i>Giant - Refining Company - Aniga</i>	Project Name: <i>Railroad Rock Lagoon SWMU</i>
Address: <i>Route 3 Box 7 Gallop, NM 87391</i>	Project #:
	Project Manager: <i>Steve Morris</i>
Phone #: <i>505 722 5833</i>	Sampler: <i>Steve Morris</i>
Fax #: <i>505 722 0210</i>	Samples Cold?: ☒ Yes ☐ No

Phone #: 505 722 5832

Fax #: 505 722 0210

Project Name: Railroad Rock
Lagoon SWMU

Project #:

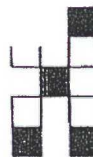
Project Manager:

Sampler: Steve Morris

Samples Cold?:/ ☐ Yes ☐ No

[illegible]

Date: 2/19/04	Time: 1340	Relinquished By: (Signature) <i>[Signature]</i>	Received By: (Signature) <i>[Signature]</i> 11/19/04
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature) 1340



HALL ENVIRONMENTAL ANALYSIS LABORATORY
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345-3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

[illegible]

**Appendix 2: Hall Environmental Laboratory Report- August 26, 2005
(Inlet Pipe)**

COVER LETTER

August 26, 2005

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: Railroad Rack Lagoon SWMU-Inlet Pipe E

Order No.: 0508233

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 12 samples on 8/19/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab Order: 0508233

CASE NARRATIVE

"S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav
Lab ID: 0508233-01

Client Sample ID: Inlet Pipe 1 WS
Collection Date: 8/18/2005 2:00:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	1000	100		mg/Kg	10	8/21/2005 1:40:41 PM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	8/21/2005 1:40:41 PM
Surr: DNOP	86.8	60-124		%REC	10	8/21/2005 1:40:41 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	100		mg/Kg	20	8/22/2005 8:17:20 PM
Surr: BFB	105	83.1-124		%REC	20	8/22/2005 8:17:20 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.0		mg/Kg	20	8/22/2005 8:17:20 PM
Benzene	ND	0.50		mg/Kg	20	8/22/2005 8:17:20 PM
Toluene	ND	0.50		mg/Kg	20	8/22/2005 8:17:20 PM
Ethylbenzene	0.71	0.50		mg/Kg	20	8/22/2005 8:17:20 PM
Xylenes, Total	0.91	0.50		mg/Kg	20	8/22/2005 8:17:20 PM
Surr: 4-Bromofluorobenzene	108	87.5-115		%REC	20	8/22/2005 8:17:20 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	0.40	0.20		mg/Kg	1	8/22/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/22/2005
Aniline	ND	0.20		mg/Kg	1	8/22/2005
Anthracene	ND	0.20		mg/Kg	1	8/22/2005
Azobenzene	ND	0.20		mg/Kg	1	8/22/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/22/2005
Benzidine	ND	0.20		mg/Kg	1	8/22/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/22/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/22/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/22/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/22/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/22/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/22/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/22/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/22/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
Carbazole	ND	0.20		mg/Kg	1	8/22/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/22/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/22/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/22/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/22/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe 1 WS

Lab Order: 0508233

Collection Date: 8/18/2005 2:00:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/22/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	8/22/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/22/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/22/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/22/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/22/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/22/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/22/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/22/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/22/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/22/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/22/2005
Fluorene	0.61	0.20		mg/Kg	1	8/22/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/22/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/22/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/22/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/22/2005
Isophorone	ND	0.20		mg/Kg	1	8/22/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/22/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/22/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/22/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/22/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/22/2005
Naphthalene	1.9	0.20		mg/Kg	1	8/22/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/22/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/22/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/22/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/22/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/22/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/22/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/22/2005
Phenanthrene	1.3	0.20		mg/Kg	1	8/22/2005
Phenol	ND	0.20		mg/Kg	1	8/22/2005
Pyrene	ND	0.20		mg/Kg	1	8/22/2005
Pyridine	ND	0.50		mg/Kg	1	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe 1 WS

Lab Order: 0508233

Collection Date: 8/18/2005 2:00:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
Surr: 2,4,6-Tribromophenol	110	35.5-141		%REC	1	8/22/2005
Surr: 2-Fluorobiphenyl	94.4	30.4-128		%REC	1	8/22/2005
Surr: 2-Fluorophenol	75.7	28.1-129		%REC	1	8/22/2005
Surr: 4-Terphenyl-d14	92.9	34.6-151		%REC	1	8/22/2005
Surr: Nitrobenzene-d5	77.8	26.5-122		%REC	1	8/22/2005
Surr: Phenol-d6	84.4	37.6-118		%REC	1	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe 1 WN

Lab Order: 0508233

Collection Date: 8/18/2005 2:10:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	3500	1000		mg/Kg	100	8/21/2005 2:13:28 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	8/21/2005 2:13:28 PM
Surr: DNOP	0	60-124	S	%REC	100	8/21/2005 2:13:28 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	8/22/2005 8:48:54 PM
Surr: BFB	100	83.1-124		%REC	50	8/22/2005 8:48:54 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	5.0		mg/Kg	50	8/22/2005 8:48:54 PM
Benzene	ND	1.3		mg/Kg	50	8/22/2005 8:48:54 PM
Toluene	ND	1.3		mg/Kg	50	8/22/2005 8:48:54 PM
Ethylbenzene	ND	1.3		mg/Kg	50	8/22/2005 8:48:54 PM
Xylenes, Total	2.6	1.3		mg/Kg	50	8/22/2005 8:48:54 PM
Surr: 4-Bromofluorobenzene	106	87.5-115		%REC	50	8/22/2005 8:48:54 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	1.0		mg/Kg	5	8/22/2005
Acenaphthylene	ND	1.0		mg/Kg	5	8/22/2005
Aniline	ND	1.0		mg/Kg	5	8/22/2005
Anthracene	ND	1.0		mg/Kg	5	8/22/2005
Azobenzene	ND	1.0		mg/Kg	5	8/22/2005
Benz(a)anthracene	ND	1.3		mg/Kg	5	8/22/2005
Benzidine	ND	1.0		mg/Kg	5	8/22/2005
Benzo(a)pyrene	ND	1.0		mg/Kg	5	8/22/2005
Benzo(b)fluoranthene	ND	1.0		mg/Kg	5	8/22/2005
Benzo(g,h,i)perylene	ND	1.5		mg/Kg	5	8/22/2005
Benzo(k)fluoranthene	ND	2.5		mg/Kg	5	8/22/2005
Benzoic acid	ND	2.5		mg/Kg	5	8/22/2005
Benzyl alcohol	ND	2.5		mg/Kg	5	8/22/2005
Bis(2-chloroethoxy)methane	ND	2.5		mg/Kg	5	8/22/2005
Bis(2-chloroethyl)ether	ND	1.3		mg/Kg	5	8/22/2005
Bis(2-chloroisopropyl)ether	ND	2.5		mg/Kg	5	8/22/2005
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	5	8/22/2005
4-Bromophenyl phenyl ether	ND	1.3		mg/Kg	5	8/22/2005
Butyl benzyl phthalate	ND	1.0		mg/Kg	5	8/22/2005
Carbazole	ND	1.0		mg/Kg	5	8/22/2005
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	5	8/22/2005
4-Chloroaniline	ND	1.0		mg/Kg	5	8/22/2005
2-Chloronaphthalene	ND	1.0		mg/Kg	5	8/22/2005
2-Chlorophenol	ND	1.0		mg/Kg	5	8/22/2005
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	5	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe 1 WN

Lab Order: 0508233

Collection Date: 8/18/2005 2:10:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	1.0		mg/Kg	5	8/22/2005
Di-n-butyl phthalate	ND	1.3		mg/Kg	5	8/22/2005
Di-n-octyl phthalate	ND	2.5		mg/Kg	5	8/22/2005
Dibenz(a,h)anthracene	ND	1.3		mg/Kg	5	8/22/2005
Dibenzofuran	ND	2.5		mg/Kg	5	8/22/2005
1,2-Dichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
1,3-Dichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
1,4-Dichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
3,3'-Dichlorobenzidine	ND	1.0		mg/Kg	5	8/22/2005
Diethyl phthalate	ND	1.0		mg/Kg	5	8/22/2005
Dimethyl phthalate	ND	1.0		mg/Kg	5	8/22/2005
2,4-Dichlorophenol	ND	1.0		mg/Kg	5	8/22/2005
2,4-Dimethylphenol	ND	1.0		mg/Kg	5	8/22/2005
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	5	8/22/2005
2,4-Dinitrophenol	ND	2.5		mg/Kg	5	8/22/2005
2,4-Dinitrotoluene	ND	1.0		mg/Kg	5	8/22/2005
2,6-Dinitrotoluene	ND	1.0		mg/Kg	5	8/22/2005
Fluoranthene	ND	1.0		mg/Kg	5	8/22/2005
Fluorene	1.5	1.0		mg/Kg	5	8/22/2005
Hexachlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
Hexachlorobutadiene	ND	1.0		mg/Kg	5	8/22/2005
Hexachlorocyclopentadiene	ND	1.3		mg/Kg	5	8/22/2005
Hexachloroethane	ND	2.5		mg/Kg	5	8/22/2005
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	5	8/22/2005
Isophorone	ND	1.0		mg/Kg	5	8/22/2005
2-Methylnaphthalene	8.0	1.0		mg/Kg	5	8/22/2005
2-Methylphenol	ND	1.0		mg/Kg	5	8/22/2005
3+4-Methylphenol	ND	1.0		mg/Kg	5	8/22/2005
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	5	8/22/2005
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	5	8/22/2005
Naphthalene	ND	1.0		mg/Kg	5	8/22/2005
2-Nitroaniline	ND	2.5		mg/Kg	5	8/22/2005
3-Nitroaniline	ND	2.5		mg/Kg	5	8/22/2005
4-Nitroaniline	ND	1.3		mg/Kg	5	8/22/2005
Nitrobenzene	ND	1.0		mg/Kg	5	8/22/2005
2-Nitrophenol	ND	1.0		mg/Kg	5	8/22/2005
4-Nitrophenol	ND	1.0		mg/Kg	5	8/22/2005
Pentachlorophenol	ND	2.5		mg/Kg	5	8/22/2005
Phenanthrene	3.6	1.0		mg/Kg	5	8/22/2005
Phenol	ND	1.0		mg/Kg	5	8/22/2005
Pyrene	ND	1.0		mg/Kg	5	8/22/2005
Pyridine	ND	2.5		mg/Kg	5	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe 1 WN

Lab Order: 0508233

Collection Date: 8/18/2005 2:10:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	5	8/22/2005
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	5	8/22/2005
Surr: 2,4,6-Tribromophenol	123	35.5-141		%REC	5	8/22/2005
Surr: 2-Fluorobiphenyl	97.5	30.4-128		%REC	5	8/22/2005
Surr: 2-Fluorophenol	71.9	28.1-129		%REC	5	8/22/2005
Surr: 4-Terphenyl-d14	96.4	34.6-151		%REC	5	8/22/2005
Surr: Nitrobenzene-d5	85.0	26.5-122		%REC	5	8/22/2005
Surr: Phenol-d6	75.0	37.6-118		%REC	5	8/22/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav
Lab ID: 0508233-03

Client Sample ID: Inlet Pipe1 B+M
Collection Date: 8/18/2005 2:20:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	380	10		mg/Kg	1	8/20/2005 9:36:27 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/20/2005 9:36:27 PM
Surr: DNOP	104	60-124		%REC	1	8/20/2005 9:36:27 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	8/22/2005 9:20:06 PM
Surr: BFB	104	83.1-124		%REC	10	8/22/2005 9:20:06 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	10	8/22/2005 9:20:06 PM
Benzene	ND	0.25		mg/Kg	10	8/22/2005 9:20:06 PM
Toluene	ND	0.25		mg/Kg	10	8/22/2005 9:20:06 PM
Ethylbenzene	0.34	0.25		mg/Kg	10	8/22/2005 9:20:06 PM
Xylenes, Total	ND	0.25		mg/Kg	10	8/22/2005 9:20:06 PM
Surr: 4-Bromofluorobenzene	105	87.5-115		%REC	10	8/22/2005 9:20:06 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	1.0		mg/Kg	5	8/22/2005
Acenaphthylene	ND	1.0		mg/Kg	5	8/22/2005
Aniline	ND	1.0		mg/Kg	5	8/22/2005
Anthracene	ND	1.0		mg/Kg	5	8/22/2005
Azobenzene	ND	1.0		mg/Kg	5	8/22/2005
Benz(a)anthracene	ND	1.3		mg/Kg	5	8/22/2005
Benzidine	ND	1.0		mg/Kg	5	8/22/2005
Benzo(a)pyrene	ND	1.0		mg/Kg	5	8/22/2005
Benzo(b)fluoranthene	ND	1.0		mg/Kg	5	8/22/2005
Benzo(g,h,i)perylene	ND	1.5		mg/Kg	5	8/22/2005
Benzo(k)fluoranthene	ND	2.5		mg/Kg	5	8/22/2005
Benzoic acid	ND	2.5		mg/Kg	5	8/22/2005
Benzyl alcohol	ND	2.5		mg/Kg	5	8/22/2005
Bis(2-chloroethoxy)methane	ND	2.5		mg/Kg	5	8/22/2005
Bis(2-chloroethyl)ether	ND	1.3		mg/Kg	5	8/22/2005
Bis(2-chloroisopropyl)ether	ND	2.5		mg/Kg	5	8/22/2005
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	5	8/22/2005
4-Bromophenyl phenyl ether	ND	1.3		mg/Kg	5	8/22/2005
Butyl benzyl phthalate	ND	1.0		mg/Kg	5	8/22/2005
Carbazole	ND	1.0		mg/Kg	5	8/22/2005
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	5	8/22/2005
4-Chloroaniline	ND	1.0		mg/Kg	5	8/22/2005
2-Chloronaphthalene	ND	1.0		mg/Kg	5	8/22/2005
2-Chlorophenol	ND	1.0		mg/Kg	5	8/22/2005
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	5	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe1 B+M

Lab Order: 0508233

Collection Date: 8/18/2005 2:20:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	1.0		mg/Kg	5	8/22/2005
Di-n-butyl phthalate	2.1	1.3		mg/Kg	5	8/22/2005
Di-n-octyl phthalate	ND	2.5		mg/Kg	5	8/22/2005
Dibenz(a,h)anthracene	ND	1.3		mg/Kg	5	8/22/2005
Dibenzofuran	ND	2.5		mg/Kg	5	8/22/2005
1,2-Dichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
1,3-Dichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
1,4-Dichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
3,3'-Dichlorobenzidine	ND	1.0		mg/Kg	5	8/22/2005
Diethyl phthalate	ND	1.0		mg/Kg	5	8/22/2005
Dimethyl phthalate	ND	1.0		mg/Kg	5	8/22/2005
2,4-Dichlorophenol	ND	1.0		mg/Kg	5	8/22/2005
2,4-Dimethylphenol	ND	1.0		mg/Kg	5	8/22/2005
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	5	8/22/2005
2,4-Dinitrophenol	ND	2.5		mg/Kg	5	8/22/2005
2,4-Dinitrotoluene	ND	1.0		mg/Kg	5	8/22/2005
2,6-Dinitrotoluene	ND	1.0		mg/Kg	5	8/22/2005
Fluoranthene	ND	1.0		mg/Kg	5	8/22/2005
Fluorene	ND	1.0		mg/Kg	5	8/22/2005
Hexachlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
Hexachlorobutadiene	ND	1.0		mg/Kg	5	8/22/2005
Hexachlorocyclopentadiene	ND	1.3		mg/Kg	5	8/22/2005
Hexachloroethane	ND	2.5		mg/Kg	5	8/22/2005
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	5	8/22/2005
Isophorone	ND	1.0		mg/Kg	5	8/22/2005
2-Methylnaphthalene	1.9	1.0		mg/Kg	5	8/22/2005
2-Methylphenol	ND	1.0		mg/Kg	5	8/22/2005
3+4-Methylphenol	ND	1.0		mg/Kg	5	8/22/2005
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	5	8/22/2005
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	5	8/22/2005
Naphthalene	ND	1.0		mg/Kg	5	8/22/2005
2-Nitroaniline	ND	2.5		mg/Kg	5	8/22/2005
3-Nitroaniline	ND	2.5		mg/Kg	5	8/22/2005
4-Nitroaniline	ND	1.3		mg/Kg	5	8/22/2005
Nitrobenzene	ND	1.0		mg/Kg	5	8/22/2005
2-Nitrophenol	ND	1.0		mg/Kg	5	8/22/2005
4-Nitrophenol	ND	1.0		mg/Kg	5	8/22/2005
Pentachlorophenol	ND	2.5		mg/Kg	5	8/22/2005
Phenanthrene	ND	1.0		mg/Kg	5	8/22/2005
Phenol	ND	1.0		mg/Kg	5	8/22/2005
Pyrene	ND	1.0		mg/Kg	5	8/22/2005
Pyridine	ND	2.5		mg/Kg	5	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe1 B+M

Lab Order: 0508233

Collection Date: 8/18/2005 2:20:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	5	8/22/2005
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	5	8/22/2005
Surr: 2,4,6-Tribromophenol	106	35.5-141		%REC	5	8/22/2005
Surr: 2-Fluorobiphenyl	81.8	30.4-128		%REC	5	8/22/2005
Surr: 2-Fluorophenol	60.4	28.1-129		%REC	5	8/22/2005
Surr: 4-Terphenyl-d14	87.6	34.6-151		%REC	5	8/22/2005
Surr: Nitrobenzene-d5	67.9	26.5-122		%REC	5	8/22/2005
Surr: Phenol-d6	67.1	37.6-118		%REC	5	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Call Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav
Lab ID: 0508233-04

Client Sample ID: Inlet Pipe2 WS
Collection Date: 8/18/2005 2:30:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/20/2005 10:09:14 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/20/2005 10:09:14 PM
Surr: DNOP	100	60-124		%REC	1	8/20/2005 10:09:14 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/23/2005 3:01:06 AM
Surr: BFB	94.6	83.1-124		%REC	1	8/23/2005 3:01:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	8/23/2005 3:01:06 AM
Benzene	ND	0.025		mg/Kg	1	8/23/2005 3:01:06 AM
Toluene	ND	0.025		mg/Kg	1	8/23/2005 3:01:06 AM
Ethylbenzene	ND	0.025		mg/Kg	1	8/23/2005 3:01:06 AM
Xylenes, Total	ND	0.025		mg/Kg	1	8/23/2005 3:01:06 AM
Surr: 4-Bromofluorobenzene	101	87.5-115		%REC	1	8/23/2005 3:01:06 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/22/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/22/2005
Aniline	ND	0.20		mg/Kg	1	8/22/2005
Anthracene	ND	0.20		mg/Kg	1	8/22/2005
Azobenzene	ND	0.20		mg/Kg	1	8/22/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/22/2005
Benzidine	ND	0.20		mg/Kg	1	8/22/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/22/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/22/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/22/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/22/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/22/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/22/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/22/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/22/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
Carbazole	ND	0.20		mg/Kg	1	8/22/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/22/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/22/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/22/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/22/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe2 WS

Lab Order: 0508233

Collection Date: 8/18/2005 2:30:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/22/2005
Di-n-butyl phthalate	1.6	0.25	B	mg/Kg	1	8/22/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/22/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/22/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/22/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/22/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/22/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/22/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/22/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/22/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/22/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/22/2005
Fluorene	ND	0.20		mg/Kg	1	8/22/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/22/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/22/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/22/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/22/2005
Isophorone	ND	0.20		mg/Kg	1	8/22/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/22/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/22/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/22/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/22/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/22/2005
Naphthalene	ND	0.20		mg/Kg	1	8/22/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/22/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/22/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/22/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/22/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/22/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/22/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/22/2005
Phenanthrene	ND	0.20		mg/Kg	1	8/22/2005
Phenol	ND	0.20		mg/Kg	1	8/22/2005
Pyrene	ND	0.20		mg/Kg	1	8/22/2005
Pyridine	ND	0.50		mg/Kg	1	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe2 WS

Lab Order: 0508233

Collection Date: 8/18/2005 2:30:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
Surr: 2,4,6-Tribromophenol	90.4	35.5-141		%REC	1	8/22/2005
Surr: 2-Fluorobiphenyl	74.9	30.4-128		%REC	1	8/22/2005
Surr: 2-Fluorophenol	63.1	28.1-129		%REC	1	8/22/2005
Surr: 4-Terphenyl-d14	92.2	34.6-151		%REC	1	8/22/2005
Surr: Nitrobenzene-d5	71.8	26.5-122		%REC	1	8/22/2005
Surr: Phenol-d6	68.2	37.6-118		%REC	1	8/22/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe2 WN

Lab Order: 0508233

Collection Date: 8/18/2005 2:40:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/20/2005 10:42:02 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/20/2005 10:42:02 PM
Surr: DNOP	103	60-124		%REC	1	8/20/2005 10:42:02 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/23/2005 3:31:49 AM
Surr: BFB	90.1	83.1-124		%REC	1	8/23/2005 3:31:49 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	8/23/2005 3:31:49 AM
Benzene	ND	0.025		mg/Kg	1	8/23/2005 3:31:49 AM
Toluene	ND	0.025		mg/Kg	1	8/23/2005 3:31:49 AM
Ethylbenzene	ND	0.025		mg/Kg	1	8/23/2005 3:31:49 AM
Xylenes, Total	ND	0.025		mg/Kg	1	8/23/2005 3:31:49 AM
Surr: 4-Bromofluorobenzene	97.3	87.5-115		%REC	1	8/23/2005 3:31:49 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/22/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/22/2005
Aniline	ND	0.20		mg/Kg	1	8/22/2005
Anthracene	ND	0.20		mg/Kg	1	8/22/2005
Azobenzene	ND	0.20		mg/Kg	1	8/22/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/22/2005
Benzidine	ND	0.20		mg/Kg	1	8/22/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/22/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/22/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/22/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/22/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/22/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/22/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/22/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/22/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
Carbazole	ND	0.20		mg/Kg	1	8/22/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/22/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/22/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/22/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/22/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe2 WN

Lab Order: 0508233

Collection Date: 8/18/2005 2:40:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/22/2005
Di-n-butyl phthalate	0.31	0.25	B	mg/Kg	1	8/22/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/22/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/22/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/22/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/22/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/22/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/22/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/22/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/22/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/22/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/22/2005
Fluorene	ND	0.20		mg/Kg	1	8/22/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/22/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/22/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/22/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/22/2005
Isophorone	ND	0.20		mg/Kg	1	8/22/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/22/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/22/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/22/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/22/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/22/2005
Naphthalene	ND	0.20		mg/Kg	1	8/22/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/22/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/22/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/22/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/22/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/22/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/22/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/22/2005
Phenanthrene	ND	0.20		mg/Kg	1	8/22/2005
Phenol	ND	0.20		mg/Kg	1	8/22/2005
Pyrene	ND	0.20		mg/Kg	1	8/22/2005
Pyridine	ND	0.50		mg/Kg	1	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe2 WN

Lab Order: 0508233

Collection Date: 8/18/2005 2:40:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
Surr: 2,4,6-Tribromophenol	81.1	35.5-141		%REC	1	8/22/2005
Surr: 2-Fluorobiphenyl	62.9	30.4-128		%REC	1	8/22/2005
Surr: 2-Fluorophenol	51.5	28.1-129		%REC	1	8/22/2005
Surr: 4-Terphenyl-d14	84.8	34.6-151		%REC	1	8/22/2005
Surr: Nitrobenzene-d5	62.2	26.5-122		%REC	1	8/22/2005
Surr: Phenol-d6	61.7	37.6-118		%REC	1	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Call Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
 Lab Order: 0508233
 Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav
 Lab ID: 0508233-06

Client Sample ID: Inlet Pipe2 B+M
 Collection Date: 8/18/2005 2:50:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	150	10		mg/Kg	1	8/20/2005 11:14:53 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/20/2005 11:14:53 PM
Surr: DNOP	102	60-124		%REC	1	8/20/2005 11:14:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	8/22/2005 9:51:19 PM
Surr: BFB	96.1	83.1-124		%REC	5	8/22/2005 9:51:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	5	8/22/2005 9:51:19 PM
Benzene	ND	0.13		mg/Kg	5	8/22/2005 9:51:19 PM
Toluene	ND	0.13		mg/Kg	5	8/22/2005 9:51:19 PM
Ethylbenzene	ND	0.13		mg/Kg	5	8/22/2005 9:51:19 PM
Xylenes, Total	ND	0.13		mg/Kg	5	8/22/2005 9:51:19 PM
Surr: 4-Bromofluorobenzene	101	87.5-115		%REC	5	8/22/2005 9:51:19 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/23/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/23/2005
Aniline	ND	0.20		mg/Kg	1	8/23/2005
Anthracene	ND	0.20		mg/Kg	1	8/23/2005
Azobenzene	ND	0.20		mg/Kg	1	8/23/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Benzidine	ND	0.20		mg/Kg	1	8/23/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/23/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/23/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/23/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/23/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/23/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/23/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Carbazole	ND	0.20		mg/Kg	1	8/23/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/23/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav
Lab ID: 0508233-06

Client Sample ID: Inlet Pipe2 B+M
Collection Date: 8/18/2005 2:50:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/23/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	8/23/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/23/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/23/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/23/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/23/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Fluorene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/23/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Isophorone	ND	0.20		mg/Kg	1	8/23/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/23/2005
Naphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/23/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/23/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/23/2005
Phenanthrene	ND	0.20		mg/Kg	1	8/23/2005
Phenol	ND	0.20		mg/Kg	1	8/23/2005
Pyrene	ND	0.20		mg/Kg	1	8/23/2005
Pyridine	ND	0.50		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe2 B+M

Lab Order: 0508233

Collection Date: 8/18/2005 2:50:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-06

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
Surr: 2,4,6-Tribromophenol	70.6	35.5-141		%REC	1	8/23/2005
Surr: 2-Fluorobiphenyl	39.6	30.4-128		%REC	1	8/23/2005
Surr: 2-Fluorophenol	40.1	28.1-129		%REC	1	8/23/2005
Surr: 4-Terphenyl-d14	82.0	34.6-151		%REC	1	8/23/2005
Surr: Nitrobenzene-d5	37.3	26.5-122		%REC	1	8/23/2005
Surr: Phenol-d6	38.5	37.6-118		%REC	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav
Lab ID: 0508233-07

Client Sample ID: Inlet Pipe3 WS
Collection Date: 8/18/2005 3:00:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	3400	1000		mg/Kg	100	8/21/2005 2:46:14 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	8/21/2005 2:46:14 PM
Surr: DNOP	0	60-124	S	%REC	100	8/21/2005 2:46:14 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	8/22/2005 10:22:37 PM
Surr: BFB	99.4	83.1-124		%REC	50	8/22/2005 10:22:37 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	5.0		mg/Kg	50	8/22/2005 10:22:37 PM
Benzene	ND	1.3		mg/Kg	50	8/22/2005 10:22:37 PM
Toluene	ND	1.3		mg/Kg	50	8/22/2005 10:22:37 PM
Ethylbenzene	ND	1.3		mg/Kg	50	8/22/2005 10:22:37 PM
Xylenes, Total	ND	1.3		mg/Kg	50	8/22/2005 10:22:37 PM
Surr: 4-Bromofluorobenzene	102	87.5-115		%REC	50	8/22/2005 10:22:37 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/22/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/22/2005
Aniline	ND	0.20		mg/Kg	1	8/22/2005
Anthracene	ND	0.20		mg/Kg	1	8/22/2005
Azobenzene	ND	0.20		mg/Kg	1	8/22/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/22/2005
Benzidine	ND	0.20		mg/Kg	1	8/22/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/22/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/22/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/22/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/22/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/22/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/22/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/22/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/22/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/22/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
Carbazole	ND	0.20		mg/Kg	1	8/22/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/22/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/22/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/22/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/22/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Wall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe3 WS

Lab Order: 0508233

Collection Date: 8/18/2005 3:00:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-07

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/22/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	8/22/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/22/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/22/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/22/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/22/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/22/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/22/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/22/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/22/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/22/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/22/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/22/2005
Fluorene	0.36	0.20		mg/Kg	1	8/22/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/22/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/22/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/22/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/22/2005
Isophorone	ND	0.20		mg/Kg	1	8/22/2005
2-Methylnaphthalene	7.7	1.0		mg/Kg	5	8/23/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/22/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/22/2005
N-Nitrosodi-n-propylamine	0.27	0.20		mg/Kg	1	8/22/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/22/2005
Naphthalene	ND	0.20		mg/Kg	1	8/22/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/22/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/22/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/22/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/22/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/22/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/22/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/22/2005
Phenanthrene	4.3	1.0		mg/Kg	5	8/23/2005
Phenol	ND	0.20		mg/Kg	1	8/22/2005
Pyrene	ND	0.20		mg/Kg	1	8/22/2005
Pyridine	ND	0.50		mg/Kg	1	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe3 WS

Lab Order: 0508233

Collection Date: 8/18/2005 3:00:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-07

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/22/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/22/2005
Surr: 2,4,6-Tribromophenol	116	35.5-141		%REC	1	8/22/2005
Surr: 2-Fluorobiphenyl	132	30.4-128	S	%REC	1	8/22/2005
Surr: 2-Fluorophenol	70.9	28.1-129		%REC	1	8/22/2005
Surr: 4-Terphenyl-d14	84.7	34.6-151		%REC	1	8/22/2005
Surr: Nitrobenzene-d5	88.4	26.5-122		%REC	1	8/22/2005
Surr: Phenol-d6	80.4	37.6-118		%REC	1	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe3 WN

Lab Order: 0508233

Collection Date: 8/18/2005 3:10:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-08

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	5200	1000		mg/Kg	100	8/21/2005 3:51:53 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	8/21/2005 3:51:53 PM
Surr: DNOP	0	60-124	S	%REC	100	8/21/2005 3:51:53 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	8/22/2005 10:53:42 PM
Surr: BFB	93.7	83.1-124		%REC	50	8/22/2005 10:53:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	5.0		mg/Kg	50	8/22/2005 10:53:42 PM
Benzene	ND	1.3		mg/Kg	50	8/22/2005 10:53:42 PM
Toluene	ND	1.3		mg/Kg	50	8/22/2005 10:53:42 PM
Ethylbenzene	ND	1.3		mg/Kg	50	8/22/2005 10:53:42 PM
Xylenes, Total	ND	1.3		mg/Kg	50	8/22/2005 10:53:42 PM
Surr: 4-Bromofluorobenzene	101	87.5-115		%REC	50	8/22/2005 10:53:42 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	1.0		mg/Kg	5	8/22/2005
Acenaphthylene	ND	1.0		mg/Kg	5	8/22/2005
Aniline	ND	1.0		mg/Kg	5	8/22/2005
Anthracene	ND	1.0		mg/Kg	5	8/22/2005
Azobenzene	ND	1.0		mg/Kg	5	8/22/2005
Benz(a)anthracene	ND	1.3		mg/Kg	5	8/22/2005
Benzidine	ND	1.0		mg/Kg	5	8/22/2005
Benzo(a)pyrene	ND	1.0		mg/Kg	5	8/22/2005
Benzo(b)fluoranthene	ND	1.0		mg/Kg	5	8/22/2005
Benzo(g,h,i)perylene	ND	1.5		mg/Kg	5	8/22/2005
Benzo(k)fluoranthene	ND	2.5		mg/Kg	5	8/22/2005
Benzoic acid	ND	2.5		mg/Kg	5	8/22/2005
Benzyl alcohol	ND	2.5		mg/Kg	5	8/22/2005
Bis(2-chloroethoxy)methane	ND	2.5		mg/Kg	5	8/22/2005
Bis(2-chloroethyl)ether	ND	1.3		mg/Kg	5	8/22/2005
Bis(2-chloroisopropyl)ether	ND	2.5		mg/Kg	5	8/22/2005
Bis(2-ethylhexyl)phthalate	ND	1.0		mg/Kg	5	8/22/2005
4-Bromophenyl phenyl ether	ND	1.3		mg/Kg	5	8/22/2005
Butyl benzyl phthalate	ND	1.0		mg/Kg	5	8/22/2005
Carbazole	ND	1.0		mg/Kg	5	8/22/2005
4-Chloro-3-methylphenol	ND	1.0		mg/Kg	5	8/22/2005
4-Chloroaniline	ND	1.0		mg/Kg	5	8/22/2005
2-Chloronaphthalene	ND	1.0		mg/Kg	5	8/22/2005
2-Chlorophenol	ND	1.0		mg/Kg	5	8/22/2005
4-Chlorophenyl phenyl ether	ND	1.0		mg/Kg	5	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe3 WN

Lab Order: 0508233

Collection Date: 8/18/2005 3:10:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-08

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	1.0		mg/Kg	5	8/22/2005
Di-n-butyl phthalate	ND	1.3		mg/Kg	5	8/22/2005
Di-n-octyl phthalate	ND	2.5		mg/Kg	5	8/22/2005
Dibenz(a,h)anthracene	ND	1.3		mg/Kg	5	8/22/2005
Dibenzofuran	ND	2.5		mg/Kg	5	8/22/2005
1,2-Dichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
1,3-Dichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
1,4-Dichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
3,3'-Dichlorobenzidine	ND	1.0		mg/Kg	5	8/22/2005
Diethyl phthalate	ND	1.0		mg/Kg	5	8/22/2005
Dimethyl phthalate	ND	1.0		mg/Kg	5	8/22/2005
2,4-Dichlorophenol	ND	1.0		mg/Kg	5	8/22/2005
2,4-Dimethylphenol	ND	1.0		mg/Kg	5	8/22/2005
4,6-Dinitro-2-methylphenol	ND	2.5		mg/Kg	5	8/22/2005
2,4-Dinitrophenol	ND	2.5		mg/Kg	5	8/22/2005
2,4-Dinitrotoluene	ND	1.0		mg/Kg	5	8/22/2005
2,6-Dinitrotoluene	ND	1.0		mg/Kg	5	8/22/2005
Fluoranthene	ND	1.0		mg/Kg	5	8/22/2005
Fluorene	ND	1.0		mg/Kg	5	8/22/2005
Hexachlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
Hexachlorobutadiene	ND	1.0		mg/Kg	5	8/22/2005
Hexachlorocyclopentadiene	ND	1.3		mg/Kg	5	8/22/2005
Hexachloroethane	ND	2.5		mg/Kg	5	8/22/2005
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	5	8/22/2005
Isophorone	ND	1.0		mg/Kg	5	8/22/2005
2-Methylnaphthalene	ND	1.0		mg/Kg	5	8/22/2005
2-Methylphenol	ND	1.0		mg/Kg	5	8/22/2005
3+4-Methylphenol	ND	1.0		mg/Kg	5	8/22/2005
N-Nitrosodi-n-propylamine	ND	1.0		mg/Kg	5	8/22/2005
N-Nitrosodiphenylamine	ND	1.0		mg/Kg	5	8/22/2005
Naphthalene	ND	1.0		mg/Kg	5	8/22/2005
2-Nitroaniline	ND	2.5		mg/Kg	5	8/22/2005
3-Nitroaniline	ND	2.5		mg/Kg	5	8/22/2005
4-Nitroaniline	ND	1.3		mg/Kg	5	8/22/2005
Nitrobenzene	ND	1.0		mg/Kg	5	8/22/2005
2-Nitrophenol	ND	1.0		mg/Kg	5	8/22/2005
4-Nitrophenol	ND	1.0		mg/Kg	5	8/22/2005
Pentachlorophenol	ND	2.5		mg/Kg	5	8/22/2005
Phenanthrene	ND	1.0		mg/Kg	5	8/22/2005
Phenol	ND	1.0		mg/Kg	5	8/22/2005
Pyrene	ND	1.0		mg/Kg	5	8/22/2005
Pyridine	ND	2.5		mg/Kg	5	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe3 WN

Lab Order: 0508233

Collection Date: 8/18/2005 3:10:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-08

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	1.0		mg/Kg	5	8/22/2005
2,4,5-Trichlorophenol	ND	1.0		mg/Kg	5	8/22/2005
2,4,6-Trichlorophenol	ND	1.0		mg/Kg	5	8/22/2005
Surr: 2,4,6-Tribromophenol	110	35.5-141		%REC	5	8/22/2005
Surr: 2-Fluorobiphenyl	80.9	30.4-128		%REC	5	8/22/2005
Surr: 2-Fluorophenol	62.9	28.1-129		%REC	5	8/22/2005
Surr: 4-Terphenyl-d14	84.8	34.6-151		%REC	5	8/22/2005
Surr: Nitrobenzene-d5	77.3	26.5-122		%REC	5	8/22/2005
Surr: Phenol-d6	69.8	37.6-118		%REC	5	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav
Lab ID: 0508233-09

Client Sample ID: Inlet Pipe3 B+M
Collection Date: 8/18/2005 3:20:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						
Diesel Range Organics (DRO)	6400	1000		mg/Kg	100	8/21/2005 4:24:39 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	8/21/2005 4:24:39 PM
Surr: DNOP	0	60-124	S	%REC	100	8/21/2005 4:24:39 PM
EPA METHOD 8015B: GASOLINE RANGE						
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	8/22/2005 11:24:39 PM
Surr: BFB	96.3	83.1-124		%REC	50	8/22/2005 11:24:39 PM
EPA METHOD 8021B: VOLATILES						
Methyl tert-butyl ether (MTBE)	ND	5.0		mg/Kg	50	8/22/2005 11:24:39 PM
Benzene	ND	1.3		mg/Kg	50	8/22/2005 11:24:39 PM
Toluene	ND	1.3		mg/Kg	50	8/22/2005 11:24:39 PM
Ethylbenzene	ND	1.3		mg/Kg	50	8/22/2005 11:24:39 PM
Xylenes, Total	5.0	1.3		mg/Kg	50	8/22/2005 11:24:39 PM
Surr: 4-Bromofluorobenzene	103	87.5-115		%REC	50	8/22/2005 11:24:39 PM
EPA METHOD 8270C: SEMIVOLATILES						
Acenaphthene	2.5	2.0		mg/Kg	10	8/22/2005
Acenaphthylene	ND	2.0		mg/Kg	10	8/22/2005
Aniline	ND	2.0		mg/Kg	10	8/22/2005
Anthracene	ND	2.0		mg/Kg	10	8/22/2005
Azobenzene	ND	2.0		mg/Kg	10	8/22/2005
Benz(a)anthracene	ND	2.5		mg/Kg	10	8/22/2005
Benzidine	ND	2.0		mg/Kg	10	8/22/2005
Benzo(a)pyrene	ND	2.0		mg/Kg	10	8/22/2005
Benzo(b)fluoranthene	ND	2.0		mg/Kg	10	8/22/2005
Benzo(g,h,i)perylene	ND	3.0		mg/Kg	10	8/22/2005
Benzo(k)fluoranthene	ND	5.0		mg/Kg	10	8/22/2005
Benzoic acid	ND	5.0		mg/Kg	10	8/22/2005
Benzyl alcohol	ND	5.0		mg/Kg	10	8/22/2005
Bis(2-chloroethoxy)methane	ND	5.0		mg/Kg	10	8/22/2005
Bis(2-chloroethyl)ether	ND	2.5		mg/Kg	10	8/22/2005
Bis(2-chloroisopropyl)ether	ND	5.0		mg/Kg	10	8/22/2005
Bis(2-ethylhexyl)phthalate	ND	2.0		mg/Kg	10	8/22/2005
4-Bromophenyl phenyl ether	ND	2.5		mg/Kg	10	8/22/2005
Butyl benzyl phthalate	ND	2.0		mg/Kg	10	8/22/2005
Carbazole	ND	2.0		mg/Kg	10	8/22/2005
4-Chloro-3-methylphenol	ND	2.0		mg/Kg	10	8/22/2005
4-Chloroaniline	ND	2.0		mg/Kg	10	8/22/2005
2-Chloronaphthalene	ND	2.0		mg/Kg	10	8/22/2005
2-Chlorophenol	ND	2.0		mg/Kg	10	8/22/2005
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	10	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe3 B+M

Lab Order: 0508233

Collection Date: 8/18/2005 3:20:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-09

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	2.0		mg/Kg	10	8/22/2005
Di-n-butyl phthalate	ND	2.5		mg/Kg	10	8/22/2005
Di-n-octyl phthalate	ND	5.0		mg/Kg	10	8/22/2005
Dibenz(a,h)anthracene	ND	2.5		mg/Kg	10	8/22/2005
Dibenzofuran	ND	5.0		mg/Kg	10	8/22/2005
1,2-Dichlorobenzene	ND	2.0		mg/Kg	10	8/22/2005
1,3-Dichlorobenzene	ND	2.0		mg/Kg	10	8/22/2005
1,4-Dichlorobenzene	ND	2.0		mg/Kg	10	8/22/2005
3,3'-Dichlorobenzidine	ND	2.0		mg/Kg	10	8/22/2005
Diethyl phthalate	ND	2.0		mg/Kg	10	8/22/2005
Dimethyl phthalate	ND	2.0		mg/Kg	10	8/22/2005
2,4-Dichlorophenol	ND	2.0		mg/Kg	10	8/22/2005
2,4-Dimethylphenol	ND	2.0		mg/Kg	10	8/22/2005
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	10	8/22/2005
2,4-Dinitrophenol	ND	5.0		mg/Kg	10	8/22/2005
2,4-Dinitrotoluene	ND	2.0		mg/Kg	10	8/22/2005
2,6-Dinitrotoluene	ND	2.0		mg/Kg	10	8/22/2005
Fluoranthene	ND	2.0		mg/Kg	10	8/22/2005
Fluorene	3.8	2.0		mg/Kg	10	8/22/2005
Hexachlorobenzene	ND	2.0		mg/Kg	10	8/22/2005
Hexachlorobutadiene	ND	2.0		mg/Kg	10	8/22/2005
Hexachlorocyclopentadiene	ND	2.5		mg/Kg	10	8/22/2005
Hexachloroethane	ND	5.0		mg/Kg	10	8/22/2005
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	10	8/22/2005
Isophorone	ND	2.0		mg/Kg	10	8/22/2005
2-Methylnaphthalene	54	4.0		mg/Kg	20	8/25/2005
2-Methylphenol	ND	2.0		mg/Kg	10	8/22/2005
3+4-Methylphenol	ND	2.0		mg/Kg	10	8/22/2005
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	10	8/22/2005
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	10	8/22/2005
Naphthalene	12	2.0		mg/Kg	10	8/22/2005
2-Nitroaniline	ND	5.0		mg/Kg	10	8/22/2005
3-Nitroaniline	ND	5.0		mg/Kg	10	8/22/2005
4-Nitroaniline	ND	2.5		mg/Kg	10	8/22/2005
Nitrobenzene	ND	2.0		mg/Kg	10	8/22/2005
2-Nitrophenol	ND	2.0		mg/Kg	10	8/22/2005
4-Nitrophenol	ND	2.0		mg/Kg	10	8/22/2005
Pentachlorophenol	ND	5.0		mg/Kg	10	8/22/2005
Phenanthrene	8.3	2.0		mg/Kg	10	8/22/2005
Phenol	ND	2.0		mg/Kg	10	8/22/2005
Pyrene	ND	2.0		mg/Kg	10	8/22/2005
Pyridine	ND	5.0		mg/Kg	10	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Wall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe3 B+M

Lab Order: 0508233

Collection Date: 8/18/2005 3:20:00 PM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-09

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	10	8/22/2005
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	10	8/22/2005
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	10	8/22/2005
Surr: 2,4,6-Tribromophenol	124	35.5-141		%REC	10	8/22/2005
Surr: 2-Fluorobiphenyl	92.6	30.4-128		%REC	10	8/22/2005
Surr: 2-Fluorophenol	77.8	28.1-129		%REC	10	8/22/2005
Surr: 4-Terphenyl-d14	79.2	34.6-151		%REC	10	8/22/2005
Surr: Nitrobenzene-d5	99.6	26.5-122		%REC	10	8/22/2005
Surr: Phenol-d6	63.6	37.6-118		%REC	10	8/22/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Wall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe4 WS

Lab Order: 0508233

Collection Date: 8/19/2005 7:00:00 AM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	310	10		mg/Kg	1	8/21/2005 4:57:26 PM
Motor Oil Range Organics (MRO)	230	50		mg/Kg	1	8/21/2005 4:57:26 PM
Surr: DNOP	116	60-124		%REC	1	8/21/2005 4:57:26 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	8/22/2005 11:55:41 PM
Surr: BFB	98.6	83.1-124		%REC	10	8/22/2005 11:55:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	10	8/22/2005 11:55:41 PM
Benzene	ND	0.25		mg/Kg	10	8/22/2005 11:55:41 PM
Toluene	ND	0.25		mg/Kg	10	8/22/2005 11:55:41 PM
Ethylbenzene	ND	0.25		mg/Kg	10	8/22/2005 11:55:41 PM
Xylenes, Total	ND	0.25		mg/Kg	10	8/22/2005 11:55:41 PM
Surr: 4-Bromofluorobenzene	101	87.5-115		%REC	10	8/22/2005 11:55:41 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/23/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/23/2005
Aniline	ND	0.20		mg/Kg	1	8/23/2005
Anthracene	ND	0.20		mg/Kg	1	8/23/2005
Azobenzene	ND	0.20		mg/Kg	1	8/23/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Benidine	ND	0.20		mg/Kg	1	8/23/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/23/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/23/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/23/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/23/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/23/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/23/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Carbazole	ND	0.20		mg/Kg	1	8/23/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/23/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe4 WS

Lab Order: 0508233

Collection Date: 8/19/2005 7:00:00 AM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/23/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	8/23/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/23/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/23/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/23/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/23/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Fluorene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/23/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Isophorone	ND	0.20		mg/Kg	1	8/23/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/23/2005
Naphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/23/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/23/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/23/2005
Phenanthrene	ND	0.20		mg/Kg	1	8/23/2005
Phenol	ND	0.20		mg/Kg	1	8/23/2005
Pyrene	ND	0.20		mg/Kg	1	8/23/2005
Pyridine	ND	0.50		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe4 WS

Lab Order: 0508233

Collection Date: 8/19/2005 7:00:00 AM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
Surr: 2,4,6-Tribromophenol	90.5	35.5-141		%REC	1	8/23/2005
Surr: 2-Fluorobiphenyl	71.7	30.4-128		%REC	1	8/23/2005
Surr: 2-Fluorophenol	75.3	28.1-129		%REC	1	8/23/2005
Surr: 4-Terphenyl-d14	84.4	34.6-151		%REC	1	8/23/2005
Surr: Nitrobenzene-d5	69.0	26.5-122		%REC	1	8/23/2005
Surr: Phenol-d6	81.4	37.6-118		%REC	1	8/23/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav
Lab ID: 0508233-11

Client Sample ID: Inlet Pipe4 WN
Collection Date: 8/19/2005 7:10:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	540	100		mg/Kg	10	8/21/2005 5:39:51 PM
Motor Oil Range Organics (MRO)	990	500		mg/Kg	10	8/21/2005 5:39:51 PM
Surr: DNOP	74.1	60-124		%REC	10	8/21/2005 5:39:51 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	50		mg/Kg	10	8/23/2005 12:26:38 AM
Surr: BFB	95.3	83.1-124		%REC	10	8/23/2005 12:26:38 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	1.0		mg/Kg	10	8/23/2005 12:26:38 AM
Benzene	ND	0.25		mg/Kg	10	8/23/2005 12:26:38 AM
Toluene	ND	0.25		mg/Kg	10	8/23/2005 12:26:38 AM
Ethylbenzene	ND	0.25		mg/Kg	10	8/23/2005 12:26:38 AM
Xylenes, Total	ND	0.25		mg/Kg	10	8/23/2005 12:26:38 AM
Surr: 4-Bromofluorobenzene	99.5	87.5-115		%REC	10	8/23/2005 12:26:38 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/23/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/23/2005
Aniline	ND	0.20		mg/Kg	1	8/23/2005
Anthracene	ND	0.20		mg/Kg	1	8/23/2005
Azobenzene	ND	0.20		mg/Kg	1	8/23/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Benzidine	ND	0.20		mg/Kg	1	8/23/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/23/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/23/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/23/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/23/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/23/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/23/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Carbazole	ND	0.20		mg/Kg	1	8/23/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/23/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe4 WN

Lab Order: 0508233

Collection Date: 8/19/2005 7:10:00 AM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-11

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/23/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	8/23/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/23/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/23/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/23/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/23/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Fluorene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/23/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Isophorone	ND	0.20		mg/Kg	1	8/23/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/23/2005
Naphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/23/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/23/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/23/2005
Phenanthrene	ND	0.20		mg/Kg	1	8/23/2005
Phenol	ND	0.20		mg/Kg	1	8/23/2005
Pyrene	0.31	0.20		mg/Kg	1	8/23/2005
Pyridine	ND	0.50		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe4 WN

Lab Order: 0508233

Collection Date: 8/19/2005 7:10:00 AM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-11

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
Surr: 2,4,6-Tribromophenol	87.0	35.5-141		%REC	1	8/23/2005
Surr: 2-Fluorobiphenyl	71.1	30.4-128		%REC	1	8/23/2005
Surr: 2-Fluorophenol	72.4	28.1-129		%REC	1	8/23/2005
Surr: 4-Terphenyl-d14	83.3	34.6-151		%REC	1	8/23/2005
Surr: Nitrobenzene-d5	78.1	26.5-122		%REC	1	8/23/2005
Surr: Phenol-d6	79.5	37.6-118		%REC	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav
Lab ID: 0508233-12

Client Sample ID: Inlet Pipe4 BTM
Collection Date: 8/19/2005 7:20:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	100	10		mg/Kg	1	8/21/2005 6:12:38 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/21/2005 6:12:38 PM
Surr: DNOP	178	60-124	S	%REC	1	8/21/2005 6:12:38 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	25		mg/Kg	5	8/23/2005 12:57:24 AM
Surr: BFB	99.1	83.1-124		%REC	5	8/23/2005 12:57:24 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.50		mg/Kg	5	8/23/2005 12:57:24 AM
Benzene	ND	0.13		mg/Kg	5	8/23/2005 12:57:24 AM
Toluene	ND	0.13		mg/Kg	5	8/23/2005 12:57:24 AM
Ethylbenzene	ND	0.13		mg/Kg	5	8/23/2005 12:57:24 AM
Xylenes, Total	0.19	0.13		mg/Kg	5	8/23/2005 12:57:24 AM
Surr: 4-Bromofluorobenzene	103	87.5-115		%REC	5	8/23/2005 12:57:24 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/23/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/23/2005
Aniline	ND	0.20		mg/Kg	1	8/23/2005
Anthracene	ND	0.20		mg/Kg	1	8/23/2005
Azobenzene	ND	0.20		mg/Kg	1	8/23/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Benidine	ND	0.20		mg/Kg	1	8/23/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/23/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/23/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/23/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/23/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/23/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/23/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Carbazole	ND	0.20		mg/Kg	1	8/23/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/23/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe4 BTM

Lab Order: 0508233

Collection Date: 8/19/2005 7:20:00 AM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-12

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/23/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	8/23/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/23/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/23/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/23/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/23/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Fluorene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/23/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Isophorone	ND	0.20		mg/Kg	1	8/23/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/23/2005
Naphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/23/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/23/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/23/2005
Phenanthrene	ND	0.20		mg/Kg	1	8/23/2005
Phenol	ND	0.20		mg/Kg	1	8/23/2005
Pyrene	ND	0.20		mg/Kg	1	8/23/2005
Pyridine	ND	0.50		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: Inlet Pipe4 BTM

Lab Order: 0508233

Collection Date: 8/19/2005 7:20:00 AM

Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

Lab ID: 0508233-12

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
Surr: 2,4,6-Tribromophenol	94.1	35.5-141		%REC	1	8/23/2005
Surr: 2-Fluorobiphenyl	72.9	30.4-128		%REC	1	8/23/2005
Surr: 2-Fluorophenol	67.8	28.1-129		%REC	1	8/23/2005
Surr: 4-Terphenyl-d14	88.8	34.6-151		%REC	1	8/23/2005
Surr: Nitrobenzene-d5	71.1	26.5-122		%REC	1	8/23/2005
Surr: Phenol-d6	74.4	37.6-118		%REC	1	8/23/2005

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
 Work Order: 0508233
 Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8572	Batch ID:	8572	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/20/2005 6:54:01 PM	Prep Date	8/19/2005
Client ID:		Run ID:	FID(17A) 2_050820A	SeqNo:	390347						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	10.35	0	10	0	103	60	124	0			

Sample ID	MB-8573	Batch ID:	8573	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/21/2005 1:58:54 AM	Prep Date	8/19/2005
Client ID:		Run ID:	FID(17A) 2_050820A	SeqNo:	390355						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	10.5	0	10	0	105	60	124	0			

Sample ID	mb-8571	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/22/2005 6:42:39 PM	Prep Date	8/19/2005
Client ID:		Run ID:	PIDFID_050822A	SeqNo:	391043						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5									
Surr: BFB	914.7	0	1000	0	91.5	83.1	124	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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CLIENT: Giant Refining Co
Work Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

QC SUMMARY REPORT

Method Blank

Sample ID	Batch ID	Test Code	Units	Analysis Date	Prep Date						
mb-8571	8571	SW8021	mg/Kg	8/22/2005 6:42:39 PM	8/19/2005						
Client ID	Run ID	SeqNo									
	PIDFID_050822A	391004									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1									
Benzene	0.01303	0.025									J
Toluene	0.01188	0.025									J
Ethylbenzene	0.01603	0.025									J
Xylenes, Total	0.02385	0.025									J
Surr: 4-Bromofluorobenzene	0.9884	0	1	0	98.8	87.5	115	0			

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Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
 Work Order: 0508233
 Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8570	Batch ID:	8570	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	8/22/2005	Prep Date	8/19/2005
Client ID:		Run ID:	ELMO_050822A	SeqNo:	391145						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.2									
Acenaphthylene	ND	0.2									
Aniline	ND	0.2									
Anthracene	ND	0.2									
Azobenzene	ND	0.2									
Benz(a)anthracene	ND	0.25									
Benzidine	ND	0.2									
Benzo(a)pyrene	ND	0.2									
Benzo(b)fluoranthene	ND	0.2									
Benzo(g,h,i)perylene	0.02967	0.3									J
Benzo(k)fluoranthene	ND	0.5									
Benzoic acid	ND	0.5									
Benzyl alcohol	ND	0.5									
Bis(2-chloroethoxy)methane	ND	0.5									
Bis(2-chloroethyl)ether	ND	0.25									
Bis(2-chloroisopropyl)ether	ND	0.5									
Bis(2-ethylhexyl)phthalate	0.06733	0.2									J
4-Bromophenyl phenyl ether	ND	0.25									
Butyl benzyl phthalate	ND	0.2									
Carbazole	ND	0.2									
4-Chloro-3-methylphenol	ND	0.2									
4-Chloroaniline	ND	0.2									
2-Chloronaphthalene	ND	0.2									
2-Chlorophenol	ND	0.2									
4-Chlorophenyl phenyl ether	ND	0.2									
Chrysene	ND	0.2									
Di-n-butyl phthalate	0.257	0.25									
Di-n-octyl phthalate	ND	0.5									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

QC SUMMARY REPORT

Method Blank

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Dibenz(a,h)anthracene	ND	0.25
Dibenzofuran	ND	0.5
1,2-Dichlorobenzene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
3,3'-Dichlorobenzidine	ND	0.2
Diethyl phthalate	ND	0.2
Dimethyl phthalate	ND	0.2
2,4-Dichlorophenol	ND	0.2
2,4-Dimethylphenol	ND	0.2
4,6-Dinitro-2-methylphenol	ND	0.5
2,4-Dinitrophenol	ND	0.5
2,4-Dinitrotoluene	ND	0.2
2,6-Dinitrotoluene	ND	0.2
Fluoranthene	ND	0.2
Fluorene	ND	0.2
Hexachlorobenzene	ND	0.2
Hexachlorobutadiene	ND	0.2
Hexachlorocyclopentadiene	ND	0.25
Hexachloroethane	ND	0.5
Indeno(1,2,3-cd)pyrene	ND	0.2
Isophorone	ND	0.2
2-Methylnaphthalene	ND	0.2
2-Methylphenol	ND	0.2
3+4-Methylphenol	ND	0.2
N-Nitrosodi-n-propylamine	ND	0.2
N-Nitrosodiphenylamine	ND	0.2
Naphthalene	ND	0.2
2-Nitroaniline	ND	0.5
3-Nitroaniline	ND	0.5
4-Nitroaniline	ND	0.25
Nitrobenzene	ND	0.2
2-Nitrophenol	ND	0.2

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

QC SUMMARY REPORT

Method Blank

4-Nitrophenol	ND	0.2							
Pentachlorophenol	ND	0.5							
Phenanthrene	ND	0.2							
Phenol	ND	0.2							
Pyrene	ND	0.2							
Pyridine	ND	0.5							
1,2,4-Trichlorobenzene	ND	0.2							
2,4,5-Trichlorophenol	ND	0.2							
2,4,6-Trichlorophenol	ND	0.2							
Surr: 2,4,6-Tribromophenol	2.838	0	3.33	0	85.2	35.5	141	0	
Surr: 2-Fluorobiphenyl	1.208	0	1.67	0	72.4	30.4	128	0	
Surr: 2-Fluorophenol	2.164	0	3.33	0	65.0	28.1	129	0	
Surr: 4-Terphenyl-d14	1.483	0	1.67	0	88.8	34.6	151	0	
Surr: Nitrobenzene-d5	1.198	0	1.67	0	71.7	26.5	122	0	
Surr: Phenol-d6	2.348	0	3.33	0	70.5	37.6	118	0	

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Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Work Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0508233-04a ms	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/23/2005 4:02:38 AM	Prep Date	8/19/2005
Client ID:	Inlet Pipe2 WS	Run ID:	PIDFID_050822A	SeqNo:	391088						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24.03	5	25	0	96.1	84	120	0			
Surr: BFB	977.8	0	1000	0	97.8	83.1	124	0			

Sample ID	0508233-04a msd	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/23/2005 4:33:21 AM	Prep Date	8/19/2005
Client ID:	Inlet Pipe2 WS	Run ID:	PIDFID_050822A	SeqNo:	391094						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26.35	5	25	0	105	84	120	24.03	9.21	11.6	
Surr: BFB	1057	0	1000	0	106	83.1	124	977.8	7.79	0	

Sample ID	0508233-04a ms	Batch ID:	8571	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/23/2005 4:02:38 AM	Prep Date	8/19/2005
Client ID:	Inlet Pipe2 WS	Run ID:	PIDFID_050822A	SeqNo:	391022						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	2.051	0.1	2	0	103	65	132	0			
Benzene	0.4318	0.025	0.42	0	103	85.6	116	0			
Toluene	2.055	0.025	2	0.01523	102	82.4	120	0			
Ethylbenzene	0.4198	0.025	0.41	0.02055	97.4	86.4	111	0			
Xylenes, Total	2.147	0.025	2	0	107	78.4	125	0			
Surr: 4-Bromofluorobenzene	1.054	0	1	0	105	87.5	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID	0508233-04a msd	Batch ID:	8571	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/23/2005 4:33:21 AM	Prep Date	8/19/2005
Client ID:	Inlet Pipe2 WS	Run ID:	PIDFID_050822A	SeqNo:	391025						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	2.027	0.1	2	0	101	65	132	2.051	1.16	28	
Benzene	0.409	0.025	0.42	0	97.4	85.6	116	0.4318	5.41	27	
Toluene	2.014	0.025	2	0.01523	99.9	82.4	120	2.055	2.02	19	
Ethylbenzene	0.43	0.025	0.41	0.02055	99.9	86.4	111	0.4198	2.41	10	
Xylenes, Total	2.173	0.025	2	0	109	78.4	125	2.147	1.17	13	
Surr: 4-Bromofluorobenzene	1.069	0	1	0	107	87.5	115	1.054	1.40	0	

44/48

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
 Work Order: 0508233
 Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8572	Batch ID:	8572	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/20/2005 7:26:49 PM	Prep Date	8/19/2005
Client ID:		Run ID:	FID(17A) 2_050820A	SeqNo:	390348						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46.27	10	50	0	92.5	67.4	117	0			

Sample ID	LCSD-8572	Batch ID:	8572	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/20/2005 7:59:32 PM	Prep Date	8/19/2005
Client ID:		Run ID:	FID(17A) 2_050820A	SeqNo:	390349						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48.26	10	50	0	96.5	67.4	117	46.27	4.21	17.4	

Sample ID	LCS-8573	Batch ID:	8573	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/21/2005 2:31:43 AM	Prep Date	8/19/2005
Client ID:		Run ID:	FID(17A) 2_050820A	SeqNo:	390356						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53.51	10	50	0	107	67.4	117	0			

Sample ID	LCSD-8573	Batch ID:	8573	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/21/2005 3:04:32 AM	Prep Date	8/19/2005
Client ID:		Run ID:	FID(17A) 2_050820A	SeqNo:	390357						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58.49	10	50	0	117	67.4	117	53.51	8.89	17.4	

Sample ID	Ics-8571	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/22/2005 7:45:44 PM	Prep Date	8/19/2005
Client ID:		Run ID:	PIDFID_050822A	SeqNo:	391059						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24.66	5	25	0	98.6	84	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	GRO lcs 2.5ug	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/23/2005 12:52:35 PM	Prep Date	
Client ID:		Run ID:	PIDFID_050823A					SeqNo:	391457		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22.13	5	25	0.0156	88.5	84	120	0			

Sample ID	GRO lcs 2.5ug	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/24/2005 4:49:06 PM	Prep Date	
Client ID:		Run ID:	PIDFID_050824A					SeqNo:	392009		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22.35	5	25	0.0214	89.3	84	120	0			

Sample ID	lcs-8571	Batch ID:	8571	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/22/2005 7:45:44 PM	Prep Date	8/19/2005
Client ID:		Run ID:	PIDFID_050822A					SeqNo:	391005		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	2.093	0.1	2	0	105	65	132	0			
Benzene	0.4507	0.025	0.42	0.01303	104	85.6	116	0			
Toluene	2.111	0.025	2	0.01188	105	82.4	120	0			
Ethylbenzene	0.4324	0.025	0.41	0.01603	102	86.4	111	0			
Xylenes, Total	2.185	0.025	2	0.02385	108	78.4	125	0			

Sample ID	BTEX lcs 100ng	Batch ID:	8571	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/23/2005 1:55:24 PM	Prep Date	
Client ID:		Run ID:	PIDFID_050823A					SeqNo:	391323		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.9565	0.1	1	0	95.6	65	132	0			
Benzene	1.04	0.025	1	0	104	85.6	116	0			
Toluene	1.027	0.025	1	0	103	82.4	120	0			
Ethylbenzene	1.036	0.025	1	0	104	86.4	111	0			
Xylenes, Total	2.1	0.025	2	0	105	78.4	125	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508233
Project: Railroad Rack Lagoon SWMU-Inlet Pipe Excav

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8570	Batch ID:	8570	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	8/22/2005	Prep Date	8/19/2005
Client ID:		Run ID:	ELMO_050822A	SeqNo:	391146						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.344	0.2	1.67	0	80.5	24	125	0			
4-Chloro-3-methylphenol	2.653	0.2	3.33	0	79.7	14.6	154	0			
2-Chlorophenol	2.177	0.2	3.33	0	65.4	13.3	149	0			
1,4-Dichlorobenzene	0.9777	0.2	1.67	0	58.5	23.6	118	0			
2,4-Dinitrotoluene	1.402	0.2	1.67	0	83.9	28	136	0			
N-Nitrosodi-n-propylamine	1.068	0.2	1.67	0	64.0	28	114	0			
4-Nitrophenol	2.711	0.2	3.33	0	81.4	13.1	150	0			
Pentachlorophenol	2.921	0.5	3.33	0	87.7	20.1	139	0			
Phenol	2.213	0.2	3.33	0	66.4	17.3	141	0			
Pyrene	1.288	0.2	1.67	0	77.1	29	131	0			
1,2,4-Trichlorobenzene	1.109	0.2	1.67	0	66.4	17.9	126	0			

Sample ID	LCSD-8570	Batch ID:	8570	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	8/22/2005	Prep Date	8/19/2005
Client ID:		Run ID:	ELMO_050822A	SeqNo:	391147						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.298	0.2	1.67	0	77.7	24	125	1.344	3.48	25	
4-Chloro-3-methylphenol	2.848	0.2	3.33	0	85.5	14.6	154	2.653	7.08	25	
2-Chlorophenol	2.318	0.2	3.33	0	69.6	13.3	149	2.177	6.29	25	
1,4-Dichlorobenzene	0.9963	0.2	1.67	0	59.7	23.6	118	0.9777	1.89	25	
2,4-Dinitrotoluene	1.337	0.2	1.67	0	80.1	28	136	1.402	4.70	25	
N-Nitrosodi-n-propylamine	1.11	0.2	1.67	0	66.5	28	114	1.068	3.83	25	
4-Nitrophenol	2.786	0.2	3.33	0	83.7	13.1	150	2.711	2.73	25	
Pentachlorophenol	3.056	0.5	3.33	0	91.8	20.1	139	2.921	4.53	25	
Phenol	2.304	0.2	3.33	0	69.2	17.3	141	2.213	4.06	25	
Pyrene	1.384	0.2	1.67	0	82.9	29	131	1.288	7.21	25	
1,2,4-Trichlorobenzene	1.145	0.2	1.67	0	68.5	17.9	126	1.109	3.17	25	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTRFIN

Date and Time Received:

8/19/2005

Work Order Number 0508233

Received by AMF

Checklist completed by

Signature

Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐ Not Shipped ☒
Custody seals intact on sample bottles?	Yes ☒	No ☐	N/A ☐
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
- VOA vials have zero headspace?	No VOA vials submitted ☒	Yes ☐	No ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
Container/Temp Blank temperature?	6°	4° C ± 2 Acceptable if given sufficient time to cool.	

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Active Action _____

CHAIN-OF-CUSTODY RECORD

Client: Giant Refining
Company - Aniza
 Address: Route 3 Box 7
Gallup, NM 87301

Phone #: 5057223833
 Fax #: 5057220210

QA/QC Package:
 Std ☐ Level 4 ☒
 Other: _____
 Project Name: Railroad Rock
Lagoon SWMU-Inlet
Pipe Excavation
 Project #: _____
 Project Manager: Steve Morris
 Sampler: Steve Morris
 Sample Temperature: 6°



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**
 4901 Hawkins NE, Suite D
 Albuquerque, New Mexico 87109
 Tel. 505.345.3975 Fax 505.345.4107
 www.hallenvironmental.com

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative			HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	PCRA 8 Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	8021B						Air Bubbles or Headspace (Y or N)
					HgCl ₂	HNO ₃	NONE																				
8-18-05	1400	Soil	Inlet Pipe 1WS	2/4oz			✓	078233			✓									✓	✓						
"	1410	"	" " 1WN	"			✓				✓									✓	✓						
"	1420	"	" " 1Btm	"			✓				✓									✓	✓						
"	1430	"	" " 2WS	"			✓				✓									✓	✓						
"	1440	"	" " 2WN	"			✓				✓									✓	✓						
"	1450	"	" " 2Btm	"			✓				✓									✓	✓						
"	1500	"	" " 3WS	"			✓				✓									✓	✓						
"	1510	"	" " 3WN	"			✓				✓									✓	✓						
"	1520	"	" " 3Btm	"			✓				✓									✓	✓						
8-19-05	0700	"	" " 4WS	"			✓	10			✓									✓	✓						
"	0710	"	" " 4WN	"			✓	11			✓									✓	✓						
"	0720	"	" " 4Btm	"			✓	12			✓									✓	✓						

Date: 8/19/05 Time: 1535 Relinquished By: (Signature) Steve Morris
 Date: _____ Time: _____ Relinquished By: (Signature) _____
 Received By: (Signature) [Signature] 8/19/05 1535
 Received By: (Signature) _____

Remarks: Series 1 nearest lagoon, 2+3
every 50 ft., and series 4 taken
nearest manhole at start of
pipe run - Rikh - ASAP!!

Appendix 3: Hall Environmental Laboratory Report- August 26, 2005 (Lagoon Walls)

COVER LETTER

August 26, 2005

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: R.R. Rack Lagoon Additional SE Wall Exc

Order No.: 0508234

Dear Steve Morris:

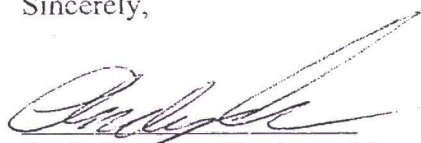
Hall Environmental Analysis Laboratory received 4 samples on 8/19/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Project: R.R. Rack Lagoon Additional SE Wall Excavati
Lab Order: 0508234

CASE NARRATIVE

Analytical Comments for METHOD 8015DRO_S, SAMPLE 0508234-01B: DNOP not recovered due to dilution Analytical Comments for METHOD 8015DRO_S, SAMPLE 0508234-02B: DNOP not recovered due to dilution Analytical Comments for METHOD 8015DRO_S, SAMPLE 0508234-03B: DNOP not recovered due to dilution

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati
Lab ID: 0508234-01

Client Sample ID: North Wall
Collection Date: 8/19/2005 10:00:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	1500	1000		mg/Kg	100	8/21/2005 6:45:24 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	8/21/2005 6:45:24 PM
Surr: DNOP	0	60-124	S	%REC	100	8/21/2005 6:45:24 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	120	100		mg/Kg	20	8/23/2005 11:21:34 PM
Surr: BFB	106	83.1-124		%REC	20	8/23/2005 11:21:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	2.0		mg/Kg	20	8/23/2005 11:21:34 PM
Benzene	0.70	0.50		mg/Kg	20	8/23/2005 11:21:34 PM
Toluene	ND	0.50		mg/Kg	20	8/23/2005 11:21:34 PM
Ethylbenzene	3.4	0.50		mg/Kg	20	8/23/2005 11:21:34 PM
Xylenes, Total	6.5	0.50		mg/Kg	20	8/23/2005 11:21:34 PM
Surr: 4-Bromofluorobenzene	109	87.5-115		%REC	20	8/23/2005 11:21:34 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	0.65	0.20		mg/Kg	1	8/23/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/23/2005
Aniline	ND	0.20		mg/Kg	1	8/23/2005
Anthracene	ND	0.20		mg/Kg	1	8/23/2005
Azobenzene	ND	0.20		mg/Kg	1	8/23/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Benzidine	ND	0.20		mg/Kg	1	8/23/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/23/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/23/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/23/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/23/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/23/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/23/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Carbazole	ND	0.20		mg/Kg	1	8/23/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/23/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: North Wall

Lab Order: 0508234

Collection Date: 8/19/2005 10:00:00 AM

Project: R.R. Rack Lagoon Additional SE Wall Excavati

Lab ID: 0508234-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/23/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	8/23/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/23/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/23/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/23/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/23/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Fluorene	1.5	0.20		mg/Kg	1	8/23/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/23/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Isophorone	ND	0.20		mg/Kg	1	8/23/2005
2-Methylnaphthalene	9.8	2.0		mg/Kg	10	8/23/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/23/2005
Naphthalene	3.1	0.20		mg/Kg	1	8/23/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/23/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/23/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/23/2005
Phenanthrene	2.9	0.20		mg/Kg	1	8/23/2005
Phenol	ND	0.20		mg/Kg	1	8/23/2005
Pyrene	ND	0.20		mg/Kg	1	8/23/2005
Pyridine	ND	0.50		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati
Lab ID: 0508234-01

Client Sample ID: North Wall
Collection Date: 8/19/2005 10:00:00 AM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
Surr: 2,4,6-Tribromophenol	110	35.5-141		%REC	1	8/23/2005
Surr: 2-Fluorobiphenyl	107	30.4-128		%REC	1	8/23/2005
Surr: 2-Fluorophenol	62.9	28.1-129		%REC	1	8/23/2005
Surr: 4-Terphenyl-d14	80.8	34.6-151		%REC	1	8/23/2005
Surr: Nitrobenzene-d5	73.9	26.5-122		%REC	1	8/23/2005
Surr: Phenol-d6	72.8	37.6-118		%REC	1	8/23/2005

Qualifiers:
 ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati
Lab ID: 0508234-02

Client Sample ID: South Wall
Collection Date: 8/19/2005 10:30:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	3800	1000		mg/Kg	100	8/21/2005 7:16:33 PM
Motor Oil Range Organics (MRO)	ND	5000		mg/Kg	100	8/21/2005 7:16:33 PM
Surr: DNOP	0	60-124	S	%REC	100	8/21/2005 7:16:33 PM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	8/23/2005 11:52:19 PM
Surr: BFB	98.4	83.1-124		%REC	50	8/23/2005 11:52:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	5.0		mg/Kg	50	8/23/2005 11:52:19 PM
Benzene	ND	1.3		mg/Kg	50	8/23/2005 11:52:19 PM
Toluene	ND	1.3		mg/Kg	50	8/23/2005 11:52:19 PM
Ethylbenzene	4.5	1.3		mg/Kg	50	8/23/2005 11:52:19 PM
Xylenes, Total	15	1.3		mg/Kg	50	8/23/2005 11:52:19 PM
Surr: 4-Bromofluorobenzene	105	87.5-115		%REC	50	8/23/2005 11:52:19 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	2.4	2.0		mg/Kg	10	8/23/2005
Acenaphthylene	ND	2.0		mg/Kg	10	8/23/2005
Aniline	ND	2.0		mg/Kg	10	8/23/2005
Anthracene	ND	2.0		mg/Kg	10	8/23/2005
Azobenzene	ND	2.0		mg/Kg	10	8/23/2005
Benz(a)anthracene	ND	2.5		mg/Kg	10	8/23/2005
Benzidine	ND	2.0		mg/Kg	10	8/23/2005
Benzo(a)pyrene	ND	2.0		mg/Kg	10	8/23/2005
Benzo(b)fluoranthene	ND	2.0		mg/Kg	10	8/23/2005
Benzo(g,h,i)perylene	ND	3.0		mg/Kg	10	8/23/2005
Benzo(k)fluoranthene	ND	5.0		mg/Kg	10	8/23/2005
Benzoic acid	ND	5.0		mg/Kg	10	8/23/2005
Benzyl alcohol	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-chloroethoxy)methane	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-chloroethyl)ether	ND	2.5		mg/Kg	10	8/23/2005
Bis(2-chloroisopropyl)ether	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-ethylhexyl)phthalate	ND	2.0		mg/Kg	10	8/23/2005
4-Bromophenyl phenyl ether	ND	2.5		mg/Kg	10	8/23/2005
Butyl benzyl phthalate	ND	2.0		mg/Kg	10	8/23/2005
Carbazole	ND	2.0		mg/Kg	10	8/23/2005
4-Chloro-3-methylphenol	ND	2.0		mg/Kg	10	8/23/2005
4-Chloroaniline	ND	2.0		mg/Kg	10	8/23/2005
2-Chloronaphthalene	ND	2.0		mg/Kg	10	8/23/2005
2-Chlorophenol	ND	2.0		mg/Kg	10	8/23/2005
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	10	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: South Wall

Lab Order: 0508234

Collection Date: 8/19/2005 10:30:00 AM

Project: R.R. Rack Lagoon Additional SE Wall Excavati

Lab ID: 0508234-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	2.0		mg/Kg	10	8/23/2005
Di-n-butyl phthalate	ND	2.5		mg/Kg	10	8/23/2005
Di-n-octyl phthalate	ND	5.0		mg/Kg	10	8/23/2005
Dibenz(a,h)anthracene	ND	2.5		mg/Kg	10	8/23/2005
Dibenzofuran	ND	5.0		mg/Kg	10	8/23/2005
1,2-Dichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
1,3-Dichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
1,4-Dichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
3,3'-Dichlorobenzidine	ND	2.0		mg/Kg	10	8/23/2005
Diethyl phthalate	ND	2.0		mg/Kg	10	8/23/2005
Dimethyl phthalate	ND	2.0		mg/Kg	10	8/23/2005
2,4-Dichlorophenol	ND	2.0		mg/Kg	10	8/23/2005
2,4-Dimethylphenol	ND	2.0		mg/Kg	10	8/23/2005
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	10	8/23/2005
2,4-Dinitrophenol	ND	5.0		mg/Kg	10	8/23/2005
2,4-Dinitrotoluene	ND	2.0		mg/Kg	10	8/23/2005
2,6-Dinitrotoluene	ND	2.0		mg/Kg	10	8/23/2005
Fluoranthene	ND	2.0		mg/Kg	10	8/23/2005
Fluorene	5.1	2.0		mg/Kg	10	8/23/2005
Hexachlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
Hexachlorobutadiene	ND	2.0		mg/Kg	10	8/23/2005
Hexachlorocyclopentadiene	ND	2.5		mg/Kg	10	8/23/2005
Hexachloroethane	ND	5.0		mg/Kg	10	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	10	8/23/2005
Isophorone	ND	2.0		mg/Kg	10	8/23/2005
2-Methylnaphthalene	49	4.0		mg/Kg	20	8/25/2005
2-Methylphenol	ND	2.0		mg/Kg	10	8/23/2005
3+4-Methylphenol	ND	2.0		mg/Kg	10	8/23/2005
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	10	8/23/2005
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	10	8/23/2005
Naphthalene	11	2.0		mg/Kg	10	8/23/2005
2-Nitroaniline	ND	5.0		mg/Kg	10	8/23/2005
3-Nitroaniline	ND	5.0		mg/Kg	10	8/23/2005
4-Nitroaniline	ND	2.5		mg/Kg	10	8/23/2005
Nitrobenzene	ND	2.0		mg/Kg	10	8/23/2005
2-Nitrophenol	ND	2.0		mg/Kg	10	8/23/2005
4-Nitrophenol	ND	2.0		mg/Kg	10	8/23/2005
Pentachlorophenol	ND	5.0		mg/Kg	10	8/23/2005
Phenanthrene	9.8	2.0		mg/Kg	10	8/23/2005
Phenol	ND	2.0		mg/Kg	10	8/23/2005
Pyrene	ND	2.0		mg/Kg	10	8/23/2005
Pyridine	ND	5.0		mg/Kg	10	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: South Wall

Lab Order: 0508234

Collection Date: 8/19/2005 10:30:00 AM

Project: R.R. Rack Lagoon Additional SE Wall Excavati

Lab ID: 0508234-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	10	8/23/2005
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	10	8/23/2005
Surr: 2,4,6-Tribromophenol	109	35.5-141		%REC	10	8/23/2005
Surr: 2-Fluorobiphenyl	73.7	30.4-128		%REC	10	8/23/2005
Surr: 2-Fluorophenol	63.2	28.1-129		%REC	10	8/23/2005
Surr: 4-Terphenyl-d14	56.9	34.6-151		%REC	10	8/23/2005
Surr: Nitrobenzene-d5	111	26.5-122		%REC	10	8/23/2005
Surr: Phenol-d6	53.4	37.6-118		%REC	10	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati
Lab ID: 0508234-03

Client Sample ID: North BTM.
Collection Date: 8/19/2005 10:15:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	7000	200		mg/Kg	20	8/21/2005 9:52:45 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	8/21/2005 9:52:45 AM
Surr: DNOP	0	60-124	S	%REC	20	8/21/2005 9:52:45 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	250		mg/Kg	50	8/24/2005 12:23:04 AM
Surr: BFB	101	83.1-124		%REC	50	8/24/2005 12:23:04 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	5.0		mg/Kg	50	8/24/2005 12:23:04 AM
Benzene	ND	1.3		mg/Kg	50	8/24/2005 12:23:04 AM
Toluene	ND	1.3		mg/Kg	50	8/24/2005 12:23:04 AM
Ethylbenzene	ND	1.3		mg/Kg	50	8/24/2005 12:23:04 AM
Xylenes, Total	11	1.3		mg/Kg	50	8/24/2005 12:23:04 AM
Surr: 4-Bromofluorobenzene	105	87.5-115		%REC	50	8/24/2005 12:23:04 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	2.1	2.0		mg/Kg	10	8/23/2005
Acenaphthylene	ND	2.0		mg/Kg	10	8/23/2005
Aniline	ND	2.0		mg/Kg	10	8/23/2005
Anthracene	ND	2.0		mg/Kg	10	8/23/2005
Azobenzene	ND	2.0		mg/Kg	10	8/23/2005
Benz(a)anthracene	ND	2.5		mg/Kg	10	8/23/2005
Benzidine	ND	2.0		mg/Kg	10	8/23/2005
Benzo(a)pyrene	ND	2.0		mg/Kg	10	8/23/2005
Benzo(b)fluoranthene	ND	2.0		mg/Kg	10	8/23/2005
Benzo(g,h,i)perylene	ND	3.0		mg/Kg	10	8/23/2005
Benzo(k)fluoranthene	ND	5.0		mg/Kg	10	8/23/2005
Benzoic acid	ND	5.0		mg/Kg	10	8/23/2005
Benzyl alcohol	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-chloroethoxy)methane	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-chloroethyl)ether	ND	2.5		mg/Kg	10	8/23/2005
Bis(2-chloroisopropyl)ether	ND	5.0		mg/Kg	10	8/23/2005
Bis(2-ethylhexyl)phthalate	ND	2.0		mg/Kg	10	8/23/2005
4-Bromophenyl phenyl ether	ND	2.5		mg/Kg	10	8/23/2005
Butyl benzyl phthalate	ND	2.0		mg/Kg	10	8/23/2005
Carbazole	ND	2.0		mg/Kg	10	8/23/2005
4-Chloro-3-methylphenol	ND	2.0		mg/Kg	10	8/23/2005
4-Chloroaniline	ND	2.0		mg/Kg	10	8/23/2005
2-Chloronaphthalene	ND	2.0		mg/Kg	10	8/23/2005
2-Chlorophenol	ND	2.0		mg/Kg	10	8/23/2005
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	10	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: North BTM.

Lab Order: 0508234

Collection Date: 8/19/2005 10:15:00 AM

Project: R.R. Rack Lagoon Additional SE Wall Excavati

Lab ID: 0508234-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	2.0		mg/Kg	10	8/23/2005
Di-n-butyl phthalate	ND	2.5		mg/Kg	10	8/23/2005
Di-n-octyl phthalate	ND	5.0		mg/Kg	10	8/23/2005
Dibenz(a,h)anthracene	ND	2.5		mg/Kg	10	8/23/2005
Dibenzofuran	ND	5.0		mg/Kg	10	8/23/2005
1,2-Dichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
1,3-Dichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
1,4-Dichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
3,3'-Dichlorobenzidine	ND	2.0		mg/Kg	10	8/23/2005
Diethyl phthalate	ND	2.0		mg/Kg	10	8/23/2005
Dimethyl phthalate	ND	2.0		mg/Kg	10	8/23/2005
2,4-Dichlorophenol	ND	2.0		mg/Kg	10	8/23/2005
2,4-Dimethylphenol	ND	2.0		mg/Kg	10	8/23/2005
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	10	8/23/2005
2,4-Dinitrophenol	ND	5.0		mg/Kg	10	8/23/2005
2,4-Dinitrotoluene	ND	2.0		mg/Kg	10	8/23/2005
2,6-Dinitrotoluene	ND	2.0		mg/Kg	10	8/23/2005
Fluoranthene	ND	2.0		mg/Kg	10	8/23/2005
Fluorene	4.3	2.0		mg/Kg	10	8/23/2005
Hexachlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
Hexachlorobutadiene	ND	2.0		mg/Kg	10	8/23/2005
Hexachlorocyclopentadiene	ND	2.5		mg/Kg	10	8/23/2005
Hexachloroethane	ND	5.0		mg/Kg	10	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	10	8/23/2005
Isophorone	ND	2.0		mg/Kg	10	8/23/2005
2-Methylnaphthalene	34	2.0		mg/Kg	10	8/23/2005
2-Methylphenol	ND	2.0		mg/Kg	10	8/23/2005
3+4-Methylphenol	ND	2.0		mg/Kg	10	8/23/2005
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	10	8/23/2005
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	10	8/23/2005
Naphthalene	8.2	2.0		mg/Kg	10	8/23/2005
2-Nitroaniline	ND	5.0		mg/Kg	10	8/23/2005
3-Nitroaniline	ND	5.0		mg/Kg	10	8/23/2005
4-Nitroaniline	ND	2.5		mg/Kg	10	8/23/2005
Nitrobenzene	ND	2.0		mg/Kg	10	8/23/2005
2-Nitrophenol	ND	2.0		mg/Kg	10	8/23/2005
4-Nitrophenol	ND	2.0		mg/Kg	10	8/23/2005
Pentachlorophenol	ND	5.0		mg/Kg	10	8/23/2005
Phenanthrene	8.1	2.0		mg/Kg	10	8/23/2005
Phenol	ND	2.0		mg/Kg	10	8/23/2005
Pyrene	ND	2.0		mg/Kg	10	8/23/2005
Pyridine	ND	5.0		mg/Kg	10	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
 Lab Order: 0508234
 Project: R.R. Rack Lagoon Additional SE Wall Excavati
 Lab ID: 0508234-03

Client Sample ID: North BTM.
 Collection Date: 8/19/2005 10:15:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	10	8/23/2005
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	10	8/23/2005
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	10	8/23/2005
Surr: 2,4,6-Tribromophenol	110	35.5-141		%REC	10	8/23/2005
Surr: 2-Fluorobiphenyl	69.1	30.4-128		%REC	10	8/23/2005
Surr: 2-Fluorophenol	57.2	28.1-129		%REC	10	8/23/2005
Surr: 4-Terphenyl-d14	54.7	34.6-151		%REC	10	8/23/2005
Surr: Nitrobenzene-d5	80.2	26.5-122		%REC	10	8/23/2005
Surr: Phenol-d6	51.7	37.6-118		%REC	10	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
 Lab Order: 0508234
 Project: R.R. Rack Lagoon Additional SE Wall Excavati
 Lab ID: 0508234-04

Client Sample ID: South BTM.
 Collection Date: 8/19/2005 10:45:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	15	10		mg/Kg	1	8/21/2005 10:25:32 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/21/2005 10:25:32 AM
Surr: DNOP	117	60-124		%REC	1	8/21/2005 10:25:32 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/24/2005 12:53:57 AM
Surr: BFB	98.0	83.1-124		%REC	1	8/24/2005 12:53:57 AM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	8/24/2005 12:53:57 AM
Benzene	ND	0.025		mg/Kg	1	8/24/2005 12:53:57 AM
Toluene	ND	0.025		mg/Kg	1	8/24/2005 12:53:57 AM
Ethylbenzene	ND	0.025		mg/Kg	1	8/24/2005 12:53:57 AM
Xylenes, Total	0.036	0.025		mg/Kg	1	8/24/2005 12:53:57 AM
Surr: 4-Bromofluorobenzene	104	87.5-115		%REC	1	8/24/2005 12:53:57 AM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/23/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/23/2005
Aniline	ND	0.20		mg/Kg	1	8/23/2005
Anthracene	ND	0.20		mg/Kg	1	8/23/2005
Azobenzene	ND	0.20		mg/Kg	1	8/23/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Benzidine	ND	0.20		mg/Kg	1	8/23/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/23/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/23/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/23/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/23/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/23/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/23/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/23/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Carbazole	ND	0.20		mg/Kg	1	8/23/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/23/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Full Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
 Lab Order: 0508234
 Project: R.R. Rack Lagoon Additional SE Wall Excavati
 Lab ID: 0508234-04

Client Sample ID: South BTM.
 Collection Date: 8/19/2005 10:45:00 AM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/23/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	8/23/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/23/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/23/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/23/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/23/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/23/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/23/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/23/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/23/2005
Fluorene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/23/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/23/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/23/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/23/2005
Isophorone	ND	0.20		mg/Kg	1	8/23/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/23/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/23/2005
Naphthalene	ND	0.20		mg/Kg	1	8/23/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/23/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/23/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/23/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/23/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/23/2005
Phenanthrene	ND	0.20		mg/Kg	1	8/23/2005
Phenol	ND	0.20		mg/Kg	1	8/23/2005
Pyrene	ND	0.20		mg/Kg	1	8/23/2005
Pyridine	ND	0.50		mg/Kg	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: South BTM.

Lab Order: 0508234

Collection Date: 8/19/2005 10:45:00 AM

Project: R.R. Rack Lagoon Additional SE Wall Excavati

Lab ID: 0508234-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/23/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/23/2005
Surr: 2,4,6-Tribromophenol	93.6	35.5-141		%REC	1	8/23/2005
Surr: 2-Fluorobiphenyl	63.9	30.4-128		%REC	1	8/23/2005
Surr: 2-Fluorophenol	62.7	28.1-129		%REC	1	8/23/2005
Surr: 4-Terphenyl-d14	82.0	34.6-151		%REC	1	8/23/2005
Surr: Nitrobenzene-d5	66.7	26.5-122		%REC	1	8/23/2005
Surr: Phenol-d6	67.9	37.6-118		%REC	1	8/23/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
Work Order: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8573	Batch ID:	8573	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/21/2005 1:58:54 AM	Prep Date	8/19/2005
Client ID:		Run ID:	FID(17A) 2_050820A	SeqNo:	390355						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	10.5	0	10	0	105	60	124	0			
Sample ID	mb-8571	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/22/2005 6:42:39 PM	Prep Date	8/19/2005
Client ID:		Run ID:	PIDFID_050822A	SeqNo:	391043						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5									
Surr: BFB	914.7	0	1000	0	91.5	83.1	124	0			
Sample ID	mb-8571	Batch ID:	8571	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/22/2005 6:42:39 PM	Prep Date	8/19/2005
Client ID:		Run ID:	PIDFID_050822A	SeqNo:	391004						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1									
Benzene	0.01303	0.025									J
Toluene	0.01188	0.025									J
Ethylbenzene	0.01603	0.025									J
Xylenes, Total	0.02385	0.025									J
Surr: 4-Bromofluorobenzene	0.9884	0	1	0	98.8	87.5	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

I

14/21

CLIENT: Giant Refining Co
Work Order: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8570	Batch ID:	8570	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	8/22/2005	Prep Date	8/19/2005
Client ID:		Run ID:	ELMO_050822A	SeqNo:	391145						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.2									
Acenaphthylene	ND	0.2									
Aniline	ND	0.2									
Anthracene	ND	0.2									
Azobenzene	ND	0.2									
Benz(a)anthracene	ND	0.25									
Benzidine	ND	0.2									
Benzo(a)pyrene	ND	0.2									
Benzo(b)fluoranthene	ND	0.2									
Benzo(g,h,i)perylene	0.02967	0.3									J
Benzo(k)fluoranthene	ND	0.5									
Benzoic acid	ND	0.5									
Benzyl alcohol	ND	0.5									
Bis(2-chloroethoxy)methane	ND	0.5									
Bis(2-chloroethyl)ether	ND	0.25									
Bis(2-chloroisopropyl)ether	ND	0.5									
Bis(2-ethylhexyl)phthalate	0.06733	0.2									J
4-Bromophenyl phenyl ether	ND	0.25									
Butyl benzyl phthalate	ND	0.2									
Carbazole	ND	0.2									
4-Chloro-3-methylphenol	ND	0.2									
4-Chloroaniline	ND	0.2									
2-Chloronaphthalene	ND	0.2									
2-Chlorophenol	ND	0.2									
4-Chlorophenyl phenyl ether	ND	0.2									
Chrysene	ND	0.2									
Di-n-butyl phthalate	0.257	0.25									
Di-n-octyl phthalate	ND	0.5									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati

QC SUMMARY REPORT

Method Blank

16/21

Dibenz(a,h)anthracene	ND	0.25
Dibenzofuran	ND	0.5
1,2-Dichlorobenzene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
3,3'-Dichlorobenzidine	ND	0.2
Diethyl phthalate	ND	0.2
Dimethyl phthalate	ND	0.2
2,4-Dichlorophenol	ND	0.2
2,4-Dimethylphenol	ND	0.2
4,6-Dinitro-2-methylphenol	ND	0.5
2,4-Dinitrophenol	ND	0.5
2,4-Dinitrotoluene	ND	0.2
2,6-Dinitrotoluene	ND	0.2
Fluoranthene	ND	0.2
Fluorene	ND	0.2
Hexachlorobenzene	ND	0.2
Hexachlorobutadiene	ND	0.2
Hexachlorocyclopentadiene	ND	0.25
Hexachloroethane	ND	0.5
Indeno(1,2,3-cd)pyrene	ND	0.2
Isophorone	ND	0.2
2-Methylnaphthalene	ND	0.2
2-Methylphenol	ND	0.2
3+4-Methylphenol	ND	0.2
N-Nitrosodi-n-propylamine	ND	0.2
N-Nitrosodiphenylamine	ND	0.2
Naphthalene	ND	0.2
2-Nitroaniline	ND	0.5
3-Nitroaniline	ND	0.5
4-Nitroaniline	ND	0.25
Nitrobenzene	ND	0.2
2-Nitrophenol	ND	0.2

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati

QC SUMMARY REPORT

Method Blank

4-Nitrophenol	ND	0.2							
Pentachlorophenol	ND	0.5							
Phenanthrene	ND	0.2							
Phenol	ND	0.2							
Pyrene	ND	0.2							
Pyridine	ND	0.5							
1,2,4-Trichlorobenzene	ND	0.2							
2,4,5-Trichlorophenol	ND	0.2							
2,4,6-Trichlorophenol	ND	0.2							
Surr: 2,4,6-Tribromophenol	2.838	0	3.33	0	85.2	35.5	141	0	
Surr: 2-Fluorobiphenyl	1.208	0	1.67	0	72.4	30.4	128	0	
Surr: 2-Fluorophenol	2.164	0	3.33	0	65.0	28.1	129	0	
Surr: 4-Terphenyl-d14	1.483	0	1.67	0	88.8	34.6	151	0	
Surr: Nitrobenzene-d5	1.198	0	1.67	0	71.7	26.5	122	0	
Surr: Phenol-d6	2.348	0	3.33	0	70.5	37.6	118	0	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 26-Aug-05

CLIENT: Giant Refining Co
 Work Order: 0508234
 Project: R.R. Rack Lagoon Additional SE Wall Excavati

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8573	Batch ID:	8573	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/21/2005 2:31:43 AM	Prep Date	8/19/2005
Client ID:		Run ID:	FID(17A) 2_050820A	SeqNo:	390356						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53.51	10	50	0	107	67.4	117	0			

Sample ID	LCSD-8573	Batch ID:	8573	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/21/2005 3:04:32 AM	Prep Date	8/19/2005
Client ID:		Run ID:	FID(17A) 2_050820A	SeqNo:	390357						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	58.49	10	50	0	117	67.4	117	53.51	8.89	17.4	

Sample ID	Ics-8571	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/22/2005 7:45:44 PM	Prep Date	8/19/2005
Client ID:		Run ID:	PIDFID_050822A	SeqNo:	391059						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24.66	5	25	0	98.6	84	120	0			

Sample ID	GRO Ics 2.5ug	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/23/2005 12:52:35 PM	Prep Date	
Client ID:		Run ID:	PIDFID_050823A	SeqNo:	391457						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22.13	5	25	0.0156	88.5	84	120	0			

Sample ID	GRO Ics 2.5ug	Batch ID:	8571	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/24/2005 4:49:06 PM	Prep Date	
Client ID:		Run ID:	PIDFID_050824A	SeqNo:	392009						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22.35	5	25	0.0214	89.3	84	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati

QC SUMMARY REPORT
 Laboratory Control Spike - generic

Sample ID	Ics-8571	Batch ID:	8571	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/22/2005 7:45:44 PM	Prep Date	8/19/2005
Client ID:		Run ID:	PIDFID_050822A	SeqNo:	391005						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	2.093	0.1	2	0	105	65	132	0			
Benzene	0.4507	0.025	0.42	0.01303	104	85.6	116	0			
Toluene	2.111	0.025	2	0.01188	105	82.4	120	0			
Ethylbenzene	0.4324	0.025	0.41	0.01603	102	86.4	111	0			
Xylenes, Total	2.185	0.025	2	0.02385	108	78.4	125	0			

Sample ID	BTEX Ics 100ng	Batch ID:	8571	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/23/2005 1:55:24 PM	Prep Date	
Client ID:		Run ID:	PIDFID_050823A	SeqNo:	391323						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.9565	0.1	1	0	95.6	65	132	0			
Benzene	1.04	0.025	1	0	104	85.6	116	0			
Toluene	1.027	0.025	1	0	103	82.4	120	0			
Ethylbenzene	1.036	0.025	1	0	104	86.4	111	0			
Xylenes, Total	2.1	0.025	2	0	105	78.4	125	0			

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

CLIENT: Giant Refining Co
Work Order: 0508234
Project: R.R. Rack Lagoon Additional SE Wall Excavati

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8570	Batch ID:	8570	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	8/22/2005	Prep Date	8/19/2005
Client ID:		Run ID:	ELMO_050822A	SeqNo:	391146						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.344	0.2	1.67	0	80.5	24	125	0			
4-Chloro-3-methylphenol	2.653	0.2	3.33	0	79.7	14.6	154	0			
2-Chlorophenol	2.177	0.2	3.33	0	65.4	13.3	149	0			
1,4-Dichlorobenzene	0.9777	0.2	1.67	0	58.5	23.6	118	0			
2,4-Dinitrotoluene	1.402	0.2	1.67	0	83.9	28	136	0			
N-Nitrosodi-n-propylamine	1.068	0.2	1.67	0	64.0	28	114	0			
4-Nitrophenol	2.711	0.2	3.33	0	81.4	13.1	150	0			
Pentachlorophenol	2.921	0.5	3.33	0	87.7	20.1	139	0			
Phenol	2.213	0.2	3.33	0	66.4	17.3	141	0			
Pyrene	1.288	0.2	1.67	0	77.1	29	131	0			
1,2,4-Trichlorobenzene	1.109	0.2	1.67	0	66.4	17.9	126	0			

Sample ID	LCSD-8570	Batch ID:	8570	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	8/22/2005	Prep Date	8/19/2005
Client ID:		Run ID:	ELMO_050822A	SeqNo:	391147						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.298	0.2	1.67	0	77.7	24	125	1.344	3.48	25	
4-Chloro-3-methylphenol	2.848	0.2	3.33	0	85.5	14.6	154	2.653	7.08	25	
2-Chlorophenol	2.318	0.2	3.33	0	69.6	13.3	149	2.177	6.29	25	
1,4-Dichlorobenzene	0.9963	0.2	1.67	0	59.7	23.6	118	0.9777	1.89	25	
2,4-Dinitrotoluene	1.337	0.2	1.67	0	80.1	28	136	1.402	4.70	25	
N-Nitrosodi-n-propylamine	1.11	0.2	1.67	0	66.5	28	114	1.068	3.83	25	
4-Nitrophenol	2.786	0.2	3.33	0	83.7	13.1	150	2.711	2.73	25	
Pentachlorophenol	3.056	0.5	3.33	0	91.8	20.1	139	2.921	4.53	25	
Phenol	2.304	0.2	3.33	0	69.2	17.3	141	2.213	4.06	25	
Pyrene	1.384	0.2	1.67	0	82.9	29	131	1.288	7.21	25	
1,2,4-Trichlorobenzene	1.145	0.2	1.67	0	68.5	17.9	126	1.109	3.17	25	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

8/19/2005

Work Order Number 0508234

Received by AMF

Checklist completed by

Signature

Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐ Not Shipped ☒
Custody seals intact on sample bottles?	Yes ☒	No ☐	N/A ☐
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time?	Yes ☒	No ☐	
VOA vials have zero headspace?	No VOA vials submitted ☒	Yes ☐	No ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒
Container/Temp Blank temperature?	6°	4° C ± 2 Acceptable If given sufficient time to cool.	

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

Client: Giant Refining
Company - Aniza
Address: Route 5 Box 7
Gallup, NM 87301

Phone #: 5057223833
Fax #: 5057220210

QA / QC Package:	
Std ☐	Level 4 ☐
Other: _____	
Project Name: <i>RR Rack Lagoon</i>	
<i>SE Wall Excavation</i>	
Project #:	
Project Manager:	
<i>Steve Morris</i>	
Sampler: <i>Steve Morris</i>	
Sample Temperature:	



**HALL ENVIRONMENTAL
ANALYSIS LABORATORY**
4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

[illegible][illegible]

Date: 12-05-1335	Time:	Relinquished By: (Signature) 	Received By: (Signature)  3/10/05 13:55
Date:	Time:	Relinquished By: (Signature)	Received By: (Signature)

Remarks: Rush! ASAP!

Appendix 4: Hall Environmental Laboratory Report- August 31, 2005

COVER LETTER

August 31, 2005

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: RR Rock Lagoon NW Add. Excav.

Order No.: 0508272

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 4 samples on 8/24/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.
Lab ID: 0508272-01

Client Sample ID: North Wall
Collection Date: 8/22/2005 1:00:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/29/2005 8:05:54 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/29/2005 8:05:54 AM
Surr: DNOP	86.2	60-124		%REC	1	8/29/2005 8:05:54 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/30/2005 6:08:35 PM
Surr: BFB	102	83.1-124		%REC	1	8/30/2005 6:08:35 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	8/30/2005 6:08:35 PM
Benzene	ND	0.025		mg/Kg	1	8/30/2005 6:08:35 PM
Toluene	ND	0.025		mg/Kg	1	8/30/2005 6:08:35 PM
Ethylbenzene	ND	0.025		mg/Kg	1	8/30/2005 6:08:35 PM
Xylenes, Total	ND	0.025		mg/Kg	1	8/30/2005 6:08:35 PM
Surr: 4-Bromofluorobenzene	99.0	87.5-115		%REC	1	8/30/2005 6:08:35 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/25/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/25/2005
Aniline	ND	0.20		mg/Kg	1	8/25/2005
Anthracene	ND	0.20		mg/Kg	1	8/25/2005
Azobenzene	ND	0.20		mg/Kg	1	8/25/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/25/2005
Benzidine	ND	0.20		mg/Kg	1	8/25/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/25/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/25/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/25/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/25/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/25/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/25/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/25/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/25/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
Carbazole	ND	0.20		mg/Kg	1	8/25/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/25/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: North Wall

Lab Order: 0508272

Collection Date: 8/22/2005 1:00:00 PM

Project: RR Rock Lagoon NW Add. Excav.

Lab ID: 0508272-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/25/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	8/25/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/25/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/25/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/25/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/25/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/25/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/25/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/25/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/25/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/25/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/25/2005
Fluorene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/25/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/25/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/25/2005
Isophorone	ND	0.20		mg/Kg	1	8/25/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/25/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/25/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/25/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/25/2005
Naphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/25/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/25/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/25/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/25/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/25/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/25/2005
Phenanthrene	ND	0.20		mg/Kg	1	8/25/2005
Phenol	ND	0.20		mg/Kg	1	8/25/2005
Pyrene	ND	0.20		mg/Kg	1	8/25/2005
Pyridine	ND	0.50		mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: North Wall

Lab Order: 0508272

Collection Date: 8/22/2005 1:00:00 PM

Project: RR Rock Lagoon NW Add. Excav.

Lab ID: 0508272-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
Surr: 2,4,6-Tribromophenol	92.9	35.5-141		%REC	1	8/25/2005
Surr: 2-Fluorobiphenyl	65.6	30.4-128		%REC	1	8/25/2005
Surr: 2-Fluorophenol	60.0	28.1-129		%REC	1	8/25/2005
Surr: 4-Terphenyl-d14	90.6	34.6-151		%REC	1	8/25/2005
Surr: Nitrobenzene-d5	64.4	26.5-122		%REC	1	8/25/2005
Surr: Phenol-d6	67.5	37.6-118		%REC	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
 Lab Order: 0508272
 Project: RR Rock Lagoon NW Add. Excav.
 Lab ID: 0508272-02

Client Sample ID: North BTM
 Collection Date: 8/22/2005 1:15:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	41	10		mg/Kg	1	8/29/2005 8:38:42 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/29/2005 8:38:42 AM
Surr: DNOP	72.4	60-124		%REC	1	8/29/2005 8:38:42 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/30/2005 6:40:19 PM
Surr: BFB	108	83.1-124		%REC	1	8/30/2005 6:40:19 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	8/30/2005 6:40:19 PM
Benzene	ND	0.025		mg/Kg	1	8/30/2005 6:40:19 PM
Toluene	ND	0.025		mg/Kg	1	8/30/2005 6:40:19 PM
Ethylbenzene	ND	0.025		mg/Kg	1	8/30/2005 6:40:19 PM
Xylenes, Total	ND	0.025		mg/Kg	1	8/30/2005 6:40:19 PM
Surr: 4-Bromofluorobenzene	102	87.5-115		%REC	1	8/30/2005 6:40:19 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/25/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/25/2005
Aniline	ND	0.20		mg/Kg	1	8/25/2005
Anthracene	ND	0.20		mg/Kg	1	8/25/2005
Azobenzene	ND	0.20		mg/Kg	1	8/25/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/25/2005
Benzidine	ND	0.20		mg/Kg	1	8/25/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/25/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/25/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/25/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/25/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/25/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/25/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/25/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/25/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
Carbazole	ND	0.20		mg/Kg	1	8/25/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/25/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.
Lab ID: 0508272-02

Client Sample ID: North BTM
Collection Date: 8/22/2005 1:15:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/25/2005
Di-n-butyl phthalate	0.37	0.25		mg/Kg	1	8/25/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/25/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/25/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/25/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/25/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/25/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/25/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/25/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/25/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/25/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/25/2005
Fluorene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/25/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/25/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/25/2005
Isophorone	ND	0.20		mg/Kg	1	8/25/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/25/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/25/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/25/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/25/2005
Naphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/25/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/25/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/25/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/25/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/25/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/25/2005
Phenanthrene	ND	0.20		mg/Kg	1	8/25/2005
Phenol	ND	0.20		mg/Kg	1	8/25/2005
Pyrene	ND	0.20		mg/Kg	1	8/25/2005
Pyridine	ND	0.50		mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: North BTM

Lab Order: 0508272

Collection Date: 8/22/2005 1:15:00 PM

Project: RR Rock Lagoon NW Add. Excav.

Lab ID: 0508272-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
Surr: 2,4,6-Tribromophenol	103	35.5-141		%REC	1	8/25/2005
Surr: 2-Fluorobiphenyl	70.4	30.4-128		%REC	1	8/25/2005
Surr: 2-Fluorophenol	66.5	28.1-129		%REC	1	8/25/2005
Surr: 4-Terphenyl-d14	92.6	34.6-151		%REC	1	8/25/2005
Surr: Nitrobenzene-d5	60.5	26.5-122		%REC	1	8/25/2005
Surr: Phenol-d6	66.1	37.6-118		%REC	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
 Lab Order: 0508272
 Project: RR Rock Lagoon NW Add. Excav.
 Lab ID: 0508272-03

Client Sample ID: South Wall
 Collection Date: 8/22/2005 1:30:00 PM
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/29/2005 9:11:30 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/29/2005 9:11:30 AM
Surr: DNOP	70.1	60-124		%REC	1	8/29/2005 9:11:30 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/30/2005 7:43:24 PM
Surr: BFB	97.7	83.1-124		%REC	1	8/30/2005 7:43:24 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	8/30/2005 7:43:24 PM
Benzene	ND	0.025		mg/Kg	1	8/30/2005 7:43:24 PM
Toluene	ND	0.025		mg/Kg	1	8/30/2005 7:43:24 PM
Ethylbenzene	ND	0.025		mg/Kg	1	8/30/2005 7:43:24 PM
Xylenes, Total	ND	0.025		mg/Kg	1	8/30/2005 7:43:24 PM
Surr: 4-Bromofluorobenzene	98.9	87.5-115		%REC	1	8/30/2005 7:43:24 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/25/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/25/2005
Aniline	ND	0.20		mg/Kg	1	8/25/2005
Anthracene	ND	0.20		mg/Kg	1	8/25/2005
Azobenzene	ND	0.20		mg/Kg	1	8/25/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/25/2005
Benzidine	ND	0.20		mg/Kg	1	8/25/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/25/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/25/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/25/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/25/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/25/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/25/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/25/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/25/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
Carbazole	ND	0.20		mg/Kg	1	8/25/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/25/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.
Lab ID: 0508272-03

Client Sample ID: South Wall
Collection Date: 8/22/2005 1:30:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/25/2005
Di-n-butyl phthalate	0.25	0.25		mg/Kg	1	8/25/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/25/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/25/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/25/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/25/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/25/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/25/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/25/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/25/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/25/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/25/2005
Fluorene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/25/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/25/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/25/2005
Isophorone	ND	0.20		mg/Kg	1	8/25/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/25/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/25/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/25/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/25/2005
Naphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/25/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/25/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/25/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/25/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/25/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/25/2005
Phenanthrene	ND	0.20		mg/Kg	1	8/25/2005
Phenol	ND	0.20		mg/Kg	1	8/25/2005
Pyrene	ND	0.20		mg/Kg	1	8/25/2005
Pyridine	ND	0.50		mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: South Wall

Lab Order: 0508272

Collection Date: 8/22/2005 1:30:00 PM

Project: RR Rock Lagoon NW Add. Excav.

Lab ID: 0508272-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
Surr: 2,4,6-Tribromophenol	96.6	35.5-141		%REC	1	8/25/2005
Surr: 2-Fluorobiphenyl	63.1	30.4-128		%REC	1	8/25/2005
Surr: 2-Fluorophenol	63.9	28.1-129		%REC	1	8/25/2005
Surr: 4-Terphenyl-d14	92.8	34.6-151		%REC	1	8/25/2005
Surr: Nitrobenzene-d5	65.8	26.5-122		%REC	1	8/25/2005
Surr: Phenol-d6	66.8	37.6-118		%REC	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.
Lab ID: 0508272-04

Client Sample ID: South BTM
Collection Date: 8/22/2005 1:45:00 PM
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/29/2005 10:17:43 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	8/29/2005 10:17:43 AM
Surr: DNOP	66.9	60-124		%REC	1	8/29/2005 10:17:43 AM
EPA METHOD 8015B: GASOLINE RANGE						Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/30/2005 8:14:49 PM
Surr: BFB	104	83.1-124		%REC	1	8/30/2005 8:14:49 PM
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Methyl tert-butyl ether (MTBE)	ND	0.10		mg/Kg	1	8/30/2005 8:14:49 PM
Benzene	ND	0.025		mg/Kg	1	8/30/2005 8:14:49 PM
Toluene	ND	0.025		mg/Kg	1	8/30/2005 8:14:49 PM
Ethylbenzene	ND	0.025		mg/Kg	1	8/30/2005 8:14:49 PM
Xylenes, Total	ND	0.025		mg/Kg	1	8/30/2005 8:14:49 PM
Surr: 4-Bromofluorobenzene	101	87.5-115		%REC	1	8/30/2005 8:14:49 PM
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	8/25/2005
Acenaphthylene	ND	0.20		mg/Kg	1	8/25/2005
Aniline	ND	0.20		mg/Kg	1	8/25/2005
Anthracene	ND	0.20		mg/Kg	1	8/25/2005
Azobenzene	ND	0.20		mg/Kg	1	8/25/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	8/25/2005
Benzidine	ND	0.20		mg/Kg	1	8/25/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	8/25/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	8/25/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	8/25/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	8/25/2005
Benzoic acid	ND	0.50		mg/Kg	1	8/25/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	8/25/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	8/25/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	8/25/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	8/25/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
Carbazole	ND	0.20		mg/Kg	1	8/25/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	8/25/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
Lab Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.
Lab ID: 0508272-04

Client Sample ID: South BTM
Collection Date: 8/22/2005 1:45:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Chrysene	ND	0.20		mg/Kg	1	8/25/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	8/25/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	8/25/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	8/25/2005
Dibenzofuran	ND	0.50		mg/Kg	1	8/25/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	8/25/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	8/25/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	8/25/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	8/25/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	8/25/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	8/25/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	8/25/2005
Fluoranthene	ND	0.20		mg/Kg	1	8/25/2005
Fluorene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	8/25/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	8/25/2005
Hexachloroethane	ND	0.50		mg/Kg	1	8/25/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	8/25/2005
Isophorone	ND	0.20		mg/Kg	1	8/25/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Methylphenol	ND	0.20		mg/Kg	1	8/25/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	8/25/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	8/25/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	8/25/2005
Naphthalene	ND	0.20		mg/Kg	1	8/25/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	8/25/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	8/25/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	8/25/2005
Nitrobenzene	ND	0.20		mg/Kg	1	8/25/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	8/25/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	8/25/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	8/25/2005
Phenanthrene	ND	0.20		mg/Kg	1	8/25/2005
Phenol	ND	0.20		mg/Kg	1	8/25/2005
Pyrene	ND	0.20		mg/Kg	1	8/25/2005
Pyridine	ND	0.50		mg/Kg	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co

Client Sample ID: South BTM

Lab Order: 0508272

Collection Date: 8/22/2005 1:45:00 PM

Project: RR Rock Lagoon NW Add. Excav.

Lab ID: 0508272-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	8/25/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	8/25/2005
Surr: 2,4,6-Tribromophenol	58.6	35.5-141		%REC	1	8/25/2005
Surr: 2-Fluorobiphenyl	36.3	30.4-128		%REC	1	8/25/2005
Surr: 2-Fluorophenol	39.3	28.1-129		%REC	1	8/25/2005
Surr: 4-Terphenyl-d14	77.3	34.6-151		%REC	1	8/25/2005
Surr: Nitrobenzene-d5	37.2	26.5-122		%REC	1	8/25/2005
Surr: Phenol-d6	38.6	37.6-118		%REC	1	8/25/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
Work Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8603	Batch ID:	8603	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/25/2005 4:13:11 PM	Prep Date	8/24/2005
Client ID:		Run ID:	FID(17A) 2_050824A	SeqNo:	392317						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	8.098	0	10	0	81.0	60	124	0			

Sample ID	mb-8607	Batch ID:	8607	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/30/2005 4:33:28 PM	Prep Date	8/24/2005
Client ID:		Run ID:	PIDFID_050830A	SeqNo:	393964						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5									
Surr: BFB	1012	0	1000	0	101	83.1	124	0			

Sample ID	mb-8607	Batch ID:	8607	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/30/2005 4:33:28 PM	Prep Date	8/24/2005
Client ID:		Run ID:	PIDFID_050830A	SeqNo:	393927						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.1									
Benzene	ND	0.025									
Toluene	ND	0.025									
Ethylbenzene	ND	0.025									
Xylenes, Total	ND	0.025									
Surr: 4-Bromofluorobenzene	0.9898	0	1	0	99.0	87.5	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8613	Batch ID:	8613	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	8/25/2005	Prep Date	8/24/2005
Client ID:		Run ID:	ELMO_050825A	SeqNo:	392429						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.2									
Acenaphthylene	ND	0.2									
Aniline	ND	0.2									
Anthracene	ND	0.2									
Azobenzene	ND	0.2									
Benz(a)anthracene	ND	0.25									
Benzidine	ND	0.2									
Benzo(a)pyrene	ND	0.2									
Benzo(b)fluoranthene	ND	0.2									
Benzo(g,h,i)perylene	ND	0.3									
Benzo(k)fluoranthene	ND	0.5									
Benzoic acid	ND	0.5									
Benzyl alcohol	ND	0.5									
Bis(2-chloroethoxy)methane	ND	0.5									
Bis(2-chloroethyl)ether	ND	0.25									
Bis(2-chloroisopropyl)ether	ND	0.5									
Bis(2-ethylhexyl)phthalate	0.07633	0.2									J
4-Bromophenyl phenyl ether	ND	0.25									
Butyl benzyl phthalate	ND	0.2									
Carbazole	ND	0.2									
4-Chloro-3-methylphenol	ND	0.2									
4-Chloroaniline	ND	0.2									
2-Chloronaphthalene	ND	0.2									
2-Chlorophenol	ND	0.2									
4-Chlorophenyl phenyl ether	ND	0.2									
Chrysene	ND	0.2									
Di-n-butyl phthalate	0.1017	0.25									J
Di-n-octyl phthalate	ND	0.5									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Method Blank

Dibenz(a,h)anthracene	ND	0.25
Dibenzofuran	ND	0.5
1,2-Dichlorobenzene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
3,3'-Dichlorobenzidine	ND	0.2
Diethyl phthalate	ND	0.2
Dimethyl phthalate	ND	0.2
2,4-Dichlorophenol	ND	0.2
2,4-Dimethylphenol	ND	0.2
4,6-Dinitro-2-methylphenol	ND	0.5
2,4-Dinitrophenol	ND	0.5
2,4-Dinitrotoluene	ND	0.2
2,6-Dinitrotoluene	ND	0.2
Fluoranthene	ND	0.2
Fluorene	ND	0.2
Hexachlorobenzene	ND	0.2
Hexachlorobutadiene	ND	0.2
Hexachlorocyclopentadiene	ND	0.25
Hexachloroethane	ND	0.5
Indeno(1,2,3-cd)pyrene	ND	0.2
Isophorone	ND	0.2
2-Methylnaphthalene	ND	0.2
2-Methylphenol	ND	0.2
3+4-Methylphenol	ND	0.2
N-Nitrosodi-n-propylamine	ND	0.2
N-Nitrosodiphenylamine	ND	0.2
Naphthalene	ND	0.2
2-Nitroaniline	ND	0.5
3-Nitroaniline	ND	0.5
4-Nitroaniline	ND	0.25
Nitrobenzene	ND	0.2
2-Nitrophenol	ND	0.2

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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CLIENT: Giant Refining Co
Work Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Method Blank

4-Nitrophenol	ND	0.2							
Pentachlorophenol	ND	0.5							
Phenanthrene	ND	0.2							
Phenol	ND	0.2							
Pyrene	ND	0.2							
Pyridine	ND	0.5							
1,2,4-Trichlorobenzene	ND	0.2							
2,4,5-Trichlorophenol	ND	0.2							
2,4,6-Trichlorophenol	ND	0.2							
Surr: 2,4,6-Tribromophenol	3.006	0	3.33	0	90.3	35.5	141	0	
Surr: 2-Fluorobiphenyl	1.251	0	1.67	0	74.9	30.4	128	0	
Surr: 2-Fluorophenol	2.686	0	3.33	0	80.7	28.1	129	0	
Surr: 4-Terphenyl-d14	1.586	0	1.67	0	95.0	34.6	151	0	
Surr: Nitrobenzene-d5	1.45	0	1.67	0	86.8	26.5	122	0	
Surr: Phenol-d6	2.784	0	3.33	0	83.6	37.6	118	0	

16/21

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
Work Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0508272-01a ms	Batch ID:	8607	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/30/2005 8:46:18 PM	Prep Date	8/24/2005
Client ID:	North Wall	Run ID:	PIDFID_050830A	SeqNo:	393971						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25.26	5	25	0	101	84	120	0			
Surr: BFB	1065	0	1000	0	106	83.1	124	0			

Sample ID	0508272-01a msd	Batch ID:	8607	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	8/30/2005 9:17:21 PM	Prep Date	8/24/2005
Client ID:	North Wall	Run ID:	PIDFID_050830A	SeqNo:	393972						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23.88	5	25	0	95.5	84	120	25.26	5.62	11.6	
Surr: BFB	1096	0	1000	0	110	83.1	124	1065	2.86	0	

Sample ID	0508272-01a ms	Batch ID:	8607	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/30/2005 8:46:18 PM	Prep Date	8/24/2005
Client ID:	North Wall	Run ID:	PIDFID_050830A	SeqNo:	393939						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.746	0.1	2	0	87.3	65	132	0			
Benzene	0.4063	0.025	0.42	0	96.7	85.6	116	0			
Toluene	2.051	0.025	1.9	0	108	82.4	120	0			
Ethylbenzene	0.4099	0.025	0.41	0	100	86.4	111	0			
Xylenes, Total	2.026	0.025	1.9	0	107	78.4	125	0			
Surr: 4-Bromofluorobenzene	1.062	0	1	0	106	87.5	115	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Sample Matrix Spike Duplicate

Sample ID	0508272-01a msd	Batch ID:	8607	Test Code:	SW8021	Units:	mg/Kg	Analysis Date	8/30/2005 9:17:21 PM	Prep Date	8/24/2005
Client ID:	North Wall	Run ID:	PIDFID_050830A	SeqNo:	393940						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.697	0.1	2	0	84.8	65	132	1.746	2.86	28	
Benzene	0.4188	0.025	0.42	0	99.7	85.6	116	0.4063	3.03	27	
Toluene	2.091	0.025	1.9	0	110	82.4	120	2.051	1.94	19	
Ethylbenzene	0.4074	0.025	0.41	0	99.4	86.4	111	0.4099	0.622	10	
Xylenes, Total	2.044	0.025	1.9	0	108	78.4	125	2.026	0.923	13	
Surr: 4-Bromofluorobenzene	1.053	0	1	0	105	87.5	115	1.062	0.816	0	

18/21

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory

Date: 31-Aug-05

CLIENT: Giant Refining Co
 Work Order: 0508272
 Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8603	Batch ID: 8603	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/25/2005 5:19:21 PM	Prep Date	8/24/2005			
Client ID:			Run ID:	FID(17A) 2_050824A	SeqNo:	392318					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43.03	10	50	0	86.1	67.4	117	0			

Sample ID	LCSD-8603	Batch ID: 8603	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/26/2005 7:29:18 AM	Prep Date	8/24/2005			
Client ID:		Run ID:	FID(17A) 2_050824A		SeqNo:	392319					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	38.09	10	50	0	76.2	67.4	117	43.03	12.2	17.4	

Sample ID	Ics-8607	Batch ID: 8607	Test Code: SW8015	Units: mg/Kg	Analysis Date	8/30/2005 5:05:02 PM	Prep Date	8/24/2005			
Client ID:			Run ID:	PIDFID_050830A	SeqNo:	393965					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26.86	5	25	0	107	84	120	0			

Sample ID	Ics-8607	Batch ID: 8607	Test Code: SW8021	Units: mg/Kg	Analysis Date	8/30/2005 5:05:02 PM	Prep Date	8/24/2005			
Client ID:		Run ID:	PIDFID_050830A		SeqNo:	393929					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.737	0.1	2	0	86.8	65	132	0			
Benzene	0.4379	0.025	0.42	0	104	85.6	116	0			
Toluene	2.211	0.025	1.9	0	116	82.4	120	0			
Ethylbenzene	0.43	0.025	0.41	0	105	86.4	111	0			
Xylenes, Total	2.147	0.025	1.9	0	113	78.4	125	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508272
Project: RR Rock Lagoon NW Add. Excav.

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LC8-8613	Batch ID:	8613	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	8/25/2005	Prep Date	8/24/2005
Client ID:		Run ID:	ELMO_050825A	SeqNo:	392430						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.268	0.2	1.67	0	75.9	24	125	0			
4-Chloro-3-methylphenol	2.687	0.2	3.33	0	80.7	14.6	154	0			
2-Chlorophenol	2.195	0.2	3.33	0	65.9	13.3	149	0			
1,4-Dichlorobenzene	0.987	0.2	1.67	0	59.1	23.6	118	0			
2,4-Dinitrotoluene	1.288	0.2	1.67	0	77.1	28	136	0			
N-Nitrosodi-n-propylamine	1.043	0.2	1.67	0	62.5	28	114	0			
4-Nitrophenol	2.444	0.2	3.33	0	73.4	13.1	150	0			
Pentachlorophenol	3.074	0.5	3.33	0	92.3	20.1	139	0			
Phenol	2.247	0.2	3.33	0	67.5	17.3	141	0			
Pyrene	1.315	0.2	1.67	0	78.7	29	131	0			
1,2,4-Trichlorobenzene	1.15	0.2	1.67	0	68.8	17.9	126	0			

Sample ID	LCSD-8613	Batch ID:	8613	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	8/25/2005	Prep Date	8/24/2005
Client ID:		Run ID:	ELMO_050825A	SeqNo:	392431						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.272	0.2	1.67	0	76.2	24	125	1.268	0.341	25	
4-Chloro-3-methylphenol	2.474	0.2	3.33	0	74.3	14.6	154	2.687	8.28	25	
2-Chlorophenol	2.253	0.2	3.33	0	67.7	13.3	149	2.195	2.61	25	
1,4-Dichlorobenzene	0.922	0.2	1.67	0	55.2	23.6	118	0.987	6.81	25	
2,4-Dinitrotoluene	1.237	0.2	1.67	0	74.1	28	136	1.288	4.07	25	
N-Nitrosodi-n-propylamine	1.011	0.2	1.67	0	60.5	28	114	1.043	3.15	25	
4-Nitrophenol	2.316	0.2	3.33	0	69.6	13.1	150	2.444	5.36	25	
Pentachlorophenol	2.941	0.5	3.33	0	88.3	20.1	139	3.074	4.44	25	
Phenol	2.271	0.2	3.33	0	68.2	17.3	141	2.247	1.08	25	
Pyrene	1.243	0.2	1.67	0	74.4	29	131	1.315	5.63	25	
1,2,4-Trichlorobenzene	1.08	0.2	1.67	0	64.7	17.9	126	1.15	6.28	25	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

8/24/2005

Work Order Number 0508272

Received by AT

Checklist completed by

[Signature]

8-24-05

Signature

Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☐

Not Shipped ☒

Custody seals intact on sample bottles?

Yes ☒

No ☐

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

- VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

6°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

rective Action

Client: Giant Refining
Company - Ciniza
Address: Route 3 Box 7
Gallup, NM 87301

Phone #: 505 722 3833
Fax #: 505 722 0210

Std ☐ Level 4 ☒

Other:

Project Name: RR Rock Lagoon
NW Additional Excavation

Project #:

Project Manager:

Sampler: Steve Harris

Sample Temperature: 6 °C



4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

[illegible][illegible]

Date: 8/24/05	Time: 0900	Relinquished By: (Signature) <i>Steve Morris</i>
Date:	Time:	Relinquished By: (Signature)

Received By: (Signature) *[Signature]* 8/24/05
Received By: (Signature) *[Signature]* 0900

Remarks: *Rush*

Appendix 5: Hall Environmental Laboratory Report- September 2, 2005

COVER LETTER

September 02, 2005

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: RR Rack Lagoon Concrete Pipe TCLP

Order No.: 0508273

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 1 sample on 8/24/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,


Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 02-Sep-05

CLIENT: Giant Refining Co
Lab Order: 0508273
Project: RR Rack Lagoon Concrete Pipe TCLP
Lab ID: 0508273-01

Client Sample ID: Concrete Pipe
Collection Date: 8/22/2005 2:00:00 PM
Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
VOLATILES, TCLP LEACHED						Analyst: KTM
Benzene	ND	0.50		mg/L	1	8/29/2005
2-Butanone	ND	200		mg/L	1	8/29/2005
Carbon Tetrachloride	ND	0.50		mg/L	1	8/29/2005
Chlorobenzene	ND	100		mg/L	1	8/29/2005
Chloroform	ND	6.0		mg/L	1	8/29/2005
1,4-Dichlorobenzene	ND	7.5		mg/L	1	8/29/2005
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	8/29/2005
1,1-Dichloroethene	ND	0.70		mg/L	1	8/29/2005
Hexachlorobutadiene	ND	0.50		mg/L	1	8/29/2005
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	8/29/2005
Trichloroethene (TCE)	ND	0.50		mg/L	1	8/29/2005
Vinyl chloride	ND	0.20		mg/L	1	8/29/2005
Surr: 1,2-Dichloroethane-d4	95.2	75.8-124		%REC	1	8/29/2005
Surr: 4-Bromofluorobenzene	108	84.5-121		%REC	1	8/29/2005
Surr: Dibromofluoromethane	97.2	79.9-120		%REC	1	8/29/2005
Surr: Toluene-d8	94.8	83.1-121		%REC	1	8/29/2005
MERCURY, TCLP LEACHED						Analyst: CMC
Mercury	ND	0.020		mg/L	1	9/1/2005
EPA METHOD 6010C: TCLP METALS						Analyst: NMO
Arsenic	ND	5.0		mg/L	1	9/2/2005 10:01:03 AM
Barium	ND	100		mg/L	1	9/2/2005 10:01:03 AM
Cadmium	ND	1.0		mg/L	1	9/2/2005 10:01:03 AM
Chromium	ND	5.0		mg/L	1	9/2/2005 10:01:03 AM
Lead	ND	5.0		mg/L	1	9/2/2005 10:01:03 AM
Selenium	ND	1.0		mg/L	1	9/2/2005 11:36:33 AM
Silver	ND	5.0		mg/L	1	9/2/2005 10:01:03 AM

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 02-Sep-05

CLIENT: Giant Refining Co
 Work Order: 0508273
 Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8623	Batch ID: 8623	Test Code: SW8260B	Units: mg/L	Analysis Date	8/29/2005	Prep Date	8/25/2005			
Client ID:		Run ID:	NEPTUNE_050829A		SeqNo:	393367					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
2-Butanone	ND	200									
Carbon Tetrachloride	ND	0.5									
Chlorobenzene	ND	100									
Chloroform	ND	6									
1,4-Dichlorobenzene	ND	7.5									
1,2-Dichloroethane (EDC)	ND	0.5									
1,1-Dichloroethene	ND	0.7									
Hexachlorobutadiene	ND	0.5									
Tetrachloroethene (PCE)	ND	0.7									
Trichloroethene (TCE)	ND	0.5									
Vinyl chloride	ND	0.2									
Surr: 1,2-Dichloroethane-d4	0.00894	0	0.01	0	89.4	75.8	124	0			
Surr: 4-Bromofluorobenzene	0.0105	0	0.01	0	105	84.5	121	0			
Surr: Dibromofluoromethane	0.009402	0	0.01	0	94.0	79.9	120	0			
Surr: Toluene-d8	0.00993	0	0.01	0	99.3	83.1	121	0			

Sample ID	MB-8666	Batch ID:	8666	Test Code:	SW7470	Units:	mg/L	Analysis Date	9/1/2005	Prep Date	9/1/2005	
Client ID:		Run ID:	MI-LA254_050901A	SeqNo:	394830							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury		ND	0.02									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
Work Order: 0508273
Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT
 Method Blank

Sample ID	MB-8663	Batch ID:	8663	Test Code:	SW1311/6010	Units:	mg/L	Analysis Date	9/2/2005 9:41:04 AM	Prep Date	9/1/2005	
Client ID:		Run ID:	ICP_050902B	SeqNo:	394872							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic		ND	5									
Barium		ND	100									
Cadmium		ND	1									
Chromium		ND	5									
Lead		ND	5									
Silver		ND	5									

Sample ID	MB-8663	Batch ID:	8663	Test Code:	SW1311/6010	Units:	mg/L	Analysis Date	9/2/2005 11:23:01 AM	Prep Date	9/1/2005	
Client ID:		Run ID:	ICP_050902B	SeqNo:	395130							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium		ND	1									

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory

Date: 02-Sep-05

CLIENT: Giant Refining Co
Work Order: 0508273
Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT

Sample Duplicate

Sample ID	0508273-01B DUP	Batch ID:	8666	Test Code:	SW7470	Units:	mg/L	Analysis Date	9/1/2005	Prep Date	9/1/2005
Client ID:	Concrete Pipe	Run ID:	MI-LA254_050901A	SeqNo:	394833						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.02	0	0	0	0	0	0	0	20	

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Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory

Date: 02-Sep-05

CLIENT: Giant Refining Co
Work Order: 0508273
Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID	0508273-01B MS	Batch ID:	8666	Test Code:	SW7470	Units:	mg/L	Analysis Date	9/1/2005	Prep Date	9/1/2005
Client ID:	Concrete Pipe	Run ID:	MI-LA254_050901A	SeqNo:	394834						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004774	0.002	0.005	0	95.5	75	125	0			

Sample ID	0508273-01B MSD	Batch ID:	8666	Test Code:	SW7470	Units:	mg/L	Analysis Date	9/1/2005	Prep Date	9/1/2005
Client ID:	Concrete Pipe	Run ID:	MI-LA254_050901A	SeqNo:	394835						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004905	0.002	0.005	0	98.1	75	125	0.004774	2.71	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 02-Sep-05

CLIENT: Giant Refining Co
 Work Order: 0508273
 Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8666	Batch ID: 8666	Test Code: SW7470	Units: mg/L	Analysis Date	9/1/2005	Prep Date	9/1/2005			
Client ID:			Run ID: MI-LA254_050901A		SeqNo:	394831					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004336	0.002	0.005	0	86.7	80	120	0			

Sample ID	LCSD-8666	Batch ID: 8666	Test Code: SW7470	Units: mg/L	Analysis Date 9/1/2005				Prep Date 9/1/2005		
Client ID:			Run ID: MI-LA254_050901A		SeqNo: 394836						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.004353	0.002	0.005	0	87.1	80	120	0.004336	0.380	20	

Sample ID	LCS-8663	Batch ID: 8663	Test Code: SW1311/6010	Units: mg/L	Analysis Date	9/2/2005 9:44:10 AM	Prep Date	9/1/2005			
Client ID:			Run ID: ICP_050902B		SeqNo:	394973					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5852	0.2	0.5	0	117	80	120	0			
Barium	0.4917	0.2	0.5	0	98.3	80	120	0			
Cadmium	0.5218	0.2	0.5	0	104	80	120	0			
Chromium	0.4953	0.2	0.5	0	99.1	80	120	0			
Lead	0.5058	0.2	0.5	0	101	80	120	0			
Silver	0.5261	0.2	0.5	0	105	80	120	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
 Work Order: 0508273
 Project: RR Rack Lagoon Concrete Pipe TCLP

QC SUMMARY REPORT

Laboratory Control Spike Duplicate

Sample ID	LCSD-8663	Batch ID: 8663	Test Code: SW1311/6010			Units: mg/L	Analysis Date 9/2/2005 9:48:26 AM			Prep Date 9/1/2005	
Client ID:			Run ID: ICP_050902B				SeqNo: 394974				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.5508	0.2	0.5	0	110	80	120	0.5852	6.04	20	
Barium	0.4784	0.2	0.5	0	95.7	80	120	0.4917	2.75	20	
Cadmium	0.4979	0.2	0.5	0	99.6	80	120	0.5218	4.70	20	
Chromium	0.4728	0.2	0.5	0	94.6	80	120	0.4953	4.66	20	
Lead	0.4835	0.2	0.5	0	96.7	80	120	0.5058	4.50	20	
Silver	0.5127	0.2	0.5	0	103	80	120	0.5261	2.57	20	

Sample ID	LCS-8663	Batch ID: 8663	Test Code: SW1311/6010	Units: mg/L	Analysis Date	9/2/2005 11:25:32 AM	Prep Date	9/1/2005			
Client ID:		Run ID: ICP_050902B			SeqNo:	395131					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.4209	0.2	0.5	0	84.2	80	120	0			

Sample ID	LCSD-8663	Batch ID: 8663	Test Code: SW1311/6010	Units: mg/L	Analysis Date	9/2/2005 11:31:06 AM	Prep Date				
Client ID:		Run ID: ICP_050902B			SeqNo:	395133					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.4242	0.2	0.5	0	84.8	80	120	0.4209	0.762	20	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

8/24/2005

Work Order Number 0508273

Received by AT

Checklist completed by

[Signature]

8-24-05

Signature

Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☐

Not Shipped ☒

Custody seals intact on sample bottles?

Yes ☐

No ☐

N/A ☒

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

6°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

Client: Giant Refining
Company - Aniso
Address: Route 3 Box 7
Fallup, NM 87391

Phone #: 505 722 9833
Fax #: 505 722 0210

Std ☐ Level 4 ☐

Other:

Project Name: *RR Rack Lagoon*
Concrete Pipe TCLP

Project #:

Project Manager:

Sampler: Steve Morris

Sample Temperature: 60°C

[illegible]

Date: 8/24/05	Time: 0900	Relinquished By: (Signature) <i>[Signature]</i>
---------------	------------	---

Date:	Time:	Relinquished By: (Signature)
-------	-------	------------------------------

Received By: (Signature)  8/24/05

Received By: (Signature)

0900



4901 Hawkins NE, Suite D
Albuquerque, New Mexico 87109
Tel. 505.345.3975 Fax 505.345.4107
www.hallenvironmental.com

ANALYSIS REQUEST

[illegible]

Appendix 6: Hall Environmental Laboratory Report- September 7, 2005



COVER LETTER

September 07, 2005

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: RR Rock Lagoon Add. Exc. 8-30-05

Order No.: 0508346

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 10 samples on 8/31/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co
Project: RR Rock Lagoon Add. Exc. 8-30-05
Lab Order: 0508346

CASE NARRATIVE

"S" flags denote that the surrogate was not recoverable due to sample dilution or matrix interferences.

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT:	Giant Refining Co	Client Sample ID:	RR-1-83005
Lab Order:	0508346	Collection Date:	8/30/2005 7:15:00 AM
Project:	RR Rock Lagoon Add. Exc. 8-30-05		
Lab ID:	0508346-01	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	640	10		mg/Kg	1	9/2/2005 2:55:36 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/2/2005 2:55:36 AM
Surr: DNOP	93.8	60-124		%REC	1	9/2/2005 2:55:36 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Benzene	ND	0.050		mg/Kg	1	9/4/2005
Toluene	ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/4/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	102	72.9-143		%REC	1	9/4/2005
Surr: Dibromofluoromethane	103	85.2-118		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	0.56	0.20		mg/Kg	1	9/4/2005
Acenaphthylene	ND	0.20		mg/Kg	1	9/4/2005
Aniline	ND	0.20		mg/Kg	1	9/4/2005
Anthracene	ND	0.20		mg/Kg	1	9/4/2005
Azobenzene	ND	0.20		mg/Kg	1	9/4/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Benzidine	ND	0.20		mg/Kg	1	9/4/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	9/4/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	9/4/2005
Benzoic acid	ND	0.50		mg/Kg	1	9/4/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	9/4/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	9/4/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	9/4/2005
Chrysene	ND	0.20		mg/Kg	1	9/4/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-1-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:15:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Dibenzofuran	ND	0.50		mg/Kg	1	9/4/2005
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Fluorene	0.91	0.20		mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50		mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Isophorone	ND	0.20		mg/Kg	1	9/4/2005
2-Methylnaphthalene	7.9	1.0		mg/Kg	5	9/6/2005
2-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	9/4/2005
Naphthalene	1.0	0.20		mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	9/4/2005
Phenanthrene	3.8	0.20		mg/Kg	1	9/4/2005
Phenol	ND	0.20		mg/Kg	1	9/4/2005
Pyrene	ND	0.20		mg/Kg	1	9/4/2005
Pyridine	ND	0.50		mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
Surr: 2,4,6-Tribromophenol	98.3	35.5-141		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-1-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:15:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-01

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluorobiphenyl	107	30.4-128		%REC	1	9/4/2005
Surr: 2-Fluorophenol	76.7	28.1-129		%REC	1	9/4/2005
Surr: 4-Terphenyl-d14	78.3	34.6-151		%REC	1	9/4/2005
Surr: Nitrobenzene-d5	78.3	26.5-122		%REC	1	9/4/2005
Surr: Phenol-d6	84.5	37.6-118		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co Client Sample ID: RR-2-83005
 Lab Order: 0508346 Collection Date: 8/30/2005 7:30:00 AM
 Project: RR Rock Lagoon Add. Exc. 8-30-05
 Lab ID: 0508346-02 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	1900	100		mg/Kg	10	9/3/2005 12:54:13 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	9/3/2005 12:54:13 AM
Surr: DNOP	105	60-124		%REC	10	9/3/2005 12:54:13 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Benzene	ND	0.050		mg/Kg	1	9/4/2005
Toluene	ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/4/2005
Xylenes, Total	0.41	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	126	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	9/4/2005
Acenaphthylene	ND	0.20		mg/Kg	1	9/4/2005
Aniline	ND	0.20		mg/Kg	1	9/4/2005
Anthracene	ND	0.20		mg/Kg	1	9/4/2005
Azobenzene	ND	0.20		mg/Kg	1	9/4/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Benzidine	ND	0.20		mg/Kg	1	9/4/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	9/4/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	9/4/2005
Benzoic acid	ND	0.50		mg/Kg	1	9/4/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	9/4/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	9/4/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	9/4/2005
Chrysene	ND	0.20		mg/Kg	1	9/4/2005
Di-n-butyl phthalate	0.26	0.25	B	mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran	ND	0.50		mg/Kg	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-2-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:30:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dimethylphenol	0.22	0.20		mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Fluorene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50		mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Isophorone	ND	0.20		mg/Kg	1	9/4/2005
2-Methylnaphthalene	2.2	0.20		mg/Kg	1	9/4/2005
2-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	9/4/2005
Naphthalene	2.2	0.20		mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	9/4/2005
Phenanthrene	1.3	0.20		mg/Kg	1	9/4/2005
Phenol	ND	0.20		mg/Kg	1	9/4/2005
Pyrene	ND	0.20		mg/Kg	1	9/4/2005
Pyridine	ND	0.50		mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
Surr: 2,4,6-Tribromophenol	91.1	35.5-141		%REC	1	9/4/2005
Surr: 2-Fluorobiphenyl	94.2	30.4-128		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-2-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:30:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-02

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluorophenol	78.2	28.1-129		%REC	1	9/4/2005
Surr: 4-Terphenyl-d14	85.0	34.6-151		%REC	1	9/4/2005
Surr: Nitrobenzene-d5	82.8	26.5-122		%REC	1	9/4/2005
Surr: Phenol-d6	89.6	37.6-118		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-3-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:40:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	2900	100		mg/Kg	10	9/3/2005 1:27:00 AM
Motor Oil Range Organics (MRO)	ND	500		mg/Kg	10	9/3/2005 1:27:00 AM
Surr: DNOP	122	60-124		%REC	10	9/3/2005 1:27:00 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Benzene	ND	0.050		mg/Kg	1	9/4/2005
Toluene	ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/4/2005
Xylenes, Total	2.8	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	97.2	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	2.0		mg/Kg	10	9/4/2005
Acenaphthylene	ND	2.0		mg/Kg	10	9/4/2005
Aniline	ND	2.0		mg/Kg	10	9/4/2005
Anthracene	ND	2.0		mg/Kg	10	9/4/2005
Azobenzene	ND	2.0		mg/Kg	10	9/4/2005
Benz(a)anthracene	ND	2.5		mg/Kg	10	9/4/2005
Benzidine	ND	2.0		mg/Kg	10	9/4/2005
Benzo(a)pyrene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(b)fluoranthene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(g,h,i)perylene	ND	3.0		mg/Kg	10	9/4/2005
Benzo(k)fluoranthene	ND	5.0		mg/Kg	10	9/4/2005
Benzoic acid	ND	5.0		mg/Kg	10	9/4/2005
Benzyl alcohol	ND	5.0		mg/Kg	10	9/4/2005
Bis(2-chloroethoxy)methane	ND	5.0		mg/Kg	10	9/4/2005
Bis(2-chloroethyl)ether	ND	2.5		mg/Kg	10	9/4/2005
Bis(2-chloroisopropyl)ether	ND	5.0		mg/Kg	10	9/4/2005
Bis(2-ethylhexyl)phthalate	ND	2.0		mg/Kg	10	9/4/2005
4-Bromophenyl phenyl ether	ND	2.5		mg/Kg	10	9/4/2005
Butyl benzyl phthalate	ND	2.0		mg/Kg	10	9/4/2005
Carbazole	ND	2.0		mg/Kg	10	9/4/2005
4-Chloro-3-methylphenol	ND	2.0		mg/Kg	10	9/4/2005
4-Chloroaniline	ND	2.0		mg/Kg	10	9/4/2005
2-Chloronaphthalene	ND	2.0		mg/Kg	10	9/4/2005
2-Chlorophenol	ND	2.0		mg/Kg	10	9/4/2005
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	10	9/4/2005
Chrysene	ND	2.0		mg/Kg	10	9/4/2005
Di-n-butyl phthalate	ND	2.5		mg/Kg	10	9/4/2005
Di-n-octyl phthalate	ND	5.0		mg/Kg	10	9/4/2005
Dibenz(a,h)anthracene	ND	2.5		mg/Kg	10	9/4/2005
Dibenzofuran	ND	5.0		mg/Kg	10	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-3-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:40:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
1,3-Dichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
1,4-Dichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
3,3'-Dichlorobenzidine	ND	2.0		mg/Kg	10	9/4/2005
Diethyl phthalate	ND	2.0		mg/Kg	10	9/4/2005
Dimethyl phthalate	ND	2.0		mg/Kg	10	9/4/2005
2,4-Dichlorophenol	ND	2.0		mg/Kg	10	9/4/2005
2,4-Dimethylphenol	ND	2.0		mg/Kg	10	9/4/2005
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	10	9/4/2005
2,4-Dinitrophenol	ND	5.0		mg/Kg	10	9/4/2005
2,4-Dinitrotoluene	ND	2.0		mg/Kg	10	9/4/2005
2,6-Dinitrotoluene	ND	2.0		mg/Kg	10	9/4/2005
Fluoranthene	ND	2.0		mg/Kg	10	9/4/2005
Fluorene	ND	2.0		mg/Kg	10	9/4/2005
Hexachlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
Hexachlorobutadiene	ND	2.0		mg/Kg	10	9/4/2005
Hexachlorocyclopentadiene	ND	2.5		mg/Kg	10	9/4/2005
Hexachloroethane	ND	5.0		mg/Kg	10	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	10	9/4/2005
Isophorone	ND	2.0		mg/Kg	10	9/4/2005
2-Methylnaphthalene	11	2.0		mg/Kg	10	9/4/2005
2-Methylphenol	ND	2.0		mg/Kg	10	9/4/2005
3+4-Methylphenol	ND	2.0		mg/Kg	10	9/4/2005
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	10	9/4/2005
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	10	9/4/2005
Naphthalene	2.6	2.0		mg/Kg	10	9/4/2005
2-Nitroaniline	ND	5.0		mg/Kg	10	9/4/2005
3-Nitroaniline	ND	5.0		mg/Kg	10	9/4/2005
4-Nitroaniline	ND	2.5		mg/Kg	10	9/4/2005
Nitrobenzene	ND	2.0		mg/Kg	10	9/4/2005
2-Nitrophenol	ND	2.0		mg/Kg	10	9/4/2005
4-Nitrophenol	ND	2.0		mg/Kg	10	9/4/2005
Pentachlorophenol	ND	5.0		mg/Kg	10	9/4/2005
Phenanthrene	4.5	2.0		mg/Kg	10	9/4/2005
Phenol	ND	2.0		mg/Kg	10	9/4/2005
Pyrene	ND	2.0		mg/Kg	10	9/4/2005
Pyridine	ND	5.0		mg/Kg	10	9/4/2005
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	10	9/4/2005
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	10	9/4/2005
Surr. 2,4,6-Tribromophenol	113	35.5-141		%REC	10	9/4/2005
Surr. 2-Fluorobiphenyl	83.6	30.4-128		%REC	10	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-3-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:40:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr. 2-Fluorophenol	70.0	28.1-129		%REC	10	9/4/2005
Surr. 4-Terphenyl-d14	80.6	34.6-151		%REC	10	9/4/2005
Surr. Nitrobenzene-d5	78.4	26.5-122		%REC	10	9/4/2005
Surr. Phenol-d6	66.8	37.6-118		%REC	10	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT:	Giant Refining Co	Client Sample ID:	RR-4-83005
Lab Order:	0508346	Collection Date:	8/30/2005 7:50:00 AM
Project:	RR Rock Lagoon Add. Exc. 8-30-05		
Lab ID:	0508346-04	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	4000	200		mg/Kg	20	9/3/2005 1:59:51 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	9/3/2005 1:59:51 AM
Surr: DNOP	0	60-124	S	%REC	20	9/3/2005 1:59:51 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Benzene	ND	0.050		mg/Kg	1	9/4/2005
Toluene	ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene	0.38	0.050		mg/Kg	1	9/4/2005
Xylenes, Total	4.1	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	121	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	2.0		mg/Kg	10	9/4/2005
Acenaphthylene	ND	2.0		mg/Kg	10	9/4/2005
Aniline	ND	2.0		mg/Kg	10	9/4/2005
Anthracene	ND	2.0		mg/Kg	10	9/4/2005
Azobenzene	ND	2.0		mg/Kg	10	9/4/2005
Benz(a)anthracene	ND	2.5		mg/Kg	10	9/4/2005
Benzidine	ND	2.0		mg/Kg	10	9/4/2005
Benzo(a)pyrene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(b)fluoranthene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(g,h,i)perylene	ND	3.0		mg/Kg	10	9/4/2005
Benzo(k)fluoranthene	ND	5.0		mg/Kg	10	9/4/2005
Benzoic acid	ND	5.0		mg/Kg	10	9/4/2005
Benzyl alcohol	ND	5.0		mg/Kg	10	9/4/2005
Bis(2-chloroethoxy)methane	ND	5.0		mg/Kg	10	9/4/2005
Bis(2-chloroethyl)ether	ND	2.5		mg/Kg	10	9/4/2005
Bis(2-chloroisopropyl)ether	ND	5.0		mg/Kg	10	9/4/2005
Bis(2-ethylhexyl)phthalate	ND	2.0		mg/Kg	10	9/4/2005
4-Bromophenyl phenyl ether	ND	2.5		mg/Kg	10	9/4/2005
Butyl benzyl phthalate	ND	2.0		mg/Kg	10	9/4/2005
Carbazole	ND	2.0		mg/Kg	10	9/4/2005
4-Chloro-3-methylphenol	ND	2.0		mg/Kg	10	9/4/2005
4-Chloroaniline	ND	2.0		mg/Kg	10	9/4/2005
2-Chloronaphthalene	ND	2.0		mg/Kg	10	9/4/2005
2-Chlorophenol	ND	2.0		mg/Kg	10	9/4/2005
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	10	9/4/2005
Chrysene	ND	2.0		mg/Kg	10	9/4/2005
Di-n-butyl phthalate	ND	2.5		mg/Kg	10	9/4/2005
Di-n-octyl phthalate	ND	5.0		mg/Kg	10	9/4/2005
Dibenz(a,h)anthracene	ND	2.5		mg/Kg	10	9/4/2005
Dibenzofuran	ND	5.0		mg/Kg	10	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-4-83005

Lab Order: 0508346

Collection Date: 8/30/2005 7:50:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-04

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
1,3-Dichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
1,4-Dichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
3,3'-Dichlorobenzidine	ND	2.0		mg/Kg	10	9/4/2005
Diethyl phthalate	ND	2.0		mg/Kg	10	9/4/2005
Dimethyl phthalate	ND	2.0		mg/Kg	10	9/4/2005
2,4-Dichlorophenol	ND	2.0		mg/Kg	10	9/4/2005
2,4-Dimethylphenol	ND	2.0		mg/Kg	10	9/4/2005
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	10	9/4/2005
2,4-Dinitrophenol	ND	5.0		mg/Kg	10	9/4/2005
2,4-Dinitrotoluene	ND	2.0		mg/Kg	10	9/4/2005
2,6-Dinitrotoluene	ND	2.0		mg/Kg	10	9/4/2005
Fluoranthene	ND	2.0		mg/Kg	10	9/4/2005
Fluorene	3.2	2.0		mg/Kg	10	9/4/2005
Hexachlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
Hexachlorobutadiene	ND	2.0		mg/Kg	10	9/4/2005
Hexachlorocyclopentadiene	ND	2.5		mg/Kg	10	9/4/2005
Hexachloroethane	ND	5.0		mg/Kg	10	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	10	9/4/2005
Isophorone	ND	2.0		mg/Kg	10	9/4/2005
2-Methylnaphthalene	20	2.0		mg/Kg	10	9/4/2005
2-Methylphenol	ND	2.0		mg/Kg	10	9/4/2005
3+4-Methylphenol	ND	2.0		mg/Kg	10	9/4/2005
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	10	9/4/2005
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	10	9/4/2005
Naphthalene	4.2	2.0		mg/Kg	10	9/4/2005
2-Nitroaniline	ND	5.0		mg/Kg	10	9/4/2005
3-Nitroaniline	ND	5.0		mg/Kg	10	9/4/2005
4-Nitroaniline	ND	2.5		mg/Kg	10	9/4/2005
Nitrobenzene	ND	2.0		mg/Kg	10	9/4/2005
2-Nitrophenol	ND	2.0		mg/Kg	10	9/4/2005
4-Nitrophenol	ND	2.0		mg/Kg	10	9/4/2005
Pentachlorophenol	ND	5.0		mg/Kg	10	9/4/2005
Phenanthrene	7.1	2.0		mg/Kg	10	9/4/2005
Phenol	ND	2.0		mg/Kg	10	9/4/2005
Pyrene	ND	2.0		mg/Kg	10	9/4/2005
Pyridine	ND	5.0		mg/Kg	10	9/4/2005
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	10	9/4/2005
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	10	9/4/2005
Surr: 2,4,6-Tribromophenol	108	35.5-141		%REC	10	9/4/2005
Surr: 2-Fluorobiphenyl	97.4	30.4-128		%REC	10	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co Client Sample ID: RR-4-83005
 Lab Order: 0508346 Collection Date: 8/30/2005 7:50:00 AM
 Project: RR Rock Lagoon Add. Exc. 8-30-05
 Lab ID: 0508346-04 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluorophenol	65.1	28.1-129		%REC	10	9/4/2005
Surr: 4-Terphenyl-d14	90.4	34.6-151		%REC	10	9/4/2005
Surr: Nitrobenzene-d5	116	26.5-122		%REC	10	9/4/2005
Surr: Phenol-d6	70.8	37.6-118		%REC	10	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co Client Sample ID: RR-5-83005
 Lab Order: 0508346 Collection Date: 8/30/2005 8:00:00 AM
 Project: RR Rock Lagoon Add. Exc. 8-30-05
 Lab ID: 0508346-05 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	1000	20		mg/Kg	2	9/3/2005 2:32:52 AM
Motor Oil Range Organics (MRO)	ND	100		mg/Kg	2	9/3/2005 2:32:52 AM
Surr. DNOP	98.4	60-124		%REC	2	9/3/2005 2:32:52 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Benzene	ND	0.050		mg/Kg	1	9/4/2005
Toluene	ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/4/2005
Xylenes, Total	0.33	0.050		mg/Kg	1	9/4/2005
Surr. 4-Bromofluorobenzene	97.2	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	0.29	0.20		mg/Kg	1	9/4/2005
Acenaphthylene	ND	0.20		mg/Kg	1	9/4/2005
Aniline	ND	0.20		mg/Kg	1	9/4/2005
Anthracene	ND	0.20		mg/Kg	1	9/4/2005
Azobenzene	ND	0.20		mg/Kg	1	9/4/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Benzdine	ND	0.20		mg/Kg	1	9/4/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	9/4/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	9/4/2005
Benzoic acid	ND	0.50		mg/Kg	1	9/4/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	9/4/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	9/4/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	9/4/2005
Chrysene	ND	0.20		mg/Kg	1	9/4/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran	ND	0.50		mg/Kg	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-5-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:00:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Fluorene	0.49	0.20		mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50		mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Isophorone	ND	0.20		mg/Kg	1	9/4/2005
2-Methylnaphthalene	2.7	0.20		mg/Kg	1	9/4/2005
2-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	9/4/2005
Naphthalene	0.59	0.20		mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	9/4/2005
Phenanthrene	1.4	0.20		mg/Kg	1	9/4/2005
Phenol	ND	0.20		mg/Kg	1	9/4/2005
Pyrene	ND	0.20		mg/Kg	1	9/4/2005
Pyridine	ND	0.50		mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
Surr. 2,4,6-Tribromophenol	92.3	35.5-141		%REC	1	9/4/2005
Surr. 2-Fluorobiphenyl	91.4	30.4-128		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT:	Giant Refining Co	Client Sample ID:	RR-5-83005
Lab Order:	0508346	Collection Date:	8/30/2005 8:00:00 AM
Project:	RR Rock Lagoon Add. Exc. 8-30-05		
Lab ID:	0508346-05	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluorophenol	78.5	28.1-129		%REC	1	9/4/2005
Surr: 4-Terphenyl-d14	80.8	34.6-151		%REC	1	9/4/2005
Surr: Nitrobenzene-d5	80.9	26.5-122		%REC	1	9/4/2005
Surr: Phenol-d6	84.3	37.6-118		%REC	1	9/4/2005

Qualifiers:	ND - Not Detected at the Reporting Limit	S - Spike Recovery outside accepted recovery limits
	J - Analyte detected below quantitation limits	R - RPD outside accepted recovery limits
	B - Analyte detected in the associated Method Blank	E - Value above quantitation range
	* - Value exceeds Maximum Contaminant Level	

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT:	Giant Refining Co	Client Sample ID:	RR-6-83005
Lab Order:	0508346	Collection Date:	8/30/2005 8:10:00 AM
Project:	RR Rock Lagoon Add. Exc. 8-30-05		
Lab ID:	0508346-06	Matrix:	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	5300	200		mg/Kg	20	9/2/2005 11:48:37 PM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	9/2/2005 11:48:37 PM
Surr: DNOP	0	60-124	S	%REC	20	9/2/2005 11:48:37 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Benzene	ND	0.050		mg/Kg	1	9/4/2005
Toluene	ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/4/2005
Xylenes, Total	1.8	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	111	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	9/4/2005
Acenaphthylene	ND	0.20		mg/Kg	1	9/4/2005
Aniline	ND	0.20		mg/Kg	1	9/4/2005
Anthracene	ND	0.20		mg/Kg	1	9/4/2005
Azobenzene	ND	0.20		mg/Kg	1	9/4/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Benzidine	ND	0.20		mg/Kg	1	9/4/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	9/4/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	9/4/2005
Benzoic acid	ND	0.50		mg/Kg	1	9/4/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	9/4/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	9/4/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	9/4/2005
Chrysene	ND	0.20		mg/Kg	1	9/4/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran	0.68	0.50		mg/Kg	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-6-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:10:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-06

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Fluorene	0.34	0.20		mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50		mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Isophorone	ND	0.20		mg/Kg	1	9/4/2005
2-Methylnaphthalene	36	2.0		mg/Kg	10	9/6/2005
2-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	9/4/2005
Naphthalene	3.8	0.20		mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	9/4/2005
Phenanthrene	8.0	2.0		mg/Kg	10	9/6/2005
Phenol	ND	0.20		mg/Kg	1	9/4/2005
Pyrene	0.41	0.20		mg/Kg	1	9/4/2005
Pyridine	ND	0.50		mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
Surr: 2,4,6-Tribromophenol	60.1	35.5-141		%REC	1	9/4/2005
Surr: 2-Fluorobiphenyl	79.0	30.4-128		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-6-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:10:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-06

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr. 2-Fluorophenol	65.9	28.1-129		%REC	1	9/4/2005
Surr. 4-Terphenyl-d14	82.2	34.6-151		%REC	1	9/4/2005
Surr. Nitrobenzene-d5	89.1	25.5-122		%REC	1	9/4/2005
Surr. Phenol-d6	78.4	37.6-118		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co Client Sample ID: RR-7-83005
 Lab Order: 0508346 Collection Date: 8/30/2005 8:20:00 AM
 Project: RR Rock Lagoon Add. Exc. 8-30-05
 Lab ID: 0508346-07 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS Analyst: SCC						
Diesel Range Organics (DRO)	9000	200		mg/Kg	20	9/3/2005 12:21:25 AM
Motor Oil Range Organics (MRO)	ND	1000		mg/Kg	20	9/3/2005 12:21:25 AM
Surr: DNOP	0	60-124	S	%REC	20	9/3/2005 12:21:25 AM
EPA METHOD 8260B: VOLATILES SHORT LIST Analyst: BDH						
Benzene	ND	0.050		mg/Kg	1	9/4/2005
Toluene	ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/4/2005
Xylenes, Total	2.9	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	103	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES Analyst: BL						
Acenaphthene	2.6	2.0		mg/Kg	10	9/4/2005
Acenaphthylene	ND	2.0		mg/Kg	10	9/4/2005
Aniline	ND	2.0		mg/Kg	10	9/4/2005
Anthracene	ND	2.0		mg/Kg	10	9/4/2005
Azobenzene	ND	2.0		mg/Kg	10	9/4/2005
Benz(a)anthracene	ND	2.5		mg/Kg	10	9/4/2005
Benzidine	ND	2.0		mg/Kg	10	9/4/2005
Benzo(a)pyrene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(b)fluoranthene	ND	2.0		mg/Kg	10	9/4/2005
Benzo(g,h,i)perylene	ND	3.0		mg/Kg	10	9/4/2005
Benzo(k)fluoranthene	ND	5.0		mg/Kg	10	9/4/2005
Benzoic acid	ND	5.0		mg/Kg	10	9/4/2005
Benzyl alcohol	ND	5.0		mg/Kg	10	9/4/2005
Bis(2-chloroethoxy)methane	ND	5.0		mg/Kg	10	9/4/2005
Bis(2-chloroethyl)ether	ND	2.5		mg/Kg	10	9/4/2005
Bis(2-chloroisopropyl)ether	ND	5.0		mg/Kg	10	9/4/2005
Bis(2-ethylhexyl)phthalate	ND	2.0		mg/Kg	10	9/4/2005
4-Bromophenyl phenyl ether	ND	2.5		mg/Kg	10	9/4/2005
Butyl benzyl phthalate	ND	2.0		mg/Kg	10	9/4/2005
Carbazole	ND	2.0		mg/Kg	10	9/4/2005
4-Chloro-3-methylphenol	ND	2.0		mg/Kg	10	9/4/2005
4-Chloroaniline	ND	2.0		mg/Kg	10	9/4/2005
2-Chloronaphthalene	ND	2.0		mg/Kg	10	9/4/2005
2-Chlorophenol	ND	2.0		mg/Kg	10	9/4/2005
4-Chlorophenyl phenyl ether	ND	2.0		mg/Kg	10	9/4/2005
Chrysene	ND	2.0		mg/Kg	10	9/4/2005
Di-n-butyl phthalate	ND	2.5		mg/Kg	10	9/4/2005
Di-n-octyl phthalate	ND	5.0		mg/Kg	10	9/4/2005
Dibenz(a,h)anthracene	ND	2.5		mg/Kg	10	9/4/2005
Dibenzofuran	ND	5.0		mg/Kg	10	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-7-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:20:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-07

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
1,3-Dichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
1,4-Dichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
3,3'-Dichlorobenzidine	ND	2.0		mg/Kg	10	9/4/2005
Diethyl phthalate	ND	2.0		mg/Kg	10	9/4/2005
Dimethyl phthalate	ND	2.0		mg/Kg	10	9/4/2005
2,4-Dichlorophenol	ND	2.0		mg/Kg	10	9/4/2005
2,4-Dimethylphenol	ND	2.0		mg/Kg	10	9/4/2005
4,6-Dinitro-2-methylphenol	ND	5.0		mg/Kg	10	9/4/2005
2,4-Dinitrophenol	ND	5.0		mg/Kg	10	9/4/2005
2,4-Dinitrotoluene	ND	2.0		mg/Kg	10	9/4/2005
2,6-Dinitrotoluene	ND	2.0		mg/Kg	10	9/4/2005
Fluoranthene	ND	2.0		mg/Kg	10	9/4/2005
Fluorene	ND	2.0		mg/Kg	10	9/4/2005
Hexachlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
Hexachlorobutadiene	ND	2.0		mg/Kg	10	9/4/2005
Hexachlorocyclopentadiene	ND	2.5		mg/Kg	10	9/4/2005
Hexachloroethane	ND	5.0		mg/Kg	10	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	2.0		mg/Kg	10	9/4/2005
Isophorone	ND	2.0		mg/Kg	10	9/4/2005
2-Methylnaphthalene	39	2.0		mg/Kg	10	9/4/2005
2-Methylphenol	ND	2.0		mg/Kg	10	9/4/2005
3+4-Methylphenol	ND	2.0		mg/Kg	10	9/4/2005
N-Nitrosodi-n-propylamine	ND	2.0		mg/Kg	10	9/4/2005
N-Nitrosodiphenylamine	ND	2.0		mg/Kg	10	9/4/2005
Naphthalene	5.0	2.0		mg/Kg	10	9/4/2005
2-Nitroaniline	ND	5.0		mg/Kg	10	9/4/2005
3-Nitroaniline	ND	5.0		mg/Kg	10	9/4/2005
4-Nitroaniline	ND	2.5		mg/Kg	10	9/4/2005
Nitrobenzene	ND	2.0		mg/Kg	10	9/4/2005
2-Nitrophenol	ND	2.0		mg/Kg	10	9/4/2005
4-Nitrophenol	ND	2.0		mg/Kg	10	9/4/2005
Pentachlorophenol	ND	5.0		mg/Kg	10	9/4/2005
Phenanthrene	10	2.0		mg/Kg	10	9/4/2005
Phenol	ND	2.0		mg/Kg	10	9/4/2005
Pyrene	ND	2.0		mg/Kg	10	9/4/2005
Pyridine	ND	5.0		mg/Kg	10	9/4/2005
1,2,4-Trichlorobenzene	ND	2.0		mg/Kg	10	9/4/2005
2,4,5-Trichlorophenol	ND	2.0		mg/Kg	10	9/4/2005
2,4,6-Trichlorophenol	ND	2.0		mg/Kg	10	9/4/2005
Surr: 2,4,6-Tribromophenol	115	35.5-141		%REC	10	9/4/2005
Surr: 2-Fluorobiphenyl	105	30.4-128		%REC	10	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co Client Sample ID: RR-7-83005
 Lab Order: 0508346 Collection Date: 8/30/2005 8:20:00 AM
 Project: RR Rock Lagoon Add. Exc. 8-30-05
 Lab ID: 0508346-07 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluorophenol	68.5	28.1-129		%REC	10	9/4/2005
Surr: 4-Terphenyl-d14	80.8	34.6-151		%REC	10	9/4/2005
Surr: Nitrobenzene-d5	125	26.5-122	S	%REC	10	9/4/2005
Surr: Phenol-d6	74.8	37.6-118		%REC	10	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co
 Lab Order: 0508346
 Project: RR Rock Lagoon Add. Exc. 8-30-05
 Lab ID: 0508346-08

Client Sample ID: RR-8-83005
 Collection Date: 8/30/2005 8:30:00 AM
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/2/2005 6:12:34 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/2/2005 6:12:34 AM
Surr: DNOP	81.0	50-124		%REC	1	9/2/2005 6:12:34 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Benzene	ND	0.050		mg/Kg	1	9/4/2005
Toluene	ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/4/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/4/2005
Surr: 4-Bromofluorobenzene	105	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	9/4/2005
Acenaphthylene	ND	0.20		mg/Kg	1	9/4/2005
Aniline	ND	0.20		mg/Kg	1	9/4/2005
Anthracene	ND	0.20		mg/Kg	1	9/4/2005
Azobenzene	ND	0.20		mg/Kg	1	9/4/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Benzidine	ND	0.20		mg/Kg	1	9/4/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	9/4/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	9/4/2005
Benzoic acid	ND	0.50		mg/Kg	1	9/4/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	9/4/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	9/4/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	9/4/2005
Chrysene	ND	0.20		mg/Kg	1	9/4/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran	ND	0.50		mg/Kg	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-8-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:30:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-08

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Fluorene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50		mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Isophorone	ND	0.20		mg/Kg	1	9/4/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	9/4/2005
Naphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	9/4/2005
Phenanthrene	ND	0.20		mg/Kg	1	9/4/2005
Phenol	ND	0.20		mg/Kg	1	9/4/2005
Pyrene	ND	0.20		mg/Kg	1	9/4/2005
Pyridine	ND	0.50		mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
Surr: 2,4,6-Tribromophenol	89.7	35.5-141		%REC	1	9/4/2005
Surr: 2-Fluorobiphenyl	67.9	30.4-128		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-8-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:30:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-08

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Sum: 2-Fluorophenol	60.4	28.1-129		%REC	1	9/4/2005
Sum: 4-Terphenyl-d14	87.3	34.6-151		%REC	1	9/4/2005
Sum: Nitrobenzene-d5	61.8	26.5-122		%REC	1	9/4/2005
Sum: Phenol-d6	64.5	37.6-118		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-9-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:40:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-09

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/2/2005 6:45:22 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/2/2005 6:45:22 AM
Surr. DNOP	96.7	60-124		%REC	1	9/2/2005 6:45:22 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Benzene	ND	0.050		mg/Kg	1	9/4/2005
Toluene	ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/4/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/4/2005
Surr. 4-Bromofluorobenzene	115	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	9/4/2005
Acenaphthylene	ND	0.20		mg/Kg	1	9/4/2005
Aniline	ND	0.20		mg/Kg	1	9/4/2005
Anthracene	ND	0.20		mg/Kg	1	9/4/2005
Azobenzene	ND	0.20		mg/Kg	1	9/4/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Benztidine	ND	0.20		mg/Kg	1	9/4/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	9/4/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	9/4/2005
Benzoic acid	ND	0.50		mg/Kg	1	9/4/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	9/4/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	9/4/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	9/4/2005
Chrysene	ND	0.20		mg/Kg	1	9/4/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran	ND	0.50		mg/Kg	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-9-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:40:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-09

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Fluorene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50		mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Isophorone	ND	0.20		mg/Kg	1	9/4/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	9/4/2005
Naphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	9/4/2005
Phenanthrene	ND	0.20		mg/Kg	1	9/4/2005
Phenol	ND	0.20		mg/Kg	1	9/4/2005
Pyrene	ND	0.20		mg/Kg	1	9/4/2005
Pyridine	ND	0.50		mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
Sum: 2,4,6-Tribromophenol	88.3	35.5-141		%REC	1	9/4/2005
Sum: 2-Fluorobiphenyl	75.4	30.4-128		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-9-83005

Lab Order: 0508346

Collection Date: 8/30/2005 8:40:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-09

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluorophenol	67.7	28.1-129		%REC	1	9/4/2005
Surr: 4-Terphenyl-d14	86.0	34.6-151		%REC	1	9/4/2005
Surr: Nitrobenzene-d5	72.5	26.5-122		%REC	1	9/4/2005
Surr: Phenol-d6	74.3	37.6-118		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co **Client Sample ID:** RR-10-83005
Lab Order: 0508346 **Collection Date:** 8/30/2005 9:00:00 AM
Project: RR Rock Lagoon Add. Exc. 8-30-05
Lab ID: 0508346-10 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/2/2005 7:18:10 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/2/2005 7:18:10 AM
Surr. DNOP	97.5	60-124		%REC	1	9/2/2005 7:18:10 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Benzene	ND	0.050		mg/Kg	1	9/4/2005
Toluene	ND	0.050		mg/Kg	1	9/4/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/4/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/4/2005
Surr. 4-Bromofluorobenzene	94.9	72.9-143		%REC	1	9/4/2005
EPA METHOD 8270C: SEMIVOLATILES						Analyst: BL
Acenaphthene	ND	0.20		mg/Kg	1	9/4/2005
Acenaphthylene	ND	0.20		mg/Kg	1	9/4/2005
Aniline	ND	0.20		mg/Kg	1	9/4/2005
Anthracene	ND	0.20		mg/Kg	1	9/4/2005
Azobenzene	ND	0.20		mg/Kg	1	9/4/2005
Benz(a)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Benzdine	ND	0.20		mg/Kg	1	9/4/2005
Benzo(a)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(b)fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Benzo(g,h,i)perylene	ND	0.30		mg/Kg	1	9/4/2005
Benzo(k)fluoranthene	ND	0.50		mg/Kg	1	9/4/2005
Benzoic acid	ND	0.50		mg/Kg	1	9/4/2005
Benzyl alcohol	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethoxy)methane	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-chloroethyl)ether	ND	0.25		mg/Kg	1	9/4/2005
Bis(2-chloroisopropyl)ether	ND	0.50		mg/Kg	1	9/4/2005
Bis(2-ethylhexyl)phthalate	ND	0.20		mg/Kg	1	9/4/2005
4-Bromophenyl phenyl ether	ND	0.25		mg/Kg	1	9/4/2005
Butyl benzyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Carbazole	ND	0.20		mg/Kg	1	9/4/2005
4-Chloro-3-methylphenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chloroaniline	ND	0.20		mg/Kg	1	9/4/2005
2-Chloronaphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Chlorophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Chlorophenyl phenyl ether	ND	0.20		mg/Kg	1	9/4/2005
Chrysene	ND	0.20		mg/Kg	1	9/4/2005
Di-n-butyl phthalate	ND	0.25		mg/Kg	1	9/4/2005
Di-n-octyl phthalate	ND	0.50		mg/Kg	1	9/4/2005
Dibenz(a,h)anthracene	ND	0.25		mg/Kg	1	9/4/2005
Dibenzofuran	ND	0.50		mg/Kg	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-10-83005

Lab Order: 0508346

Collection Date: 8/30/2005 9:00:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
1,2-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,3-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
1,4-Dichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
3,3'-Dichlorobenzidine	ND	0.20		mg/Kg	1	9/4/2005
Diethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
Dimethyl phthalate	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4-Dimethylphenol	ND	0.20		mg/Kg	1	9/4/2005
4,6-Dinitro-2-methylphenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrophenol	ND	0.50		mg/Kg	1	9/4/2005
2,4-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
2,6-Dinitrotoluene	ND	0.20		mg/Kg	1	9/4/2005
Fluoranthene	ND	0.20		mg/Kg	1	9/4/2005
Fluorene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorobutadiene	ND	0.20		mg/Kg	1	9/4/2005
Hexachlorocyclopentadiene	ND	0.25		mg/Kg	1	9/4/2005
Hexachloroethane	ND	0.50		mg/Kg	1	9/4/2005
Indeno(1,2,3-cd)pyrene	ND	0.20		mg/Kg	1	9/4/2005
Isophorone	ND	0.20		mg/Kg	1	9/4/2005
2-Methylnaphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
3+4-Methylphenol	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodi-n-propylamine	ND	0.20		mg/Kg	1	9/4/2005
N-Nitrosodiphenylamine	ND	0.20		mg/Kg	1	9/4/2005
Naphthalene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
3-Nitroaniline	ND	0.50		mg/Kg	1	9/4/2005
4-Nitroaniline	ND	0.25		mg/Kg	1	9/4/2005
Nitrobenzene	ND	0.20		mg/Kg	1	9/4/2005
2-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
4-Nitrophenol	ND	0.20		mg/Kg	1	9/4/2005
Pentachlorophenol	ND	0.50		mg/Kg	1	9/4/2005
Phenanthrene	ND	0.20		mg/Kg	1	9/4/2005
Phenol	ND	0.20		mg/Kg	1	9/4/2005
Pyrene	ND	0.20		mg/Kg	1	9/4/2005
Pyridine	ND	0.50		mg/Kg	1	9/4/2005
1,2,4-Trichlorobenzene	ND	0.20		mg/Kg	1	9/4/2005
2,4,5-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
2,4,6-Trichlorophenol	ND	0.20		mg/Kg	1	9/4/2005
Surr: 2,4,6-Tribromophenol	81.3	35.5-141		%REC	1	9/4/2005
Surr: 2-Fluorobiphenyl	66.1	30.4-128		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-10-83005

Lab Order: 0508346

Collection Date: 8/30/2005 9:00:00 AM

Project: RR Rock Lagoon Add. Exc. 8-30-05

Lab ID: 0508346-10

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
Surr: 2-Fluorophenol	53.5	28.1-129		%REC	1	9/4/2005
Surr: 4-Terphenyl-d14	85.5	34.6-151		%REC	1	9/4/2005
Surr: Nitrobenzene-d5	61.6	26.5-122		%REC	1	9/4/2005
Surr: Phenol-d6	62.7	37.6-118		%REC	1	9/4/2005

Qualifiers: ND - Not Detected at the Reporting Limit

S - Spike Recovery outside accepted recovery limits

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

* - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co
Work Order: 0508346
Project: RR Rock Lagoon Add. Exc. 8-30-05

QC SUMMARY REPORT

Method Blank

Sample ID MB-8649	Batch ID: 8649	Test Code: SW8015	Units: mg/Kg	Analysis Date 9/1/2005 9:27:29 PM	Prep Date 8/31/2005						
Client ID:	Run ID: FID(17A) 2_050901A	SeqNo: 395109									
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	9.957	0	10	0	99.6	60	124	0			

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Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

/

CLIENT: Giant Refining Co
 Work Order: 0508346
 Project: RR Rock Lagoon Add. Exc. 8-30-05

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8646	Batch ID:	8646	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	9/4/2005	Prep Date	8/31/2005
Client ID:		Run ID:	ELMO_050904A	SeqNo:	395725						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.2									
Acenaphthylene	ND	0.2									
Aniline	ND	0.2									
Anthracene	ND	0.2									
Azobenzene	ND	0.2									
Benz(a)anthracene	ND	0.25									
Benzidine	ND	0.2									
Benzo(a)pyrene	ND	0.2									
Benzo(b)fluoranthene	ND	0.2									
Benzo(g,h,i)perylene	ND	0.3									
Benzo(k)fluoranthene	ND	0.5									
Benzoic acid	ND	0.5									
Benzyl alcohol	ND	0.5									
Bis(2-chloroethoxy)methane	ND	0.5									
Bis(2-chloroethyl)ether	ND	0.25									
Bis(2-chloroisopropyl)ether	ND	0.5									
Bis(2-ethylhexyl)phthalate	0.04733	0.2									J
4-Bromophenyl phenyl ether	ND	0.25									
Butyl benzyl phthalate	ND	0.2									
Carbazole	ND	0.2									
4-Chloro-3-methylphenol	ND	0.2									
4-Chloroaniline	ND	0.2									
2-Chloronaphthalene	ND	0.2									
2-Chlorophenol	ND	0.2									
4-Chlorophenyl phenyl ether	ND	0.2									
Chrysene	ND	0.2									
Di-n-butyl phthalate	1.756	0.25									
Di-n-octyl phthalate	ND	0.5									

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
 Work Order: 0508346
 Project: RR Rock Lagoon Add. Exc. 8-30-05

QC SUMMARY REPORT

Method Blank

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Dibenz(a,h)anthracene	ND	0.25
Dibenzofuran	ND	0.5
1,2-Dichlorobenzene	ND	0.2
1,3-Dichlorobenzene	ND	0.2
1,4-Dichlorobenzene	ND	0.2
3,3'-Dichlorobenzidine	ND	0.2
Diethyl phthalate	ND	0.2
Dimethyl phthalate	ND	0.2
2,4-Dichlorophenol	ND	0.2
2,4-Dimethylphenol	ND	0.2
4,6-Dinitro-2-methylphenol	ND	0.5
2,4-Dinitrophenol	ND	0.5
2,4-Dinitrotoluene	ND	0.2
2,6-Dinitrotoluene	ND	0.2
Fluoranthene	ND	0.2
Fluorene	ND	0.2
Hexachlorobenzene	ND	0.2
Hexachlorobutadiene	ND	0.2
Hexachlorocyclopentadiene	ND	0.25
Hexachloroethane	ND	0.5
Indeno(1,2,3-cd)pyrene	ND	0.2
Isophorone	ND	0.2
2-Methylnaphthalene	ND	0.2
2-Methylphenol	ND	0.2
3+4-Methylphenol	ND	0.2
N-Nitrosodi-n-propylamine	ND	0.2
N-Nitrosodiphenylamine	ND	0.2
Naphthalene	ND	0.2
2-Nitroaniline	ND	0.5
3-Nitroaniline	ND	0.5
4-Nitroaniline	ND	0.25
Nitrobenzene	ND	0.2
2-Nitrophenol	ND	0.2

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
 Work Order: 0508346
 Project: RR Rock Lagoon Add. Exc. 8-30-05

QC SUMMARY REPORT

Method Blank

4-Nitrophenol	ND	0.2							
Pentachlorophenol	ND	0.5							
Phenanthrene	ND	0.2							
Phenol	ND	0.2							
Pyrene	ND	0.2							
Pyridine	ND	0.5							
1,2,4-Trichlorobenzene	ND	0.2							
2,4,5-Trichlorophenol	ND	0.2							
2,4,6-Trichlorophenol	ND	0.2							
Surr: 2,4,6-Tribromophenol	2.551	0	3.33	0	76.6	35.5	141	0	
Surr: 2-Fluorobiphenyl	1.208	0	1.67	0	72.3	30.4	128	0	
Surr: 2-Fluorophenol	2.424	0	3.33	0	72.8	28.1	129	0	
Surr: 4-Terphenyl-d14	1.411	0	1.67	0	84.5	34.6	151	0	
Surr: Nitrobenzene-d5	1.161	0	1.67	0	69.5	26.5	122	0	
Surr: Phenol-d6	2.484	0	3.33	0	74.6	37.6	118	0	

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Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co
Work Order: 0508346
Project: RR Rock Lagoon Add. Exc. 8-30-05

QC SUMMARY REPORT
Method Blank

Sample ID	mb-8648	Batch ID	8648	Test Code	SW8260B	Units	mg/Kg	Analysis Date	9/3/2005	Prep Date	8/31/2005
Client ID:		Run ID:	THOR_050903A	SeqNo:	395596						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.05	0	0	0	0	0	0			
Toluene	ND	0.05	0	0	0	0	0	0			
Ethylbenzene	ND	0.05	0	0	0	0	0	0			
Xylenes, Total	ND	0.05	0	0	0	0	0	0			
Surr: 4-Bromofluorobenzene	0.5104	0	0.5	0	102	72.9	143	0			
Surr: Dibromofluoromethane	0.4749	0	0.5	0	95.0	85.2	118	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 07-Sep-05

CLIENT: Giant Refining Co
 Work Order: 0508346
 Project: RR Rock Lagoon Add. Exc. 8-30-05

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8649	Batch ID: 8649	Test Code: SW8015		Units: mg/Kg	Analysis Date 9/1/2005 10:00:21 PM			Prep Date 8/31/2005			
Client ID:			Run ID:	FID(17A) 2_050901A		SeqNo: 395110						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		45.26	10	50	0	90.5	67.4	117	0			

Sample ID	LCSD-8649	Batch ID: 8649	Test Code: SW8015		Units: mg/Kg	Analysis Date 9/1/2005 11:05:57 PM			Prep Date 8/31/2005			
Client ID:			Run ID:	FID(17A) 2_050901A		SeqNo: 395112						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)		49.38	10	50	0	98.8	67.4	117	45.26	8.70	17.4	

Sample ID	Ics-8648	Batch ID: 8648	Test Code: SW8260B		Units: mg/Kg	Analysis Date 9/3/2005			Prep Date 8/31/2005			
Client ID:			Run ID:	THOR_050903A		SeqNo: 395601						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene		0.8733	0.05	1	0	87.3	78	126	0			
Toluene		1.016	0.05	1	0	102	79.4	117	0			

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Giant Refining Co
 Work Order: 0508346
 Project: RR Rock Lagoon Add. Exc. 8-30-05

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8646	Batch ID:	8646	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	9/4/2005	Prep Date	8/31/2005
Client ID:		Run ID:	ELMO_050904A	SeqNo:	395726						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.264	0.2	1.67	0	75.7	24	125	0			
4-Chloro-3-methylphenol	2.484	0.2	3.33	0	74.6	14.6	154	0			
2-Chlorophenol	2.206	0.2	3.33	0	66.2	13.3	149	0			
1,4-Dichlorobenzene	1.053	0.2	1.67	0	63.1	23.6	118	0			
2,4-Dinitrotoluene	1.257	0.2	1.67	0	75.2	28	136	0			
N-Nitrosodi-n-propylamine	1.099	0.2	1.67	0	65.8	28	114	0			
4-Nitrophenol	2.786	0.2	3.33	0	83.7	13.1	150	0			
Pentachlorophenol	2.67	0.5	3.33	0	80.2	20.1	139	0			
Phenol	2.236	0.2	3.33	0	67.2	17.3	141	0			
Pyrene	1.306	0.2	1.67	0	78.2	29	131	0			
1,2,4-Trichlorobenzene	1.096	0.2	1.67	0	65.6	17.9	126	0			

Sample ID	LCSD-8646	Batch ID:	8646	Test Code:	SW8270C	Units:	mg/Kg	Analysis Date	9/4/2005	Prep Date	8/31/2005
Client ID:		Run ID:	ELMO_050904A	SeqNo:	395728						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	1.397	0.2	1.67	0	83.7	24	125	1.264	10.0	25	
4-Chloro-3-methylphenol	2.881	0.2	3.33	0	86.5	14.6	154	2.484	14.8	25	
2-Chlorophenol	2.495	0.2	3.33	0	74.9	13.3	149	2.206	12.3	25	
1,4-Dichlorobenzene	1.155	0.2	1.67	0	69.2	23.6	118	1.053	9.21	25	
2,4-Dinitrotoluene	1.389	0.2	1.67	0	83.2	28	136	1.257	10.0	25	
N-Nitrosodi-n-propylamine	1.241	0.2	1.67	0	74.3	28	114	1.099	12.2	25	
4-Nitrophenol	3.195	0.2	3.33	0	96.0	13.1	150	2.786	13.7	25	
Pentachlorophenol	2.888	0.5	3.33	0	86.7	20.1	139	2.67	7.85	25	
Phenol	2.534	0.2	3.33	0	76.1	17.3	141	2.236	12.5	25	
Pyrene	1.411	0.2	1.67	0	84.5	29	131	1.306	7.73	25	
1,2,4-Trichlorobenzene	1.22	0.2	1.67	0	73.1	17.9	126	1.096	10.7	25	

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

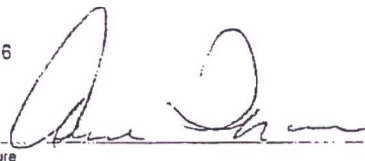
Date and Time Received:

8/31/2005

Work Order Number 0508346

Received by AT

Checklist completed by



8/31/05

Signature

Date

Matrix

Carrier name Client drop-off

Shipping container/cooler in good condition?	Yes ☐	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☒
Custody seals intact on sample bottles?	Yes ☒	No ☐	N/A ☐	
Chain of custody present?	Yes ☒	No ☐		
Chain of custody signed when relinquished and received?	Yes ☒	No ☐		
Chain of custody agrees with sample labels?	Yes ☒	No ☐		
Samples in proper container/bottle?	Yes ☒	No ☐		
Sample containers intact?	Yes ☒	No ☐		
Sufficient sample volume for indicated test?	Yes ☒	No ☐		
All samples received within holding time?	Yes ☒	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☒	Yes ☐	No ☐	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☒	

Container/Temp Blank temperature?

3°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding _____

Comments: _____

Corrective Action _____

CHAIN-OF-CUSTODY RECORD

Client: Giant Refining
Company - Arizona
 Address: Route 3 Box 7
Gallup, NM 87391

Phone #: 505 722 3833
 Fax #: 505 722 0210

QA/QC Package:
 Std ☐ Level 4 ☐
 Other: _____
 Project Name: RR Rock Lagoon
Additional Excavation 8-30-05
 Project #:
 Project Manager: Steve Morris
 Sampler: Steve Morris
 Sample Temperature: 3



**HALL ENVIRONMENTAL
 ANALYSIS LABORATORY**
 4901 Hawkins NE, Suite D
 Albuquerque, New Mexico 87109
 Tel. 505.345.3975 Fax 505.345.4107
 www.hallenvironmental.com

ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	PCPA & Metals	Anions (F, Cl, NO ₃ , NO ₂ , PO ₄ , SO ₄)	8081 Pesticides / PCB's (8082)	8260B (VOA)	8270 (Semi-VOA)	8021-BTEX	Air Bubbles or Headspace (Y or N)
					HgCl ₂	HNO ₃															
8/30/05	0715		RR-1-83005	2-4 oz			0508346-1			X									X	X	
"	0730		RR-2-83005	"			-2			X									X	X	
"	0740		RR-3-83005	"			-3			X									X	X	
"	0750		RR-4-83005	"			-4			X									X	X	
"	0800		RR-5-83005	"			-5			X									X	X	
"	0810		RR-6-83005	"			-6			X									X	X	
"	0820		RR-7-83005	"			-7			X									X	X	
"	0830		RR-8-83005	"			-8			X									X	X	
"	0840		RR-9-83005	"			-9			X									X	X	
"	0900		RR-10-83005	"			-10			X									X	X	

Date: 8/31/05 Time: 0855 Relinquished By: (Signature) Steve Morris
 Date: _____ Time: _____ Relinquished By: (Signature) _____
 Received By: (Signature) Steve Morris 8/31/05
 Received By: (Signature) _____

Remarks: RUSH

Appendix 7: Hall Environmental Laboratory Report- September 26, 2005

COVER LETTER

September 26, 2005

Steve Morris
Giant Refining Co
Rt. 3 Box 7
Gallup, NM 87301
TEL: (505) 722-0258
FAX (505) 722-0210

RE: RR Rock Lagoon Add. Exc. 9/15/05

Order No.: 0509181

Dear Steve Morris:

Hall Environmental Analysis Laboratory received 7 samples on 9/19/2005 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,



Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager



Yall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Lab Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05
Lab ID: 0509181-01

Client Sample ID: RR-1A-91505
Collection Date: 9/15/2005 2:30:00 PM

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	210	10		mg/Kg	1	9/22/2005 11:24:47 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/22/2005 11:24:47 AM
Surr: DNOP	106	60-124		%REC	1	9/22/2005 11:24:47 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	9/24/2005
Benzene	ND	0.050		mg/Kg	1	9/24/2005
Toluene	ND	0.050		mg/Kg	1	9/24/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/24/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/24/2005
Surr: 4-Bromofluorobenzene	109	72.9-143		%REC	1	9/24/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co **Client Sample ID:** RR-2A-91505
Lab Order: 0509181 **Collection Date:** 9/15/2005 2:35:00 PM
Project: RR Rock Lagoon Add. Exc. 9/15/05
Lab ID: 0509181-02 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	130	10		mg/Kg	1	9/22/2005 11:57:56 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/22/2005 11:57:56 AM
Surr: DNOP	107	60-124		%REC	1	9/22/2005 11:57:56 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	9/24/2005
Benzene	ND	0.050		mg/Kg	1	9/24/2005
Toluene	ND	0.050		mg/Kg	1	9/24/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/24/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/24/2005
Surr: 4-Bromofluorobenzene	97.4	86.2-120		%REC	1	9/24/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-3A-91505

Lab Order: 0509181

Collection Date: 9/15/2005 2:40:00 PM

Project: RR Rock Lagoon Add. Exc. 9/15/05

Lab ID: 0509181-03

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/22/2005 12:31:01 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/22/2005 12:31:01 PM
Surr: DNOP	109	60-124		%REC	1	9/22/2005 12:31:01 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	9/24/2005
Benzene	ND	0.050		mg/Kg	1	9/24/2005
Toluene	ND	0.050		mg/Kg	1	9/24/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/24/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/24/2005
Surr: 4-Bromofluorobenzene	113	86.2-120		%REC	1	9/24/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Full Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co Client Sample ID: RR-4A-91505
 Lab Order: 0509181 Collection Date: 9/15/2005 2:45:00 PM
 Project: RR Rock Lagoon Add. Exc. 9/15/05
 Lab ID: 0509181-04 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/22/2005 1:04:05 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/22/2005 1:04:05 PM
Surr: DNOP	101	60-124		%REC	1	9/22/2005 1:04:05 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	9/24/2005
Benzene	ND	0.050		mg/Kg	1	9/24/2005
Toluene	ND	0.050		mg/Kg	1	9/24/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/24/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/24/2005
Surr: 4-Bromofluorobenzene	119	86.2-120		%REC	1	9/24/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co

Client Sample ID: RR-5A-91505

Lab Order: 0509181

Collection Date: 9/15/2005 2:50:00 PM

Project: RR Rock Lagoon Add. Exc. 9/15/05

Lab ID: 0509181-05

Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/22/2005 1:37:09 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/22/2005 1:37:09 PM
Surr: DNOP	102	60-124		%REC	1	9/22/2005 1:37:09 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	9/24/2005
Benzene	ND	0.050		mg/Kg	1	9/24/2005
Toluene	ND	0.050		mg/Kg	1	9/24/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/24/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/24/2005
Surr: 4-Bromofluorobenzene	110	86.2-120		%REC	1	9/24/2005

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range

Full Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co Client Sample ID: RR-6A-91505
 Lab Order: 0509181 Collection Date: 9/15/2005 2:55:00 PM
 Project: RR Rock Lagoon Add. Exc. 9/15/05
 Lab ID: 0509181-06 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/22/2005 2:10:14 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/22/2005 2:10:14 PM
Surr: DNOP	101	60-124		%REC	1	9/22/2005 2:10:14 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	9/24/2005
Benzene	ND	0.050		mg/Kg	1	9/24/2005
Toluene	ND	0.050		mg/Kg	1	9/24/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/24/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/24/2005
Surr: 4-Bromofluorobenzene	90.5	86.2-120		%REC	1	9/24/2005

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits
 J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank E - Value above quantitation range
 * - Value exceeds Maximum Contaminant Level

Full Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
 Lab Order: 0509181
 Project: RR Rock Lagoon Add. Exc. 9/15/05
 Lab ID: 0509181-07

Client Sample ID: RR-7A-91505
 Collection Date: 9/15/2005 3:00:00 PM
 Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: SCC
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/22/2005 3:16:27 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/22/2005 3:16:27 PM
Surr: DNOP	104	60-124		%REC	1	9/22/2005 3:16:27 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: BDH
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	9/24/2005
Benzene	ND	0.050		mg/Kg	1	9/24/2005
Toluene	ND	0.050		mg/Kg	1	9/24/2005
Ethylbenzene	ND	0.050		mg/Kg	1	9/24/2005
Xylenes, Total	ND	0.050		mg/Kg	1	9/24/2005
Surr: 4-Bromofluorobenzene	104	86.2-120		%REC	1	9/24/2005

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 B - Analyte detected in the associated Method Blank
 * - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 E - Value above quantitation range



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LABORATORY ANALYTICAL REPORT

ent: Hall Environmental-Albuquerque
Project:
Lab ID: B05091262-001
Client Sample ID: RR-1A-91505, 0509181-01B

Report Date: 09/23/05
Collection Date: 09/20/05 14:30
Date Received: 09/20/05
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	7.6	wt%		0.01		SW3550A	09/22/05 13:31 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
1-Methylnaphthalene	0.29	mg/kg	J	0.33		SW8270C	09/22/05 15:01 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 15:01 / dsm
2,4-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
2,6-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
1-Chloronaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
2-Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
2-Methylnaphthalene	0.069	mg/kg	J	0.33		SW8270C	09/22/05 15:01 / dsm
2-Nitrophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
3,3'-Dichlorobenzidine	ND	mg/kg		0.67		SW8270C	09/22/05 15:01 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7		SW8270C	09/22/05 15:01 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
4-Chloro-3-methylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
4-Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
4-Nitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 15:01 / dsm
Acenaphthene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Acenaphthylene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Azobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Benzidine	ND	mg/kg		0.67		SW8270C	09/22/05 15:01 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Benzo(b)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Benzo(g,h,i)perylene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Benzo(k)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
bis-(2-chloroethoxy)Methane	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
bis-(2-chloroethyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
bis(2-chloroisopropyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Butylbenzylphthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Chrysene	0.058	mg/kg	J	0.33		SW8270C	09/22/05 15:01 / dsm

Report RL - Analyte reporting limit.

NS: QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Location: Hall Environmental-Albuquerque
Project:
Lab ID: B05091262-001
Client Sample ID: RR-1A-91505, 0509181-01B

Report Date: 09/23/05
Collection Date: 09/20/05 14:30
Date Received: 09/20/05
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Diethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Dimethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Di-n-butyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Fluorene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Hexachlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Hexachlorobutadiene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 15:01 / dsm
Hexachloroethane	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Isophorone	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
m+p-Cresols	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Nitrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
o-Nitrosodimethylamine	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
o-Nitroso-di-n-propylamine	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 15:01 / dsm
Phenanthrene	1.6	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 15:01 / dsm
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 15:01 / dsm
Surr: 2,4,6-Tribromophenol	114	%REC			19-122	SW8270C	09/22/05 15:01 / dsm
Surr: 2-Fluorobiphenyl	82.4	%REC			30-115	SW8270C	09/22/05 15:01 / dsm
Surr: 2-Fluorophenol	81.5	%REC			25-121	SW8270C	09/22/05 15:01 / dsm
Surr: Nitrobenzene-d5	75.1	%REC			23-120	SW8270C	09/22/05 15:01 / dsm
Surr: Phenol-d5	83.0	%REC			24-113	SW8270C	09/22/05 15:01 / dsm
Surr: Terphenyl-d14	102	%REC			18-137	SW8270C	09/22/05 15:01 / dsm

Report RL - Analyte reporting limit.
Conditions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Location: Hall Environmental-Albuquerque

Project:

Lab ID: B05091262-002

Client Sample ID: RR-2A-91505, 050981-2B

Report Date: 09/23/05

Collection Date: 09/15/05 14:35

Date Received: 09/20/05

Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	7.9	wt%		0.01		SW3550A	09/22/05 13:31 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
1-Methylnaphthalene	0.13	mg/kg	J	0.33		SW8270C	09/22/05 15:44 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 15:44 / dsm
2,4-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
2,6-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
2-Chloronaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
2-Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
2-Methylnaphthalene	0.11	mg/kg	J	0.33		SW8270C	09/22/05 15:44 / dsm
2-Nitrophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
3,3'-Dichlorobenzidine	ND	mg/kg		0.67		SW8270C	09/22/05 15:44 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7		SW8270C	09/22/05 15:44 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
4-Chloro-3-methylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
4-Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
4-Nitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 15:44 / dsm
Acenaphthene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Acenaphthylene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Azobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Benzidine	ND	mg/kg		0.67		SW8270C	09/22/05 15:44 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Benzo(b)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Benzo(g,h,i)perylene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Benzo(k)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
bis(-2-chloroethoxy)Methane	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
bis(2-chloroisopropyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Butylbenzylphthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Chrysene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm

Report Definitions: RL - Analyte reporting limit.

QCL - Quality control limit.

J - Estimated value. The analyte was present but less than the reporting limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque

Project:

Lab ID: B05091262-002

Client Sample ID: RR-2A-91505, 050981-2B

Report Date: 09/23/05

Collection Date: 09/15/05 14:35

Date Received: 09/20/05

Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Diethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Dimethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Di-n-butyl phthalate	0.13	mg/kg	J	0.33		SW8270C	09/22/05 15:44 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Fluorene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Hexachlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Hexachlorobutadiene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 15:44 / dsm
Hexachloroethane	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Isophorone	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
m+p-Cresols	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Naphthalene	0.043	mg/kg	J	0.33		SW8270C	09/22/05 15:44 / dsm
Nitrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
N,N-Dimethylaniline	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
n-Nitroso-di-n-propylamine	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 15:44 / dsm
Phenanthrene	0.16	mg/kg	J	0.33		SW8270C	09/22/05 15:44 / dsm
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 15:44 / dsm
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 15:44 / dsm
Surr: 2,4,6-Tribromophenol	95.0	%REC			19-122	SW8270C	09/22/05 15:44 / dsm
Surr: 2-Fluorobiphenyl	77.5	%REC			30-115	SW8270C	09/22/05 15:44 / dsm
Surr: 2-Fluorophenol	84.0	%REC			25-121	SW8270C	09/22/05 15:44 / dsm
Surr: Nitrobenzene-d5	74.9	%REC			23-120	SW8270C	09/22/05 15:44 / dsm
Surr: Phenol-d5	84.0	%REC			24-113	SW8270C	09/22/05 15:44 / dsm
Surr: Terphenyl-d14	91.9	%REC			18-137	SW8270C	09/22/05 15:44 / dsm

Report RL - Analyte reporting limit.

MCL - Maximum contaminant level.

Qualifications: QCL - Quality control limit.

ND - Not detected at the reporting limit.

J - Estimated value. The analyte was present but less than the reporting limit.



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LABORATORY ANALYTICAL REPORT

ent: Hall Environmental-Albuquerque
Project:
Lab ID: B05091262-003
Client Sample ID: RR-3A-91505, 0509181-3B

Report Date: 09/23/05
Collection Date: 09/15/05 14:40
Date Received: 09/20/05
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	11	wt%		0.01		SW3550A	09/22/05 13:32 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
1-Methylnaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 16:27 / dsm
2,4-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
2,6-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
2-Chloronaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
2-Methylnaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
2-Nitrophenol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
3,3'-Dichlorobenzidine	ND	mg/kg		0.67		SW8270C	09/22/05 16:27 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7		SW8270C	09/22/05 16:27 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
4-Chloro-3-methylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
4-Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
4-Nitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 16:27 / dsm
Acenaphthene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Acenaphthylene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Azobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Benzidine	ND	mg/kg		0.67		SW8270C	09/22/05 16:27 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Benzo(b)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Benzo(g,h,i)perylene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Benzo(k)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
bis(-2-chloroethoxy)Methane	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
bis(2-chloroisopropyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Butylbenzylphthalate	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Chrysene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque
Project:
Lab ID: B05091262-003
Client Sample ID: RR-3A-91505, 0509181-3B

Report Date: 09/23/05
Collection Date: 09/15/05 14:40
Date Received: 09/20/05
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Diethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Dimethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Di-n-butyl phthalate	0.091	mg/kg	J	0.33		SW8270C	09/22/05 16:27 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Fluorene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Hexachlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Hexachlorobutadiene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 16:27 / dsm
Hexachloroethane	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Isophorone	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
m+p-Cresols	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Nitrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
N,N-Dimethylaniline	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
n-Nitroso-di-n-propylamine	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 16:27 / dsm
Phenanthrene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 16:27 / dsm
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 16:27 / dsm
Surr: 2,4,6-Tribromophenol	99.5	%REC			19-122	SW8270C	09/22/05 16:27 / dsm
Surr: 2-Fluorobiphenyl	81.5	%REC			30-115	SW8270C	09/22/05 16:27 / dsm
Surr: 2-Fluorophenol	84.5	%REC			25-121	SW8270C	09/22/05 16:27 / dsm
Surr: Nitrobenzene-d5	79.7	%REC			23-120	SW8270C	09/22/05 16:27 / dsm
Surr: Phenol-d5	85.5	%REC			24-113	SW8270C	09/22/05 16:27 / dsm
Surr: Terphenyl-d14	95.1	%REC			18-137	SW8270C	09/22/05 16:27 / dsm

Report RL - Analyte reporting limit.

MCL - Maximum contaminant level.

Qualifications: QCL - Quality control limit.

ND - Not detected at the reporting limit.

J - Estimated value. The analyte was present but less than the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque

Project:

Lab ID: B05091262-004

Client Sample ID: RR-4A-91505, 0509181-4B

Report Date: 09/23/05

Collection Date: 09/15/05 14:45

Date Received: 09/20/05

Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	9.2	wt%		0.01		SW3550A	09/22/05 13:32 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
1-Methylnaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 17:10 / dsm
2,4-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
2,6-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
2-Chloronaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
2-Methylnaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
2-Nitrophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
3,3'-Dichlorobenzidine	ND	mg/kg		0.67		SW8270C	09/22/05 17:10 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7		SW8270C	09/22/05 17:10 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
4-Chloro-3-methylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
4-Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
4-Nitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 17:10 / dsm
Acenaphthene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Acenaphthylene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Azobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Benzidine	ND	mg/kg		0.67		SW8270C	09/22/05 17:10 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Benzo(b)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Benzo(g,h,i)perylene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Benzo(k)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
bis(-2-chloroethoxy)Methane	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
bis(2-chloroisopropyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Butylbenzylphthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Chrysene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm

Report RL - Analyte reporting limit.

MCL - Maximum contaminant level.

Definitions: QCL - Quality control limit.

ND - Not detected at the reporting limit.



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LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque
Project:
Lab ID: B05091262-004
Client Sample ID: RR-4A-91505, 0509181-4B

Report Date: 09/23/05
Collection Date: 09/15/05 14:45
Date Received: 09/20/05
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Diethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Dimethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Di-n-butyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Fluorene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Hexachlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Hexachlorobutadiene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 17:10 / dsm
Hexachloroethane	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Isophorone	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
m+p-Cresols	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Nitrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Nitrosodimethylamine	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
n-Nitroso-di-n-propylamine	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 17:10 / dsm
Phenanthrene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 17:10 / dsm
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 17:10 / dsm
Surr: 2,4,6-Tribromophenol	95.0	%REC			19-122	SW8270C	09/22/05 17:10 / dsm
Surr: 2-Fluorobiphenyl	77.8	%REC			30-115	SW8270C	09/22/05 17:10 / dsm
Surr: 2-Fluorophenol	78.0	%REC			25-121	SW8270C	09/22/05 17:10 / dsm
Surr: Nitrobenzene-d5	70.9	%REC			23-120	SW8270C	09/22/05 17:10 / dsm
Surr: Phenol-d5	77.5	%REC			24-113	SW8270C	09/22/05 17:10 / dsm
Surr: Terphenyl-d14	89.3	%REC			18-137	SW8270C	09/22/05 17:10 / dsm

Report RL - Analyte reporting limit.
Abbreviations: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque

Project:

Lab ID: B05091262-005

Client Sample ID: RR-5A-91505, 0509181-5B

Report Date: 09/23/05

Collection Date: 09/15/05 14:50

Date Received: 09/20/05

Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	6.2	wt%		0.01		SW3550A	09/22/05 13:32 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
1-Methylnaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 17:53 / dsm
2,4-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
2,6-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
2-Chloronaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
2-Methylnaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
2-Nitrophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
3,3'-Dichlorobenzidine	ND	mg/kg		0.67		SW8270C	09/22/05 17:53 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7		SW8270C	09/22/05 17:53 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
4-Chloro-3-methylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
4-Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
4-Nitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 17:53 / dsm
Acenaphthene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Acenaphthylene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Azobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Benzidine	ND	mg/kg		0.67		SW8270C	09/22/05 17:53 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Benzo(b)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Benzo(g,h,i)perylene	0.044	mg/kg	J	0.33		SW8270C	09/22/05 17:53 / dsm
Benzo(k)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
bis(-2-chloroethoxy)Methane	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
bis(2-chloroisopropyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Butylbenzylphthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Chrysene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm

Report RL - Analyte reporting limit.

MCL - Maximum contaminant level.

Definitions: QCL - Quality control limit.

ND - Not detected at the reporting limit.

J - Estimated value. The analyte was present but less than the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque
Project:
Lab ID: B05091262-005
Client Sample ID: RR-5A-91505, 0509181-5B

Report Date: 09/23/05
Collection Date: 09/15/05 14:50
Date Received: 09/20/05
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	0.040	mg/kg	J	0.33		SW8270C	09/22/05 17:53 / dsm
Diethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Dimethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Di-n-butyl phthalate	0.069	mg/kg	J	0.33		SW8270C	09/22/05 17:53 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Fluorene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Hexachlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Hexachlorobutadiene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 17:53 / dsm
Hexachloroethane	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Isophorone	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
m+p-Cresols	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Nitrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Nitrosodimethylamine	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
n-Nitroso-di-n-propylamine	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 17:53 / dsm
Phenanthrene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 17:53 / dsm
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 17:53 / dsm
Surr: 2,4,6-Tribromophenol	93.0	%REC			19-122	SW8270C	09/22/05 17:53 / dsm
Surr: 2-Fluorobiphenyl	80.7	%REC			30-115	SW8270C	09/22/05 17:53 / dsm
Surr: 2-Fluorophenol	85.0	%REC			25-121	SW8270C	09/22/05 17:53 / dsm
Surr: Nitrobenzene-d5	76.3	%REC			23-120	SW8270C	09/22/05 17:53 / dsm
Surr: Phenol-d5	81.0	%REC			24-113	SW8270C	09/22/05 17:53 / dsm
Surr: Terphenyl-d14	95.5	%REC			18-137	SW8270C	09/22/05 17:53 / dsm

Report RL - Analyte reporting limit.

MCL - Maximum contaminant level.

Initiations: QCL - Quality control limit.

ND - Not detected at the reporting limit.

J - Estimated value. The analyte was present but less than the reporting limit.



ENERGY LABORATORIES, INC. * 1120 S 27th St * PO Box 30916 * Billings, MT 59107-0916
Toll Free 800.735.4489 * 406.252.6325 * FAX 406.252.6069 * eli@energylab.com

LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque

Project:

Lab ID: B05091262-006

Client Sample ID: RR-6A-91505, 0509181-6B

Report Date: 09/23/05

Collection Date: 09/15/05 14:55

Date Received: 09/20/05

Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	11	wt%		0.01		SW3550A	09/22/05 13:32 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
1-Methylnaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 18:36 / dsm
2,4-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
2,6-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
2-Chloronaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
1-Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
2-Methylnaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
2-Nitrophenol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
3,3'-Dichlorobenzidine	ND	mg/kg		0.67		SW8270C	09/22/05 18:36 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7		SW8270C	09/22/05 18:36 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
4-Chloro-3-methylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
4-Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
4-Nitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 18:36 / dsm
Acenaphthene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Acenaphthylene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Azobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Benzidine	ND	mg/kg		0.67		SW8270C	09/22/05 18:36 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Benzo(b)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Benzo(g,h,i)perylene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Benzo(k)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
bis(-2-chloroethoxy)Methane	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
bis(-2-chloroethyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
bis(2-chloroisopropyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Butylbenzylphthalate	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Chrysene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque

Project:

Lab ID: B05091262-006

Client Sample ID: RR-6A-91505, 0509181-6B

Report Date: 09/23/05

Collection Date: 09/15/05 14:55

Date Received: 09/20/05

Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Diethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Dimethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Di-n-butyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Fluorene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Hexachlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Hexachlorobutadiene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 18:36 / dsm
Hexachloroethane	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Isophorone	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
m+p-Cresols	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Nitrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Nitrosodimethylamine	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Nitroso-di-n-propylamine	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 18:36 / dsm
Phenanthrene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 18:36 / dsm
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 18:36 / dsm
Surr: 2,4,6-Tribromophenol	93.0	%REC			19-122	SW8270C	09/22/05 18:36 / dsm
Surr: 2-Fluorobiphenyl	84.1	%REC			30-115	SW8270C	09/22/05 18:36 / dsm
Surr: 2-Fluorophenol	88.0	%REC			25-121	SW8270C	09/22/05 18:36 / dsm
Surr: Nitrobenzene-d5	79.5	%REC			23-120	SW8270C	09/22/05 18:36 / dsm
Surr: Phenol-d5	84.0	%REC			24-113	SW8270C	09/22/05 18:36 / dsm
Surr: Terphenyl-d14	95.5	%REC			18-137	SW8270C	09/22/05 18:36 / dsm

Report Definitions: RL - Analyte reporting limit.
QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

ent: Hall Environmental-Albuquerque
Project:
Lab ID: B05091262-007
Client Sample ID: RR-7A-91505, 0509181-7B

Report Date: 09/23/05
Collection Date: 09/15/05 15:00
Date Received: 09/20/05
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
PHYSICAL CHARACTERISTICS							
Moisture	10	wt%		0.01		SW3550A	09/22/05 13:32 / mwc
SEMI-VOLATILE ORGANIC COMPOUNDS							
1,2,4-Trichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
1,2-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
1,3-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
1,4-Dichlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
1-Methylnaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
2,4,5-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
2,4,6-Trichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
2,4-Dichlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
2,4-Dimethylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
2,4-Dinitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 19:19 / dsm
2,4-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
2,6-Dinitrotoluene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
2-Chloronaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
1-Chloronaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
2-Methylnaphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
2-Nitrophenol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
3,3'-Dichlorobenzidine	ND	mg/kg		0.67		SW8270C	09/22/05 19:19 / dsm
4,6-Dinitro-2-methylphenol	ND	mg/kg		1.7		SW8270C	09/22/05 19:19 / dsm
4-Bromophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
4-Chloro-3-methylphenol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
4-Chlorophenol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
4-Chlorophenyl phenyl ether	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
4-Nitrophenol	ND	mg/kg		1.7		SW8270C	09/22/05 19:19 / dsm
Acenaphthene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Acenaphthylene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Azobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Benzidine	ND	mg/kg		0.67		SW8270C	09/22/05 19:19 / dsm
Benzo(a)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Benzo(a)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Benzo(b)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Benzo(g,h,i)perylene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Benzo(k)fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
bis-(2-chloroethoxy)Methane	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
bis-(2-chloroethyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
bis(2-chloroisopropyl)Ether	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
bis(2-ethylhexyl)Phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Butylbenzylphthalate	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Chrysene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.



LABORATORY ANALYTICAL REPORT

Client: Hall Environmental-Albuquerque
Project:
Lab ID: B05091262-007
Client Sample ID: RR-7A-91505, 0509181-7B

Report Date: 09/23/05
Collection Date: 09/15/05 15:00
Date Received: 09/20/05
Matrix: Soil

Analyses	Result	Units	Qual	MCL/		Method	Analysis Date / By
				RL	QCL		
SEMI-VOLATILE ORGANIC COMPOUNDS							
Dibenzo(a,h)anthracene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Diethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Dimethyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Di-n-butyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Di-n-octyl phthalate	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Fluoranthene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Fluorene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Hexachlorobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Hexachlorobutadiene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Hexachlorocyclopentadiene	ND	mg/kg		0.67		SW8270C	09/22/05 19:19 / dsm
Hexachloroethane	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Indeno(1,2,3-cd)pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Isophorone	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
m+p-Cresols	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Naphthalene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Nitrobenzene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Nitrosodimethylamine	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
n-Nitroso-di-n-propylamine	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
n-Nitrosodiphenylamine	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
o-Cresol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Pentachlorophenol	ND	mg/kg		1.7		SW8270C	09/22/05 19:19 / dsm
Phenanthrene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Phenol	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Pyrene	ND	mg/kg		0.33		SW8270C	09/22/05 19:19 / dsm
Pyridine	ND	mg/kg		0.67		SW8270C	09/22/05 19:19 / dsm
Surr: 2,4,6-Tribromophenol	76.0	%REC			19-122	SW8270C	09/22/05 19:19 / dsm
Surr: 2-Fluorobiphenyl	73.3	%REC			30-115	SW8270C	09/22/05 19:19 / dsm
Surr: 2-Fluorophenol	74.0	%REC			25-121	SW8270C	09/22/05 19:19 / dsm
Surr: Nitrobenzene-d5	66.2	%REC			23-120	SW8270C	09/22/05 19:19 / dsm
Surr: Phenol-d5	70.0	%REC			24-113	SW8270C	09/22/05 19:19 / dsm
Surr: Terphenyl-d14	83.4	%REC			18-137	SW8270C	09/22/05 19:19 / dsm

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Work Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05

QC SUMMARY REPORT

Method Blank

Sample ID	MB-8794	Batch ID:	8794	Test Code:	SW8015	Units:	mg/Kg	Analysis Date	9/20/2005 8:51:53 PM	Prep Date	9/20/2005
Client ID:		Run ID:	FID(17A) 2_050920A	SeqNo:	402214						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10									
Motor Oil Range Organics (MRO)	ND	50									
Surr: DNOP	10.73	0	10	0	107	60	124	0			

Sample ID	mb-8782	Batch ID:	8782	Test Code:	SW8260B	Units:	mg/Kg	Analysis Date	9/24/2005	Prep Date	9/19/2005
Client ID:		Run ID:	THOR_050923A	SeqNo:	403371						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.05	0	0	0	0	0	0			
Benzene	ND	0.05	0	0	0	0	0	0			
Toluene	ND	0.05	0	0	0	0	0	0			
Ethylbenzene	ND	0.05	0	0	0	0	0	0			
Xylenes, Total	0.0457	0.05	0	0	0	0	0	0			J
Surr: 4-Bromofluorobenzene	0.6268	0	0.5	0	125	72.9	143	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Work Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0509181-03a ms	Batch ID:	8782	Test Code:	SW8260B	Units:	mg/Kg	Analysis Date	9/24/2005	Prep Date	9/19/2005
Client ID:	RR-3A-91505	Run ID:	THOR_050923A	SeqNo:	403373						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.7619	0.05	1	0	76.2	78	126	0			S
Toluene	1.144	0.05	1	0	114	79.4	117	0			
Surr: 4-Bromofluorobenzene	0.5177	0	0.5	0	104	72.9	143	0			

Sample ID	0509181-03a msd	Batch ID:	8782	Test Code:	SW8260B	Units:	mg/Kg	Analysis Date	9/24/2005	Prep Date	9/19/2005
Client ID:	RR-3A-91505	Run ID:	THOR_050923A	SeqNo:	403374						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.8462	0.05	1	0	84.6	78	126	0.7619	10.5	19	
Toluene	0.9524	0.05	1	0	95.2	79.4	117	1.144	18.3	0	
Surr: 4-Bromofluorobenzene	0.5191	0	0.5	0	104	72.9	143	0.5177	0.270	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Work Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID	0509181-03a ms	Batch ID:	8782	Test Code:	SW8260B	Units:	mg/Kg	Analysis Date	9/24/2005	Prep Date	9/19/2005
Client ID:	RR-3A-91505	Run ID:	THOR_050923A	SeqNo:	403373						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.7619	0.05	1	0	76.2	78	126	0			S
Toluene	1.144	0.05	1	0	114	79.4	117	0			
Surr: 4-Bromofluorobenzene	0.5177	0	0.5	0	104	72.9	143	0			

Sample ID	0509181-03a msd	Batch ID:	8782	Test Code:	SW8260B	Units:	mg/Kg	Analysis Date	9/24/2005	Prep Date	9/19/2005
Client ID:	RR-3A-91505	Run ID:	THOR_050923A	SeqNo:	403374						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.8462	0.05	1	0	84.6	78	126	0.7619	10.5	19	
Toluene	0.9524	0.05	1	0	95.2	79.4	117	1.144	18.3	0	
Surr: 4-Bromofluorobenzene	0.5191	0	0.5	0	104	72.9	143	0.5177	0.270	0	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Date: 26-Sep-05

CLIENT: Giant Refining Co
Work Order: 0509181
Project: RR Rock Lagoon Add. Exc. 9/15/05

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID	LCS-8794	Batch ID: 8794	Test Code: SW8015	Units: mg/Kg	Analysis Date	9/20/2005 9:24:58 PM	Prep Date	9/20/2005			
Client ID:			Run ID: FID(17A) 2_050920A		SeqNo:	402215					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44.24	10	50	0	88.5	67.4	117	0			

Sample ID	LCSD-8794	Batch ID: 8794	Test Code: SW8015	Units: mg/Kg	Analysis Date	9/20/2005 9:58:02 PM	Prep Date	9/20/2005			
Client ID:			Run ID: FID(17A) 2_050920A		SeqNo:	402216					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41.68	10	50	0	83.4	67.4	117	44.24	5.96	17.4	

Sample ID	lcs-8782	Batch ID: 8782	Test Code: SW8260B	Units: mg/Kg	Analysis Date	9/24/2005	Prep Date	9/19/2005			
Client ID:			Run ID: THOR_050923A		SeqNo:	403372					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.8492	0.05	1	0	84.9	78	126	0			
Toluene	1.034	0.05	1	0	103	79.4	117	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

Hall Environmental Analysis Laboratory

Sample Receipt Checklist

Client Name GIANTREFIN

Date and Time Received:

9/19/2005

Work Order Number 0509181

Received by

GLS

Checklist completed by

Signature

Date

Matrix

Carrier name

Client drop-off

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐

No ☐

Not Present ☐

Not Shipped ☒

Custody seals intact on sample bottles?

Yes ☒

No ☐

N/A ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Water - VOA vials have zero headspace?

No VOA vials submitted ☒

Yes ☐

No ☐

Water - pH acceptable upon receipt?

Yes ☐

No ☐

N/A ☒

Container/Temp Blank temperature?

4°

4° C ± 2 Acceptable

If given sufficient time to cool.

COMMENTS:

Client contacted

Date contacted:

Person contacted

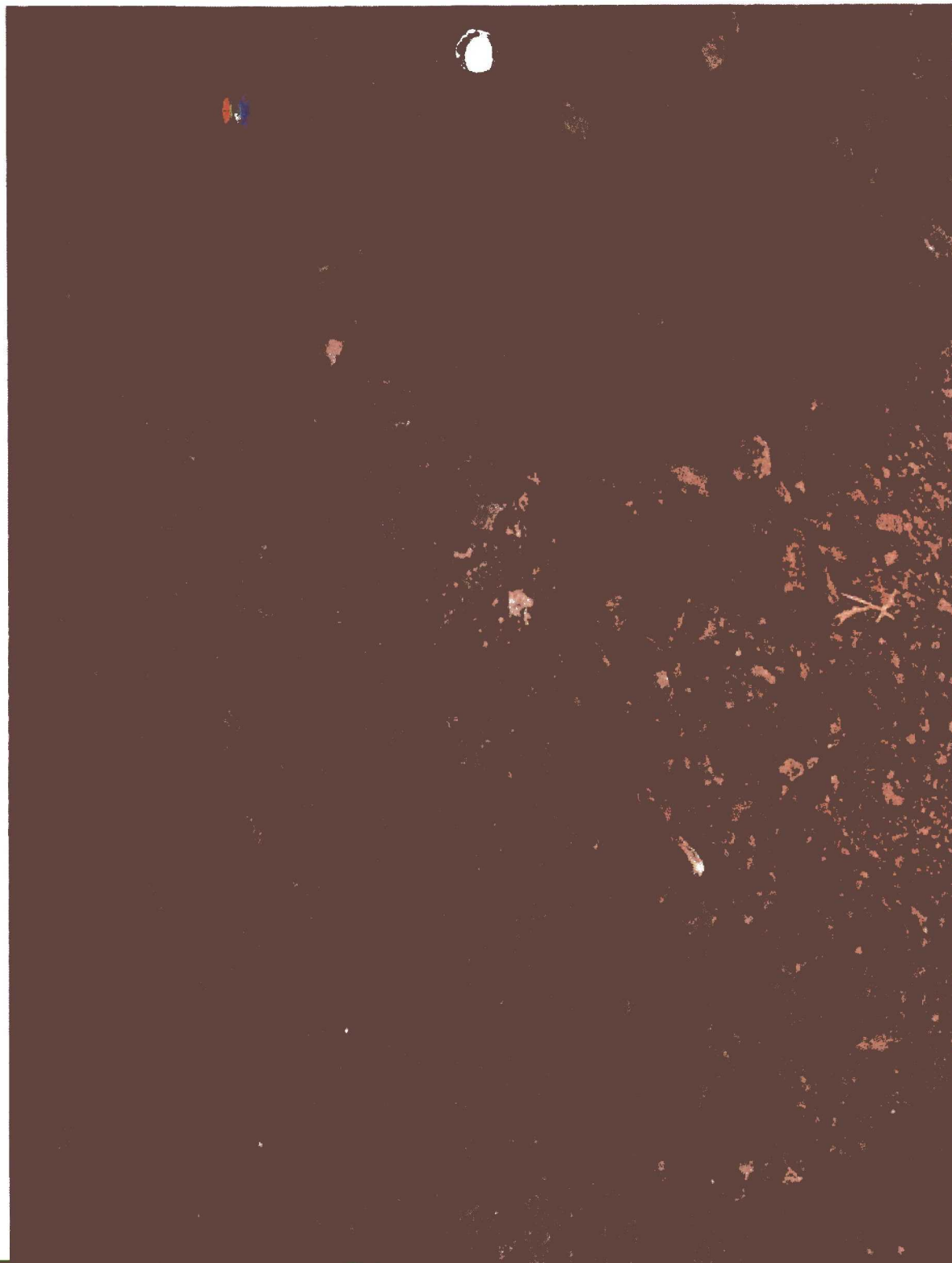
Contacted by:

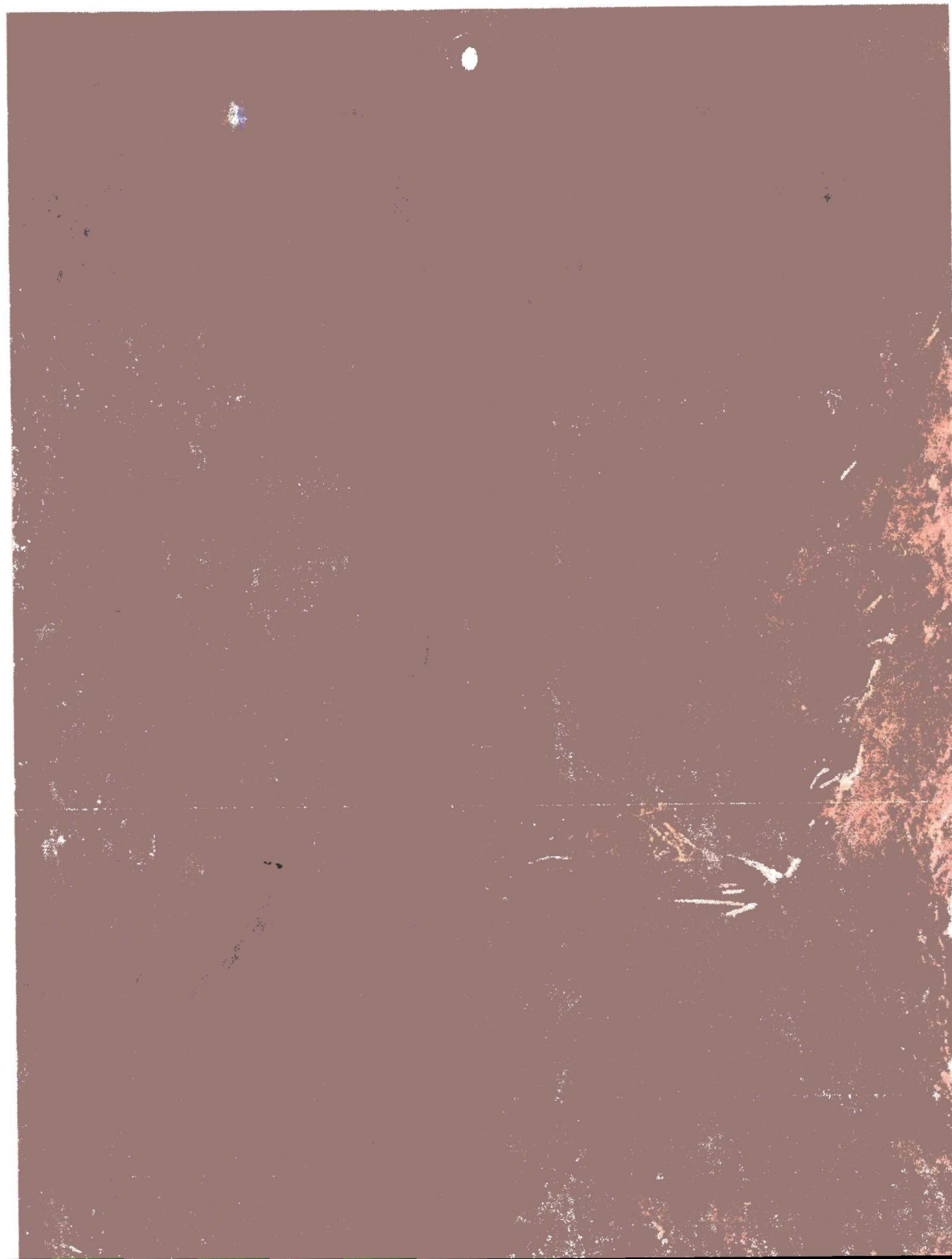
Regarding

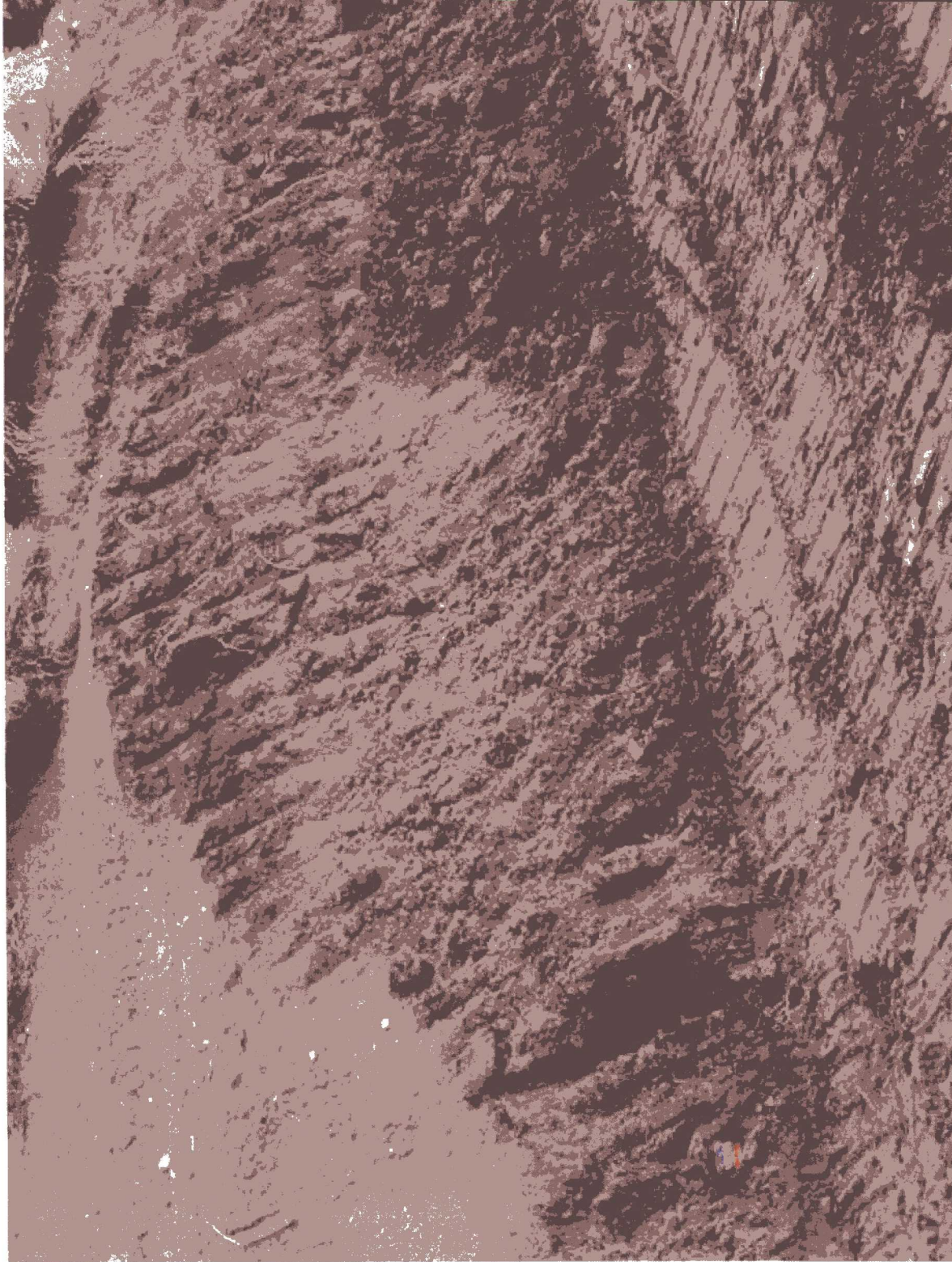
Comments:

Corrective Action

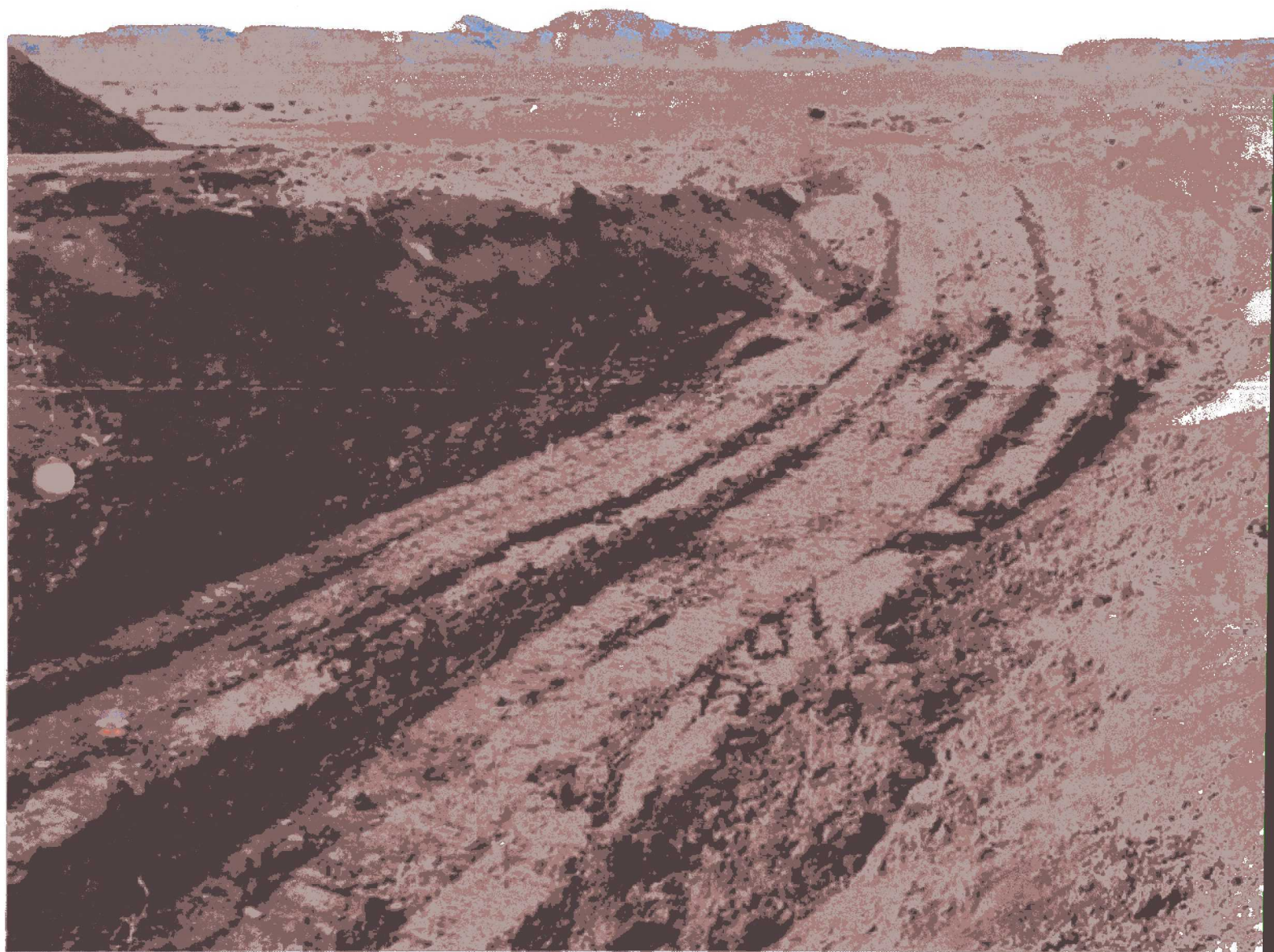
Appendix 8: Excavation Photos



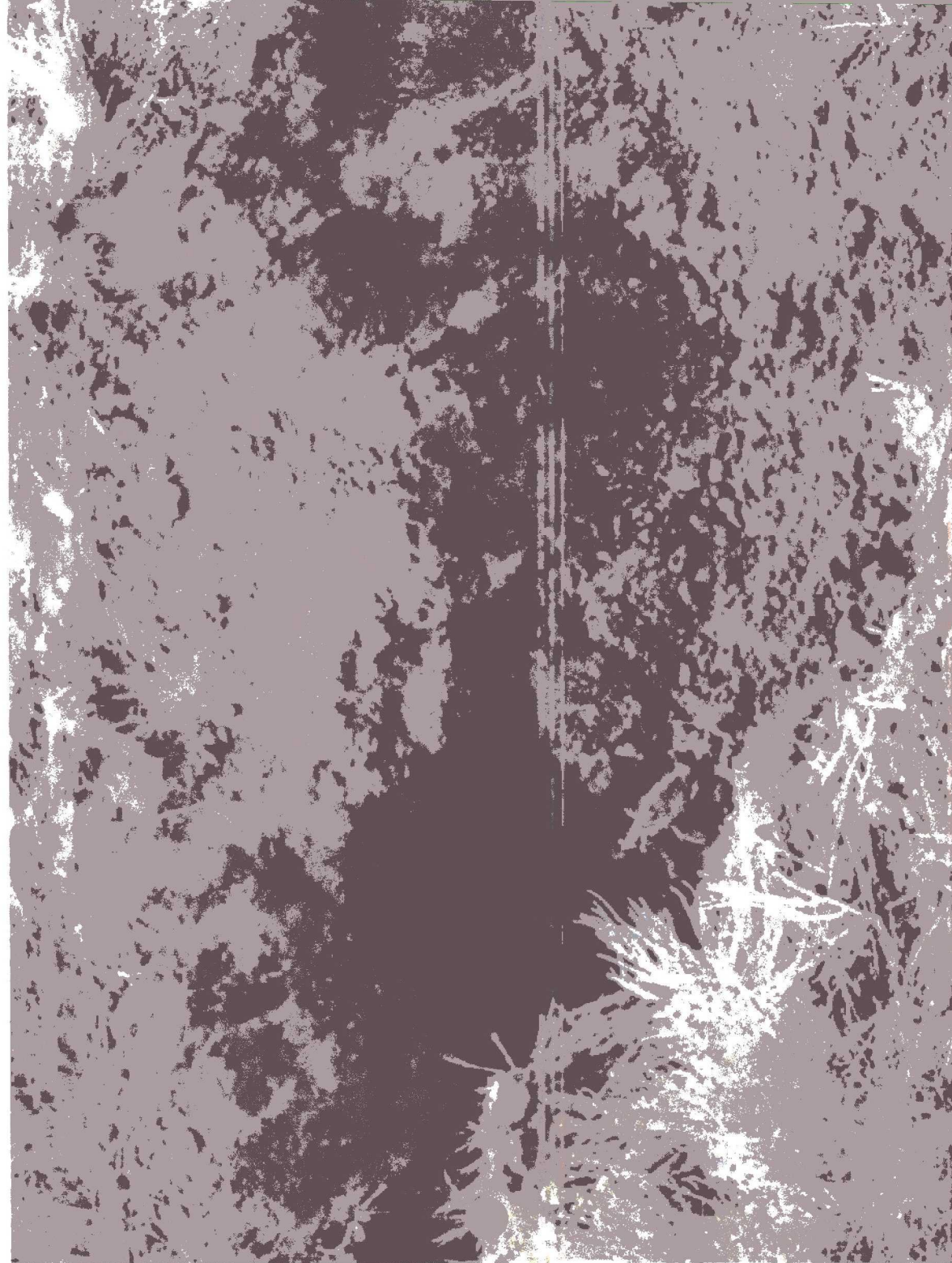




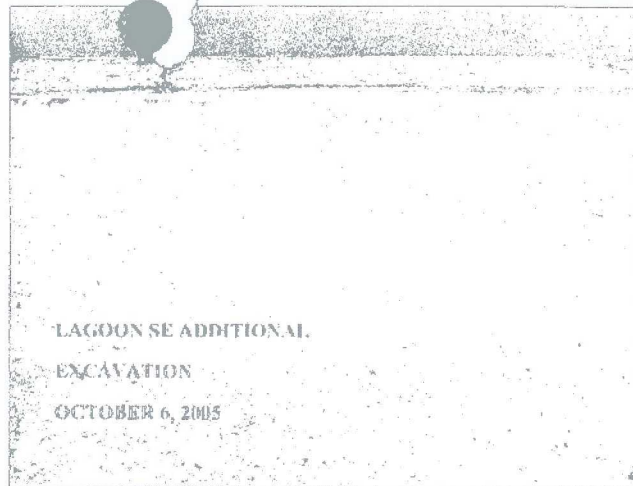




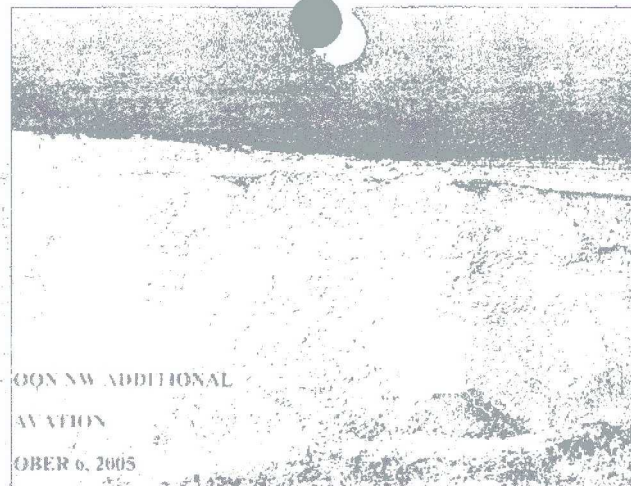




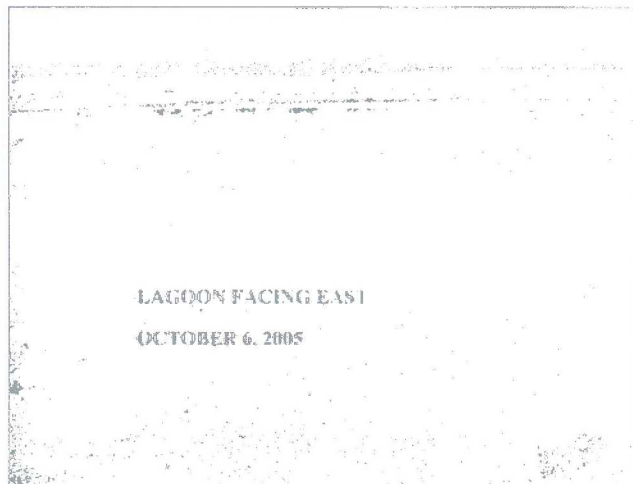




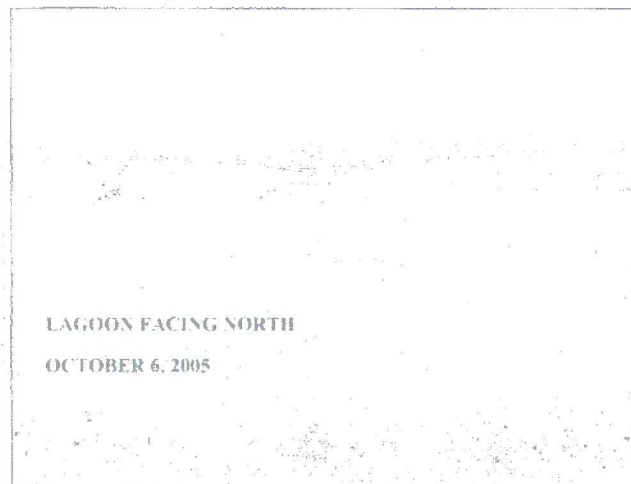
LAGOON SE ADDITIONAL
EXCAVATION
OCTOBER 6, 2005



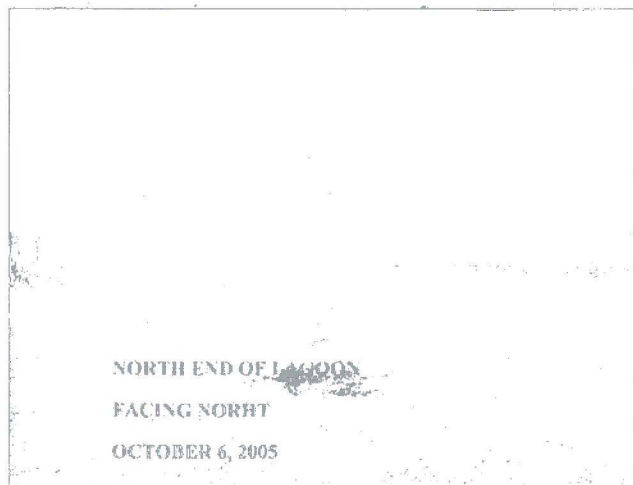
LAGOON SW ADDITIONAL
EXCAVATION
OCTOBER 6, 2005



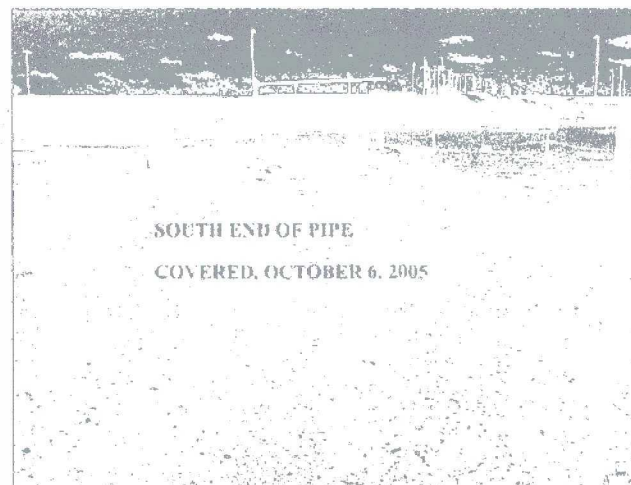
LAGOON FACING EAST
OCTOBER 6, 2005



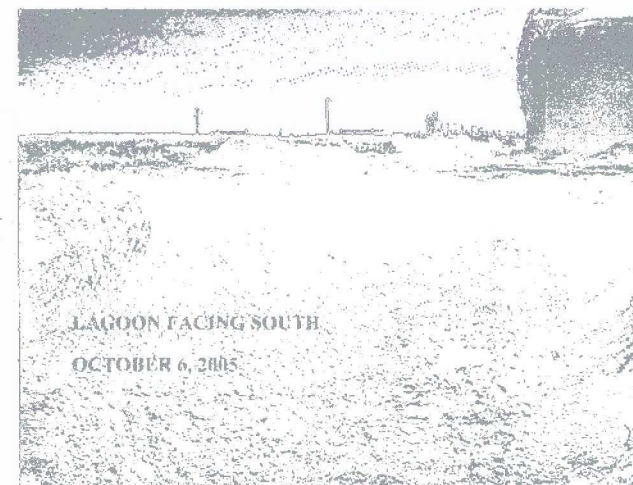
LAGOON FACING NORTH
OCTOBER 6, 2005



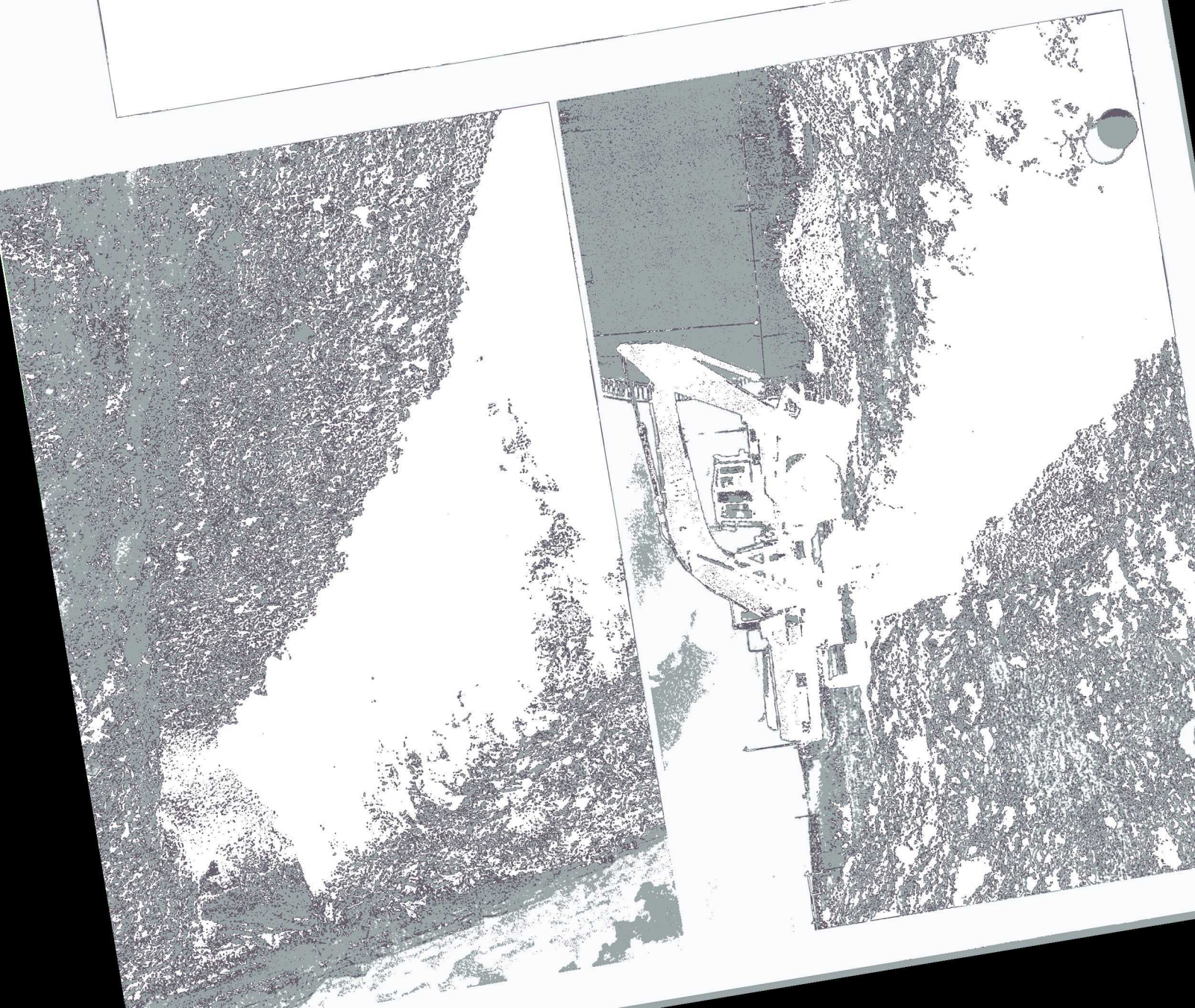
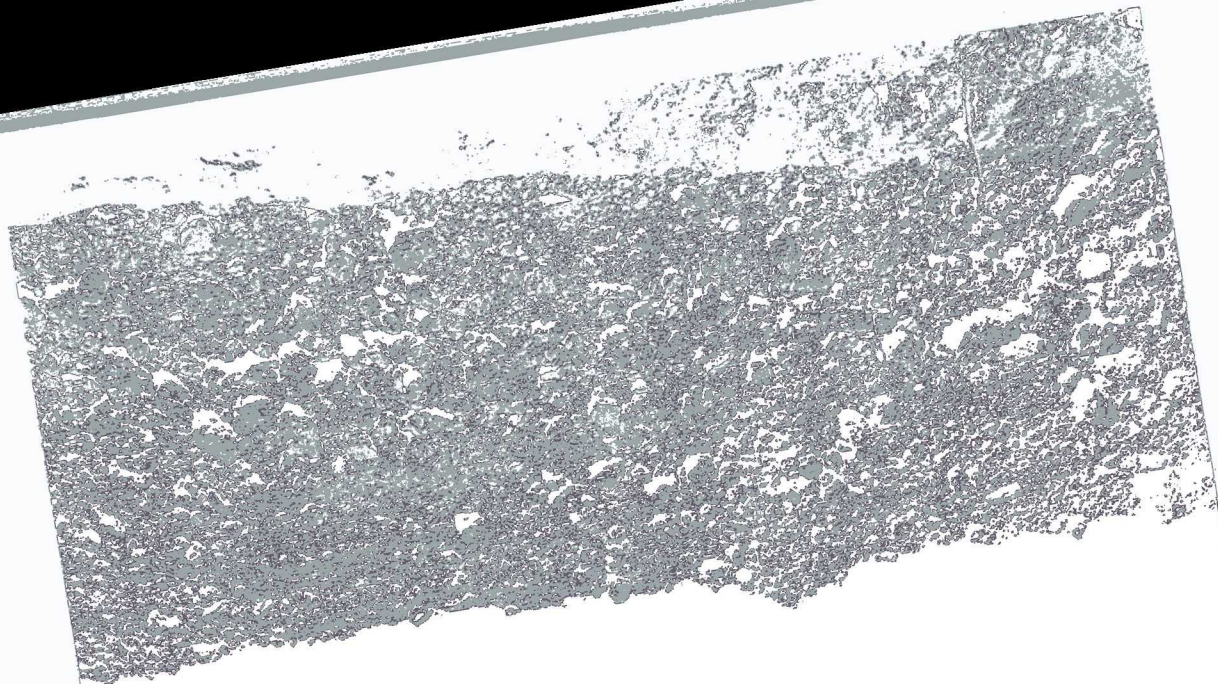
NORTH END OF LAGOON
FACING NORTH
OCTOBER 6, 2005



SOUTH END OF PIPE
COVERED, OCTOBER 6, 2005



LAGOON FACING SOUTH
OCTOBER 6, 2005





ASSAIGAI ANALYTICAL LABORATORIES, INC.

7300 Jefferson, NE • Albuquerque, New Mexico 87109 • (505) 345-8964 • FAX (505) 345-7259

3332 Wedgewood Dr., Suite N • El Paso, Texas 79925 • (915) 593-6000 • FAX (915) 593-7820

127 Eastgate Drive, 212-C • Los Alamos, New Mexico 87544 • (505) 662-2558

Explanation of codes

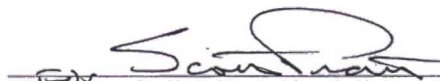
B	analyte detected in Method Blank
E	result is estimated
H	analyzed out of hold time
N	tentatively identified compound
S	subcontracted
1-9	see footnote

GIANT REFINERY
attn: **DORINDA MANCINI**
ROUTE 3 BOX 7
GALLUP, NM 87301

Assaigai Analytical Laboratories, Inc.

Certificate of Analysis

Client: **GIANT REFINERY**
Project: **0012204 RRRLTA**


William P. Biava: President of Assaigai Analytical Laboratories, Inc.

Client **BTZ-RRR-LAG**
Sample ID

Sample Matrix **SOIL**

Sample Collected **12/07/00**
10:00:00

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Run Code	Date
0012204-01A									
Oil Range Organics by 8015M									
00.1649	TT.2000.1649-5		Oil Range Organics	ND	mg/kg	1	100		12/20/00
0012204-01A									
SW846 3050A/6010A ICP									
M0114	MW.2001.25-11	7440-38-2	Arsenic	ND	mg / Kg	1	3		01/08/01
M0114	MW.2001.25-11	7440-39-3	Barium	333	mg / Kg	1	0.5		01/08/01
M0114	MW.2001.25-11	7440-43-9	Cadmium	0.24	mg / Kg	1	0.2		01/08/01
M0114	MW.2001.25-11	7440-70-2	Calcium	19200	mg / Kg	1	15		01/08/01
M0114	MW.2001.25-11	7440-47-3	Chromium	9.8	mg / Kg	1	1		01/08/01
M0114	MW.2001.25-11	7439-95-4	Magnesium	5160	mg / Kg	1	10		01/08/01
M0114	MW.2001.25-11	7440-09-7	Potassium	1390	mg / Kg	1	10		01/08/01
M0114	MW.2001.25-11	7782-49-2	Selenium	ND	mg / Kg	1	2.5		01/08/01
M0114	MW.2001.25-11	7440-21-3	Silicon	886	mg / Kg	1	25	E	01/08/01
M0114	MW.2001.25-11	7440-23-5	Sodium	995	mg / Kg	1	15		01/08/01
0012204-01A									
SW846 3050A/7000 series AA-FL									
M0114	MW.2001.19-36	7439-92-1	Lead	9.8	mg / Kg	1	5		01/05/01
M0114	MW.2001.21-68	7440-22-4	Silver	ND	mg / Kg	1	0.5		01/05/01
0012204-01A									
SW846 3550A/8270B SVOCs by GC/MS									
X00482	XG.2001.6-10	120-82-1	1,2,4-Trichlorobenzene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	95-50-1	1,2-Dichlorobenzene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	541-73-1	1,3-Dichlorobenzene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	106-46-7	1,4-Dichlorobenzene	ND	mg / Kg	1	0.03	1	12/28/00



Certificate of Analysis

GIANT REFINERY

Project: 0012204 RRRLTA

X00482	XG.2001.6-10	90-12-0	1-Methylnaphthalene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	58-90-2	2,3,4,6-Tetrachlorophenol	ND	mg / Kg	1	1.5	1	12/28/00
X00482	XG.2001.6-10	95-95-4	2,4,5-Trichlorophenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	88-06-2	2,4,6-Trichlorophenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	120-83-2	2,4-Dichlorophenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	105-67-9	2,4-Dimethylphenol	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	51-28-5	2,4-Dinitrophenol	ND	mg / Kg	1	0.67	1	12/28/00
X00482	XG.2001.6-10	121-14-2	2,4-Dinitrotoluene	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	606-20-2	2,6-Dinitrotoluene	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	91-58-7	2-Chloronaphthalene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	95-57-8	2-Chlorophenol	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	91-57-6	2-Methylnaphthalene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	95-48-7	2-Methylphenol	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	88-74-4	2-Nitroaniline	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	88-75-5	2-Nitrophenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10		3+4 Methylphenol	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	91-94-1	3,3-Dichlorobenzidine	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	99-09-2	3-Nitroaniline	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	534-52-1	4,6-Dinitro-2-methylphenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	101-55-3	4-Bromophenyl-phenylether	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	59-50-7	4-Chloro-3-methylphenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	106-47-8	4-Chloroaniline	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	7005-72-3	4-Chlorophenyl-phenylether	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	100-01-6	4-Nitroaniline	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	100-02-7	4-Nitrophenol	ND	mg / Kg	1	0.6	1	12/28/00
X00482	XG.2001.6-10	83-32-9	Acenaphthene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	208-96-8	Acenaphthylene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	62-53-3	Aniline	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	120-12-7	Anthracene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10		Azobenzene&1,2-Diphenylhydrazine	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	56-55-3	Benzo (a) anthracene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-17	50-32-8	Benzo(a)pyrene	ND	mg / Kg	7	0.03	1	12/28/00
X00482	XG.2001.6-17		Benzo(b & k)fluoranthene	ND	mg / Kg	7	0.03	1	12/28/00
X00482	XG.2001.6-17	191-24-2	Benzo(g,h,i)perylene	ND	mg / Kg	7	0.3	1	12/28/00
X00482	XG.2001.6-10	64-85-0	Benzoic acid	ND	mg / Kg	1	3	1	12/28/00
X00482	XG.2001.6-10	100-51-6	Benzyl alcohol	ND	mg / Kg	1	1.5	1	12/28/00
X00482	XG.2001.6-10	111-44-4	bis (2-Chloroethyl) ether	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	111-91-1	bis(2-Chloroethoxy)methane	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	108-60-1	bis(2-Chloroisopropyl)ether	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	117-81-7	bis(2-Ethylhexyl)phthalate	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	85-68-7	Butylbenzylphthalate	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	218-01-9	Chrysene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	84-74-2	di-n-Butylphthalate	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-17	117-84-0	di-n-Octylphthalate	ND	mg / Kg	7	0.3	1	12/28/00
X00482	XG.2001.6-17	53-70-3	Dibenz(a,h)anthracene	ND	mg / Kg	7	0.3	1	12/28/00
X00482	XG.2001.6-10	132-64-9	Dibenzofuran	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	84-66-2	Diethylphthalate	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	131-11-3	Dimethylphthalate	ND	mg / Kg	1	0.03	1	12/28/00

Certificate of Analysis

GIANT REFINERY

Project: 0012204 RRRLTA

X00482	XG.2001.6-10	206-44-0	Fluoranthene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	86737	Fluorene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	118-74-1	Hexachlorobenzene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	87-68-3	Hexachlorobutadiene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	77-47-4	Hexachlorocyclopentadiene	ND	mg / Kg	1	1.5	1	12/28/00
X00482	XG.2001.6-10	67-72-1	Hexachloroethane	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-17	193-39-5	Indeno(1,2,3-cd)pyrene	ND	mg / Kg	7	0.3	1	12/28/00
X00482	XG.2001.6-10	78-59-1	Isophorone	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	621-64-7	n-Nitroso-di-n-propylamine	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	62-75-9	n-Nitroso-dimethyl-amine	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	86-30-6	n-Nitrosodiphenylamine	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	91-20-3	Naphthalene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	98-95-3	Nitrobenzene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	87-86-5	Pentachlorophenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	85-01-8	Phenanthrene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	108-95-2	Phenol	ND	mg / Kg	1	0.3	1	12/28/00
X00482	XG.2001.6-10	129-00-0	Pyrene	ND	mg / Kg	1	0.03	1	12/28/00
X00482	XG.2001.6-10	110-86-1	Pyridine	ND	mg / Kg	1	0.3	1	12/28/00

0012204-01A

SW846 7471 CVAA

M0124	MW.2001.35-14	7439-97-6	Mercury	0.10	mg / Kg	1	0.05		01/10/01
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-01A

SW846 ME/8015A Diesel Range Organics by GC/FID

X00482	XG.2000.1385-2		Diesel Range Organics	ND	mg / Kg	1	25		12/18/00
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0012204-01A

SW846-9045B

SPH011	TT.2001.42-4		pH	7.0	units	1	0.1		01/06/01
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0012204-01B

SW846 5030A/8015A GRO by GC/FID

X00457	XG.2000.1391-4		Gasoline Range Organics	ND	mg / Kg	1	0.25		12/21/00
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0012204-01B

SW846 8260A Purgeable VOCs by GC/MS

X00486	XG.2000.1403-4	75-34-3	1,1 Dichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	107-06-2	1,2 Dichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	78-87-5	1,2 Dichloropropane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	1	0.05		12/20/00
X00486	XG.2000.1403-4	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-4	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12/20/00

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GIANT REFINERY

Project: 0012204 RRRLTA

X00486	XG.2000.1403-4	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	67-64-1	Acetone	ND	mg / Kg	1	0.05	12/20/00
X00486	XG.2000.1403-4	107-02-8	Acrolein	ND	mg / Kg	1	0.1	12/20/00
X00486	XG.2000.1403-4	107-13-1	Acrylonitrile	ND	mg / Kg	1	0.1	12/20/00
X00486	XG.2000.1403-4	71-43-2	Benzene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	75-27-4	Bromodichloromethane	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	75-25-2	Bromoform	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	74-83-9	Bromomethane	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	75-15-0	Carbon disulfide	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	124-48-1	Chlorodibromomethane	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	75-00-3	Chloroethane	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	67-66-3	Chloroform	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	74-87-3	Chloromethane	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	74-95-3	Dibromomethane	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	97-63-2	Ethyl methacrylate	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4		Freon 113	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	75-71-8	Freon 12	ND	mg / Kg	1	0.05	12/20/00
X00486	XG.2000.1403-4	74-88-4	Iodomethane	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	75-09-2	Methylene chloride	ND	mg / Kg	1	0.05	12/20/00
X00486	XG.2000.1403-4	91-20-3	Naphthalene	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	95-47-6	o-Xylene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01	12/20/00
X00486	XG.2000.1403-4	100-42-5	Styrene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	127-18-4	Tetrachloroethene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	108-88-3	Toluene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005	12/20/00
X00486	XG.2000.1403-4	75-69-4	Trichlorofluoromethane	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	108-05-4	Vinyl acetate	ND	mg / Kg	1	0.025	12/20/00
X00486	XG.2000.1403-4	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.025	12/20/00

0012204-01C

EPA 300.0

W0113	MW.2001.52-13	16887-00-6	Chloride	73.2	mg / Kg	20	0.05	01/11/01
W0113	MW.2001.52-13	14797-65-0	Nitrate, as N	2.48	mg / Kg	20	0.05	01/11/01
W0113	MW.2001.52-13		Orthophosphate, as P	ND	mg / Kg	20	0.05	01/11/01
W0113	MW.2001.69-1		Sulfate	140*	mg / Kg	20	0.05	01/11/01

Assaigai Analytical Laboratories, Inc.
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GIANT REFINERY

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*** Sample specific Detection Limit is determined by multiplying the sample Dilution Factor by the listed Reporting Detection Limit. ***

*** ND = Not detected; less than the sample specific Detection Limit. Results relate only to the items tested. ***

footnote 1 All surrogate recoveries were out of criteria, high. All reported compounds are non-detect. No bias apparent in sample. Data is valid as reported.

Quality Control Summary

Client: GIANT REFINERY
0012204

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

QC Type LCS: Lab Control Spike

QC Matrix SOLID

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
00.1649-3									
Oil Range Organics by 8015M									
00.1649	TT.2000.1649-3		Oil Range Organics	88	% Recovery	1	NA		12/20/00
M0114-002									
SW846 3050A/6010A ICP									
M0114	MW.2001.25-6	7440-38-2	Arsenic	95	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-6	7440-39-3	Barium	96	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-6	7440-43-9	Cadmium	92	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-6	7440-70-2	Calcium	97	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-6	7440-47-3	Chromium	95	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-6	7439-95-4	Magnesium	96	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-6	7440-09-7	Potassium	93	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-6	7782-49-2	Selenium	96	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-6	7440-21-3	Silicon	44	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-6	7440-23-5	Sodium	93	(%) Recov	1	NA		01/08/01
M0114-002									
SW846 3050A/7000 series AA-FL									
M0114	MW.2001.19-31	7439-92-1	Lead	97	(%) Recov	1	NA		01/05/01
M0114	MW.2001.21-63	7440-22-4	Silver	86	(%) Recov	1	NA		01/05/01
002									
SW846 7471 CVAA									
M0124	MW.2001.35-11	7439-97-6	Mercury	100	% Recovery	1	NA		01/10/01
W0113-002									
EPA 300.0									
W0113	MW.2001.52-3	16887-00-6	Chloride	100	% Recovery	1	NA		01/11/01
W0113	MW.2001.52-3	14797-65-0	Nitrate, as N	100	% Recovery	1	NA		01/11/01
W0113	MW.2001.52-3		Orthophosphate, as P	100	% Recovery	1	NA		01/11/01
W0113	MW.2001.52-3		Sulfate	100	% Recovery	1	NA		01/11/01
X00457-002									
SW846 5030A/8015A GRO by GC/FID									
X00457	XG.2000.1317-2		Gasoline Range Organics	88	% Recovery	1	NA		12/01/00
X00459-002									
SW846 ME/8015A Diesel Range Organics by GC/FID									
X00459	XG.2000.1315-4		Diesel Range Organics	98	% Recovery	1	NA		12/01/00
X00482-002									
SW846 3550A/8270B SVOCs by GC/MS									
X00482	XG.2001.6-3	120-82-1	1,2,4-Trichlorobenzene	79	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	106-46-7	1,4-Dichlorobenzene	81	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	121-14-2	2,4-Dinitrotoluene	83	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	95-57-8	2-Chlorophenol	84	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	59-50-7	4-Chloro-3-methylphenol	84	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	100-02-7	4-Nitrophenol	84	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	83-32-9	Acenaphthene	88	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	117-84-0	di-n-Octylphthalate	138	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	621-64-7	n-Nitroso-di-n-propylamine	80	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	87-86-5	Pentachlorophenol	96	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	108-95-2	Phenol	74	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	129-00-0	Pyrene	89	% Recovery	1	NA		12/20/00

Quality Control Summary

Client: **GIANT REFINERY**
0012204

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X00486-010

SW846 8260A Purgeable VOCs by GC/MS

X00486	XG.2000.1403-7	75-34-3	1,1 Dichloroethene	106	% Recovery	1	NA	12/20/00
X00486	XG.2000.1403-7	106-46-7	1,4 Dichlorobenzene	101	% Recovery	1	NA	12/20/00
X00486	XG.2000.1403-7	71-43-2	Benzene	107	% Recovery	1	NA	12/20/00
X00486	XG.2000.1403-7	108-90-7	Chlorobenzene	106	% Recovery	1	NA	12/20/00
X00486	XG.2000.1403-7	108-88-3	Toluene	111	% Recovery	1	NA	12/20/00
X00486	XG.2000.1403-7	79-01-6	Trichloroethene	106	% Recovery	1	NA	12/20/00

QC Type **LCSD: Lab Control Spike Duplicate Accuracy**QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
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00.1649-4

Oil Range Organics by 8015M

00.1649	TT.2000.1649-4		Oil Range Organics	100	% Recovery	1	NA	12/20/00
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M0114-003

SW846 3050A/6010A ICP

M0114	MW.2001.25-7	7440-38-2	Arsenic	97	(%) Recov	1	NA	01/08/01
M0114	MW.2001.25-7	7440-39-3	Barium	96	(%) Recov	1	NA	01/08/01
M0114	MW.2001.25-7	7440-43-9	Cadmium	93	(%) Recov	1	NA	01/08/01
M0114	MW.2001.25-7	7440-70-2	Calcium	98	(%) Recov	1	NA	01/08/01
M0114	MW.2001.25-7	7440-47-3	Chromium	96	(%) Recov	1	NA	01/08/01
M0114	MW.2001.25-7	7439-95-4	Magnesium	96	(%) Recov	1	NA	01/08/01
M0114	MW.2001.25-7	7440-09-7	Potassium	94	(%) Recov	1	NA	01/08/01
M0114	MW.2001.25-7	7782-49-2	Selenium	92	(%) Recov	1	NA	01/08/01
M0114	MW.2001.25-7	7440-21-3	Silicon	45	(%) Recov	1	NA	01/08/01
M0114	MW.2001.25-7	7440-23-5	Sodium	94	(%) Recov	1	NA	01/08/01

M0114-003

SW846 3050A/7000 series AA-FL

M0114	MW.2001.19-32	7439-92-1	Lead	102	(%) Recov	1	NA	01/05/01
M0114	MW.2001.21-64	7440-22-4	Silver	85	(%) Recov	1	NA	01/05/01

M0124-003

SW846 7471 CVAA

M0124	MW.2001.35-12	7439-97-6	Mercury	100	% Recovery	1	NA	01/10/01
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W0113-003

EPA 300.0

W0113	MW.2001.52-4	16887-00-6	Chloride	100	% Recovery	1	NA	01/11/01
W0113	MW.2001.52-4	14797-65-0	Nitrate, as N	100	% Recovery	1	NA	01/11/01
W0113	MW.2001.52-4		Orthophosphate, as P	101	% Recovery	1	NA	01/11/01
W0113	MW.2001.52-4		Sulfate	100	% Recovery	1	NA	01/11/01

X00457-003

SW846 5030A/8015A GRO by GC/FID

X00457	XG.2000.1317-3		Gasoline Range Organics	92	% Recovery	1	NA	12/01/00
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X00459-003

SW846 ME/8015A Diesel Range Organics by GC/FID

X00459	XG.2000.1315-5		Diesel Range Organics	102	% Recovery	1	NA	12/01/00
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X00482-003

SW846 3550A/8270B SVOCs by GC/MS

X00482	XG.2001.6-2	120-82-1	1,2,4-Trichlorobenzene	81	% Recovery	1	NA	12/20/00
X00482	XG.2001.6-2	106-46-7	1,4-Dichlorobenzene	83	% Recovery	1	NA	12/20/00
X00482	XG.2001.6-2	121-14-2	2,4-Dinitrotoluene	84	% Recovery	1	NA	12/20/00
X00482	XG.2001.6-2	95-57-8	2-Chlorophenol	87	% Recovery	1	NA	12/20/00
X00482	XG.2001.6-2	59-50-7	4-Chloro-3-methylphenol	84	% Recovery	1	NA	12/20/00

Assaigai Analytical Laboratories, Inc.
Quality Control Summary

Client: **GIANT REFINERY**
ID: **0012204**

Explanation of codes		
D	Not applicable due to sample dilution	
L	Not applicable due to MDL proximity	

X00482	XG.2001.6-2	100-02-7	4-Nitrophenol	86	% Recovery	1	NA	12/20/00
X00482	XG.2001.6-2	83-32-9	Acenaphthene	88	% Recovery	1	NA	12/20/00
X00482	XG.2001.6-2	117-84-0	di-n-Octylphthalate	139	% Recovery	1	NA	12/20/00
X00482	XG.2001.6-2	621-64-7	n-Nitroso-di-n-propylamine	89	% Recovery	1	NA	12/20/00
X00482	XG.2001.6-2	87-86-5	Pentachlorophenol	99	% Recovery	1	NA	12/20/00
X00482	XG.2001.6-2	108-95-2	Phenol	77	% Recovery	1	NA	12/20/00
X00482	XG.2001.6-2	129-00-0	Pyrene	90	% Recovery	1	NA	12/20/00

X00486-022

SW846 8260A Purgeable VOCs by GC/MS

X00486	XG.2000.1403-19	75-34-3	1,1 Dichloroethene	108	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-19	106-46-7	1,4 Dichlorobenzene	100	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-19	71-43-2	Benzene	109	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-19	108-90-7	Chlorobenzene	106	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-19	108-88-3	Toluene	109	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-19	79-01-6	Trichloroethene	108	% Recovery	1	NA	12/22/00

QC Type **LCSD: Lab Control Spike Duplicate Precision**

QC Matrix **SOLID**

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
00.1649-4									
Oil Range Organics by 8015M									
00.1649	TT.2000.1649-4		Oil Range Organics	12	RPD	1	NA		12/20/00
J03									
SW846 3050A/6010A ICP									
M0114	MW.2001.25-7	7440-38-2	Arsenic	1	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-7	7440-39-3	Barium	< 1	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-7	7440-43-9	Cadmium	< 1	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-7	7440-70-2	Calcium	< 1	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-7	7440-47-3	Chromium	< 1	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-7	7439-95-4	Magnesium	< 1	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-7	7440-09-7	Potassium	< 1	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-7	7782-49-2	Selenium	4	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-7	7440-21-3	Silicon	2	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-7	7440-23-5	Sodium	1	(%) RPD	1	NA		01/08/01
M0114-003									
SW846 3050A/7000 series AA-FL									
M0114	MW.2001.19-32	7439-92-1	Lead	5	(%) RPD	1	NA		01/05/01
M0114	MW.2001.21-64	7440-22-4	Silver	< 1	(%) RPD	1	NA		01/05/01
M0124-003									
SW846 7471 CVAA									
M0124	MW.2001.35-12	7439-97-6	Mercury	< 1	RPD	1	NA		01/10/01
W0113-003									
EPA 300.0									
W0113	MW.2001.52-4	16887-00-6	Chloride	< 1	RPD	1	NA		01/11/01
W0113	MW.2001.52-4	14797-65-0	Nitrate, as N	< 1	RPD	1	NA		01/11/01
W0113	MW.2001.52-4		Orthophosphate, as P	< 1	RPD	1	NA		01/11/01
W0113	MW.2001.52-4		Sulfate	< 1	RPD	1	NA		01/11/01
X00457-003									
SW846 5030A/8015A GRO by GC/FID									
X00457	XG.2000.1317-3		Gasoline Range Organics	4	RPD	1	NA		12/01/00

Quality Control Summary

Client: GIANT REFINERY

t: 0012204

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X00459-003

SW846 ME/8015A Diesel Range Organics by GC/FID

X00459	XG.2000.1315-5	Diesel Range Organics	4	RPD	1	NA	12/01/00
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X00482-003

SW846 3550A/8270B SVOCs by GC/MS

X00482	XG.2001.6-2	120-82-1	1,2,4-Trichlorobenzene	2	RPD	1	NA	12/20/00
X00482	XG.2001.6-2	106-46-7	1,4-Dichlorobenzene	3	RPD	1	NA	12/20/00
X00482	XG.2001.6-2	121-14-2	2,4-Dinitrotoluene	1	RPD	1	NA	12/20/00
X00482	XG.2001.6-2	95-57-8	2-Chlorophenol	4	RPD	1	NA	12/20/00
X00482	XG.2001.6-2	59-50-7	4-Chloro-3-methylphenol	< 1	RPD	1	NA	12/20/00
X00482	XG.2001.6-2	100-02-7	4-Nitrophenol	2	RPD	1	NA	12/20/00
X00482	XG.2001.6-2	83-32-9	Acenaphthene	< 1	RPD	1	NA	12/20/00
X00482	XG.2001.6-2	117-84-0	di-n-Octylphthalate	< 1	RPD	1	NA	12/20/00
X00482	XG.2001.6-2	621-64-7	n-Nitroso-di-n-propylamine	11	RPD	1	NA	12/20/00
X00482	XG.2001.6-2	87-86-5	Pentachlorophenol	3	RPD	1	NA	12/20/00
X00482	XG.2001.6-2	108-95-2	Phenol	4	RPD	1	NA	12/20/00
X00482	XG.2001.6-2	129-00-0	Pyrene	< 1	RPD	1	NA	12/20/00

X00486-022

SW846 8260A Purgeable VOCs by GC/MS

X00486	XG.2000.1403-19	75-34-3	1,1 Dichloroethene	2	RPD	1	NA	12/22/00
X00486	XG.2000.1403-19	106-46-7	1,4 Dichlorobenzene	1	RPD	1	NA	12/22/00
X00486	XG.2000.1403-19	71-43-2	Benzene	2	RPD	1	NA	12/22/00
X00486	XG.2000.1403-19	108-90-7	Chlorobenzene	< 1	RPD	1	NA	12/22/00
X00486	XG.2000.1403-19	108-88-3	Toluene	2	RPD	1	NA	12/22/00
X00486	XG.2000.1403-19	79-01-6	Trichloroethene	1	RPD	1	NA	12/22/00

QC
Type

MB: Method Blank

QC
Matrix

SOLID

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
00.1649-1			Oil Range Organics by 8015M						
00.1649	TT.2000.1649-1		Oil Range Organics	ND	mg/kg	1	100		12/20/00
00.1649-2			Oil Range Organics by 8015M						
00.1649	TT.2000.1649-2		Oil Range Organics	ND	mg/kg	1	100		12/20/00
00.1649-6			Oil Range Organics by 8015M						
00.1649	TT.2000.1649-6		Oil Range Organics	ND	mg/kg	1	100		12/22/00
M0114-001			SW846 3050A/6010A ICP						
M0114	MW.2001.25-5	7440-38-2	Arsenic	ND	mg / Kg	1	3		01/08/01
M0114	MW.2001.25-5	7440-39-3	Barium	ND	mg / Kg	1	0.5		01/08/01
M0114	MW.2001.25-5	7440-43-9	Cadmium	ND	mg / Kg	1	0.2		01/08/01
M0114	MW.2001.25-5	7440-70-2	Calcium	ND	mg / Kg	1	15		01/08/01
M0114	MW.2001.25-5	7440-47-3	Chromium	ND	mg / Kg	1	1		01/08/01
M0114	MW.2001.25-5	7439-95-4	Magnesium	ND	mg / Kg	1	10		01/08/01
M0114	MW.2001.25-5	7440-09-7	Potassium	ND	mg / Kg	1	10		01/08/01
M0114	MW.2001.25-5	7782-49-2	Selenium	ND	mg / Kg	1	2.5		01/08/01
M0114	MW.2001.25-5	7440-21-3	Silicon	ND	mg / Kg	1	25		01/08/01
M0114	MW.2001.25-5	7440-23-5	Sodium	ND	mg / Kg	1	15		01/08/01

Quality Control Summary

Client: **GIANT REFINERY**
0012204

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

M0114-001		SW846 3050A/7000 series AA-FL							
M0114	MW.2001.19-30	7439-92-1	Lead	ND	mg / Kg	1	5		01/05/01
M0114	MW.2001.21-62	7440-22-4	Silver	ND	mg / Kg	1	0.5		01/05/01
M0124-001		SW846 7471 CVAA							
M0124	MW.2001.35-10	7439-97-6	Mercury	ND	mg / Kg	1	0.05		01/10/01
W0113-001		EPA 300.0							
W0113	MW.2001.52-2	16887-00-6	Chloride	ND	mg / Kg	1	0.05		01/11/01
W0113	MW.2001.52-2	14797-65-0	Nitrate, as N	ND	mg / Kg	1	0.05		01/11/01
W0113	MW.2001.52-2		Orthophosphate, as P	ND	mg / Kg	1	0.05		01/11/01
W0113	MW.2001.52-2		Sulfate	ND	mg / Kg	1	0.05		01/11/01
W0113-012		EPA 300.0							
W0113	MW.2001.66-2	16887-00-6	Chloride	ND	mg / Kg	1	0.05		01/18/01
W0113	MW.2001.66-2	14797-65-0	Nitrate, as N	ND	mg / Kg	1	0.05		01/18/01
W0113	MW.2001.66-2		Orthophosphate, as P	ND	mg / Kg	1	0.05		01/18/01
W0113	MW.2001.66-2		Sulfate	ND	mg / Kg	1	0.05		01/18/01
X00457-001		SW846 5030A/8015A GRO by GC/FID							
X00457	XG.2000.1317-1		Gasoline Range Organics	ND	mg / Kg	1	0.25		12/01/00
X00457-014		SW846 5030A/8015A GRO by GC/FID							
X00457	XG.2000.1366-1		Gasoline Range Organics	ND	mg / Kg	1	0.25		12/13/00
X00457-021		SW846 5030A/8015A GRO by GC/FID							
X00457	XG.2000.1391-1		Gasoline Range Organics	ND	mg / Kg	1	0.25		12/15/00
X00457-027		SW846 5030A/8015A GRO by GC/FID							
X00457	XG.2000.1391-3		Gasoline Range Organics	ND	mg / Kg	1	0.25		12/21/00
X00457-034		SW846 5030A/8015A GRO by GC/FID							
X00457	XG.2000.1405-1		Gasoline Range Organics	ND	mg / Kg	1	0.25		12/26/00
X00459-001		SW846 ME/8015A Diesel Range Organics by GC/FID							
X00459	XG.2000.1315-3		Diesel Range Organics	ND	mg / Kg	1	25		12/01/00
X00459-009		SW846 ME/8015A Diesel Range Organics by GC/FID							
X00459	XG.2000.1354-3		Diesel Range Organics	ND	mg / Kg	1	25		12/12/00
X00459-014		SW846 ME/8015A Diesel Range Organics by GC/FID							
X00459	XG.2000.1376-1		Diesel Range Organics	ND	mg / Kg	1	25		12/13/00
X00459-017		SW846 ME/8015A Diesel Range Organics by GC/FID							
X00459	XG.2000.1376-2		Diesel Range Organics	ND	mg / Kg	1	25		12/14/00
X00459-019		SW846 ME/8015A Diesel Range Organics by GC/FID							
X00459	XG.2000.1385-1		Diesel Range Organics	ND	mg / Kg	1	25		12/18/00
X00459-023		SW846 ME/8015A Diesel Range Organics by GC/FID							
X00459	XG.2000.1408-1		Diesel Range Organics	ND	mg / Kg	1	25		12/27/00
X00482-001		SW846 3550A/8270B SVOCs by GC/MS							
X00482	XG.2001.6-1	120-82-1	1,2,4-Trichlorobenzene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	95-50-1	1,2-Dichlorobenzene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	541-73-1	1,3-Dichlorobenzene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	106-46-7	1,4-Dichlorobenzene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	90-12-0	1-Methylnaphthalene	ND	mg / Kg	1	0.03		12/20/00

Quality Control Summary

Client: **GIANT REFINERY**
 ID: **0012204**

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X00482	XG.2001.6-1	58-90-2	2,3,4,6-Tetrachlorophenol	ND	mg / Kg	1	1.5		12/20/00
X00482	XG.2001.6-1	95-95-4	2,4,5-Trichlorophenol	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	88-06-2	2,4,6-Trichlorophenol	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	120-83-2	2,4-Dichlorophenol	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	105-67-9	2,4-Dimethylphenol	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	51-28-5	2,4-Dinitrophenol	ND	mg / Kg	1	0.67		12/20/00
X00482	XG.2001.6-1	121-14-2	2,4-Dinitrotoluene	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	606-20-2	2,6-Dinitrotoluene	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	91-58-7	2-Chloronaphthalene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	95-57-8	2-Chlorophenol	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	91-57-6	2-Methylnaphthalene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	95-48-7	2-Methylphenol	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	88-74-4	2-Nitroaniline	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	88-75-5	2-Nitrophenol	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1		3+4 Methylphenol	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	91-94-1	3,3-Dichlorobenzidine	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	99-09-2	3-Nitroaniline	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	534-52-1	4,6-Dinitro-2-methylphenol	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	101-55-3	4-Bromophenyl-phenylether	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	59-50-7	4-Chloro-3-methylphenol	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	106-47-8	4-Chloroaniline	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	7005-72-3	4-Chlorophenyl-phenylether	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	100-01-6	4-Nitroaniline	ND	mg / Kg	1	0.3		12/20/00
	XG.2001.6-1	100-02-7	4-Nitrophenol	ND	mg / Kg	1	0.6		12/20/00
	XG.2001.6-1	83-32-9	Acenaphthene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	208-96-8	Acenaphthylene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	62-53-3	Aniline	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	120-12-7	Anthracene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1		Azobenzene&1,2-Diphenylhydrazine	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	56-55-3	Benzo (a) anthracene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	50-32-8	Benzo(a)pyrene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1		Benzo(b & k)fluoranthene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	191-24-2	Benzo(g,h,i)perylene	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	64-85-0	Benzoic acid	ND	mg / Kg	1	3		12/20/00
X00482	XG.2001.6-1	100-51-6	Benzyl alcohol	ND	mg / Kg	1	1.5		12/20/00
X00482	XG.2001.6-1	111-44-4	bis (2-Chloroethyl) ether	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	111-91-1	bis(2-Chloroethoxy)methane	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	108-60-1	bis(2-Chloroisopropyl)ether	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	117-81-7	bis(2-Ethylhexyl)phthalate	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	85-68-7	Butylbenzylphthalate	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	218-01-9	Chrysene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	84-74-2	di-n-Butylphthalate	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	117-84-0	di-n-Octylphthalate	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	53-70-3	Dibenz(a,h)anthracene	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	132-64-9	Dibenzofuran	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	84-66-2	Diethylphthalate	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	131-11-3	Dimethylphthalate	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	206-44-0	Fluoranthene	ND	mg / Kg	1	0.03		12/20/00
	XG.2001.6-1	86737	Fluorene	ND	mg / Kg	1	0.03		12/20/00
	XG.2001.6-1	118-74-1	Hexachlorobenzene	ND	mg / Kg	1	0.03		12/20/00

Quality Control Summary

Client: GIANT REFINERY

t: 0012204

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X00482	XG.2001.6-1	87-68-3	Hexachlorobutadiene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	77-47-4	Hexachlorocyclopentadiene	ND	mg / Kg	1	1.5		12/20/00
X00482	XG.2001.6-1	67-72-1	Hexachloroethane	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	193-39-5	Indeno(1,2,3-cd)pyrene	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	78-59-1	Isophorone	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	621-64-7	n-Nitroso-di-n-propylamine	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	62-75-9	n-Nitroso-dimethyl-amine	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	86-30-6	n-Nitrosodiphenylamine	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	91-20-3	Naphthalene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	98-95-3	Nitrobenzene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	87-86-5	Pentachlorophenol	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	85-01-8	Phenanthrene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	108-95-2	Phenol	ND	mg / Kg	1	0.3		12/20/00
X00482	XG.2001.6-1	129-00-0	Pyrene	ND	mg / Kg	1	0.03		12/20/00
X00482	XG.2001.6-1	110-86-1	Pyridine	ND	mg / Kg	1	0.3		12/20/00

X00482-017

SW846 3550A/8270B SVOCs by GC/MS

X00482	XG.2001.11-1	106-46-7	1,4-Dichlorobenzene	ND	mg / Kg	1	0.03		01/03/01
X00482	XG.2001.11-1	95-95-4	2,4,5-Trichlorophenol	ND	mg / Kg	1	0.3		01/03/01
X00482	XG.2001.11-1	88-06-2	2,4,6-Trichlorophenol	ND	mg / Kg	1	0.3		01/03/01
X00482	XG.2001.11-1	121-14-2	2,4-Dinitrotoluene	ND	mg / Kg	1	0.3		01/03/01
X00482	XG.2001.11-1	95-48-7	2-Methylphenol	ND	mg / Kg	1	0.03		01/03/01
X00482	XG.2001.11-1		3+4 Methylphenol	ND	mg / Kg	1	0.03		01/03/01
X00482	XG.2001.11-1	118-74-1	Hexachlorobenzene	ND	mg / Kg	1	0.03		01/03/01
X00482	XG.2001.11-1	87-68-3	Hexachlorobutadiene	ND	mg / Kg	1	0.03		01/03/01
X00482	XG.2001.11-1	67-72-1	Hexachloroethane	ND	mg / Kg	1	0.03		01/03/01
X00482	XG.2001.11-1	98-95-3	Nitrobenzene	ND	mg / Kg	1	0.03		01/03/01
X00482	XG.2001.11-1	87-86-5	Pentachlorophenol	ND	mg / Kg	1	0.3		01/03/01
X00482	XG.2001.11-1	110-86-1	Pyridine	ND	mg / Kg	1	0.3		01/03/01

X00486-001

SW846 8260A Purgeable VOCs by GC/MS

X00486	XG.2000.1403-1	75-34-3	1,1 Dichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	107-06-2	1,2 Dichloroethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	78-87-5	1,2 Dichloropropane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	1	0.05		12/20/00
X00486	XG.2000.1403-1	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	67-64-1	Acetone	ND	mg / Kg	1	0.05		12/20/00

Quality Control Summary

Client: **GIANT REFINERY**
0012204

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X00486	XG.2000.1403-1	107-02-8	Acrolein	ND	mg / Kg	1	0.1		12/20/00
X00486	XG.2000.1403-1	107-13-1	Acrylonitrile	ND	mg / Kg	1	0.1		12/20/00
X00486	XG.2000.1403-1	71-43-2	Benzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	75-27-4	Bromodichloromethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	75-25-2	Bromoform	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	74-83-9	Bromomethane	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	75-15-0	Carbon disulfide	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	124-48-1	Chlorodibromomethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	75-00-3	Chloroethane	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	67-66-3	Chloroform	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	74-87-3	Chloromethane	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	74-95-3	Dibromomethane	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	97-63-2	Ethyl methacrylate	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1		Freon 113	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	75-71-8	Freon 12	ND	mg / Kg	1	0.05		12/20/00
X00486	XG.2000.1403-1	74-88-4	Iodomethane	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	75-09-2	Methylene chloride	ND	mg / Kg	1	0.05		12/20/00
X00486	XG.2000.1403-1	91-20-3	Naphthalene	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		12/20/00
X00486	XG.2000.1403-1	100-42-5	Styrene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	127-18-4	Tetrachloroethene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	108-88-3	Toluene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005		12/20/00
X00486	XG.2000.1403-1	75-69-4	Trichlorofluoromethane	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	108-05-4	Vinyl acetate	ND	mg / Kg	1	0.025		12/20/00
X00486	XG.2000.1403-1	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.025		12/20/00

X00486-011

SW846 8260A Purgeable VOCs by GC/MS

X00486	XG.2000.1403-8	75-34-3	1,1 Dichloroethane	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	71-55-6	1,1,1 Trichloroethane	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	630-20-6	1,1,1,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	79-00-5	1,1,2 Trichloroethane	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	79-34-5	1,1,2,2 Tetrachloroethane	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	106-93-4	1,2 Dibromoethane (EDB)	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	95-50-1	1,2 Dichlorobenzene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	107-06-2	1,2 Dichloroethane	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	78-87-5	1,2 Dichloropropane	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	96-18-4	1,2,3 Trichloropropane	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	95-63-6	1,2,4-Trimethylbenzene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	541-73-1	1,3 Dichlorobenzene	ND	mg / Kg	1	0.005		12/22/00

Quality Control Summary

Client: **GIANT REFINERY**
: **0012204**

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X00486	XG.2000.1403-8	108-67-8	1,3,5-Trimethylbenzene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	764-41-0	1,4 Dichloro-2-butene	ND	mg / Kg	1	0.05		12/22/00
X00486	XG.2000.1403-8	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	110-75-8	2-Chloroethylvinylether	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	591-78-6	2-Hexanone (MBK)	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	108-10-1	4-Methyl-2-pentanone (MIBK)	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	67-64-1	Acetone	ND	mg / Kg	1	0.05		12/22/00
X00486	XG.2000.1403-8	107-02-8	Acrolein	ND	mg / Kg	1	0.1		12/22/00
X00486	XG.2000.1403-8	107-13-1	Acrylonitrile	ND	mg / Kg	1	0.1		12/22/00
X00486	XG.2000.1403-8	71-43-2	Benzene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	75-27-4	Bromodichloromethane	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	75-25-2	Bromoform	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	74-83-9	Bromomethane	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	75-15-0	Carbon disulfide	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	124-48-1	Chlorodibromomethane	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	75-00-3	Chloroethane	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	67-66-3	Chloroform	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	74-87-3	Chloromethane	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	156-59-2	cis-1,2 dichloroethene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	10061-01-5	cis-1,3 dichloropropene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	74-95-3	Dibromomethane	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	97-63-2	Ethyl methacrylate	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	100-41-4	Ethylbenzene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8		Freon 113	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	75-71-8	Freon 12	ND	mg / Kg	1	0.05		12/22/00
X00486	XG.2000.1403-8	74-88-4	Iodomethane	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	1634-04-4	Methyl t-butyl ether (MTBE)	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	75-09-2	Methylene chloride	ND	mg / Kg	1	0.05		12/22/00
X00486	XG.2000.1403-8	91-20-3	Naphthalene	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	95-47-6	o-Xylene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	108-38-3/106-42	p/m Xylenes	ND	mg / Kg	1	0.01		12/22/00
X00486	XG.2000.1403-8	100-42-5	Styrene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	156-60-5	t-1,2 Dichloroethene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	10061-02-6	t-1,3 Dichloropropene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	127-18-4	Tetrachloroethene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	108-88-3	Toluene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005		12/22/00
X00486	XG.2000.1403-8	75-69-4	Trichlorofluoromethane	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	108-05-4	Vinyl acetate	ND	mg / Kg	1	0.025		12/22/00
X00486	XG.2000.1403-8	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.025		12/22/00

X00486-023

SW846 8260A Purgeable VOCs by GC/MS

X00486	XG.2000.1403-20	75-34-3	1,1 Dichloroethene	ND	mg / Kg	1	0.005		12/23/00
X00486	XG.2000.1403-20	107-06-2	1,2 Dichloroethane	ND	mg / Kg	1	0.005		12/23/00
X00486	XG.2000.1403-20	106-46-7	1,4 Dichlorobenzene	ND	mg / Kg	1	0.005		12/23/00
X00486	XG.2000.1403-20	78-93-3	2-Butanone (MEK)	ND	mg / Kg	1	0.025		12/23/00
X00486	XG.2000.1403-20	71-43-2	Benzene	ND	mg / Kg	1	0.005		12/23/00

Assaigai Analytical Laboratories, Inc.
Quality Control Summary

Client: **GIANT REFINERY**
t: **0012204**

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X00486	XG.2000.1403-20	56-23-5	Carbon tetrachloride	ND	mg / Kg	1	0.005		12/23/00
X00486	XG.2000.1403-20	108-90-7	Chlorobenzene	ND	mg / Kg	1	0.005		12/23/00
X00486	XG.2000.1403-20	67-66-3	Chloroform	ND	mg / Kg	1	0.005		12/23/00
X00486	XG.2000.1403-20	127-18-4	Tetrachloroethene	ND	mg / Kg	1	0.005		12/23/00
X00486	XG.2000.1403-20	79-01-6	Trichloroethene	ND	mg / Kg	1	0.005		12/23/00
X00486	XG.2000.1403-20	75-01-4	Vinyl chloride	ND	mg / Kg	1	0.025		12/23/00

QC
Type

MD: Matrix Duplicate

QC
Matrix

SOLID

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
01.42-3		SW846-9045B							
SPH011	TT.2001.42-3		pH	0.05	DIFF	1	NA		01/06/01
W0113-005		EPA 300.0							
W0113	MW.2001.52-6	16887-00-6	Chloride	3	RPD	20	NA		01/11/01
W0113	MW.2001.52-6	14797-65-0	Nitrate, as N	< 1	RPD	20	NA		01/11/01
W0113	MW.2001.52-6		Orthophosphate, as P	< 1	RPD	20	NA		01/11/01
W0113	MW.2001.52-6		Sulfate	< 1	RPD	20	NA		01/11/01

QC

MS: Matrix Spike

QC
Matrix

SOLID

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
00.1649-7		Oil Range Organics by 8015M							
00.1649	TT.2000.1649-7		Oil Range Organics	94	% Recovery	1	NA		12/22/00
M0114-005		SW846 3050A/6010A ICP							
M0114	MW.2001.25-9	7440-38-2	Arsenic	89	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-9	7440-39-3	Barium	101	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-9	7440-43-9	Cadmium	93	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-9	7440-70-2	Calcium	< 1	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-9	7440-47-3	Chromium	97	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-9	7439-95-4	Magnesium	68	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-9	7440-09-7	Potassium	98	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-9	7782-49-2	Selenium	93	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-9	7440-21-3	Silicon	< 1	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-9	7440-23-5	Sodium	112	(%) Recov	1	NA		01/08/01
M0114-005		SW846 3050A/7000 series AA-FL							
M0114	MW.2001.19-34	7439-92-1	Lead	97	(%) Recov	1	NA		01/05/01
M0114	MW.2001.21-66	7440-22-4	Silver	78	(%) Recov	1	NA		01/05/01
M0124-008		SW846 7471 CVAA							
M0124	MW.2001.35-19	7439-97-6	Mercury	102	% Recovery	1	NA		01/10/01
X00457-005		SW846 5030A/8015A GRO by GC/FID							
X00457	XG.2000.1317-5		Gasoline Range Organics	96	% Recovery	1	NA		12/01/00

Quality Control Summary

Client: **GIANT REFINERY**
0012204

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X00459-005

SW846 ME/8015A Diesel Range Organics by GC/FID

X00459	XG.2000.1315-7	Diesel Range Organics	99	% Recovery	1	NA	12/01/00
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X00482-005

SW846 3550A/8270B SVOCs by GC/MS

X00482	XG.2001.6-15	120-82-1	1,2,4-Trichlorobenzene	79	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	106-46-7	1,4-Dichlorobenzene	83	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	121-14-2	2,4-Dinitrotoluene	75	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	95-57-8	2-Chlorophenol	96	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	59-50-7	4-Chloro-3-methylphenol	101	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	100-02-7	4-Nitrophenol	89	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	83-32-9	Acenaphthene	99	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	117-84-0	di-n-Octylphthalate	156	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	621-64-7	n-Nitroso-di-n-propylamine	100	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	87-86-5	Pentachlorophenol	83	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	108-95-2	Phenol	94	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	129-00-0	Pyrene	94	% Recovery	4	NA	12/28/00

X00486-020

SW846 8260A Purgeable VOCs by GC/MS

X00486	XG.2000.1403-17	75-34-3	1,1 Dichloroethene	112	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-17	106-46-7	1,4 Dichlorobenzene	100	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-17	71-43-2	Benzene	113	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-17	108-90-7	Chlorobenzene	108	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-17	108-88-3	Toluene	118	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-17	79-01-6	Trichloroethene	105	% Recovery	1	NA	12/22/00

QC
Type

MSD: Matrix Spike Duplicate Accuracy

QC
Matrix

SOLID

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
00.1649-8									
Oil Range Organics by 8015M									
00.1649	TT.2000.1649-8		Oil Range Organics	86	% Recovery	1	NA		12/22/00
M0114-006									
SW846 3050A/6010A ICP									
M0114	MW.2001.25-10	7440-38-2	Arsenic	89	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-10	7440-39-3	Barium	105	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-10	7440-43-9	Cadmium	92	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-10	7440-70-2	Calcium	< 1	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-10	7440-47-3	Chromium	94	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-10	7439-95-4	Magnesium	86	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-10	7440-09-7	Potassium	110	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-10	7782-49-2	Selenium	90	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-10	7440-21-3	Silicon	< 1	(%) Recov	1	NA		01/08/01
M0114	MW.2001.25-10	7440-23-5	Sodium	105	(%) Recov	1	NA		01/08/01
M0114-006									
SW846 3050A/7000 series AA-FL									
M0114	MW.2001.19-35	7439-92-1	Lead	94	(%) Recov	1	NA		01/05/01
M0114	MW.2001.21-67	7440-22-4	Silver	86	(%) Recov	1	NA		01/05/01
M0124-009									
SW846 7471 CVAA									
	MW.2001.35-20	7439-97-6	Mercury	116	% Recovery	1	NA		01/10/01

Quality Control Summary

Client: **GIANT REFINERY**
 t: **0012204**

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

X00457-006

SW846 5030A/8015A GRO by GC/FID

X00457	XG.2000.1317-6	Gasoline Range Organics	97	% Recovery	1	NA	12/01/00
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X00459-006

SW846 ME/8015A Diesel Range Organics by GC/FID

X00459	XG.2000.1315-8	Diesel Range Organics	98	% Recovery	1	NA	12/01/00
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X00482-006

SW846 3550A/8270B SVOCs by GC/MS

X00482	XG.2001.6-16	120-82-1	1,2,4-Trichlorobenzene	72	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-16	106-46-7	1,4-Dichlorobenzene	76	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-16	121-14-2	2,4-Dinitrotoluene	79	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-16	95-57-8	2-Chlorophenol	85	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-16	59-50-7	4-Chloro-3-methylphenol	98	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-16	100-02-7	4-Nitrophenol	91	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-16	83-32-9	Acenaphthene	94	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-16	117-84-0	di-n-Octylphthalate	157	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-16	621-64-7	n-Nitroso-di-n-propylamine	94	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-16	87-86-5	Pentachlorophenol	85	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-16	108-95-2	Phenol	85	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-16	129-00-0	Pyrene	98	% Recovery	4	NA	12/28/00

X00486-021

SW846 8260A Purgeable VOCs by GC/MS

X00486	XG.2000.1403-18	75-34-3	1,1 Dichloroethene	111	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-18	106-46-7	1,4 Dichlorobenzene	100	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-18	71-43-2	Benzene	110	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-18	108-90-7	Chlorobenzene	106	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-18	108-88-3	Toluene	117	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-18	79-01-6	Trichloroethene	103	% Recovery	1	NA	12/22/00

QC
Type

MSD: Matrix Spike Duplicate Precision

QC
Matrix

SOLID

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Run Code	Run Date
00.1649-8									
Oil Range Organics by 8015M									
00.1649	TT.2000.1649-8		Oil Range Organics	9	RPD	1	NA		12/22/00
M0114-006									
SW846 3050A/6010A ICP									
M0114	MW.2001.25-10	7440-38-2	Arsenic	< 1	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-10	7440-39-3	Barium	4	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-10	7440-43-9	Cadmium	< 1	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-10	7440-70-2	Calcium	38	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-10	7440-47-3	Chromium	3	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-10	7439-95-4	Magnesium	23	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-10	7440-09-7	Potassium	11	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-10	7782-49-2	Selenium	3	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-10	7440-21-3	Silicon	152	(%) RPD	1	NA		01/08/01
M0114	MW.2001.25-10	7440-23-5	Sodium	7	(%) RPD	1	NA		01/08/01
M0114-006									
SW846 3050A/7000 series AA-FL									
M0114	MW.2001.19-35	7439-92-1	Lead	3	(%) RPD	1	NA		01/05/01
	MW.2001.21-67	7440-22-4	Silver	11	(%) RPD	1	NA		01/05/01

Quality Control Summary

Client: **GIANT REFINERY**
0012204

Explanation of codes

D	Not applicable due to sample dilution
L	Not applicable due to MDL proximity

M0124-009		SW846 7471 CVAA						
M0124	MW.2001.35-20	7439-97-6	Mercury	13	RPD	1	NA	01/10/01
X00457-006		SW846 5030A/8015A GRO by GC/FID						
X00457	XG.2000.1317-6		Gasoline Range Organics	2	RPD	1	NA	12/01/00
X00459-006		SW846 ME/8015A Diesel Range Organics by GC/FID						
X00459	XG.2000.1315-8		Diesel Range Organics	1	RPD	1	NA	12/01/00
X00482-006		SW846 3550A/8270B SVOCs by GC/MS						
X00482	XG.2001.6-16	120-82-1	1,2,4-Trichlorobenzene	10	RPD	4	NA	12/28/00
X00482	XG.2001.6-16	106-46-7	1,4-Dichlorobenzene	9	RPD	4	NA	12/28/00
X00482	XG.2001.6-16	121-14-2	2,4-Dinitrotoluene	5	RPD	4	NA	12/28/00
X00482	XG.2001.6-16	95-57-8	2-Chlorophenol	12	RPD	4	NA	12/28/00
X00482	XG.2001.6-16	59-50-7	4-Chloro-3-methylphenol	4	RPD	4	NA	12/28/00
X00482	XG.2001.6-16	100-02-7	4-Nitrophenol	2	RPD	4	NA	12/28/00
X00482	XG.2001.6-16	83-32-9	Acenaphthene	5	RPD	4	NA	12/28/00
X00482	XG.2001.6-16	117-84-0	di-n-Octylphthalate	< 1	RPD	4	NA	12/28/00
X00482	XG.2001.6-16	621-64-7	n-Nitroso-di-n-propylamine	6	RPD	4	NA	12/28/00
X00482	XG.2001.6-16	87-86-5	Pentachlorophenol	1	RPD	4	NA	12/28/00
X00482	XG.2001.6-16	108-95-2	Phenol	9	RPD	4	NA	12/28/00
X00482	XG.2001.6-16	129-00-0	Pyrene	5	RPD	4	NA	12/28/00
X00486-021		SW846 8260A Purgeable VOCs by GC/MS						
X00486	XG.2000.1403-18	75-34-3	1,1 Dichloroethene	< 1	RPD	1	NA	12/22/00
X00486	XG.2000.1403-18	106-46-7	1,4 Dichlorobenzene	< 1	RPD	1	NA	12/22/00
X00486	XG.2000.1403-18	71-43-2	Benzene	3	RPD	1	NA	12/22/00
X00486	XG.2000.1403-18	108-90-7	Chlorobenzene	2	RPD	1	NA	12/22/00
X00486	XG.2000.1403-18	108-88-3	Toluene	< 1	RPD	1	NA	12/22/00
X00486	XG.2000.1403-18	79-01-6	Trichloroethene	2	RPD	1	NA	12/22/00

Surrogate Summary: QC

Client: **GIANT REFINERY**
0012204

QC Type		LCS		QC Matrix		SOLID			
QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
X00457-002		GRO							
X00457	XG.2000.1317-2	NA	4-Bromofluorobenzene-FID	96	% Recovery	1	NA		12/01/00
X00457	XG.2000.1317-2	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA		12/01/00
X00457	XG.2000.1317-2	NA	aaa-Trifluorotoluene-FID	105	% Recovery	1	NA		12/01/00
X00457	XG.2000.1317-2	NA	aaa-Trifluorotoluene-PID	146	% Recovery	1	NA		12/01/00
X00459-002		DRO							
X00459	XG.2000.1315-4	NA	O-terphenyl	106	% Recovery	1	NA		12/01/00
X00482-002		8270							
X00482	XG.2001.6-3	NA	*2,4,6-TRIBROMOPHENOL	109	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	NA	*2-FLUOROBIPHENYL	100	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	NA	*2-FLUOROPHENOL	82	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	NA	*NITROBENZENE-D5	90	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	NA	*PHENOL-D6	88	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-3	NA	*TERPHENYL-D14	101	% Recovery	1	NA		12/20/00
X00486-010		8260							
	XG.2000.1403-7	NA	1,2 Dichloroethane-D4 (SS)	78	% Recovery	1	NA		12/20/00
	XG.2000.1403-7	NA	4-Bromofluorobenzene (SS)	92	% Recovery	1	NA		12/20/00
X00486	XG.2000.1403-7	NA	Dibromofluoromethane (SS)	96	% Recovery	1	NA		12/20/00
X00486	XG.2000.1403-7	NA	Toluene-D8 (SS)	100	% Recovery	1	NA		12/20/00

QC Type		LCSD		QC Matrix		SOLID			
QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Code	Run Date
X00457-003		GRO							
X00457	XG.2000.1317-3	NA	4-Bromofluorobenzene-FID	97	% Recovery	1	NA		12/01/00
X00457	XG.2000.1317-3	NA	4-Bromofluorobenzene-PID	212	% Recovery	1	NA		12/01/00
X00457	XG.2000.1317-3	NA	aaa-Trifluorotoluene-FID	105	% Recovery	1	NA		12/01/00
X00457	XG.2000.1317-3	NA	aaa-Trifluorotoluene-PID	174	% Recovery	1	NA		12/01/00
X00459-003		DRO							
X00459	XG.2000.1315-5	NA	O-terphenyl	100	% Recovery	1	NA		12/01/00
X00482-003		8270							
X00482	XG.2001.6-2	NA	*2,4,6-TRIBROMOPHENOL	110	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-2	NA	*2-FLUOROBIPHENYL	100	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-2	NA	*2-FLUOROPHENOL	84	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-2	NA	*NITROBENZENE-D5	93	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-2	NA	*PHENOL-D6	91	% Recovery	1	NA		12/20/00
X00482	XG.2001.6-2	NA	*TERPHENYL-D14	101	% Recovery	1	NA		12/20/00

Surrogate Summary: QC

Client: GIANT REFINERY

0012204

X00486-022

8260

X00486	XG.2000.1403-19	NA	1,2 Dichloroethane-D4 (SS)	83	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-19	NA	4-Bromofluorobenzene (SS)	94	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-19	NA	Dibromofluoromethane (SS)	97	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-19	NA	Toluene-D8 (SS)	100	% Recovery	1	NA	12/22/00

QC
Type

MB

QC
Matrix

SOLID

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Run Code	Run Date
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X00457-001

GRO

X00457	XG.2000.1317-1	NA	4-Bromofluorobenzene-FID	85	% Recovery	1	NA	12/01/00
X00457	XG.2000.1317-1	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA	12/01/00
X00457	XG.2000.1317-1	NA	aaa-Trifluorotoluene-FID	102	% Recovery	1	NA	12/01/00
X00457	XG.2000.1317-1	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA	12/01/00

X00457-014

GRO

X00457	XG.2000.1366-1	NA	4-Bromofluorobenzene-FID	89	% Recovery	1	NA	12/13/00
X00457	XG.2000.1366-1	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA	12/13/00
X00457	XG.2000.1366-1	NA	aaa-Trifluorotoluene-FID	99	% Recovery	1	NA	12/13/00
X00457	XG.2000.1366-1	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA	12/13/00

021

GRO

X00457	XG.2000.1391-1	NA	4-Bromofluorobenzene-FID	88	% Recovery	1	NA	12/15/00
X00457	XG.2000.1391-1	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA	12/15/00
X00457	XG.2000.1391-1	NA	aaa-Trifluorotoluene-FID	99	% Recovery	1	NA	12/15/00
X00457	XG.2000.1391-1	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA	12/15/00

X00457-027

GRO

X00457	XG.2000.1391-3	NA	4-Bromofluorobenzene-FID	90	% Recovery	1	NA	12/21/00
X00457	XG.2000.1391-3	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA	12/21/00
X00457	XG.2000.1391-3	NA	aaa-Trifluorotoluene-FID	98	% Recovery	1	NA	12/21/00
X00457	XG.2000.1391-3	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA	12/21/00

X00457-034

GRO

X00457	XG.2000.1405-1	NA	4-Bromofluorobenzene-FID	91	% Recovery	1	NA	12/26/00
X00457	XG.2000.1405-1	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA	12/26/00
X00457	XG.2000.1405-1	NA	aaa-Trifluorotoluene-FID	97	% Recovery	1	NA	12/26/00
X00457	XG.2000.1405-1	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA	12/26/00

X00459-001

DRO

X00459	XG.2000.1315-3	NA	O-terphenyl	99	% Recovery	1	NA	12/01/00
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X00459-009

DRO

X00459	XG.2000.1354-3	NA	O-terphenyl	88	% Recovery	1	NA	12/12/00
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X00459-014

DRO

X00459	XG.2000.1376-1	NA	O-terphenyl	91	% Recovery	1	NA	12/13/00
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X00459-017

DRO

X00459	XG.2000.1376-2	NA	O-terphenyl	93	% Recovery	1	NA	12/14/00
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Surrogate Summary: QC

Client: GIANT REFINERY

0012204

X00459-019

X00459 XG.2000.1385-1

DRO

NA	O-terphenyl	95	% Recovery	1	NA	12/18/00
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X00459-023

X00459 XG.2000.1408-1

DRO

NA	O-terphenyl	95	% Recovery	1	NA	12/27/00
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X00482-001

X00482 XG.2001.6-1

8270

NA	*2,4,6-TRIBROMOPHENOL	107	% Recovery	1	NA	12/20/00
NA	*2-FLUOROBIPHENYL	92	% Recovery	1	NA	12/20/00
NA	*2-FLUOROPHENOL	76	% Recovery	1	NA	12/20/00
NA	*NITROBENZENE-D5	83	% Recovery	1	NA	12/20/00
NA	*PHENOL-D6	84	% Recovery	1	NA	12/20/00
NA	*TERPHENYL-D14	102	% Recovery	1	NA	12/20/00

X00482-017

X00482 XG.2001.11-1

8270

NA	*2,4,6-TRIBROMOPHENOL	102	% Recovery	1	NA	01/03/01
NA	*2-FLUOROBIPHENYL	95	% Recovery	1	NA	01/03/01
NA	*2-FLUOROPHENOL	85	% Recovery	1	NA	01/03/01
NA	*NITROBENZENE-D5	92	% Recovery	1	NA	01/03/01
NA	*PHENOL-D6	94	% Recovery	1	NA	01/03/01
NA	*TERPHENYL-D14	108	% Recovery	1	NA	01/03/01

X00486-001

X00486 XG.2000.1403-1

8260

NA	1,2 Dichloroethane-D4 (SS)	94	% Recovery	1	NA	12/20/00
NA	4-Bromofluorobenzene (SS)	99	% Recovery	1	NA	12/20/00
NA	Dibromofluoromethane (SS)	99	% Recovery	1	NA	12/20/00
NA	Toluene-D8 (SS)	101	% Recovery	1	NA	12/20/00

X00486-011

X00486 XG.2000.1403-8

8260

NA	1,2 Dichloroethane-D4 (SS)	100	% Recovery	1	NA	12/22/00
NA	4-Bromofluorobenzene (SS)	101	% Recovery	1	NA	12/22/00
NA	Dibromofluoromethane (SS)	101	% Recovery	1	NA	12/22/00
NA	Toluene-D8 (SS)	100	% Recovery	1	NA	12/22/00

X00486-023

X00486 XG.2000.1403-20

8260

NA	1,2 Dichloroethane-D4 (SS)	91	% Recovery	1	NA	12/23/00
NA	4-Bromofluorobenzene (SS)	96	% Recovery	1	NA	12/23/00
NA	Dibromofluoromethane (SS)	98	% Recovery	1	NA	12/23/00
NA	Toluene-D8 (SS)	100	% Recovery	1	NA	12/23/00

QC
Type

MS

QC
Matrix

SOLID

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Run Code	Run Date
X00457-005									
GRO									
X00457	XG.2000.1317-5	NA	4-Bromofluorobenzene-FID	97	% Recovery	1	NA		12/01/00
X00457	XG.2000.1317-5	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA		12/01/00
X00457	XG.2000.1317-5	NA	aaa-Trifluorotoluene-FID	104	% Recovery	1	NA		12/01/00
X00457	XG.2000.1317-5	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA		12/01/00

305

X00459 XG.2000.1315-7

DRO

NA	O-terphenyl	103	% Recovery	1	NA	12/01/00
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Surrogate Summary: QC

Client: GIANT REFINERY

0012204

X00482-005

8270

X00482	XG.2001.6-15	NA	*2,4,6-TRIBROMOPHENOL	98	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	NA	*2-FLUOROBIPHENYL	98	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	NA	*2-FLUOROPHENOL	85	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	NA	*NITROBENZENE-D5	93	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	NA	*PHENOL-D6	102	% Recovery	4	NA	12/28/00
X00482	XG.2001.6-15	NA	*TERPHENYL-D14	101	% Recovery	4	NA	12/28/00

X00486-020

8260

X00486	XG.2000.1403-17	NA	1,2 Dichloroethane-D4 (SS)	91	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-17	NA	4-Bromofluorobenzene (SS)	86	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-17	NA	Dibromofluoromethane (SS)	102	% Recovery	1	NA	12/22/00
X00486	XG.2000.1403-17	NA	Toluene-D8 (SS)	94	% Recovery	1	NA	12/22/00

QC
Type

MSD

QC
Matrix

SOLID

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Run Code	Date
X00457-006			GRO						
X00457	XG.2000.1317-6	NA	4-Bromofluorobenzene-FID	97	% Recovery	1	NA		12/01/00
X00457	XG.2000.1317-6	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA		12/01/00
	XG.2000.1317-6	NA	aaa-Trifluorotoluene-FID	103	% Recovery	1	NA		12/01/00
	XG.2000.1317-6	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA		12/01/00
X00459-006			DRO						
X00459	XG.2000.1315-8	NA	O-terphenyl	102	% Recovery	1	NA		12/01/00
X00482-006			8270						
X00482	XG.2001.6-16	NA	*2,4,6-TRIBROMOPHENOL	100	% Recovery	4	NA		12/28/00
X00482	XG.2001.6-16	NA	*2-FLUOROBIPHENYL	92	% Recovery	4	NA		12/28/00
X00482	XG.2001.6-16	NA	*2-FLUOROPHENOL	79	% Recovery	4	NA		12/28/00
X00482	XG.2001.6-16	NA	*NITROBENZENE-D5	85	% Recovery	4	NA		12/28/00
X00482	XG.2001.6-16	NA	*PHENOL-D6	94	% Recovery	4	NA		12/28/00
X00482	XG.2001.6-16	NA	*TERPHENYL-D14	106	% Recovery	4	NA		12/28/00
X00486-021			8260						
X00486	XG.2000.1403-18	NA	1,2 Dichloroethane-D4 (SS)	79	% Recovery	1	NA		12/22/00
X00486	XG.2000.1403-18	NA	4-Bromofluorobenzene (SS)	85	% Recovery	1	NA		12/22/00
X00486	XG.2000.1403-18	NA	Dibromofluoromethane (SS)	98	% Recovery	1	NA		12/22/00
X00486	XG.2000.1403-18	NA	Toluene-D8 (SS)	94	% Recovery	1	NA		12/22/00

Surrogate Summary: Fraction

Client: **GIANT REFINERY**
 : **0012204**

Client **BTZ-RRR-LAG**
 Sample ID

Sample **SOIL**
 Matrix

QC Group	Run Sequence	CAS #	Analyte	Result	Units	Dilution Factor	Detection Limit	Run Code	Run Date
0012204-01A									
DRO			X00459-021						
X00459	XG.2000.1385-2	NA	O-terphenyl	92	% Recovery	1	NA		12/18/00
0012204-01A									
8270			X00482-014						
X00482	XG.2001.6-10	NA	*2,4,6-TRIBROMOPHENOL	232	% Recovery	1	NA		12/28/00
X00482	XG.2001.6-17	NA	*2,4,6-TRIBROMOPHENOL	210	% Recovery	7	NA		12/28/00
X00482	XG.2001.6-10	NA	*2-FLUOROBIPHENYL	214	% Recovery	1	NA		12/28/00
X00482	XG.2001.6-17	NA	*2-FLUOROBIPHENYL	204	% Recovery	7	NA		12/28/00
X00482	XG.2001.6-10	NA	*2-FLUOROPHENOL	167	% Recovery	1	NA		12/28/00
X00482	XG.2001.6-17	NA	*2-FLUOROPHENOL	170	% Recovery	7	NA		12/28/00
X00482	XG.2001.6-10	NA	*NITROBENZENE-D5	189	% Recovery	1	NA		12/28/00
X00482	XG.2001.6-17	NA	*NITROBENZENE-D5	194	% Recovery	7	NA		12/28/00
X00482	XG.2001.6-10	NA	*PHENOL-D6	197	% Recovery	1	NA		12/28/00
X00482	XG.2001.6-17	NA	*PHENOL-D6	213	% Recovery	7	NA		12/28/00
X00482	XG.2001.6-10	NA	*TERPHENYL-D14	302	% Recovery	1	NA		12/28/00
X00482	XG.2001.6-17	NA	*TERPHENYL-D14	218	% Recovery	7	NA		12/28/00
0012204-01B									
GRO			X00457-028						
X00457	XG.2000.1391-4	NA	4-Bromofluorobenzene-FID	93	% Recovery	1	NA		12/21/00
X00457	XG.2000.1391-4	NA	4-Bromofluorobenzene-PID	ND	% Recovery	1	NA		12/21/00
X00457	XG.2000.1391-4	NA	aaa-Trifluorotoluene-FID	103	% Recovery	1	NA		12/21/00
X00457	XG.2000.1391-4	NA	aaa-Trifluorotoluene-PID	ND	% Recovery	1	NA		12/21/00
0012204-01B									
8260			X00486-005						
X00486	XG.2000.1403-4	NA	1,2 Dichloroethane-D4 (SS)	87	% Recovery	1	NA		12/20/00
X00486	XG.2000.1403-4	NA	4-Bromofluorobenzene (SS)	93	% Recovery	1	NA		12/20/00
X00486	XG.2000.1403-4	NA	Dibromofluoromethane (SS)	97	% Recovery	1	NA		12/20/00
X00486	XG.2000.1403-4	NA	Toluene-D8 (SS)	100	% Recovery	1	NA		12/20/00



7300 JEFFERSON N.E.
ALBUQUERQUE, NEW MEXICO 87109
(505) 345-8964

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 593-6000

127 EASTGATE DRIVE, 212-C
LOS ALAMOS, NEW MEXICO 87544
(505) 662-2558

Lab job No. : 0012204 Date 12/7/00
Page 1 of 1

Client Giant Refining Company - Arizona
Address Route 3 Box 7
City / State / Zip Salton NM 87301
Project Name / Number RRRLTA
Contract / Purchase Order / Quote _____

Project Manager / Contact Steve Morris
Telephone No. 505 722 0258
Fax No. 505 722 0210
Samplers : (signature) SC Morris

[illegible]

FILE

GIANT
REFINING COMPANY
MATERIAL REQUISITION
NOT A PURCHASE ORDER

No 26748

SUGGESTED VENDORS

1. Assaigui
2. _____
3. _____

DATE

1/26/01

PURCHASE ORDER
NUMBER ISSUED: _____

QUAN.	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
1	ea	Railroad Rack Lagoon BTZ		1010 -
		Analyses	tax	58 71
		Invoice # 943164		
		total	\$	1068 71
1	ea	RRR Lagoon Budge		835 -
		Invoice # 943127	tax	48 53
		total		883 53
		Mat. Req total		1952 24

NOTE: GIVE FULL DESCRIPTION OF ITEM. INDICATE PART NUMBER, CATALOG NUMBER, BRAND NAME, MODEL AND SERIAL NUMBER.

REQUESTED BY:

Mancini

DELIVER TO: _____

ACCOUNT NO./

INVT NO.:

998 - 9091 - 69

FOR USE AT: _____

APPROVED BY:

C. C. Paulil

PROJECT # _____

HAVE YOU CHECKED THIS REQUISITION FOR REAL NEED?

yes

NO LATER THAN DATE: _____

KEEP COPY NO. 3 FOR YOUR RECORDS

Invoice to:	GIANT REFINERY attn: DORINDA MANCINI ROUTE 3 BOX 7 GALLUP NM 87301 USA	INVOICE	Workorder #:	0012199	Invoice # :	943127
Report to:	GIANT REFINERY attn: DORINDA MANCINI ROUTE 3 BOX 7 GALLUP NM 87301 USA		Received:	12/08/00	Invoiced:	01/18/01
Project:	RRR LAGOON				Client ID:	GIA01
					Client PO # :	
			Remit to:	ASSAIGAI ANALYTICAL LABORATORIES attn: ACCOUNTS RECEIVABLE PO BOX 90430 ALBUQUERQUE NM 87199-0430 USA		
			Phone:	505-822-8061		
			Terms	NET 30 DAYS		

Invoice # :	943127	<u>Amount</u>	<u>Surcharge</u>	<u>Amount Due</u>	<u>Remarks</u>
-------------	--------	---------------	------------------	-------------------	----------------

01 RRR-LAG-SL8260-SOLID

SW846 8260A Purgeable VOCs by GC/MS	\$180.00	\$0.00	\$180.00
	\$180.00	\$0.00	\$180.00

8270-SOLID

8270B SVOCs by GC/MS	\$320.00	\$0.00	\$320.00
	\$320.00	\$0.00	\$320.00

MISC ITEMS

8015A Diesel Range Organics by GC/FID	\$50.00	\$0.00	\$50.00
8015A GRO by GC/FID	\$50.00	\$0.00	\$50.00
8015A Oil Range Organics by GC/FID	\$60.00	\$0.00	\$60.00
	\$160.00	\$0.00	\$160.00

RCRA - S

6010A ICP	\$102.94	\$0.00	\$102.94
SW846 3050A Sediments, Soil, Sludges (ICP)	\$15.44	\$0.00	\$15.44
SW846 7471 CVAA	\$56.62	\$0.00	\$56.62
	\$175.00	\$0.00	\$175.00

Ok to pay
D Mancini
1/29/01

Thank you for your business.

Subtotals

\$835.00

\$0.00

\$835.00

Taxable
\$835.00

NonTaxable
\$0.00

Tax @ 5.8125

\$48.53

Invoice Total Due

\$883.53

	<u>Amount</u>	<u>Surcharge</u>	<u>Amount Due</u>	<u>Remarks</u>	<u>Taxable</u>	<u>NonTaxable</u>
Thank you for your business.						
Subtotals	\$1,010.00	\$0.00	\$1,010.00		\$1,010.00	\$0.00
Tax @ 5.8125			\$58.71			
Invoice Total Due			\$1,068.71			

ok
SM
1/26/01



Phone (505) 326-4737 Fax (505) 325-4182

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

December 22, 2000

Dorinda Mancini
Giant Refining Company
Rt. 3, Box 7
Gallup, NM 87301

Ms. Mancini:

Enclosed please find the reports for the samples received by our laboratory for analysis on December 8, 2000.

If you have any questions about the results of these analyses, please don't hesitate to call at your convenience.

Thank you for choosing IML for your analytical needs!

Sincerely,

A handwritten signature in black ink, reading 'Sharon Williams'. The signature is written in a cursive, flowing style with a large initial 'S'.

Sharon Williams
Organic Analyst/IML-Farmington

Enclosure

xc: File



GIANT REFINING COMPANY CINIZA

Case Narrative

On December 8, 2000, two soil samples were submitted to Inter-Mountain Laboratories - Farmington for analysis. The parameters performed on the samples are indicated on the accompanying Chain of Custody.

It is the policy of this laboratory to employ, whenever possible, preparatory and analytical methods which have been approved by regulatory agencies. The methods used in the analysis of the samples reported herein are found in: "Test Methods for Evaluating Waste and Solid Waste", Physical/Chemical Methods, USEPA, SW-846, November 1996.

Quality control data appear at the end of the analytical package and may be identified by title. If there are any questions regarding the information presented in this report package, please feel free to contact us at your convenience.

Sincerely,

A handwritten signature in cursive script that reads 'Sharon Williams'.

Sharon Williams
Organic Analyst/IML-Farmington



Phone (505) 326-4737 Fax (505) 325-4182

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

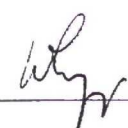
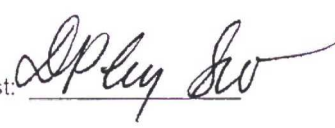
EPA METHOD 8260B
VOLATILE ORGANIC COMPOUNDS BY GC/MSClient: **Giant Refining Company**
Project ID: Ciniza / RRR Landfarm
Sample ID: BT2-RRR-120700
Laboratory ID: 0300S05431
Sample Matrix: SoilDate Reported: 12/21/00
Date Sampled: 12/07/00
Date Received: 12/08/00
Date Extracted: 12/19/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	MDL	Units
Benzene	ND	0.5	mg/Kg
2-Butanone (MEK)	ND	2.0	mg/Kg
Carbon Disulfide	ND	0.5	mg/Kg
Chlorobenzene	ND	0.5	mg/Kg
Chloroform	ND	0.5	mg/Kg
Chloromethane	ND	0.5	mg/Kg
1,1-Dichloroethane	ND	0.5	mg/Kg
1,2-Dichloroethane	ND	0.5	mg/Kg
1,1-Dichloroethene	ND	0.5	mg/Kg
trans-1,2-Dichloroethene	ND	0.5	mg/Kg
1,4-Dioxane	ND	200	mg/Kg
Ethylbenzene	ND	0.5	mg/Kg
Methylene Chloride	ND	2.0	mg/Kg
Styrene	ND	0.5	mg/Kg
1,1,2,2-Tetrachloroethane	ND	0.5	mg/Kg
Tetrachloroethene (PCE)	ND	0.5	mg/Kg
Toluene	ND	0.5	mg/Kg
1,1,1-Trichloroethane	ND	0.5	mg/Kg
Trichloroethene (TCE)	ND	0.5	mg/Kg
m,p-Xylene	ND	0.5	mg/Kg
o-Xylene	ND	0.5	mg/Kg
Ethylene Dibromide	ND	0.5	mg/Kg
Acetone	ND	2.0	mg/Kg

ND - Compound not detected at stated Detection Limit.

Surrogate Recovery	%	Soil QC Limits
Dibromofluoromethane	102	80 - 120
Dichloroethane-d4	92	80 - 120
Toluene-d8	98	81 - 117
4-Bromofluorobenzene	118	74 - 121

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Reveiwed By: Analyst: 



Phone (505) 326-4737 Fax (505) 325-4182

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

EPA METHOD 8260B
VOLATILE ORGANIC COMPOUNDS BY GC/MS

Client: **Giant Refining Company**
Project ID: Ciniza / RRR Lagoon
Sample ID: RRR-LAG-120700
Laboratory ID: 0300S05432
Sample Matrix: Sludge

Date Reported: 12/21/00
Date Sampled: 12/07/00
Date Received: 12/08/00
Date Extracted: 12/19/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	MDL	Units
Benzene	ND	0.5	mg/Kg
2-Butanone (MEK)	ND	2.0	mg/Kg
Carbon Disulfide	ND	0.5	mg/Kg
Chlorobenzene	ND	0.5	mg/Kg
Chloroform	ND	0.5	mg/Kg
Chloromethane	ND	0.5	mg/Kg
1,1-Dichloroethane	ND	0.5	mg/Kg
1,2-Dichloroethane	ND	0.5	mg/Kg
1,1-Dichloroethene	ND	0.5	mg/Kg
trans-1,2-Dichloroethene	ND	0.5	mg/Kg
1,4-Dioxane	ND	200	mg/Kg
Ethylbenzene	1.0	0.5	mg/Kg
Methylene Chloride	ND	2.0	mg/Kg
Styrene	ND	0.5	mg/Kg
1,1,2,2-Tetrachloroethane	ND	0.5	mg/Kg
Tetrachloroethene (PCE)	ND	0.5	mg/Kg
Toluene	1.6	0.5	mg/Kg
1,1,1-Trichloroethane	ND	0.5	mg/Kg
Trichloroethene (TCE)	ND	0.5	mg/Kg
m,p-Xylene	5.4	0.5	mg/Kg
o-Xylene	2.2	0.5	mg/Kg
Ethylene Dibromide	ND	0.5	mg/Kg
Acetone	ND	2.0	mg/Kg

ND - Compound not detected at stated Detection Limit.

Surrogate Recovery	%	Soil QC Limits
Dibromofluoromethane	105	80 - 120
Dichloroethane-d4	93	80 - 120
Toluene-d8	98	81 - 117
4-Bromofluorobenzene	114	74 - 121

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Received By: WJW

Analyst: AP leg SW



EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES

Client: Giant Refining Company
Project ID: Ciniza / RRR Landfarm
Sample ID: BT2-RRR-120700
Laboratory ID: 0300S05431
Sample Matrix: Soil

Date Reported: 12/21/00
Date Sampled: 12/07/00
Date Received: 12/08/00
Date Extracted: 12/14/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	Detection Limit	Units
Anthracene	ND	0.33	mg/kg
Acenaphthene	ND	0.33	mg/kg
Benzo(a)anthracene	ND	0.33	mg/kg
Benzo(b)fluoranthene	ND	0.33	mg/kg
Benzo(k)fluoranthene	ND	0.33	mg/kg
Benzo(a)pyrene	ND	0.33	mg/kg
Butylbenzylphthalate	ND	0.33	mg/kg
Chrysene	ND	0.33	mg/kg
Diethylphthalate	ND	0.33	mg/kg
1,12-Dimethylbenz(a)anthracene	ND	0.33	mg/kg
1-methylphthalate	ND	0.33	mg/kg
Di-n-Octylphthalate	ND	0.33	mg/kg
Fluoranthene	ND	0.33	mg/kg
Fluorene	ND	0.33	mg/kg
Indeno(1,2,3-cd)pyrene	ND	0.33	mg/kg
2-Methylnaphthalene	ND	0.33	mg/kg
2-Methylphenol	ND	0.33	mg/kg
4-Methylphenol/3-Methylphenol **	ND	0.33	mg/kg
Naphthalene	ND	0.33	mg/kg
Nitrobenzene	ND	0.33	mg/kg
4-Nitrophenol	ND	1.7	mg/kg
Phenanthrene	ND	0.33	mg/kg
Pyrene	ND	0.33	mg/kg
Pyridine	ND	0.33	mg/kg
Quinoline	ND	0.33	mg/kg
Benzenethiol	ND	0.33	mg/kg
Phenol	ND	0.33	mg/kg
bis(2-Ethylhexyl)phthalate	ND	0.33	mg/kg
Dibenz(a,j)acridine	ND	0.33	mg/kg
Dibenz(a,h)anthracene	ND	0.33	mg/kg
Dichlorobenzene	ND	0.33	mg/kg
1-Methylnaphthalene	ND	0.33	mg/kg
1,2-Dimethylphenol	ND	0.33	mg/kg
2,4-Dinitrotoluene	ND	0.33	mg/kg
2,4-Dinitrophenol	ND	1.7	mg/kg



Phone (505) 326-4737 Fax (505) 325-4182

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

**EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES**

Client: **Giant Refining Company**
Project ID: Ciniza / RRR Landfarm
Sample ID: BT2-RRR-120700
Laboratory ID: 0300S05431
Sample Matrix: Soil

Date Reported: 12/21/00
Date Sampled: 12/07/00
Date Received: 12/08/00
Date Extracted: 12/14/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	Detection Limit	Units
Benzo(j)fluoranthene	ND	0.33	mg/kg
2-Chlorophenol	ND	0.33	mg/kg
2,4,6-Trichlorophenol	ND	0.66	mg/kg
Di-n-Butylphthalate	ND	0.33	mg/kg
Benzyl Alcohol	ND	0.33	mg/kg
6-Methylchrysene	ND	0.33	mg/kg

ND - Compound not detected at stated Detection Limit.

** - Compounds Coelute

QUALITY CONTROL:

Surrogate Recoveries	%	Soil QC Limits
2-Fluorophenol	33	25 - 121
Phenol-d6	47	24 - 113
Nitrobenzene-d5	39	23 - 120
2-Fluorobiphenyl	50	30 - 115
2,4,6-Tribromophenol	93	19 - 122
Terphenyl-d14	89	18 - 137

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Received By: W. H. P.Analyst: ES leg SW



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Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

**EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES**

Client: **Giant Refining Company**
Project ID: Ciniza / RRR Lagoon
Sample ID: RRR-LAG-120700
Laboratory ID: 0300S05432
Sample Matrix: Sludge

Date Reported: 12/21/00
Date Sampled: 12/07/00
Date Received: 12/08/00
Date Extracted: 12/14/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	Detection Limit	Units
Anthracene	ND	33	mg/kg
Acenaphthene	ND	33	mg/kg
Benzo(a)anthracene	ND	33	mg/kg
Benzo(b)fluoranthene	ND	33	mg/kg
Benzo(k)fluoranthene	ND	33	mg/kg
Benzo(a)pyrene	ND	33	mg/kg
Butylbenzylphthalate	ND	33	mg/kg
Chrysene	ND	33	mg/kg
Diethylphthalate	ND	33	mg/kg
1,2-Dimethylbenz(a)anthracene	ND	33	mg/kg
1-Methylphthalate	ND	33	mg/kg
Di-n-Octylphthalate	ND	33	mg/kg
Fluoranthene	ND	33	mg/kg
Fluorene	ND	33	mg/kg
Indeno(1,2,3-cd)pyrene	ND	33	mg/kg
2-Methylnaphthalene	82	33	mg/kg
2-Methylphenol	ND	33	mg/kg
4-Methylphenol/3-Methylphenol **	ND	33	mg/kg
Naphthalene	ND	33	mg/kg
Nitrobenzene	ND	33	mg/kg
4-Nitrophenol	ND	165	mg/kg
Phenanthrene	58	33	mg/kg
Pyrene	ND	33	mg/kg
Pyridine	ND	33	mg/kg
Quinoline	ND	33	mg/kg
Benzenethiol	ND	33	mg/kg
Phenol	ND	33	mg/kg
bis(2-Ethylhexyl)phthalate	ND	33	mg/kg
Dibenz(a,j)acridine	ND	33	mg/kg
Dibenz(a,h)anthracene	ND	33	mg/kg
Dichlorobenzene	ND	33	mg/kg
1-Methylnaphthalene	63	33	mg/kg
1,2-Dimethylphenol	ND	33	mg/kg
2,4-Dinitrotoluene	ND	33	mg/kg
2,4-Dinitrophenol	ND	165	mg/kg



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Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES

Client: **Giant Refining Company**
Project ID: Ciniza / RRR Lagoon
Sample ID: RRR-LAG-120700
Laboratory ID: 0300S05432
Sample Matrix: Sludge

Date Reported: 12/21/00
Date Sampled: 12/07/00
Date Received: 12/08/00
Date Extracted: 12/14/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	Detection Limit	Units
Benzo(j)fluoranthene	ND	33	mg/kg
2-Chlorophenol	ND	33	mg/kg
2,4,6-Trichlorophenol	ND	66	mg/kg
Di-n-Butylphthalate	ND	33	mg/kg
Benzyl Alcohol	ND	33	mg/kg
6-Methylchrysene	ND	33	mg/kg

ND - Compound not detected at stated Detection Limit.

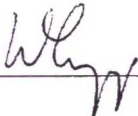
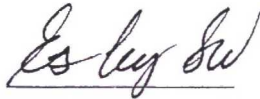
** - Compounds Coelute

QUALITY CONTROL:

Surrogate Recoveries	%	Soil QC Limits
2-Fluorophenol	D	25 - 121
Phenol-d6	D	24 - 113
Nitrobenzene-d5	D	23 - 120
2-Fluorobiphenyl	D	30 - 115
2,4,6-Tribromophenol	D	19 - 122
Terphenyl-d14	D	18 - 137

D - Diluted Out

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Received By: Analyst: 



Inter-Mountain Laboratories, Inc.

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Client: Giant Refining Co. (Gallup)
Project: RRR Landfarm
Sample ID: BTZ-RRR-120700
Lab ID: 0300W05431
Matrix: Soil
Condition: Intact

Date Reported: 12/22/00

Date Sampled: 12/07/00

Date Received: 12/08/00

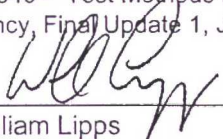
Date Analyzed: 12/14/00

Parameter	Analytical Result	PQL	MCL	Units
RCRA - TOTAL METALS 3050				
Arsenic	0.6	0.5	100	mg/Kg
Barium	326	1	2000	mg/Kg
Cadmium	<0.5	0.5	20	mg/Kg
Chromium	10	1	100	mg/Kg
Lead	11	5	100	mg/Kg
Mercury	<0.06	0.06	4	mg/Kg
Selenium	<0.5	0.5	20	mg/Kg
Silver	<2	2	100	mg/Kg

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By:


William Lipps



Inter-Mountain Laboratories, Inc.

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2506 West Main Street, Farmington, NM 87401

Client: Giant Refining Co. (Gallup)

Project: RRR Landfarm

Sample ID: BTZ-RRR-120700

Lab ID: 0300W05431

Matrix: Soil

Condition: Intact

Date Reported: 12/22/00

Date Sampled: 12/07/00

Date Received: 12/08/00

Parameter	Analytical Result	PQL	Units
DRO - METHOD 8015AZ			
Diesel Range Organics (C10 - C22)	<30	30	mg/Kg
Diesel Range Organics as Diesel	<30	30	mg/Kg

Quality Control - Surrogate Recovery	%	QC Limits
o-Terphenyl(SUR-8015)	99	70 - 130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Reviewed By:

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2506 West Main Street, Farmington, NM 87401

Client: Giant Refining Co. (Gallup)

Project: RRR Landfarm

Sample ID: BTZ-RRR-120700

Lab ID: 0300W05431

Matrix: Soil

Condition: Intact

Date Reported: 12/22/00

Date Sampled: 12/07/00

Date Received: 12/08/00

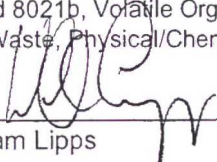
Parameter	Analytical Result	PQL	Units
GRO - METHOD 8015AZ			
Gasoline Range Organics(C6-C10)	<5	5	mg/Kg
Gasoline Range Organics as Gasoline	<5	5	mg/Kg

Quality Control - Surrogate Recovery	%	QC Limits
4-Bromofluorobenzene(SUR-8015B)	110	70 - 130
a,a,a-Trifluorotoluene(SUR-8021B)	104	70 - 130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.

Method 8021b, Volatile Organic Compounds, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, United States Environmental

Reviewed By:


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Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

Client: Giant Refining Co. (Gallup)

Project: RRR Lagoon

Sample ID: RRR-LAG-120700

Lab ID: 0300W05432

Matrix: Sludge

Condition: Intact

Date Reported: 12/22/00

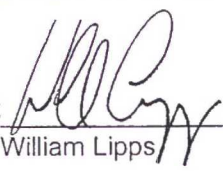
Date Sampled: 12/07/00

Date Received: 12/08/00

Date Analyzed: 12/14/00

Parameter	Analytical Result	PQL	MCL	Units
RCRA METALS - METHOD 3050				
Arsenic	0.6	0.5	100	mg/Kg
Barium	300	1	2000	mg/Kg
Cadmium	0.5	0.4	20	mg/Kg
Chromium	10	1	100	mg/Kg
Lead	10	5	100	mg/Kg
Mercury	0.21	0.06	4	mg/Kg
Selenium	<0.5	0.5	20	mg/Kg
Silver	<1	1	100	mg/Kg

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, Final Update 1, July 1992.

Reviewed By: 

William Lipps



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2506 West Main Street, Farmington, NM 87401

Client: **Giant Refining Co. (Gallup)**

Project: **RRR Lagoon**

Date Reported: 12/22/00

Sample ID: **RRR-LAG-120700**

Date Sampled: 12/07/00

Lab ID: **0300W05432**

Date Received: 12/08/00

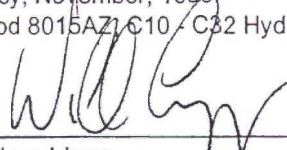
Matrix: **Sludge**

Condition: **Intact**

Parameter	Analytical Result	PQL	Units
DRO - METHOD 8015AZ			
Diesel Range Organics (C10 - C22)	13,500	3000	mg/Kg
Diesel Range Organics as Diesel	13,500	3000	mg/Kg
Oil Range Organics (C22 - C32)	27,000	6000	mg/Kg

Quality Control - Surrogate Recovery	%	QC Limits
o-Terphenyl(SUR-8015)	113	70 - 130

Reference: SW-846 - "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods", United States Environmental Protection Agency, November, 1986.
Method 8015AZ, C10 - C32 Hydrocarbons in Soil, Arizona Department of Health Services, Revision - 1.0, 09/25/98.

Reviewed By: 

William Lipps



QUALITY CONTROL / QUALITY ASSURANCE



Phone (505) 326-4737 Fax (505) 325-4182

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

EPA METHOD 8260B
VOLATILE ORGANIC COMPOUNDS BY GC/MS
Duplicate Analysis

Client: **Giant Refining Company**
Project ID: Ciniza / RRR Lagoon
Sample ID: RRR-LAG-120700
Laboratory ID: 0300S05432Dup
Sample Matrix: Sludge

Date Reported: 12/21/00
Date Sampled: 12/07/00
Date Received: 12/08/00
Date Extracted: 12/19/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	MDL	Units
Benzene	ND	0.5	mg/Kg
2-Butanone (MEK)	ND	2.0	mg/Kg
Carbon Disulfide	ND	0.5	mg/Kg
Chlorobenzene	ND	0.5	mg/Kg
Chloroform	ND	0.5	mg/Kg
Chloromethane	ND	0.5	mg/Kg
1,1-Dichloroethane	ND	0.5	mg/Kg
1,2-Dichloroethane	ND	0.5	mg/Kg
1,1-Dichloroethene	ND	0.5	mg/Kg
trans-1,2-Dichloroethene	ND	0.5	mg/Kg
1,4-Dioxane	ND	200	mg/Kg
Ethylbenzene	1.1	0.5	mg/Kg
Methylene Chloride	ND	2.0	mg/Kg
Styrene	ND	0.5	mg/Kg
1,1,2,2-Tetrachloroethane	ND	0.5	mg/Kg
Tetrachloroethene (PCE)	ND	0.5	mg/Kg
Toluene	1.8	0.5	mg/Kg
1,1,1-Trichloroethane	ND	0.5	mg/Kg
Trichloroethene (TCE)	ND	0.5	mg/Kg
m,p-Xylene	5.7	0.5	mg/Kg
o-Xylene	1.8	0.5	mg/Kg
Ethylene Dibromide	ND	0.5	mg/Kg
Acetone	ND	2.0	mg/Kg

ND - Compound not detected at stated Detection Limit.

Surrogate Recovery	%	Soil QC Limits
Dibromofluoromethane	105	80 - 120
Dichloroethane-d4	94	80 - 120
Toluene-d8	98	81 - 117
4-Bromofluorobenzene	115	74 - 121

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Received By: WhyAnalyst: APG



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Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

EPA METHOD 8260B
VOLATILE ORGANIC COMPOUNDS BY GC/MS
Method Blank Analysis

Sample ID: Method Blank
Laboratory ID: SMB00-354
Sample Matrix: Sand

Date Reported: 12/21/00
Date Extracted: 12/19/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	MDL	Units
Benzene	ND	0.5	mg/Kg
2-Butanone (MEK)	ND	2.0	mg/Kg
Carbon Disulfide	ND	0.5	mg/Kg
Chlorobenzene	ND	0.5	mg/Kg
Chloroform	ND	0.5	mg/Kg
Chloromethane	ND	0.5	mg/Kg
1,1-Dichloroethane	ND	0.5	mg/Kg
1,2-Dichloroethane	ND	0.5	mg/Kg
1,1-Dichloroethene	ND	0.5	mg/Kg
trans-1,2-Dichloroethene	ND	0.5	mg/Kg
1,4-Dioxane	ND	200	mg/Kg
Ethylbenzene	ND	0.5	mg/Kg
Methylene Chloride	ND	2.0	mg/Kg
Styrene	ND	0.5	mg/Kg
1,1,2,2-Tetrachloroethane	ND	0.5	mg/Kg
Tetrachloroethene (PCE)	ND	0.5	mg/Kg
Toluene	ND	0.5	mg/Kg
1,1,1-Trichloroethane	ND	0.5	mg/Kg
Trichloroethene (TCE)	ND	0.5	mg/Kg
m,p-Xylene	ND	0.5	mg/Kg
o-Xylene	ND	0.5	mg/Kg
Ethylene Dibromide	ND	0.5	mg/Kg
Acetone	ND	2.0	mg/Kg

ND - Compound not detected at stated Detection Limit.

Surrogate Recovery	%	Soil QC Limits
Dibromofluoromethane	104	80 - 120
1,2-Dichloroethane-d4	91	80 - 120
Toluene-d8	97	81 - 117
4-Bromofluorobenzene	113	74 - 121

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Received By: WJ

Analyst: WJ



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Inter-Mountain Laboratories, Inc.

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EPA METHOD 8260B
VOLATILE ORGANIC COMPOUNDS BY GC/MS
Blank Spike/Duplicate Analysis

Sample ID: Blank Spike Duplicate
Laboratory ID: SBSD00-354
Sample Matrix: Sand

Date Reported: 12/21/00
Date Extracted: 12/19/00
Date Analyzed: 12/19/00

Parameter	Analytical Result mg/Kg	Spike Added mg/Kg	Spike Results mg/Kg	Spike Recovery %	Duplicate Results mg/Kg	Duplicate Recovery %	Relative Difference %RSD
1,1-Dichloroethene	ND	5	4.2	84	4.3	87	3
Benzene	ND	5	4.6	92	4.6	92	0
Chlorobenzene	ND	5	5.4	107	5.4	107	0
Toluene	ND	5	4.3	86	4.6	92	6
Trichloroethene (TCE)	ND	5	4.6	92	4.9	98	6

ND - Compound not detected at stated Detection Limit.

Surrogate Recovery	%	Dup %	Soil QC Limits
Dibromofluoromethane	107	101	80 - 120
1,2-Dichloroethane-d4	101	95	80 - 120
Toluene-d8	93	99	81 - 117
4-Bromofluorobenzene	102	108	74 - 121

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Received By:

Analyst:



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Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

EPA METHOD 8260B
VOLATILE ORGANIC COMPOUNDS BY GC/MS
Matrix Spike Analysis

Sample ID: Matrix Spike
Laboratory ID: 1300G02887MS
Sample Matrix: Water

Date Reported: 12/21/00
Date Extracted: 12/19/00
Date Analyzed: 12/19/00

Parameter	Analytical Result µg/L	Spike Added µg/L	Spike Results µg/L	Spike Recovery %
1,1-Dichloroethene	ND	5	4.0	80
Benzene	ND	5	4.3	86
Chlorobenzene	ND	5	4.9	98
Toluene	ND	5	4.2	84
Trichloroethene (TCE)	ND	5	4.6	92

ND - Compound not detected at stated Detection Limit.

Surrogate Recovery	%	Water QC Limits
Dibromofluoromethane	99	86 - 118
Dichloroethane-d4	91	80 - 120
Toluene-d8	98	88 - 110
4-Bromofluorobenzene	109	86 - 115

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Reveiwed By: W. H. H. H.Analyst: OP. H. H. H.



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Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

**EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES**

Duplicate Analysis

Client: **Giant Refining Company**
Project ID: Ciniza / RRR Lagoon
Sample ID: RRR-LAG-120700
Laboratory ID: 0300S05432Dup
Sample Matrix: Sludge

Date Reported: 12/21/00
Date Sampled: 12/07/00
Date Received: 12/08/00
Date Extracted: 12/14/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	Detection Limit	Units
Anthracene	ND	33	mg/kg
Acenaphthene	ND	33	mg/kg
Benzo(a)anthracene	ND	33	mg/kg
Benzo(b)fluoranthene	ND	33	mg/kg
Benzo(k)fluoranthene	ND	33	mg/kg
Benzo(a)pyrene	ND	33	mg/kg
Butylbenzylphthalate	ND	33	mg/kg
Chrysene	ND	33	mg/kg
Diethylphthalate	ND	33	mg/kg
1,2-Dimethylbenz(a)anthracene	ND	33	mg/kg
1-Methylphthalate	ND	33	mg/kg
Di-n-Octylphthalate	ND	33	mg/kg
Fluoranthene	ND	33	mg/kg
Fluorene	ND	33	mg/kg
Indeno(1,2,3-cd)pyrene	ND	33	mg/kg
2-Methylnaphthalene	89	33	mg/kg
2-Methylphenol	ND	33	mg/kg
4-Methylphenol/3-Methylphenol **	ND	33	mg/kg
Naphthalene	ND	33	mg/kg
Nitrobenzene	ND	33	mg/kg
4-Nitrophenol	ND	165	mg/kg
Phenanthrene	62	33	mg/kg
Pyrene	ND	33	mg/kg
Pyridine	ND	33	mg/kg
Quinoline	ND	33	mg/kg
Benzenethiol	ND	33	mg/kg
Phenol	ND	33	mg/kg
bis(2-Ethylhexyl)phthalate	ND	33	mg/kg
Dibenz(a,j)acridine	ND	33	mg/kg
Dibenz(a,h)anthracene	ND	33	mg/kg
Dichlorobenzene	ND	33	mg/kg
1-Methylnaphthalene	67	33	mg/kg
1,2-Dimethylphenol	ND	33	mg/kg
2,4-Dinitrotoluene	ND	33	mg/kg
2,4-Dinitrophenol	ND	165	mg/kg



EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES

Duplicate Analysis

Client: Giant Refining Company
Project ID: Ciniza / RRR Lagoon
Sample ID: RRR-LAG-120700
Laboratory ID: 0300S05432Dup
Sample Matrix: Sludge

Date Reported: 12/21/00
Date Sampled: 12/07/00
Date Received: 12/08/00
Date Extracted: 12/14/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	Detection Limit	Units
Benzo(j)fluoranthene	ND	33	mg/kg
2-Chlorophenol	ND	33	mg/kg
2,4,6-Trichlorophenol	ND	66	mg/kg
Di-n-Butylphthalate	ND	33	mg/kg
Benzyl Alcohol	ND	33	mg/kg
6-Methylchrysene	ND	33	mg/kg

ND - Compound not detected at stated Detection Limit.

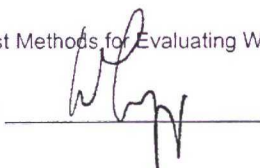
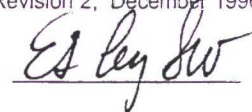
** - Compounds Coelute

QUALITY CONTROL:

Surrogate Recoveries	%	Soil QC Limits
2-Fluorophenol	D	25 - 121
Phenol-d6	D	24 - 113
Nitrobenzene-d5	D	23 - 120
2-Fluorobiphenyl	D	30 - 115
2,4,6-Tribromophenol	D	19 - 122
Terphenyl-d14	D	18 - 137

D - Diluted Out

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Reveiwed By: Analyst: 



EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES
Method Blank Analysis

Sample ID: Method Blank
Laboratory ID: SMB00-349
Sample Matrix: Sand

Date Reported: 12/21/00
Date Extracted: 12/14/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	Detection Limit	Units
Anthracene	ND	0.33	mg/kg
Acenaphthene	ND	0.33	mg/kg
Benzo(a)anthracene	ND	0.33	mg/kg
Benzo(b)fluoranthene	ND	0.33	mg/kg
Benzo(k)fluoranthene	ND	0.33	mg/kg
Benzo(a)pyrene	ND	0.33	mg/kg
Butylbenzylphthalate	ND	0.33	mg/kg
Chrysene	ND	0.33	mg/kg
Diethylphthalate	ND	0.33	mg/kg
1,12-Dimethylbenz(a)anthracene	ND	0.33	mg/kg
Dimethylphthalate	ND	0.33	mg/kg
Di-n-Octylphthalate	ND	0.33	mg/kg
Fluoranthene	ND	0.33	mg/kg
Fluorene	ND	0.33	mg/kg
Indeno(1,2,3-cd)pyrene	ND	0.33	mg/kg
2-Methylnaphthalene	ND	0.33	mg/kg
2-Methylphenol	ND	0.33	mg/kg
4-Methylphenol/3-Methylphenol **	ND	0.33	mg/kg
Naphthalene	ND	0.33	mg/kg
Nitrobenzene	ND	0.33	mg/kg
4-Nitrophenol	ND	1.7	mg/kg
Phenanthrene	ND	0.33	mg/kg
Pyrene	ND	0.33	mg/kg
Pyridine	ND	0.33	mg/kg
Quinoline	ND	0.33	mg/kg
Benzenethiol	ND	0.33	mg/kg
Phenol	ND	0.33	mg/kg
bis(2-Ethylhexyl)phthalate	ND	0.33	mg/kg
Dibenz(a,j)acridine	ND	0.33	mg/kg
Dibenz(a,h)anthracene	ND	0.33	mg/kg
Dichlorobenzene	ND	0.33	mg/kg
1-Methylnaphthalene	ND	0.33	mg/kg
1,3-Dimethylphenol	ND	0.33	mg/kg
2,4-Dinitrotoluene	ND	0.33	mg/kg
2,4-Dinitrophenol	ND	1.7	mg/kg



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**EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES**

Method Blank Analysis

Sample ID: Method Blank
Laboratory ID: SMB00-349
Sample Matrix: Sand

Date Reported: 12/21/00
Date Extracted: 12/14/00
Date Analyzed: 12/19/00

Parameter	Analytical Result	Detection Limit	Units
Benzo(j)fluoranthene	ND	0.33	mg/kg
2-Chlorophenol	ND	0.33	mg/kg
2,4,6-Trichlorophenol	ND	0.66	mg/kg
Di-n-Butylphthalate	ND	0.33	mg/kg
Benzyl Alcohol	ND	0.33	mg/kg
6-Methylchrysene	ND	0.33	mg/kg

ND - Compound not detected at stated Detection Limit.

** - Compounds Coelute

QUALITY CONTROL:

Surrogate Recoveries	%	Soil QC Limits
2-Fluorophenol	60	25 - 121
Phenol-d6	65	24 - 113
Nitrobenzene-d5	69	23 - 120
2-Fluorobiphenyl	72	30 - 115
2,4,6-Tribromophenol	97	19 - 122
Terphenyl-d14	87	18 - 137

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Received By:

Analyst:



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EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES

Blank Spike/Spike Duplicate Analysis

Sample ID: Blank Spike Duplicate
Laboratory ID: SBSD00-349
Sample Matrix: Sand

Date Reported: 12/21/00
Date Extracted: 12/14/00
Date Analyzed: 12/19/00

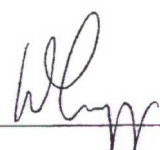
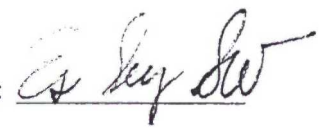
Parameter	Analytical Result mg/kg	Spike Added mg/kg	Spike Results mg/kg	Spike Recovery %	Duplicate Results mg/kg	Duplicate Recovery %	Relative Difference %RSD
1,2,4-Trichlorobenzene	ND	3.3	2.5	75	2.1	62	19
1,4-Dichlorobenzene	ND	3.3	1.7	50	1.3	40	24
2,4-Dinitrotoluene	ND	3.3	2.5	75	2.6	79	5
2-Chlorophenol	ND	6.7	3.7	56	3.5	52	7
4-Chloro-3-methylphenol	ND	6.7	4.6	69	4.5	68	1
4-Nitrophenol	ND	6.7	4.4	66	4.7	71	7
Acenaphthene	ND	3.3	2.1	62	2.1	62	1
N-Nitrosodi-n-propylamine	ND	3.3	2.2	65	2.1	64	1
Pentachlorophenol	ND	6.7	6.1	91	6.4	96	5
Phenol	ND	6.7	3.4	51	3.2	48	6
Pyrene	ND	3.3	2.4	71	2.5	75	5

ND - Compound not detected at stated Detection Limit.

QUALITY CONTROL:

Surrogate Recoveries	%	Dup %	Soil QC Limits
2-Fluorophenol	57	51	25 - 121
Phenol-d6	62	57	24 - 113
Nitrobenzene-d5	69	60	23 - 120
2-Fluorobiphenyl	70	67	30 - 115
2,4,6-Tribromophenol	106	109	19 - 122
Terphenyl-d14	77	80	18 - 137

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Received By: Analyst: 



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Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

**EPA METHOD 8270B
GC/MS SEMI-VOLATILE COMPOUNDS
BASE/NEUTRAL/ACID EXTRACTABLES**

Matrix Spike Analysis

Sample ID: Matrix Spike
Laboratory ID: 1300G02887MS
Sample Matrix: Soil

Date Reported: 12/21/00
Date Extracted: 12/14/00
Date Analyzed: 12/19/00

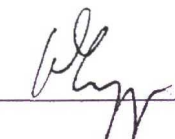
Parameter	Analytical Result mg/kg	Spike Added mg/kg	Spike Results mg/kg	Spike Recovery %
1,2,4-Trichlorobenzene	ND	3.3	1.5	46
1,4-Dichlorobenzene	ND	3.3	0.7	21
2,4-Dinitrotoluene	ND	3.3	2.5	75
2-Chlorophenol	ND	6.7	3.1	47
4-Chloro-3-methylphenol	ND	6.7	4.4	66
4-Nitrophenol	ND	6.7	4.9	74
Acenaphthene	ND	3.3	2.0	60
N-Nitrosodi-n-propylamine	ND	3.3	1.8	54
Pentachlorophenol	ND	6.7	6.4	96
Phenol	ND	6.7	3.0	45
Pyrene	ND	3.3	2.3	69

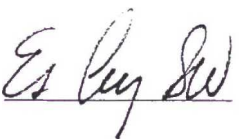
ND - Compound not detected at stated Detection Limit.

QUALITY CONTROL:

Surrogate Recoveries	%	Soil QC Limits
2-Fluorophenol	45	25 - 121
Phenol-d6	53	24 - 113
Nitrobenzene-d5	54	23 - 120
2-Fluorobiphenyl	63	30 - 115
2,4,6-Tribromophenol	106	19 - 122
Terphenyl-d14	78	18 - 137

Reference: Test Methods for Evaluating Water, Wastewater and Solid Waste, SW-846, U.S.E.P.A., Volume IB, Revision 2, December 1996.

Received By: 

Analyst: 



Phone (505) 326-4737 Fax (505) 325-4182

Inter-Mountain Laboratories, Inc.

2506 West Main Street, Farmington, NM 87401

Quality Control / Quality Assurance**Known Analysis / Blank Analysis****TOTAL METALS**

Client: **Giant Refining Company**
Project: **RCRA Metals**
Sample Matrix: **Soil**

Date Reported: **12/22/00**
Date Analyzed: **12/21/00**
Date Received: **12/08/00**

Known Analysis

Parameter	Found Concentration	Known Concentration	Units	Percent Recovery	Acceptance Limits
Arsenic	0.04	0.04	mg/Kg	105%	90-110%
Barium	1.92	2.00	mg/Kg	96%	90-110%
Cadmium	2.02	2.00	mg/Kg	101%	90-110%
Chromium	2.00	2.00	mg/Kg	100%	90-110%
Lead	1.96	2.00	mg/Kg	98%	90-110%
Mercury	0.18	0.20	mg/Kg	90%	90-110%
Selenium	0.42	0.40	mg/Kg	105%	90-110%
Silver	0.50	0.50	mg/Kg	100%	90-110%

Method Blank Analysis

Parameter	Result	Detection Limit	Units
Arsenic	ND	6	mg/Kg
Barium	ND	1	mg/Kg
Cadmium	ND	0.5	mg/Kg
Chromium	ND	1	mg/Kg
Lead	ND	5	mg/Kg
Mercury	ND	0.06	mg/Kg
Selenium	ND	4	mg/Kg
Silver	ND	2	mg/Kg

Reference: "Test Methods for Evaluating Solid Waste: Physical/Chemical Methods",
SW-846, United States Environmental Protection Agency, November, 1986.

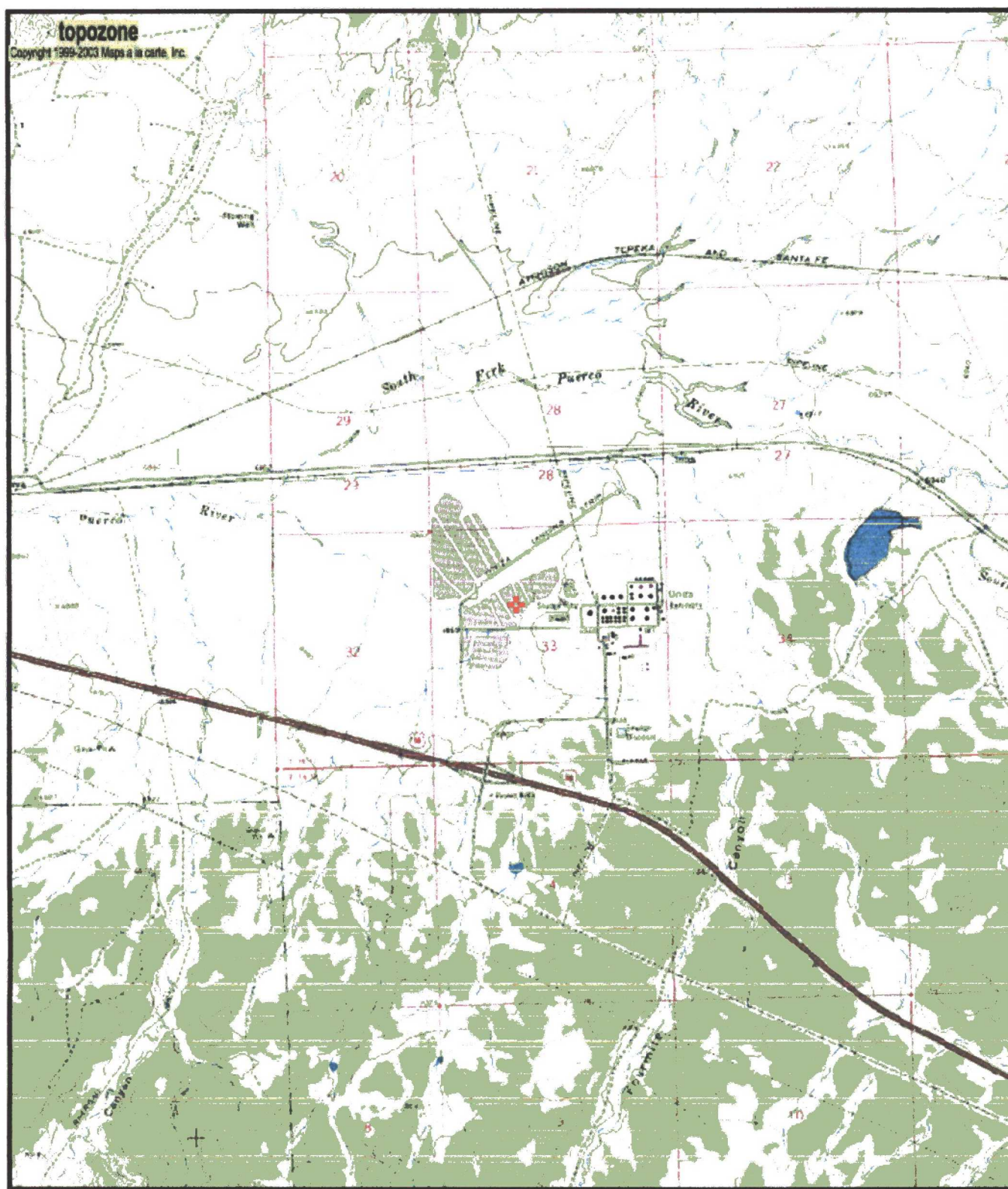
Comments:

Reported by: 

Reviewed by: _____

[illegible]

Figure 1: Location Map



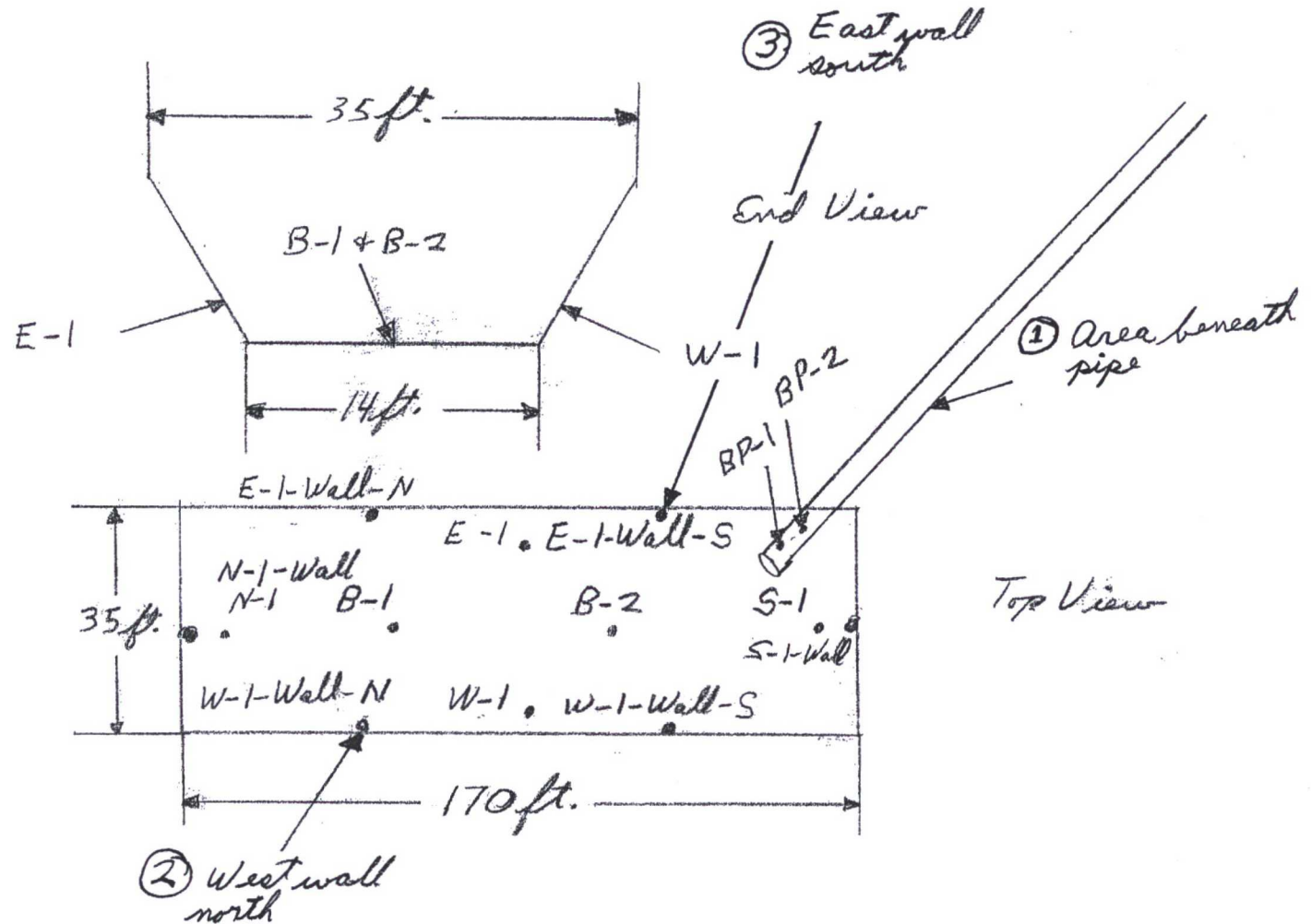
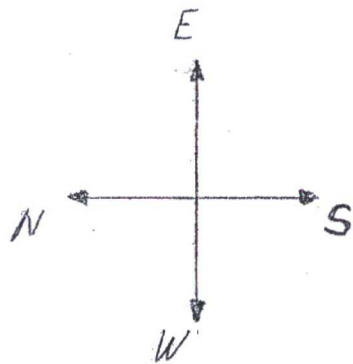
Map center is UTM 12 732744E 3930484N (WGS84/NAD83)

Ciniza quadrangle

Projection is UTM Zone 12 NAD83 Datum

*M
G
M=11.034
G=1.491

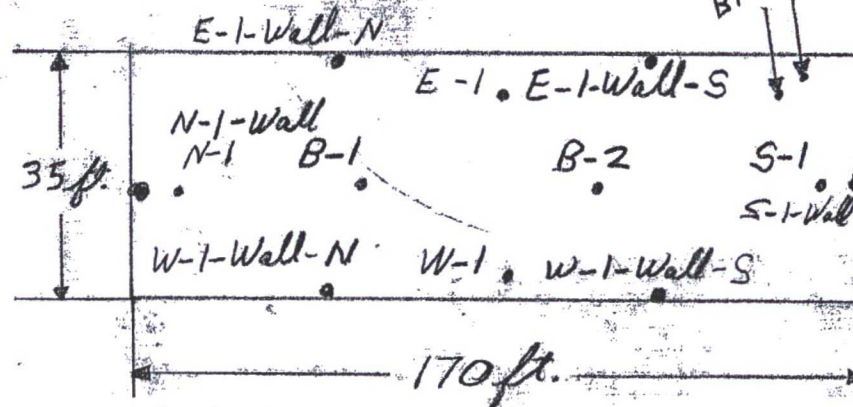
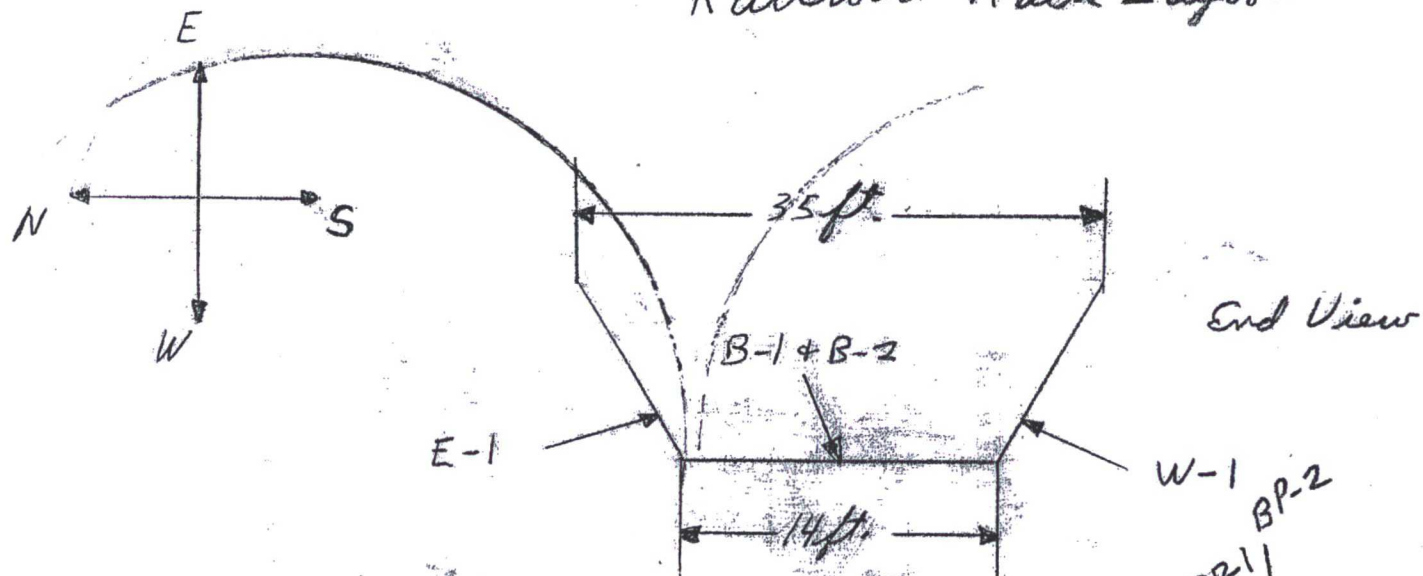
Giant Refining Company - Ciniza Railroad Rack Lagoon



Drawing # 111704-1
by Steve Morris
November 17th, 2004
Revision #

Figure 4: Lagoon Sampling Locations: Drawing No. 111704-1, Revision 1

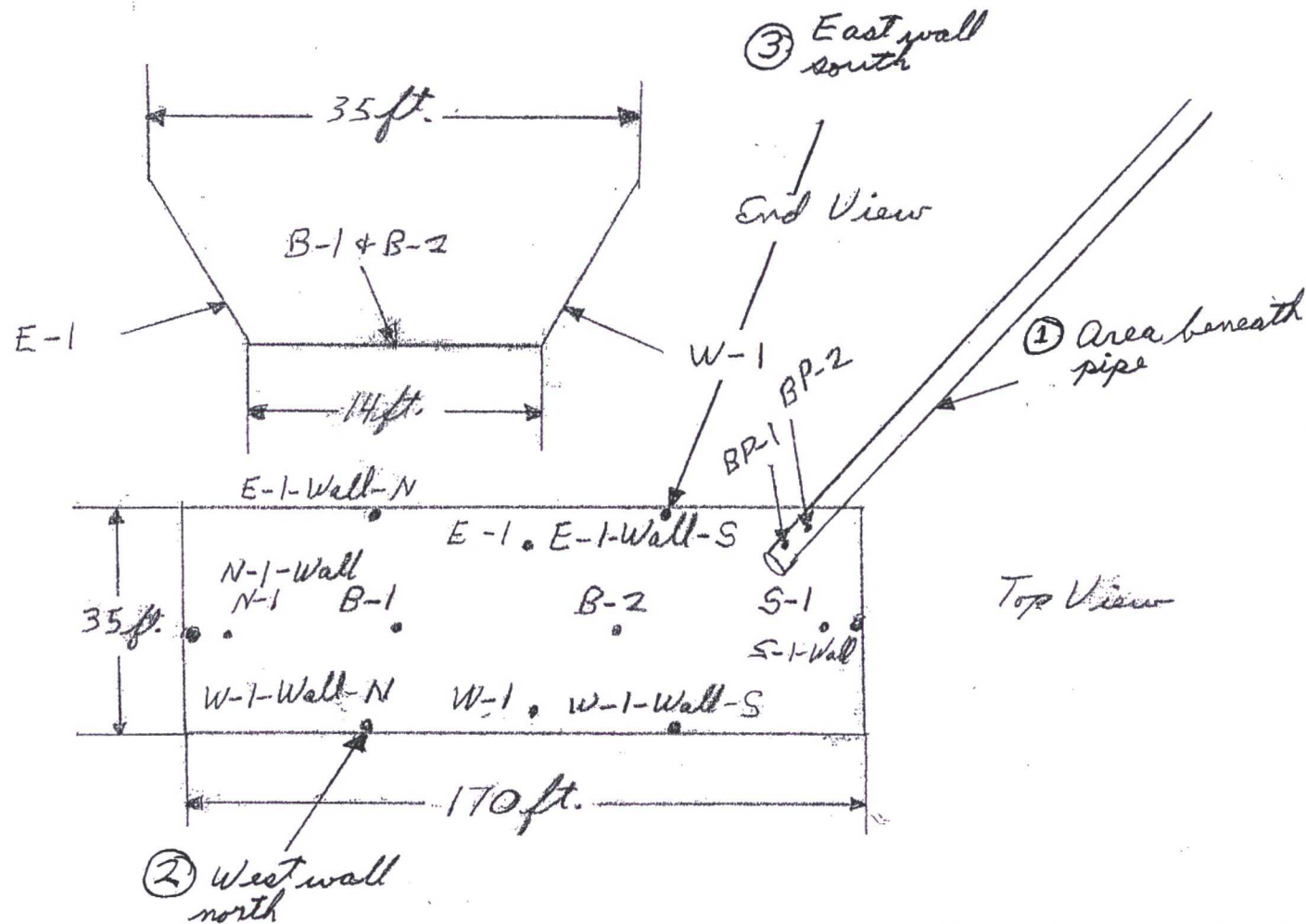
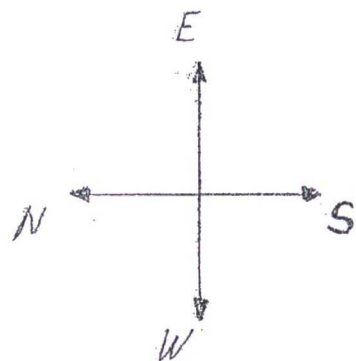
Giant Refining Company - Ciniza Railroad Rack Lagoon



Drawing # 111704-1
by Steve Morris
November 17th, 2004
Revision #1 on Nov 18, 04

Figure 5: Lagoon Sampling Locations: Drawing No. 111704-1, Revision 2

Giant Refining Company - Ciniza
Railroad Rack Lagoon



Drawing # 111704-1
by Steve Morris
November 17th, 2004
Revision # 2 Jan 6th 05

Drawing #11105-3A
by Steve Morris
Jan. 11th, 2005

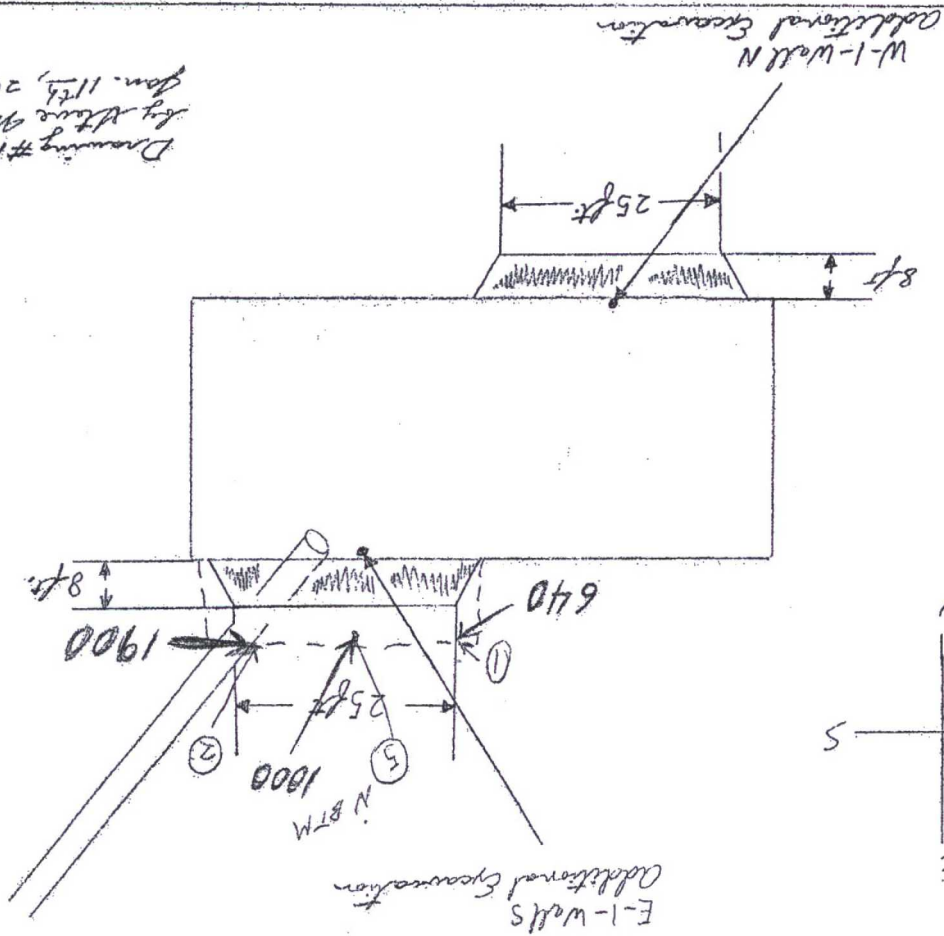
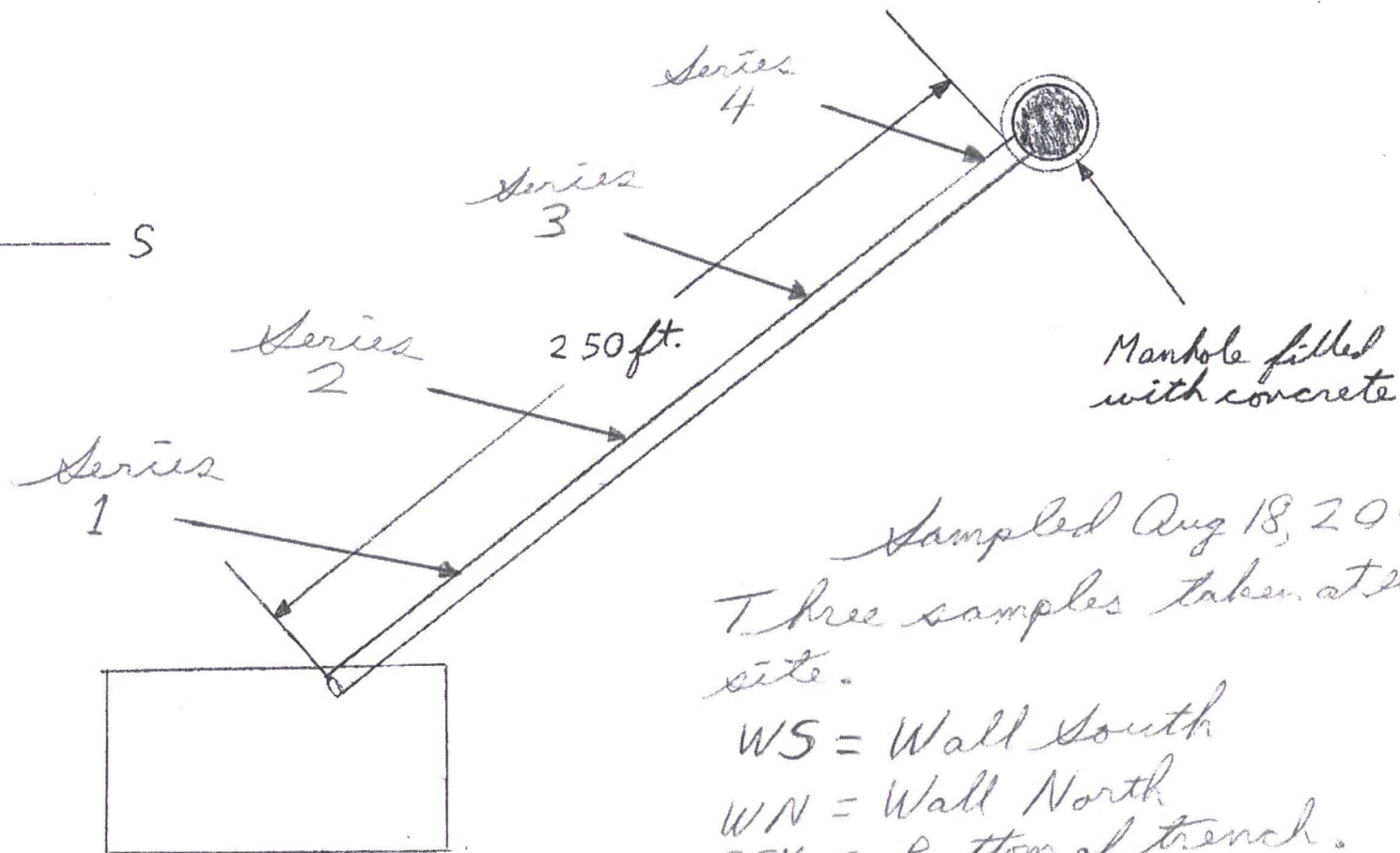
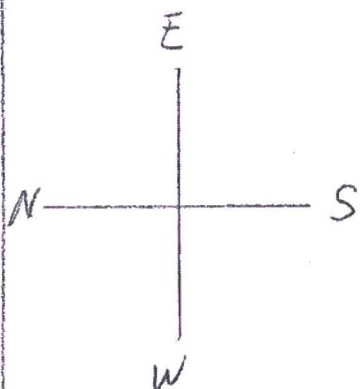


Figure 7: Pipe Sampling Locations, Drawing No. 11105-1

Railroad Rock Lagoon
Inlet pipe overhead



Sampled Aug 18, 2005
Three samples taken at each
site.

WS = Wall South
WN = Wall North
BTM = Bottom of trench.

Drawing # 11105-2
by Steve Morris
Jan. 11th, 2005

Figure 8: Pipe Sampling Locations, Drawing No. 11105-2

Railroad Rock Dogon
Inlet pipe cross section

Drawing # 11105-1
by Steve Morris
Jan-11-75, 200

1A, 1B, + 2 are proposed sample
locations - Well and Bottom of hole

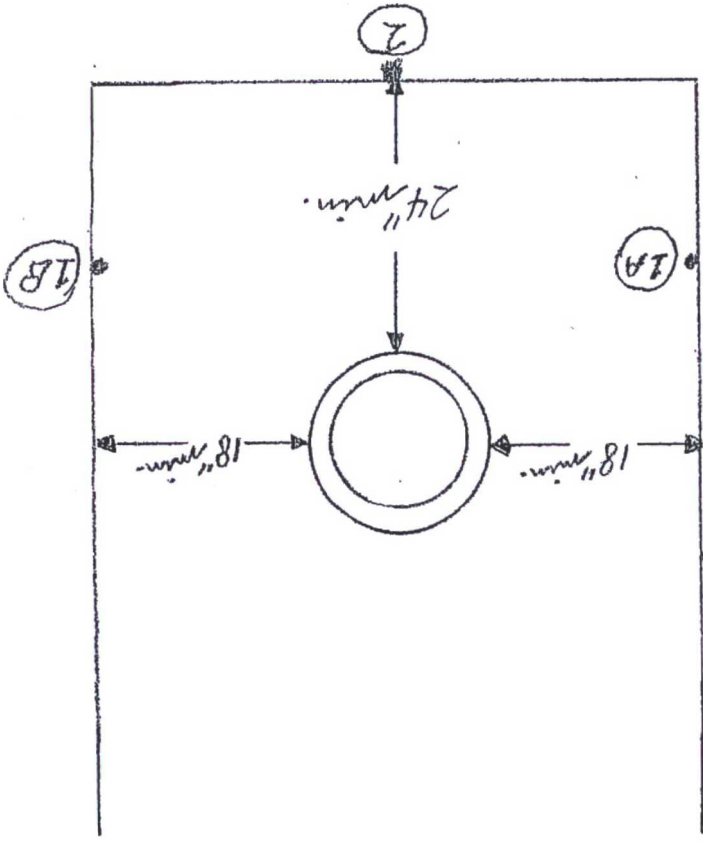
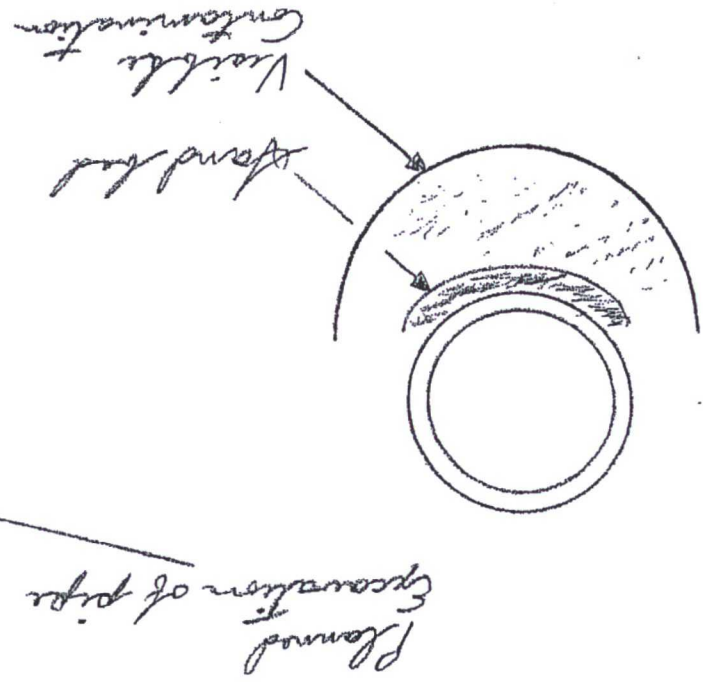
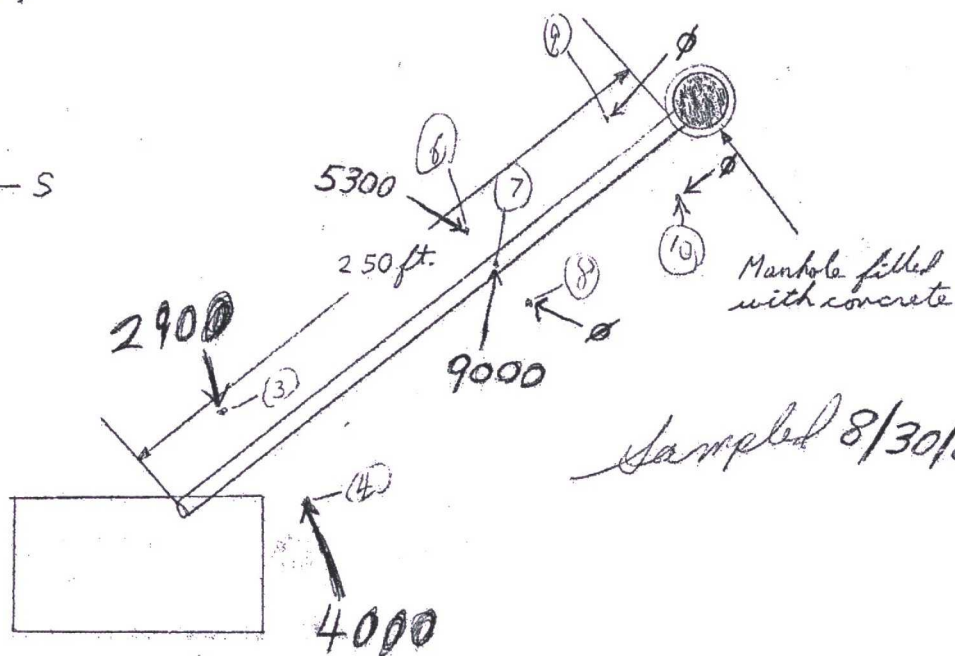
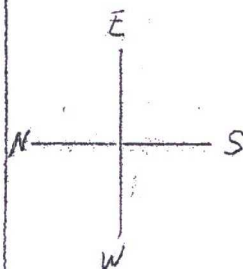


Figure 9: Additional Pipe Sampling Locations

Railroad Rock Lagoon
Inlet pipe overhead

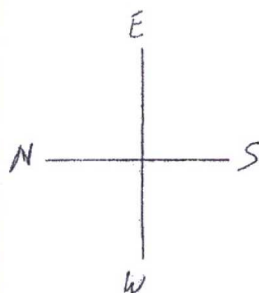


sampled 8/30/05

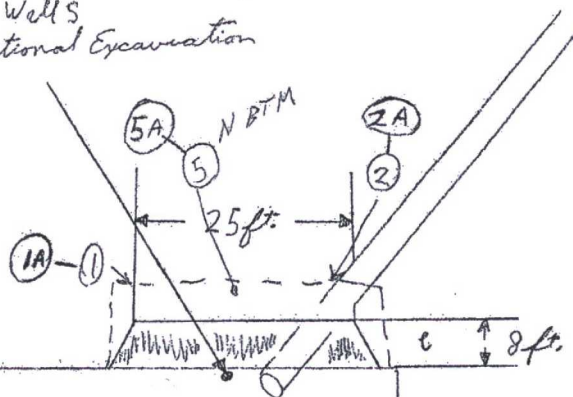
Drawing #11105-20
by Steve Morita
Jan. 11th, 2005

Figure 10: September 15, 2005 Sample Locations

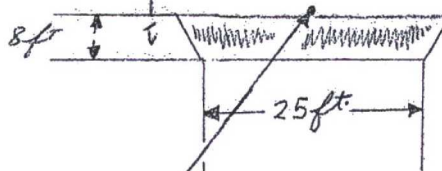
1



E-1-Well S
Additional Excavation



1A, 2A, + 5A
sampled on
9/15/2005

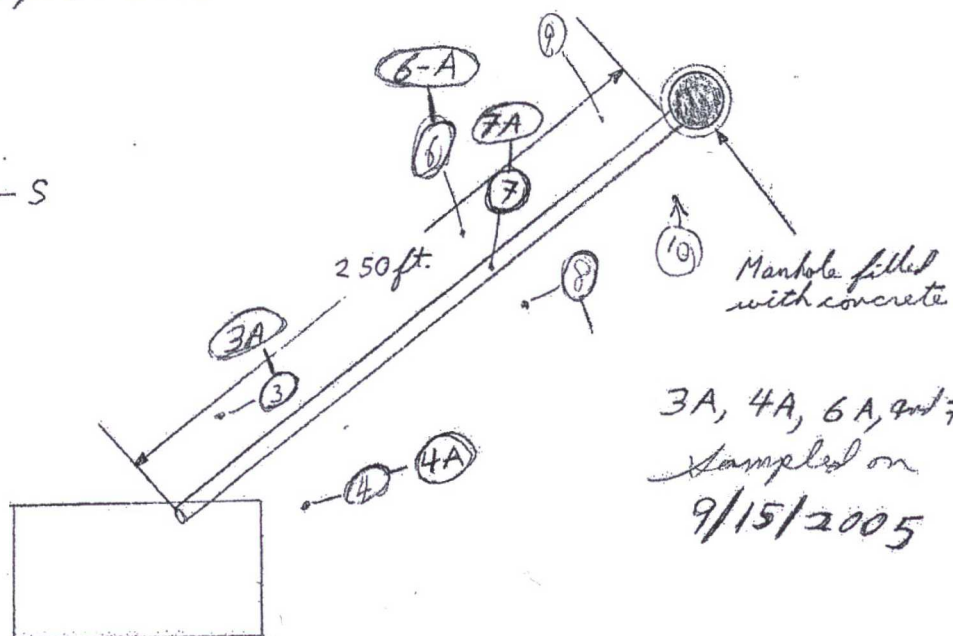
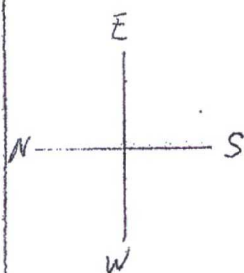


W-1-Well N
Additional Excavation

Drawing #11105-3b
by Steve Morris
Jan. 11th, 2005

Figure 11: September 15, 2005 Sample Locations

Railroad Rack Lagoon
Inlet pipe overhead



3A, 4A, 6A, and 7A
sampled on
9/15/2005

Drawing #11105-2b
by Steve Morris
Jan. 11th, 2005

Table 1: November 18, 2004 Lagoon sampling Results: Volatiles

Railroad Rack Lagoon SWMU #8 2004 VOLATILES

November 18, 2004 Sample Date

mg/kg	Date Sampled	NMWQS mg/kg	NM SSL mg/kg	RR-N-1	RR-E-1	RR-S-1	RR-W-1	RR-N-1- Wall	RR-S-1- Wall	RR-E-1- WALL N	RR-E-1- WALL S	RR-W-1- WALL N	RR-W-1- WALL S	RR-B-1	RR-B-2	RR-BP-1	RR-BP-2
DRO	18-Nov-04	na	na	<10	81	31	12	<10	<10	150	6300*	450*	310	99	<10	3600*	2700*
MRO	18-Nov-04	na	na	<50	<50	<50	<50	<50	<50	<50	<1000*	140*	<50	<50	<50	<500*	<500*
BENZENE	18-Nov-04	0.01	3.32	<0.025	<0.050	<0.025	<0.025	<0.025	<0.025	<0.025	0.57**	<0.025	<0.25	<0.13	<0.025	2.5**	2.2**
TOLUENE	18-Nov-04	0.75	252	<0.025	<0.050	<0.025	<0.025	<0.025	<0.025	<0.025	0.86**	<0.025	<0.25	<0.13	<0.025	27**	25**
EthyBen	18-Nov-04	0.75	128	<0.025	<0.050	<0.025	<0.025	<0.025	<0.025	<0.025	14**	<0.025	<0.25	<0.13	<0.025	17**	15**
Xylene	18-Nov-04	0.62	102	<0.025	<0.050	0.082	<0.025	<0.025	<0.025	<0.025	88**	<0.025	<0.25	0.52	<0.025	110**	100**
MTBE	18-Nov-04	na	na	0.1	<0.20	<0.10	<0.10	<0.10	<0.10	<0.10	<2.0	<0.10	<1.0	<0.50	<0.10	<5.0	<5.0
Mercury	18-Nov-04	na	na	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	0.037	<0.033	<0.033	<0.033	0.082	<0.033

Test Methods: DRO and MRO = 8015B, Volatiles: 8260B

New Mexico Soil Screening Levels are from NMED Technical Background Document for Development of Soil Screening Levels, Rev. 3.0 (August 2005, updated August 2005)

Values of SSLs are from Residential soil column.

*DRO + MRO greater than 500 mg/kg. Sample also tested for SVAs.

**Values are greater than NMWQS

Table 2: November 18, 2004 Lagoon sampling Results: RCRA Metals

Railroad Rack Lagoon SWMU #8 2004 RCRA Metals

November 18, 2004 Sample Date

mg/kg	Date Sampled	NMWQS mg/kg	NM SSL mg/kg	RR-N-1	RR-E-1	RR-S-1	RR-W-1	RR-N-1- Wall	RR-S-1- Wall	RR-E-1- WALL N	RR-E-1- WALL S	RR-W-1- WALL N	RR-W-1- WALL S	RR-B-1	RR-B-2	RR-BP-1	RR-BP-2
As	18-Nov-04	0.1	3.90E+00	<2.5	<2.5	<2.5	<5.0	<2.5	<2.5	<2.5	<5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ba	18-Nov-04	1.00	5.45E+03	250*	290*	300*	310*	280*	300*	260*	250*	460*	320*	260*	320*	240*	170*
Cd	18-Nov-04	0.01	3.90E+00	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	<0.20	<0.10	<0.10	<0.10	<0.10	0.1*	<0.10
Ca	18-Nov-04	na	na	18000	16000	17000	16000	18000	17000	15000	28000	32000	17000	15000	17000	16000	13000
Cr	18-Nov-04	0.05	1.00E+05	7*	5.8*	5.6*	7*	7.6*	6.9*	6.3*	4.5*	27*	3.1*	5.9*	5.1*	5.5*	4.4*
Pb	18-Nov-04	0.05	4.00E+02	14*	5.7*	5.1*	7.8*	5.3*	5.9*	6.2*	7.7*	11*	2.9*	5.6*	5.1*	12*	7.4*
Mg	18-Nov-04	na	na	5200	4600	4400	4800	5800	5400	4600	4200	4300	4200	4600	4200	3300	3000
K	18-Nov-04	na	na	2100	1300	1400	1300	2700	2000	1700	690	1200	1000	1300	1000	1000	940
Se	18-Nov-04	0.05	3.91E+02	<2.5	<2.5	<2.5	<5.0	<2.5	<2.5	<2.5	<5.0	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
Ag	18-Nov-04	0.05	3.91E+02	<0.25	<0.25	<0.25	<0.50	<0.25	<0.25	<0.25	<0.50	<0.25	<0.25	<0.25	<0.25	<0.25	<0.25
Na	18-Nov-04	na	na	2000	1300	870	1300	1500	1000	1200	720	1100	920	1400	1300	590	570

New Mexico Soil Screening Levels are from NMED Technical Background Document
for Development of Soil Screening Levels, Rev. 3.0 (August 2005, updated August 2005)

Values of SSLs are from Residential soil column.

*Values are greater than NMWQS

Table 3: November 18, 2004 Lagoon sampling Results: Anions

Railroad Rack Lagoon SWMU #8 2004 ANIONS

November 18, 2004 Sample Date

mg/kg	Date Sampled	NMWQS mg/kg	NM SSL mg/kg	RR-N-1	RR-E-1	RR-S-1	RR-W-1	RR-N-1- Wall	RR-S-1- Wall	RR-E-1- WALL N	RR-E-1- WALL S	RR-W-1- WALL N	RR-W-1- WALL S	RR-B-1	RR-B-2	RR-BP-1	RR-BP-2
Fluoride	18-Nov-04	1.6	4.68E+03	18	6.1	4.6	4.6	3.4	4.7	36	<3.0	14	7.9	4.5	7.5	5.4	8.1
Chloride	18-Nov-04	250.00	na	320	54	27	37	300	76	76	57	290	33	34	17	60	59
Nitrate	18-Nov-04	10.00	1.00E+05	4.9	<3.0	<3.0	<3.0	<3.0	<3.0	6.6	<3.0	4.3	<3.0	<3.0	<3.0	<3.0	<3.0
Sulfate	18-Nov-04	600.00	na	680	74	28	<15	610	380	270	<15	860	39	<15	680	<15	24
Nitrite	18-Nov-04	na	7.82E+03	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<1.5	<3.0	<3.0	<3.0	<3.0	<3.0
Phosphorus	18-Nov-04	na	na	<15	<15	<15	<15	<15	<15	<15	<15	<7.5	<15	<15	<15	<15	<15
pH	20-Nov-04	6<x<9	na	8.25	9.23	9.05	9.13	8.37	8.55	8.58	8.88	8.21	8.89	9.06	8.75	8.25	8.51

New Mexico Soil Screening Levels are from NMED Technical Background Document
for Development of Soil Screening Levels, Rev. 3.0 (August 2005, updated August 2005)
Values of SSLs are from Residential soil column.
Values in Bold are greater than the NM WQS

Table 4: August 18, 2005 Pipe Sampling Results: Volatiles

Railroad Rack Lagoon SWMU #8 2005 VOLATILES

August 18, 2005 Sample Date

mg/kg	Date Sampled	NMWQS mg/kg	NM SSL mg/kg	Inlet Pipe 1WS	Inlet Pipe 1WN	Inlet Pipe 1B+M	Inlet Pipe 2WS	Inlet Pipe 2WN	Inlet Pipe 2B+M	Inlet Pipe 3WS	Inlet Pipe 3WN	Inlet Pipe 3B+M	Inlet Pipe 4WS	Inlet Pipe 4WN	Inlet Pipe 4BTM
DRO	18-Aug-05	na	na	1000*	3500*	380	<10	<10	150	3400*	5200*	6400*	310*	540*	100
MRO	18-Aug-05	na	na	<500*	<5000*	<50	<50	<50	<50	<5000*	<5000*	<5000*	230*	990*	<50
BENZENE	18-Aug-05	0.01	3.32	<0.50	<1.3	<0.25	<0.025	<0.025	<0.13	<1.3	<1.3	<1.3	<0.25	<0.25	<0.13
TOLUENE	18-Aug-05	0.75	252	<0.50	<1.3	<0.25	<0.025	<0.025	<0.13	<1.3	<1.3	<1.3	<0.25	<0.25	<0.13
EthyBen	18-Aug-05	0.75	128	0.71	<1.3	0.34	<0.025	<0.025	<0.13	<1.3	<1.3	<1.3	<0.25	<0.25	<0.13
Xylene	18-Aug-05	0.62	102	0.91**	2.6**	<0.25	<0.025	<0.025	<0.13	<1.3	<1.3	<1.3	<0.25	<0.25	<0.13
MTBE	18-Aug-05	na	na	<2.0	<5.0	<1.0	<0.10	<0.10	<0.50	<5.0	<5.0	<5.0	<1.0	<1.0	<0.50

Test Methods: DRO and MRO = 8015B, Volatiles: 8260B

New Mexico Soil Screening Levels are from NMED Technical Background Document
for Development of Soil Screening Levels, Rev. 3.0 (August 2005, updated August 2005)

Values of SSLs are from Residential soil column.

*DRO + MRO greater than 500 mg/kg. Sample also tested for SVAs.

**Values are greater than NMWQS

Table 5: August 19, 2005 Lagoon Sampling Results: Volatiles

Railroad Rack Lagoon SWMU #8 2005 VOLATILES

August 19, 2005 Sample date

mg/kg	Date Sampled	NMWQS	NM SSL	North Wall	South Wall	North Bottom	South Bottom
		mg/kg	mg/kg				
DRO	19-Aug-05	na	na	1500*	3800*	7000*	15
MRO	19-Aug-05	na	na	ND	<5000*	<1000*	<50
BENZENE	19-Aug-05	0.01	3.32	0.7	<1.3	<1.3	<0.025
TOLUENE	19-Aug-05	0.75	252	<0.50	<1.3	<1.3	<0.025
EthyBen	19-Aug-05	0.75	128	3.4**	4.5**	<1.3	<0.025
Xylene	19-Aug-05	0.62	102	6.5**	15**	11**	0.036
MTBE	19-Aug-05	na	na	<2.0	<5.0	<5.0	<0.10

Test Methods: DRO and MRO = 8015B, Volatiles: 8260B

New Mexico Soil Screening Levels are from NMED Technical Background Document for Development of Soil Screening Levels, Rev. 3.0 (August 2005, updated August 2005)
Values of SSLs are from Residential soil column.

*DRO + MRO greater than 500 mg/kg. Sample also tested for SVAs.

**Values greater than NMWQS

Table 6: August 22, 2005 Lagoon Sampling Results: Volatiles

Railroad Rack Lagoon SWMU #8 2005 VOLATILES

August 22, 2005 Sample Date

mg/kg	Date Sampled	NMWQS mg/kg	NM SSL mg/kg	North Wall	North Bottom	South Wall	South Bottom
DRO	22-Aug-05	na	na	<10	41	<10	<10
MRO	22-Aug-05	na	na	<50	<50	<50	<50
BENZENE	22-Aug-05	0.01	3.32	<0.025	<0.025	<0.025	<0.025
TOLUENE	22-Aug-05	0.75	252	<0.025	<0.025	<0.025	<0.025
EthyBen	22-Aug-05	0.75	128	<0.025	<0.025	<0.025	<0.025
Xylene	22-Aug-05	0.62	102	<0.025	<0.025	<0.025	<0.025
MTBE	22-Aug-05	na	na	<0.10	<0.10	<0.10	<0.10

Test Methods: DRO and MRO = 8015B, Volatiles: 8260B

New Mexico Soil Screening Levels are from NMED Technical Background Document
for Development of Soil Screening Levels, Rev. 3.0 (August 2005, updated August 2005)
Values of SSLs are from Residential soil column.

Table 7: August 22, 2005 Concrete Pipe Sampling Results: TCLP

Railroad Rack Concrete Pipe SWMU #8 TCLP**August 22, 2005 Sample date**

Parameter	Inlet Pipe mg/l	TCLP Limit mg/l
<i>Volatiles, TCLP Leached</i>		
Benzene	<0.50	0.5
2-Butanone	<200	200
Carbon tetrachloride	<0.50	0.5
Chlorobenzene	<100	100
Chloroform	<6.0	6
1,4-Dichlorobenzene	<7.5	7.5
1,2-Dichloroethane	<0.50	0.5
1,1-Dichloroethene	<0.70	0.7
Hexachlorobutadiene	<0.50	0.5
Tetrachloroethene	<0.70	0.7
Trichloroethene	<0.50	0.5
Vinyl chloride	<0.20	0.2
<i>Mercury, TCLP Leached</i>		
Mercury	<0.020	0.02
<i>EPA Method 6010C: TCLP Metals</i>		
Arsenic	<5.0	5
Barium	<100	100
Cadmium	<1.0	1
Chromium	<5.0	5
Lead	<5.0	5
Selenium	<1.0	1
Silver	<5.0	5

Table 8: August 30, 2005 Lagoon Sampling Results: Volatiles

Railroad Rack Lagoon SWMU #8 2005 VOLATILES

August 30, 2005 Sample Date

mg/kg	Date Sampled	NMWQS mg/kg	NM SSL mg/kg	RR-1- 83005	RR-2- 83005	RR-3- 83005	RR-4- 83005	RR-5- 83005	RR-6- 83005	RR-7- 83005	RR-8- 83005	RR-9- 83005	RR-10- 83005
DRO	30-Aug-05	na	na	640	1900	2900	4000	1000	5300	9000	<10	<10	<10
MRO	30-Aug-05	na	na	<50	<500	<500	<1000	<100	<1000	<1000	<50	<50	<50
BENZENE	30-Aug-05	0.01	3.32	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
TOLUENE	30-Aug-05	0.75	252	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
EthyBen	30-Aug-05	0.75	128	<0.050	<0.050	<0.050	0.38	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Xylene	30-Aug-05	0.62	102	<0.050	<0.050	2.8**	4.1**	0.33	1.8**	2.9**	<0.050	<0.050	<0.050

Test Methods: DRO and MRO = 8015B, Volatiles: 8260B

New Mexico Soil Screening Levels are from NMED Technical Background Document
for Development of Soil Screening Levels, Rev. 3.0 (August 2005, updated August 2005)

Values of SSLs are from Residential soil column.

*DRO + MRO greater than 500 mg/kg. Sample also tested for SVAs.

**Values are greater than NMWQS

Table 9: September 15, 2005 Lagoon Sampling Results: Volatiles

Railroad Rack Lagoon SWMU #8 2005 VOLATILES

September 15, 2005 Sample Date

mg/kg	Date Sampled	NMWQS mg/kg	NM SSL mg/kg	RR-1A 91505	RR-2A 91505	RR-3A 91505	RR-4A 91505	RR-5A 91505	RR-6A 91505	RR-7A 91505
DRO	15-Sep-05	na	na	210	130	<10	<10	<10	<10	<10
MRO	15-Sep-05	na	na	<50	<50	<50	<50	<50	<50	<50
BENZENE	15-Sep-05	0.01	3.32	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
TOLUENE	15-Sep-05	0.75	252	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
EthyBen	15-Sep-05	0.75	128	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Xylene	15-Sep-05	0.62	102	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
MTBE	15-Sep-05	na	na	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Test Methods: DRO and MRO = 8015B, Volatiles: 8260B

New Mexico Soil Screening Levels are from NMED Technical Background Document
for Development of Soil Screening Levels, Rev. 3.0 (August 2005, updated August 2005)

Values of SSLs are from Residential soil column.