

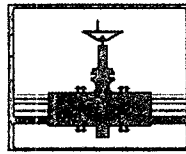
# SITE INVESTIGATION REPORT

**TEXACO QT 1**  
PLAINS EMS NO. 2001-11098

**TEXACO QT 2**  
PLAINS EMS NO.: 2002-10012

Latitude 32° 47' 54.0" N; Longitude 103° 30' 48" W  
**Lea County, New Mexico**

PREPARED FOR



**PLAINS**  
MARKETING, L.P.

333 CLAY STREET, SUITE 1600

HOUSTON, TEXAS 77002

PREPARED BY



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Project No. 205070.00

**November 2005**



*Plains - 231735*

*facility - FPAC0603453448*  
*incident - NPAC0603453557*  
*application - FPAC0603453733*

Plains Texaco QT1.2 - Microsoft Internet Explorer

Reply Reply to all Forward X Help

From: Johnson, Larry, EMNRD  
To: mmurley@primiercorp-usa.com  
Cc:  
Subject: Plains Texaco QT1.2  
Attachments:

Sent: Wed 1/11/2006 9:00 AM

Will,  
In attempting to review the report of November 2005, received January 10, 2006, I am trying to understand the results in the SW trench that was reported 'hot' to 13' in 2004, but 'clean' in 2005 sampling. Also where is the excavated material?  
Larry

You have new mail.

Start Microsoft ... Index Mic Plains Te... Unknown 8:59 AM

**Johnson, Larry, EMNRD**

**From:** Will Murley [wmurley@premiercorp-usa.com]  
**To:** Johnson, Larry, EMNRD  
**Cc:**  
**Subject:** Texaco QT 1 & 2  
**Attachments:**

**Sent:** Wed 1/11/2006 2:41 PM

Larry:

After reviewing the previously collected data at this site we felt that we should confirm the affected areas by advancing soil borings at five locations in and around the excavation and to delineate the affected area, both vertically and horizontally. Soil boring SB-2 was located within the southwest trench area, where previous data indicated TPH and BTEX concentrations in excess of regulatory guidelines, however soil samples collected during the drilling of SB-2 indicated much lower concentrations of TPH and BTEX. The only elevated concentrations of TPH and BTEX in soil samples collected during our investigation in September 2005 were from soil boring SB-1 at 5 feet below ground surface, and soil boring SB-2 at 5 feet below ground surface.

The soils from the excavation are stockpiled on the eastern end of the site, just outside the excavated area. The soils excavated from the southwest trench were returned into the trench for safety reasons according to Mr. Pat McCasland with Environmental Plus, Inc.

We plan to excavate the area near BH – 5 and along the north wall, but we cannot go further south due to the presence of a high pressure CO2 pipeline laying alongside the excavation.

We will be sampling the stockpiles tomorrow (one, five point composite sample for every 250 cubic yards of material), using a hand auger.

Will Murley P.G.

Premier Environmental Services, Inc.

wmurley@premiercorp-usa.com

432.230.1414

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Boring Samples        June 16, 2004 Soil Sample Analytical Results  
20-32 feet bgs

Soil Investigation     September 21, 2005, Soil Borings

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*Chain of Custody Documentation*

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Distribution

**DISCLAIMER**

***Premier has examined and relied upon the file information provided by Plains and Environmental Plus, Inc. (EPI). Premier has not conducted an independent examination of the information contained in the Plains files; furthermore, we assume the genuineness of the documents reviewed and that the information provided in these documents to be true and accurate. Premier has prepared this report using the level of care and professionalism in the industry for similar projects under similar conditions. Premier will not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time this report was prepared. Premier believes the conclusions stated herein are factual, but no guarantee is made or implied.***

## Executive Summary

On September 6, 2001, a release of approximately 3 barrels of crude oil occurred from a 4" steel pipeline at the EOTT Energy LLC (EOTT) Texaco QT Gathering # 1 site, EMS No. 2001-11098 (QT Gathering # 1). Plains Marketing, L.P. (Plains) currently owns the pipeline. The site is located in unit letter B, NW¼ of the NE¼, Section 36, Township 17S, Range 34E, or more specifically at latitude 32° 47' 54.0" N and longitude 103° 30' 48" W in Lea County, New Mexico (Figure 1, Appendix A). Mr. Frank Hernandez reported the release, apparently caused by internal corrosion of the pipeline, to the New Mexico Oil Conservation Division (NMOCD) on September 6, 2001 at about 4:30 p.m., according to the Initial C-141. The pipeline was repaired.

The irregularly shaped spill area was approximately 50 feet at it widest point, 225 feet in total length and occupied approximately 5,078 square feet (Figure 2, Appendix A). The spill paralleled the northwest/southeast trend of the pipeline. The soil cover in this area is very thin, and immediately underlain by rock. According to Mr. Pat McCasland with Environmental Plus, Inc. (EPI), the affected soil was removed by and temporarily stockpiled onsite. In October 2001, soil samples were collected from nine boreholes completed up to 15 feet below ground surface (bgs). Analytical results indicated that Total Petroleum Hydrocarbons (TPH) and Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) concentrations at depths greater than 2 feet bgs were generally below the detection limit of 5 mg/Kg for TPH and below 0.020 mg/Kg for BTEX and benzene (Figure 3 Appendix A; Table 2, Appendix B; Analytical Reports, Appendix C).

A second leak, reportedly within the boundaries of QT Gathering #1, occurred at this site in January 2002, (QT Gathering #2; EMS No. 2002-10012) (Figure 2, Appendix A) prior to completion of remediation activities from the initial spill. According to Mr. McCasland, the second spill was not reported because the volume was less than the reportable quantity. The surface expression of the second spill was approximately 293 square feet.

In April 2004, samples were collected from two exploratory trenches, the northeast trench and the southwest trench, to complete delineation of the releases (Fig. 3, Appendix A). Analytical results from the northeast trench (Appendix B) show that only TPH concentrations at the surface exceeded initial evaluation guideline concentrations. BTEX and benzene concentrations are below NMOCD guideline concentrations. Analytical results from the southwest trench show that TPH, BTEX, and benzene concentrations are greater than NMOCD guideline concentrations to 13 feet bgs in bedrock. Within the excavation itself, TPH exceedances were noted on the east wall, the south wall, and the base. A soil boring installed by EPI on June 16, 2004 to 32 feet bgs (Boring 6/16/04, Figure 3, Appendix A) shows no deeper soil contamination by TPH, BTEX, or benzene, based on samples collected at 20-22 feet bgs, 25-27 feet bgs and 30-32 feet bgs.

Based on the proximity of QT Gathering #1 and #2 to area water wells, surface water bodies, and depth to groundwater (104 feet bgs), the site has an NMOCD ranking

score of **10 points** resulting in a cleanup criteria of 1,000 mg/kg for TPH, 10 mg/kg for benzene, and 50 mg/kg for total BTEX.

A Data Evaluation and Closure Proposal was submitted, approved, and implemented in September 2005. Delineation in the vicinity of the southwest trench and areas with visually stained excavation side walls was completed in September 2005, by installing five borings, sampling continuously and collecting soil samples to a depth of 30 feet for laboratory analyses. Soil samples were analyzed for TPH Diesel Range Organics (DRO), Gasoline Range Organics (GRO), and BTEX.

The analytical results of soil samples collected and analyzed showed TPH and benzene concentrations below regulatory limits for all thirteen soil samples. The results of this investigation confirm that residual hydrocarbons in the soil have been laterally and vertically delineated at the Site and present very minimal risk to surface water or groundwater if any. Based on the data presented in this report, it is recommended to conduct limited additional excavation along the north wall of the excavation in the vicinity of soil boring BH-5 and the site can be backfilled and returned to original grade. It should be noted that Plains is preparing to leave a very limited amount of shallow impacted soil in place due to the presence of a high pressure CO<sub>2</sub> line along the southern wall of the excavation. Data from the recent investigation (soil boring SB-4) indicates that impacts do not appear to extend south of the CO<sub>2</sub> line.

## 1.0 Introduction and Site History

Premier Environmental Services, Inc. (Premier) has been retained by Plains Marketing, L.P. (Plains) to review existing site data and prepare a Data Evaluation and Closure Proposal for the Texaco QT Gathering # 1 and 2 sites (EMS Nos. 2001-11098 and 2002-10012).

The leak that occurred at the Texaco QT Gathering site (QT Gathering #1) on September 6, 2001 (EMS No. 2001-11098) was apparently caused by internal corrosion. The site is located in unit letter B, NW¼ of the NE¼, Section 36 Township 17S, Range 34E, or more specifically at latitude 32° 47' 54.0" N and longitude 103° 30' 48" W in Lea County, New Mexico (Figure 1, Appendix A). Mr. Frank Hernandez reported the release to the New Mexico Oil Conservation Division (NMOCD) on September 6, 2001 at about 4:30 p.m. The Initial C-141 form identified remediation standards, and outlined an initial plan to remediate the site. A copy of the C-141 is found in Appendix E. Investigation of the first release, QT Gathering #1, took place in October 2001 through the installation of nine borings and collection of soil samples at selected intervals. Remedial excavation was conducted in September 2001 to a depth of approximately 1 foot bgs, and excavated soil and rock was stockpiled on site.

A second release occurred on January 17, 2002 (EMS No. 2002-10012) and was reported as being within the perimeter of the September 2001 spill. According to Mr. McCasland, the second spill referred to as QT Gathering #2 was not reported because the volume was less than the reportable quantity. The surface expression of this minor spill is approximately 293 square feet. Within 2 days of this second release, EPI excavated the visually contaminated soil and placed this soil on the existing stockpile.

Additional delineation of hydrocarbon impact at the site was accomplished using exploratory trenches, excavated in April 2004, adjacent to the leak sites, trending parallel to the pipeline and on opposite sides of the pipeline. Soil samples were collected from the northeast and southwest trenches and from stained soil matrix around large rock fragments. The northeast trench was impacted with TPH only at the surface. The southwest trench was impacted to 13 feet bgs. The main excavation of the site was completed in June 2004 to about 5 feet bgs and soil samples were collected from the excavation bottom and sidewalls. Because of the difficulty in removing residual crude oil from bedrock, the excavation was limited to a depth of 5 feet bgs despite the use of a heavy-duty track hoe for excavating the indurated bedrock. Therefore, one boring was installed on June 16, 2004, adjacent to the southwest trench to delineate the depth of impact observed in the southwest trench. Samples collected and analyzed from 20 feet bgs to 32 feet bgs showed no hydrocarbon impact.

Five additional borings (SB-1 through SB-5), were installed on September 21, 2005, at the Texaco QT 1 & 2 Site to delineate the two surface releases from the four-inch gathering pipeline. The 2005 investigation was conducted to confirm that the Site



delineation is complete. The soil was screened and samples collected for laboratory analysis during drilling. Details of the September 2005 investigation and the analytical results are presented in this report.

## **2.0 Environmental Characterization**

### **2.1 Geological Description**

In Lea County, bedrock frequently crop out or are thinly veneered with alluvium and eolian dune sands. The bedrock outcrops range from Triassic age strata rocks to Pleistocene age sediments. The Recent Age Mescalero sands cover 80% of Lea County, and are described as fine to medium-grained and reddish brown in color. Lea County lies in the Pecos Valley Section of the Great Plains Province, very near the Southern High Plains to the east. The Tertiary Age Ogallala Formation underlies all of the High Plains and mantles several ridges in Lea County.

The site is located essentially on bedrock, with a soil veneer generally less than 1 foot in thickness. The site seems to be characteristic of the High Plains, with a uniform, topographically relatively flat surface that slopes very gently to the southeast.

### **2.2 Land Use**

Land use in the area is primarily livestock rangeland and oil field activities. Several gas compressor stations are located in the vicinity of the site and several major oil and gas transmission lines bisect the region. The area in the immediate vicinity of the site is sparsely populated.

### **2.3 Ground Water**

The New Mexico Office of the State Engineer database lists two water wells in Section 36, T17S R34E (Appendix D). These private use water wells appear to be greater than 200 feet from the site and are listed in Section 36. Private water wells in Section 25 are greater than 200 feet from the Site. There are no municipal water wells within 1000 feet of the site, and the average depth to groundwater is 104 feet bgs.

### **2.4 Surface Water**

There are no surface water bodies within 1000 feet of the site.

## **3.0 Regulatory Framework**

In New Mexico, the NMOCD oversees and regulates oil, gas and geothermal activities, including compliance with environmental regulations. Guidance for cleanup of crude oil releases is provided in the NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993) document. Primary contaminants, or COCs, associated with crude oil releases include total petroleum hydrocarbons (TPH),

benzene, toluene, ethyl benzene, and total xylenes (BTEX). Guidelines for these COCs in soil are evaluated based on a site ranking system. The ranking system estimates the likelihood of exposures to the COCs and is based on the three following parameters,

- Depth to groundwater
- Wellhead protection area
- Distance to surface water body

These parameters illustrate that focus of the guidelines is to protect groundwater and surface water resources.

### 3.1 NMOCD Site Ranking Guidance – Initial Evaluation

The site was initially evaluated based on the information presented in the previous sections. Based on the proximity of the site to area water wells, surface water bodies, and depth to groundwater, the site has an NMOCD ranking score of **10 points**, with the soil remedial goals highlighted below in the Site Ranking Matrix.

**Table 1 - Site Ranking Matrix**

1. Groundwater	2. Wellhead Protection Area	3. Distance to Surface Water Body	
If Depth to GW <50 feet: <i>20 points</i>	If <1000' from water source, or, <200' from private domestic water source: <i>20 points</i>  If >1000' from water source, or, >200' from private domestic water source: <i>0 points</i>	<200 horizontal feet: 20 points	
If Depth to GW 50 to 99 feet: <i>10 points</i>		200-100 horizontal feet: 10 points	
If Depth to GW >100 feet: <i>0 points</i>		>1000 horizontal feet: 0 points	
<i>Groundwater Score:10</i>	<i>Wellhead Protection Area Score: 0</i>	<i>Surface Water Score: 0</i>	
<b>Site Rank (1+2+3) =10+0+0=10</b>			
<b>Total Site Ranking Score and Initial Guidance Cleanup Concentrations</b>			
Parameter	20 or >	10	0
Benzene <sup>1</sup>	10 ppm	10 ppm	10 ppm
BTEX <sup>1</sup>	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm
<sup>1</sup> 100 ppm field VOC headspace measurement may be substituted for lab analysis			

The average depth to groundwater is 104 feet bgs. Because soil is impacted to some point between 13 and 20 feet bgs, there is less than 100 feet vertical distance between impacted soil and groundwater, resulting in a groundwater ranking of 10.

## **4.0 Soil Investigation Activities and Results**

The Texaco QT 1 & 2 Site, which includes a September 2001 release and a January 2002 release, was investigated in 2001, 2004, and 2005. Section 4.1 and 4.2 summarizes findings from the October 2001 and April 2004 investigations respectively. Section 4.3 provides details of the September 2005 investigation and Section 5.0 summarizes remediation activities completed.

### **4.1 October 2001 Site Investigation**

In October 2001, nine boreholes were installed to a depth of 15 feet bgs to delineate impact from the September 2001 QT Gathering #1 release. Soil samples were collected at intervals between 2 feet to 15 feet in depth and submitted to Analysys, Inc. for laboratory analyses of TPH DRO, GRO, by EPA Method 8015M, and for BTEX by EPA Method 8021B. Copies of the laboratory reports are presented in Appendix C. Impact to soil from the QT Gathering #1 release was generally limited to less than 2 feet bgs, based on laboratory results. Soil samples collected from below 5 feet indicated TPH and BTEX concentrations were generally below the method detection limits of 5 mg/Kg for TPH and 0.020 mg/Kg for BTEX and benzene. Analytical results are shown on Figure 3, Appendix A, and are summarized in Table 2, Appendix B.

### **4.2 April 2004 Site Investigation**

In April 2004, two exploratory trenches were installed to complete delineation of the January 2002 release using a track-mounted excavator. The trenches were parallel to the pipeline and completed on opposite sides. Soil samples were collected from the northeast trench and the southwest trench. The analytical results are shown on Fig. 3, Appendix A. Samples from the northeast trench were collected at the surface, 5 feet bgs, 10 feet bgs, and 15 feet bgs. These analytical results (Table 2, Appendix B) show that only TPH concentrations at the surface exceed NMOCD guideline concentrations. BTEX and benzene concentrations are below NMOCD guideline concentrations for all three soil samples.

Samples from the southwest trench were collected at the surface, 5 feet bgs, 10 feet bgs, and 13 feet bgs. These analytical results (Table 2, Appendix B) show that TPH, BTEX, and benzene concentrations exceed NMOCD guideline concentrations to a depth of 13 feet bgs.

Soil samples were collected from the excavation itself on June 2, 2004. These results show TPH exceedances on the east and south walls, and the base. To further evaluate the depth of impact proximal to the southwest trench, a soil boring was installed on June 16, 2004 in the middle of the QT Gathering #2 spill area. The analytical results from this boring (Boring 6/16/04 on Figure 3, Appendix A) showed no TPH, BTEX, or benzene impacts based on samples collected at 20-22 feet bgs, 25-27 feet bgs, and 30-32 feet bgs. The depth of impacted soil in this area terminates between 13 and 20 feet bgs.

### **4.3 September 2005 Site Investigation**

After reviewing files and data received from Plains, it was determined that further investigation was required to comprehensively delineate affected soil from EOTT releases #2001-10098 and #2002-10012. On September 21, 2005, Mr. Will Murley, with Premier, met with representatives of Straub Drilling Corporation, from Stanton, Texas, to drill five delineation soil borings within and adjacent to the excavation to determine the horizontal and vertical limits of affected soil. The September 2005 soil boring location map is found in Appendix A, Figure 4. Two soil borings were advanced within the excavation and three soil borings were advanced adjacent to the excavation perimeter. Soil samples were collected and examined by Mr. Murley and described using Unified Soil Classification System criteria, modified to include calcified soil horizons locally present. Drill logs of each soil boring are presented in Appendix A.

Discrete soil samples were collected using an open ended core tool mounted to the drill rod at five foot intervals. Cuttings samples were collected and analyzed continuously during drilling operations. The discrete samples were placed in self sealing polypropylene bags for visual and headspace analyses, additionally samples were collected in laboratory supplied, clean, glass containers and place in a cooler on ice in preparation for shipment to Accutest Laboratories, in Houston, Texas for laboratory analysis of TPH GRO and TPH DRO, and for BTEX by EPA method 8021B.

Soil Boring 1(SB-1) located within the excavation perimeter, approximately 12 feet northwest of the release point, was advanced to a depth of 30 feet below ground surface (bgs). No hydrocarbon staining was observed in any cuttings or discrete samples. A slight hydrocarbon odor was detected in cuttings from 0 to 6 feet below ground surface (bgs). The first six feet bgs was hard, well indurated caliche; from six to 28 feet bgs, a silty sand with varying percentages of lithified caliche gravel was encountered. From 28 feet to total depth (TD) at 30 feet bgs indurated sandstone was observed.

Field screening included headspace analysis using an organic vapor meter (OVM). Samples were prepared from discrete soil samples collected at five foot intervals (5', 10', 15', 20', 25', and 30' bgs). Headspace analysis indicated organic vapor concentrations of 16.6 ppm, 4.8 ppm, 0.0 ppm, 0.0 ppm, 0.0 ppm, and 0.0 ppm respectively. Soil samples SB1-5', SB1-20', and SB1-30' were selected for laboratory analyses.

Soil Boring 2 (SB-2), completed within the excavation perimeter and located approximately eight feet southwest of the release point, was advanced to a depth of 30 feet bgs. No staining or odors were observed during the drilling of this soil boring. Hard, well indurated caliche was encountered from ground surface to three feet bgs, silty/sandy caliche was observed from three to eight feet bgs. Light reddish brown, loose, silty, sand with varying percentages of caliche gravel was encountered from eight to 22 feet bgs. Indurated sand was observed from 22 to 30 feet bgs.

Field screening was conducted on soil samples collected at five foot intervals (5', 10', 15', 20', 25', and 30' bgs). Headspace analysis indicated concentrations of organic vapor of 5.7 ppm, 1.8 ppm, 1.1 ppm, 1.9 ppm, 0.6 ppm, and 0.0 ppm respectively. Soil samples SB2-5', SB2-20', and SB2-30' were selected for further laboratory analyses.

Soil Boring 3 (SB-3), adjacent to the western edge of the excavation and approximately 45 feet west of the release, was advanced to a depth of 30 feet bgs because elevated TPH and BTEX concentrations were found in the 2004 excavation of the southwest trench (Fig. 3, Appendix A). No staining or hydrocarbon odors were observed during the drilling of this soil boring. Dark brown, silty clay was encountered from surface to six inches bgs. Well indurated, hard caliche was encountered from six inches to eight feet bgs. Light reddish brown, silty sand with varying percentages of caliche gravel was encountered from eight to 26 feet bgs. Well indurated caliche was encountered from 26 to 29 feet bgs and a loose, silty sand was encountered from 29 to 30 feet bgs.

Field screening was conducted on soil samples collected at five foot intervals (5', 10', 15', 20', 25', and 30' bgs). Headspace analysis indicated organic vapor concentrations of 0.6 ppm, 0.8 ppm, 0.4 ppm, 0.3 ppm, 0.3 ppm and 0.1 ppm respectively. Soil samples SB3-10', SB3-20', and SB3-30' were selected for further laboratory analyses.

Soil Boring 4 (SB-4), completed south of the CO<sub>2</sub> pipeline bordering the southern edge of the excavation and approximately 50 feet southeast of the release point, was advanced to a depth of 10 feet bgs. This boring, located 8 feet from the excavation; was installed because elevated TPH and BTEX concentrations were found in the confirmation samples from the 2004 bottom hole and side wall excavation and in BH-6 from the 2001 investigation (Fig. 3, Appendix A). No hydrocarbon stains or odors were observed in the soil boring. Loose, dark brown, silty clay was encountered from ground surface to three feet bgs, well indurated silty caliche was encountered from 3 to 10 feet bgs (TD).

Field screening was conducted on soil samples collected at five foot intervals (5', and 10' bgs). Headspace analysis indicated organic vapor concentrations of 2.1 ppm, and 0.6 ppm respectively. Samples SB4-5', and SB4-10' was selected for further laboratory analyses.

Soil Boring 5 (SB-5), located north of the excavation, seven feet north of the Chevron pipeline bordering the northern edge of the excavation and approximately 80 feet northwest of the release point, was advanced to a of 10 feet bgs. This boring was installed because of elevated TPH and BTEX in the 2004 northeast trench and in boring BH-9 from the 2001 study (Figure 3, Appendix A). No hydrocarbon stains or odors were observed during the drilling of this boring. Loose, dark brown, silty clay was encountered from ground surface to six inches bgs. Sandy, well indurated

caliche was encountered from six inches to four feet bgs, and silty caliche with indurated gravel was encountered from four to ten feet bgs (TD).

Field screening was conducted on soil samples collected at five foot intervals (5', and 10' bgs). Headspace analysis indicated organic vapor concentrations of 1.9 ppm, and 0.4 ppm respectively. Samples SB5-5' and SB5-10' were selected for further laboratory analyses.

No groundwater was encountered during the drilling operations. No stained soil was observed in the soil samples collected from the borings and only a slight hydrocarbon odor was noted in the uppermost six feet of SB-1. Upon completion of drilling activities, soil sample collection and documentation of field observation, the boreholes were filled using bentonite chips. The bentonite was hydrated using clean water to plug the borings.

#### **4.3.1 September 2005 Soil Analytical Results**

Selected soil samples were collected, preserved in laboratory supplied containers and shipped to Accutest Laboratories in Houston, Texas for laboratory analyses of TPH DRO and GRO. In addition, the samples were analyzed for BTEX by EPA method 8021B. As previously discussed, groundwater was not encountered during site investigation activities. Soil sample analytical results were compared to the NMOCD site ranking cleanup goals, and are summarized in Table 2, Appendix B. Laboratory reports, quality assurance/quality control, and chain-of-custody documentation are found in Appendix C.

The analytical results are presented in Figure 4, titled Map of COC Concentration in Soil Boring Data (September 21<sup>st</sup>, 2005). This data illustrates concentrations of TPH detected greater than 100 mg/kg and below 500 mg/kg were limited to the top five feet in two soil sample locations, SB-1 at 377.6 mg/kg and SB-2 at 101.2 mg/kg. Two additional soil samples showed TPH between the detection limit and less than 100 mg/kg. All other soil samples collected and analyzed for TPH were below the method detection limit. Total BTEX concentrations in soil samples were all less than the detection limit or less than 0.2 mg/kg. Results of the laboratory analyses indicate the Site has been laterally and vertically delineated, and presents minimal risk, if any, to groundwater and surface water.

## **5.0 Remediation Activities Completed**

The irregularly shaped QT Gathering #1 spill area was approximately 50 feet at the widest point, 225 feet in total length, occupied approximately 5,078 square feet and paralleled the northwest/southeast trend of the pipeline (Figure 2, Appendix A). Crude oil affected surface rock and soil was excavated in September 2001 to address the QT Gathering #1 release, and excavated soil and rock is currently stockpiled onsite. The soil cover in this area is very thin, and immediately underlain by rock. According to Mr. Pat McCasland with EPI, excavation continued until approximately 190 cubic yards of impacted rock and soil had been removed.

The second release, QT Gathering #2, which occurred in January 2002, was reported as having a surface expression of 293 square feet, and was within the perimeter of the September 2001 spill. According to Mr. McCasland, EPI excavated the visually contaminated soil within 2 days of the second release. The excavated soil was placed onsite, stockpiled with excavated soil from the first spill.

Excavation to address these releases was completed by June 2004 to a limited depth of approximately 5 feet bgs, due to the difficulty encountered excavating bedrock. Samples collected from the bottom and sidewalls of this excavated area show some exceedances of the 1,000 mg/Kg TPH guideline concentrations, noted in the east and south walls, and in the bottom hole sample.

## **6.0 Groundwater Investigation**

Due to the limited depth of impacted soils of less than 20 feet, and the average depth to groundwater of 104 feet bgs, it was determined that a groundwater investigation was not necessary for this site. The results of the soil investigation confirm that crude oil did not penetrate the subsurface to a significant depth, and that groundwater is not likely to be threatened by this release.

## **7.0 Conclusions and Recommendations**

Excavation activities completed in September 2001 removed the bulk of the COC in the soil that were attributable to the crude oil release. Continued excavation beyond 5 feet bgs proved to be extremely difficult to complete at this Site because bedrock is at ground surface and there is no soil horizon.

The 2005 soil investigation was completed to evaluate the risk to groundwater and surface soil from residual hydrocarbon, delineate the lateral and vertical extent of COC and to determine if migration was occurring. There were no exceedances noted in analytical results from soil borings installed during the 2005 investigation. Field observations as well as BTEX and TPH analytical results from these soil borings illustrate that hydrocarbon impact at the Site is delineated horizontally and vertically, and confirms that hydrocarbon migration is not occurring in the subsurface. Groundwater was not encountered during this investigation. Based on the September 2005 investigation and the data presented in this report of the past

investigations and remediation activities, it is proposed limited additional excavation be completed along the north wall of the excavation in the vicinity of BH5 after which the site can be backfilled and returned to original grade. It should be noted that Plains is preparing to leave a very limited amount of shallow impacted soil in place due to the presence of a high pressure CO<sub>2</sub> line along the south wall of the excavation. Data from the recent investigation (soil boring SB-4) indicates that impacts do not appear to extend south of the CO<sub>2</sub> line.



## ***Appendix A      Figures***

**Figure 1 – Site Location Map**

**Figure 2 – Site Map**

**Figure 3 – Map of COC Concentrations in Soil**

**Figure 4 – Map of COC Concentrations in Soil (September 21, 2005)**

**Soil Boring Logs (September 21, 2005)**



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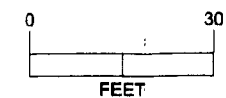
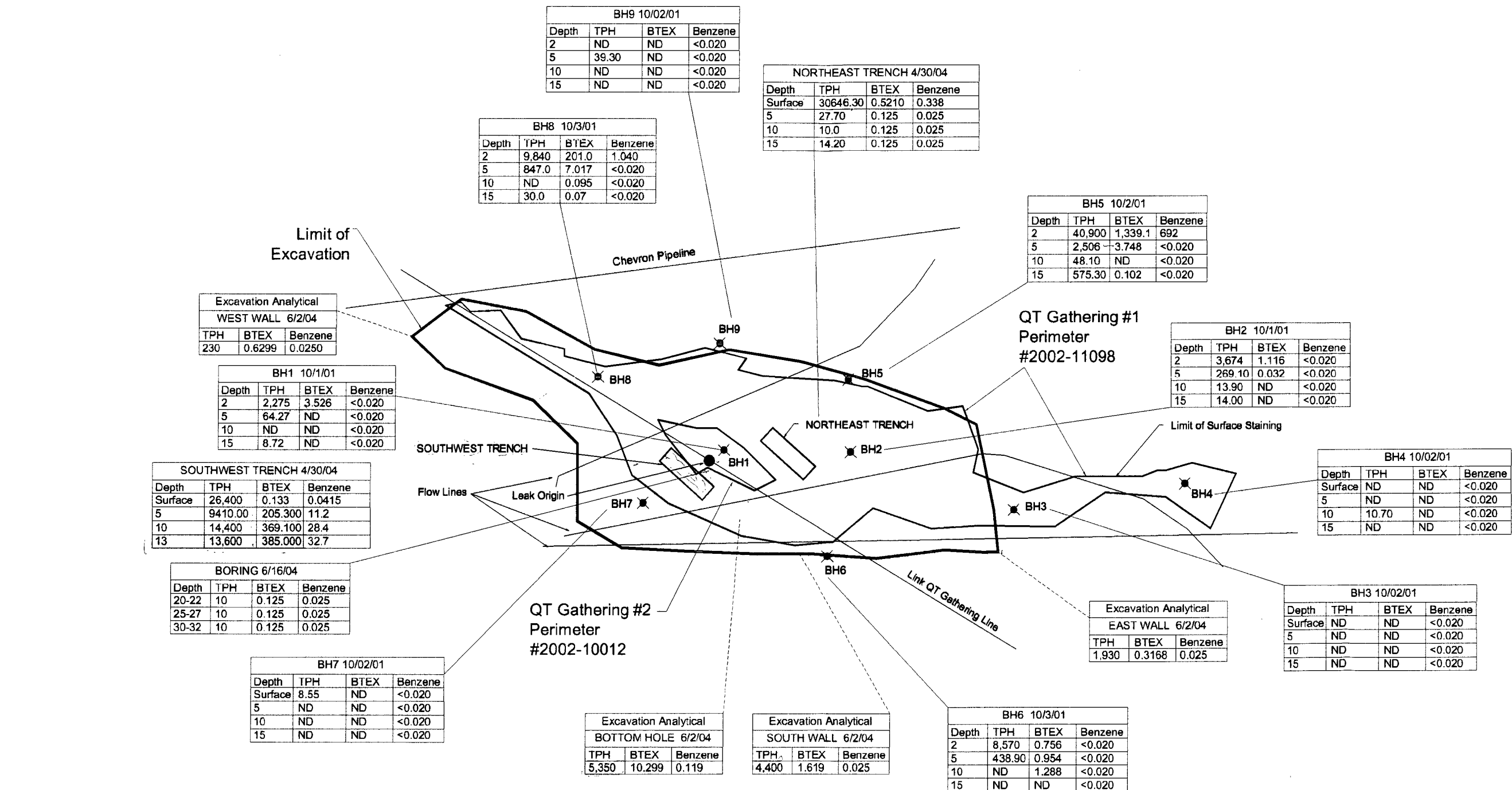


Figure 3  
Map of COC Concentrations in Soil  
2001-2004 Investigations  
TEXACO QT 1 & 2  
Plains EMS# 2001-11098  
Lea County, New Mexico

PROJ. NO: 205070.00 | CK: | DATE: 5/05

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**LEGEND:**

✱ BH -BORING LOCATION

BH7 10/31/01 SAMPLE LOCATION DATE

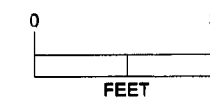
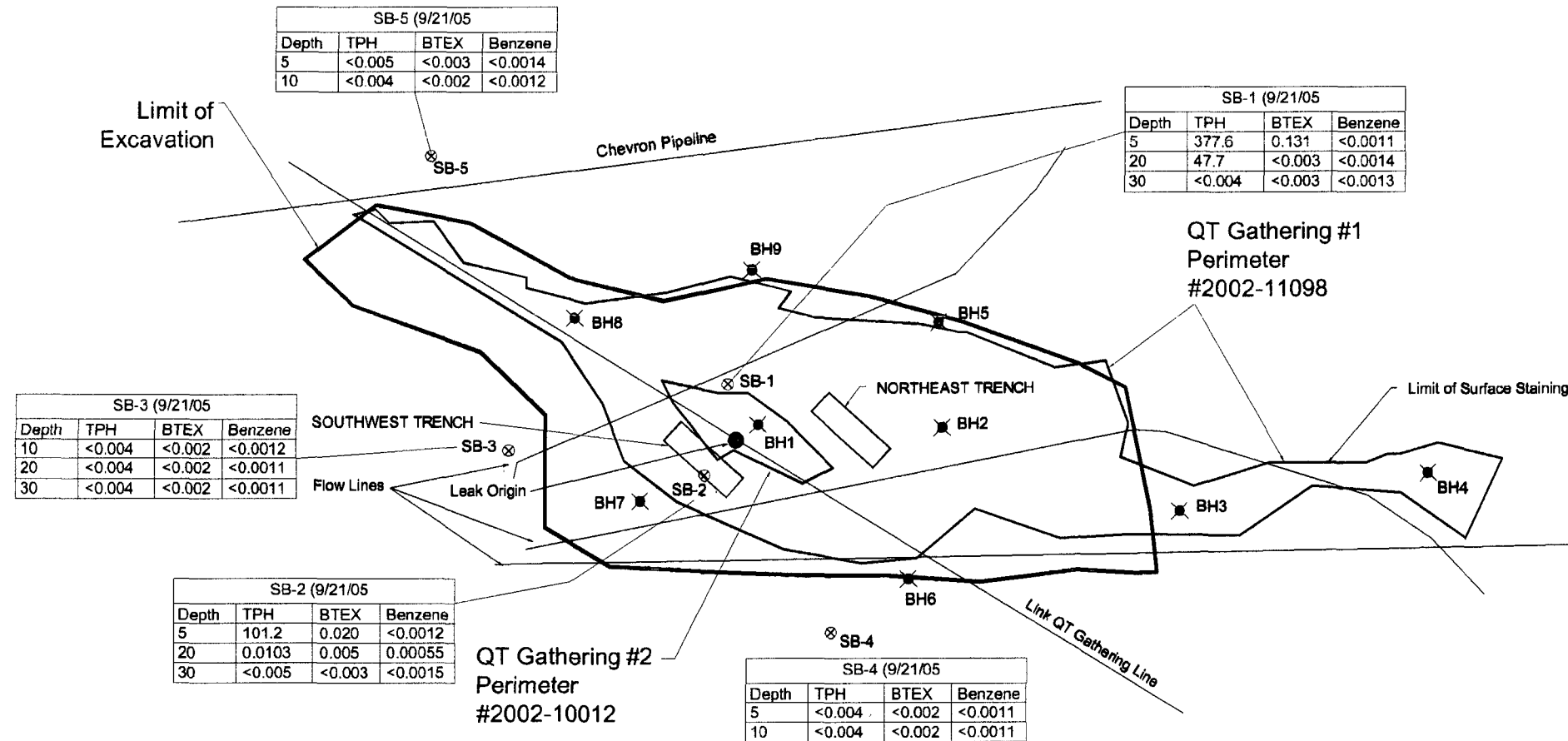
Benzene: BENZENE CONCENTRATION IN mg/kg

BTEX: BENZENE, TOLUENE, ETHYLBENZENE,  
TOTAL XYLENES IN mg/kg

TPH: TOTAL PETROLEUM HYDROCARBONS IN mg/kg

Depth: DEPTH IN FEET

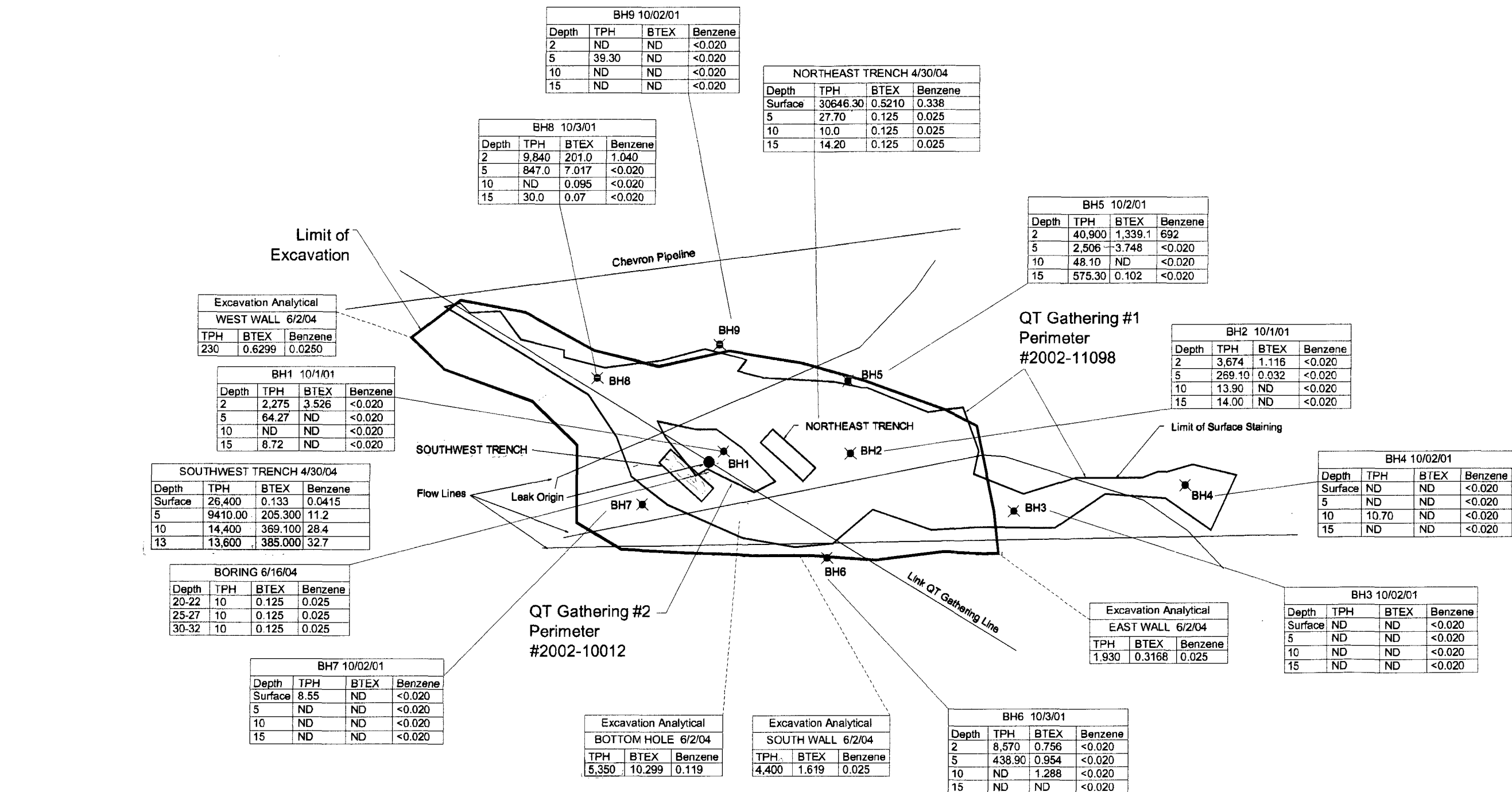
--- LESS THAN REGULATORY LIMITS



**Figure 4**  
Map of COC Concentrations in Soil  
September 21, 2005  
TEXACO QT 1 & 2  
Plains EMS# 2001-11098  
Lea County, New Mexico

PROJ. NO: 205070.00 CK: DATE: 5/05

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**LEGEND:**

- ✱ BH -BORING LOCATION
- BH7 10/31/01 SAMPLE LOCATION DATE
- Benzene: BENZENE CONCENTRATION IN mg/kg
- BTEX: BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENES IN mg/kg
- TPH: TOTAL PETROLEUM HYDROCARBONS IN mg/kg
- Depth: DEPTH IN FEET
- LESS THAN REGULATORY LIMITS



**Figure 3**  
Map of COC Concentrations in Soil  
2001-2004 Investigations  
TEXACO QT 1 & 2  
Plains EMS# 2001-11098  
Lea County, New Mexico

PROJ. NO: 205070.00 CK: DATE: 5/05

STATION ID SB-1  
 PROJECT Texaco QT 1 & 2 205070.00 LOCATION Lea County, New Mexico  
 TOTAL DEPTH 30' BOREHOLE DIA (in) 5"  
 DRILLING CO. Straub DRILLING METHOD Air Rotary  
 GEOLOGIST Will Murley DATE DRILLED 9/21/05  
 PAGE 1 OF 2 EMS No.: 2001-11098

DEPTH	INTERVALS	RECOVERY %	GRAPHIC LOG	OVM (ppm)	LITHOLOGIC DESCRIPTION/COMMENTS*	REMARKS
0						
1						
2						
3						
4						
5	X	100%		16.6	Caliche, light reddish grey, hard, dry, very fine grained, poorly sorted, subangular.	SB1-5'
6						
7						
8						
9						
10	X	100%		4.8	Clayey Sand, light reddish brown, loose, dry, very fine grained, well sorted, subangular.	SB1-10'
11						
12						
13						
14						
15	X	100%		0.0	Clayey Sand, light reddish brown, loose, dry, very fine grained, well sorted, subangular.	SB1-15'
16						
17						
18						
19						
20	X	100%		0.0	Clayey Sand, light reddish brown, loose, dry, very fine grained, well sorted, subangular.	SB1-20'
21						

\* -Generally in Accordance with USGS



# LOCATION MAP

STATION ID SB-1  
 PROJECT Texaco QT 1 & 2 205070.00 LOCATION Lea County, New Mexico  
 TOTAL DEPTH 30' BOREHOLE DIA (in) 5"  
 DRILLING CO. Straub DRILLING METHOD Air Rotary  
 GEOLOGIST Will Murley DATE DRILLED 9/21/05  
 PAGE 2 OF 2 EMS No.: 2001-11098

DEPTH	INTERVALS	RECOVERY %	GRAPHIC LOG	OVM (ppm)	LITHOLOGIC DESCRIPTION/COMMENTS*	REMARKS
22						
23						
24						
25	X	100%		0.0	Clayey Sand, light reddish brown, loose, dry, very fine grained, well sorted, subangular.	SB1-25'
26						
27						
28						
29						
30	X	100%		0.0	Clayey Sand, light reddish brown, loose, dry, very fine grained, well sorted, subangular.	SB1-30'
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						

\* -Generally in Accordance with USGS

STATION ID SB-2  
 PROJECT Texaco QT 1 & 2 205070.00 LOCATION Lea County, New Mexico  
 TOTAL DEPTH 30' BOREHOLE DIA (in) 5"  
 DRILLING CO. Straub DRILLING METHOD Air Rotary  
 GEOLOGIST Will Murley DATE DRILLED 9/21/05  
 PAGE 1 OF 2 EMS No.: 2001-11098

DEPTH	INTERVALS	RECOVERY %	GRAPHIC LOG	OVM (ppm)	LITHOLOGIC DESCRIPTION/COMMENTS*	REMARKS
0					Caliche, light grey, firm, dry, very fine grained, well sorted, hard to 3'.	
1						
2						
3						
4						
5	X	100%		5.7	Caliche, light reddish grey, silty, firm, dry, very fine grained, poorly sorted, subangular.	SB-2-5'
6						
7						
8						
9						
10	X	100%		1.8	Clayey Sand, light reddish brown, loose, dry, very fine grained, well sorted, subangular.	SB2-10'
11						
12						
13						
14						
15	X	100%		1.1	Clayey Sand, light reddish brown, loose, dry, very fine grained, well sorted, subangular.	SB2-15'
16						
17						
18						
19						
20	X	100%		1.9	Clayey Sand, light reddish brown, loose to firm, dry, very fine grained, well sorted, subangular.	SB2-20'
21						



STATION ID SB-2  
 PROJECT Texaco QT 1 & 2 205070.00 LOCATION Lea County, New Mexico  
 TOTAL DEPTH 30' BOREHOLE DIA (in) 5"  
 DRILLING CO. Straub DRILLING METHOD Air Rotary  
 GEOLOGIST Will Murley DATE DRILLED 9/21/05  
 PAGE 2 OF 2 EMS No.: 2001-11098

DEPTH	INTERVALS	RECOVERY %	GRAPHIC LOG	OVM (ppm)	LITHOLOGIC DESCRIPTION/COMMENTS*	REMARKS
22						
23						
24						
25	X	100%		0.6	Clayey Sand, light reddish brown, loose to firm, dry, very fine grained, well sorted, subangular.	SB2-25'
26						
27						
28						
29						
30	X	100%		0.0	Clayey Sand, light reddish brown, firm, dry, very fine grained, well sorted, subangular.	SB2-30'
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						

STATION ID SB-3  
 PROJECT Texaco QT 1 & 2 205070.00 LOCATION Lea County, New Mexico  
 TOTAL DEPTH 30' BOREHOLE DIA (in) 5"  
 DRILLING CO. Straub DRILLING METHOD Air Rotary  
 GEOLOGIST Will Murley DATE DRILLED 9/21/05  
 PAGE 1 OF 2 EMS No.: 2001-11098

DEPTH	INTERVALS	RECOVERY %	GRAPHIC LOG	OVM (ppm)	LITHOLOGIC DESCRIPTION/COMMENTS*	REMARKS
0					Clay, dark reddish brown.	
1						
2						
3						
4						
5	X	100%		0.6	Caliche, light grey, firm, dry, very fine grained, poorly sorted, subangular.	SB3-5'
6						
7						
8						
9					Silty Sand, light reddish brown, very fine grained.	
10	X	100%		0.8	Clayey Sand, light reddish brown, loose, dry, very fine grained, well sorted, subangular.	SB3-10'
11						
12						
13						
14						
15	X	100%		0.4	Clayey Sand, light reddish brown, loose, dry, very fine grained, well sorted, subangular, small gravel to 1".	SB3-15'
16						
17						
18						
19						
20	X	100%		0.3	Clayey Sand, light reddish brown, loose, dry, very fine grained, poorly sorted, subangular, increase in gravel.	SB3-20'
21						

STATION ID SB-3  
 PROJECT Texaco QT 1 & 2 205070.00 LOCATION Lea County, New Mexico  
 TOTAL DEPTH 30' BOREHOLE DIA (in) 5"  
 DRILLING CO. Straub DRILLING METHOD Air Rotary  
 GEOLOGIST Will Murley DATE DRILLED 9/21/05  
 PAGE 2 OF 2 EMS No.: 2001-11098

DEPTH	INTERVALS	RECOVERY %	GRAPHIC LOG	OVM (ppm)	LITHOLOGIC DESCRIPTION/COMMENTS*	REMARKS
22						
23						
24						
25	X	100%		0.3	Sandy Gravel, light reddish brown, loose, dry, very fine grained, poorly sorted, subangular.	SB3-25'
26						
27						
28						
29						
30	X	100%		0.1	Clayey Sand, light reddish brown, loose, dry, very fine grained, well sorted, subangular.	SB3-30'
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						

STATION ID SB-4  
 PROJECT Texaco QT 1 & 2 205070.00 LOCATION Lea County, New Mexico  
 TOTAL DEPTH 10' BOREHOLE DIA (in) 5"  
 DRILLING CO. Straub DRILLING METHOD Air Rotary  
 GEOLOGIST Will Murley DATE DRILLED 9/21/05  
 PAGE 1 OF 1 EMS No.: 2001-11098

DEPTH	INTERVALS	RECOVERY %	GRAPHIC LOG	OVM (ppm)	LITHOLOGIC DESCRIPTION/COMMENTS*	REMARKS
0					Clay, dark brown, loose, dry, low plasticity, very fine grained, poorly sorted.	
1						
2						
3						
4						
5	X	100%		2.1	Caliche, light reddish grey, firm, dry, very fine grained, poorly sorted, subangular.	SB4-5'
6						
7						
8						
9						
10	X	100%		0.6	Caliche, light reddish grey, firm, dry, very fine grained, poorly sorted, subangular.	SB4-10'
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						

STATION ID SB-5  
 PROJECT Texaco QT 1 & 2 205070.00 LOCATION Lea County, New Mexico  
 TOTAL DEPTH 10' BOREHOLE DIA (in) 5"  
 DRILLING CO. Straub DRILLING METHOD Air Rotary  
 GEOLOGIST Will Murley DATE DRILLED 9/21/05  
 PAGE 1 OF 1 EMS No.: 2001-11098

DEPTH	INTERVALS	RECOVERY %	GRAPHIC LOG	OVM (ppm)	LITHOLOGIC DESCRIPTION/COMMENTS*	REMARKS
0					Clay, dark brown, dry, low plasticity.	
1						
2						
3						
4						
5	X	100%		1.9	Caliche, light grey, loose to firm, dry, very fine grained, poorly sorted, subangular.	SB5-5'
6						
7						
8						
9						
10	X	100%		0.4	Caliche, light grey, loose to firm, dry, low plasticity, very fine grained, poorly sorted, subangular.	SB5-10'
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						

## ***Appendix B Tables***

**Table 2 – Soil Sample Analytical Results**

<b>Delineation Samples</b>	<b>October 1-3, 2001, Soil Sample Analytical Results</b>
<b>Trench Samples</b>	<b>April 30, 2004, Soil Sample Analytical Results</b>
<b>Excavation Samples</b>	<b>June 2, 2004, Soil Sample Analytical Results</b>
<b>Boring Samples</b>	<b>June 16, 2004, Soil Sample Analytical Results</b>
<b>Soil Investigation</b>	<b>September 21, 2005, Soil Borings</b>

**Table 2**  
**Soil Sample Analytical Results**

Plains Marketing, L.P.  
QT Gathering #2001-11098 and QT Gathering #2002-10012  
Lea County, New Mexico

**Delineation Borings 1 - 9 Analytical Results**  
**QT Gathering #2001-11098 Sample Data 10/02/001**

Borehole	Sampling Interval	Sample Name	Date Taken	DRO	GRO	Total TPH	BTEX	Benzene	Ethylbenzene	Total Xylenes	Toluene
	feet bgs			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
BH1	2	EQTG10101BH1-2'	10/1/2001	1810.00	465.00	2275.00	2.056	<0.020	0.875	0.941	0.24
BH1	5	EQTG10101BH1-5'	10/1/2001	58.90	5.37	64.27	<0.020	<0.020	<0.020	<0.020	<0.020
BH1	10	EQTG10101BH1-10'	10/1/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH1	15	EQTG10101BH1-15'	10/1/2001	8.72	<5	8.72	<0.020	<0.020	<0.020	<0.020	<0.020
BH1	0.02	EQTG10101BH1-20'	10/1/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH2	2	EQTG10101BH2-2'	10/1/2001	3060.00	614.00	3674.00	0.271	<0.020	0.238	<0.020	0.0325
BH2	5	EQTG10101BH2-5'	10/1/2001	240.00	29.10	269.10	<0.020	<0.020	<0.020	<0.020	<0.020
BH2	10	EQTG10101BH2-10'	10/1/2001	13.90	<5	13.90	<0.020	<0.020	<0.020	<0.020	<0.020
BH2	15	EQTG10101BH2-15'	10/1/2001	14.00	<5	14.00	<0.020	<0.020	<0.020	<0.020	<0.020
BH3	2	EQTG10101BH3-2'	10/1/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH3	5	EQTG10101BH3-5'	10/1/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH3	10	EQTG10201BH3-10'	10/2/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH3	15	EQTG10201BH3-15'	10/2/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH4	2	EQTG10201BH4-2'	10/2/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH4	5	EQTG10201BH4-5'	10/2/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH4	10	EQTG10201BH4-10'	10/2/2001	10.70	<5	10.70	<0.020	<0.020	<0.020	<0.020	<0.020
BH4	15	EQTG10201BH4-15'	10/2/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH5	2	EQTG10201BH5-2'	10/2/2001	27600.00	13300.00	40900.00	1339.100	692.000	131.000	237.100	279.000
BH5	5	EQTG10201BH5-5'	10/2/2001	1990.00	516.00	2506.00	3.748	<0.020	0.955	2.710	0.083
BH5	10	EQTG10201BH5-10'	10/2/2001	32.60	15.50	48.10	<0.020	<0.020	<0.020	<0.020	<0.020
BH5	15	EQTG10201BH5-15'	10/2/2001	511.00	64.30	575.30	0.102	<0.020	0.026	0.076	<0.020
BH6	2	EQTG10301BH6-2'	10/3/2001	6690.00	1880.00	8570.00	96.353	<0.020	0.026	96.300	0.027
BH6	5	EQTG10301BH6-5'	10/3/2001	369.00	69.90	438.90	0.954	<0.020	0.245	0.662	0.047
BH6	10	EQTG10301BH6-10'	10/3/2001	<5	<5	<5	0.622	<0.020	0.336	0.038	0.248
BH6	15	EQTG10301BH6-15'	10/3/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH7	2	EQTG10301BH7-2'	10/3/2001	8.55	<5	8.55	<0.020	<0.020	<0.020	<0.020	<0.020
BH7	5	EQTG10301BH7-5'	10/3/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH7	10	EQTG10301BH7-10'	10/3/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH7	15	EQTG10301BH7-15'	10/3/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH8	2	EQTG10301BH8-2'	10/3/2001	5690.00	4150.00	9840.00	222.040	1.040	48.900	116.300	55.800
BH8	5	EQTG10301BH8-5'	10/3/2001	572.00	275.00	847.00	7.017	<0.020	1.850	4.990	0.177
BH8	10	EQTG10301BH8-10'	10/3/2001	<5	<5	<5	0.057	<0.020	0.028	<0.020	0.029
BH8	15	EQTG10301BH8-15'	10/3/2001	16.80	13.20	30.00	0.043	<0.020	0.021	<0.020	0.022
BH9	2	EQTG10301BH9-2'	10/3/2001	<5	<5	ND	<0.020	<0.020	<0.020	<0.020	<0.020
BH9	5	EQTG10301BH9-5'	10/3/2001	34.30	5.00	39.30	<0.020	<0.020	<0.020	<0.020	<0.020
BH9	10	EQTG10301BH9-10'	10/3/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020
BH9	15	EQTG10301BH9-15'	10/3/2001	<5	<5	<5	<0.020	<0.020	<0.020	<0.020	<0.020

**Northeast Trench - Analytical Results**  
**QT Gathering #2001-11098 Sample Data 4-30-04**

Borehole	Sampling Interval	Sample Name	Date Taken	DRO	GRO	Total TPH	BTEX	Benzene	Ethylbenzene	Total Xylenes	Toluene
	feet bgs			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
STNE	Surface	SLTQT43004NE-SUR	4/30/2004	46.30	30600.00	30646.30	0.4710	0.338	0.013	<0.0250	0.12
STNE	5	SLTQT43004NE-5"	4/30/2004	27.70	<10.0	27.70	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
STNE	10	SLTQT43004NE-10'	4/30/2004	<10.0	<10.0	<10.0	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
STNE	15	SLTQT43004NE-15'	4/30/2004	14.20	<10.0	14.20	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250

ND= not detected below method detection limits

**Southwest Trench - Analytical Results**  
**QT Gathering #2001-11098 Sample Data 4-30-04**

Borehole	Sampling Interval	Sample Name	Date Taken	DRO	GRO	Total TPH	BTEX	Benzene	Ethylbenzene	Total Xylenes	Toluene
	feet bgs			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
STSW	Surface	SLTQT43004SW-SUR	4/30/2004	<10.0	26400.00	26400.00	0.058	0.0415	<0.0250	<0.0250	0.0161
STSW	5	SLTQT43004SW-5	4/30/2004	3000.00	6410.00	9410.00	205.300	11.2	34.8	92.000	67.3
STSW	10	SLTQT43004SW-10	4/30/2004	500.02	9400.00	9900.02	369.100	28.4	68.4	134.300	138
STSW	13	SLTQT43004SW-13	4/30/2004	4750.00	8860.00	13610.00	385.000	32.7	69.6	144.700	138

**Excavation - Analytical Results**  
**QT Gathering #2001-11098 Sample Data 6-2-04**

Borehole	Sampling Interval	Sample Name	Date Taken	DRO	GRO	Total TPH	BTEX	Benzene	Ethylbenzene	Total Xylenes	Toluene
	feet bgs			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
CLEQTG		CLEQTG620WWW	6/2/2004	1990	328	230	0.605	<0.0250	0.0732	0.494	0.0377
CLEQTG		CLEQTG6204EW	6/2/2004	1850	84.0	1930	0.292	<0.0250	0.0324	0.230	0.0297
CLEQTG		CLEQTG6204SW	6/2/2004	4140	265	4400	1.594	<0.0250	0.252	1.167	0.175
CLEQTG		CLEQTG6204NW	6/2/2004	11.0	<10.0	11.0	<0.0250	<0.0250	<0.0250	0.050	0.0250
CLEQTG		CLEQTG6204BH	6/2/2004	4680	673	5350	10.299	0.119	2.19	5.900	2.09

**Soil Boring - Analytical Results**  
**QT Gathering #2001-11098 Sample Data 6-16-04**

Borehole	Sampling Interval	Sample Name	Date Taken	DRO	GRO	Total TPH	BTEX	Benzene	Ethylbenzene	Total Xylenes	Toluene
	feet bgs			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
STQT	20-22	STQT61604020-22	6/16/2004	<10.0	<10.0	<10.0	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
STQT	25-27	STQT6160425-27	6/16/2004	<10.0	<10.0	<10.0	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
STQT	30-32	STQT6160430-32	6/16/2004	<10.0	<10.0	<10.0	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250

**Soil Borings (SB) - Analytical Results**  
**QT Gathering #2001-11098 Sample Data 9-21-05**

Soil Boring (SB) #	Interval feet bgs	Laboratory Sample ID	Date Sampled	DRO	GRO	Total TPH	BTEX	Benzene	Ethylbenzene	Total Xylene	Toluene	Field Screen VOC ppm
				mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	
SB 1	5	T11495-1	9/21/2005	343	34.6	377.6	0.1272	<0.0003	0.0082	0.119	0.0034	16.6
	20	T11495-2	9/21/2005	47.7	<4.4	47.7	<0.00084	<0.00042	<0.00042	<0.00084	<0.00028	0
	30	T11495-3	9/21/2005	<4.4	<4.0	0	<0.00078	<0.00039	<0.00039	<0.00078	<0.00026	0
SB 2	5	T11495-4	9/21/2005	90.3	10.9	101.2	0.0203	<0.00036	0.0012	0.0191	<0.00024	5.7
	20	T11495-5	9/21/2005	10.3	4.3	14.6	0.00064	0.00055	<0.0004	0.0046	0.00064	1.9
	30	T11495-6	9/21/2005	<5.0	<4.9	<5.0	<0.00087	<0.00044	<0.00044	<0.00087	<0.00029	0
SB 3	10	T11495-7	9/21/2005	<3.9	<3.2	<3.9	<0.00070	<0.00035	<0.00035	<0.00070	<0.00023	0.8
	20	T11495-8	9/21/2005	<3.9	<3.1	<3.9	<0.00068	<0.00034	<0.00034	<0.00068	<0.00023	0.3
	30	T11495-9	9/21/2005	<3.7	<2.9	<3.7	<0.00066	<0.00033	<0.00033	<0.00066	<0.00022	0.1
SB 4	5	T11495-10	9/21/2005	<3.8	<3.2	<3.8	<0.00067	<0.00034	<0.00034	<0.00067	<0.00022	2.1
	10	T11495-11	9/21/2005	<3.8	<3.1	<3.8	<0.00066	<0.00033	<0.00033	<0.00066	<0.00022	0.6
SB 5	5	T11495-12	9/21/2005	<4.7	<4.4	<4.7	<0.00082	<0.00041	<0.00041	<0.00082	<0.00027	1
	10	T11495-13	9/21/2005	<4.1	<3.6	<4.1	<0.00072	<0.00036	<0.00036	<0.00072	<0.00024	0.4



**Appendix C**  
***Analytical Reports - September 21, 2005***  
***Quality Assurance/Quality Control***  
***Chain of Custody Documentation***



Gulf Coast

10/07/05

## Technical Report for

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Premier Environmental Services

Texaco QT/205070(2001-10098)

Accutest Job Number: T11495

Sampling Date: 09/21/05

---

Report to:

Premier Environmental Services

cpatel@premiercorp-usa.com

ATTN: Chan Patel

Total number of pages in report: 65



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Ron Martino  
Laboratory Manager

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## Sample Summary

Premier Environmental Services

Job No: T11495

Texaco QT/205070(2001-10098)

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
T11495-1	09/21/05	11:15 WM	09/27/05	SO Soil	SB1-5
T11495-2	09/21/05	11:34 WM	09/27/05	SO Soil	SB1-20
T11495-3	09/21/05	11:52 WM	09/27/05	SO Soil	SB1-30
T11495-4	09/21/05	13:35 WM	09/27/05	SO Soil	SB2-5
T11495-5	09/21/05	13:55 WM	09/27/05	SO Soil	SB2-20
T11495-6	09/21/05	14:16 WM	09/27/05	SO Soil	SB2-30
T11495-7	09/21/05	16:23 WM	09/27/05	SO Soil	SB3-10
T11495-8	09/21/05	16:37 WM	09/27/05	SO Soil	SB3-20
T11495-9	09/21/05	16:57 WM	09/27/05	SO Soil	SB3-30
T11495-10	09/21/05	14:59 WM	09/27/05	SO Soil	SB4-5
T11495-11	09/21/05	15:06 WM	09/27/05	SO Soil	SB4-10
T11495-12	09/21/05	15:42 WM	09/27/05	SO Soil	SB5-5
T11495-13	09/21/05	15:48 WM	09/27/05	SO Soil	SB5-10

---

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## Sample Summary

(continued)

Premier Environmental Services

Job No: T11495

Texaco QT/205070(2001-10098)

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
T11495-14	09/21/05	00:00 WM	09/27/05	AQ Trip Blank Water	TRIP BLANK

---

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB1-5	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-1	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.9
<b>Method:</b>	SW846 8015		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021703.D	1	09/30/05	JH	n/a	n/a	GEE976
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.16 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	34.6	6.3	3.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	130%		56-139%
98-08-8	aaa-Trifluorotoluene	91%		46-136%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB1-5	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-1	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.9
<b>Method:</b>	SW846 8021B		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08765.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

	Initial Weight	Final Volume
Run #1	5.19 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.33	ug/kg	
108-88-3	Toluene	3.4	1.1	0.22	ug/kg	
100-41-4	Ethylbenzene	8.2	1.1	0.33	ug/kg	
1330-20-7	Xylenes (total)	119	2.2	0.67	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		43-154%
98-08-8	aaa-Trifluorotoluene	110%		46-151%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID: SB1-5  
Lab Sample ID: T11495-1  
Matrix: SO - Soil  
Method: SW846 8015 M SW846 3550B  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 86.9

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9877.D	10	10/05/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	343	96	38	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	111%		41-153%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

Client Sample ID:	SB1-20	Date Sampled:	09/21/05
Lab Sample ID:	T11495-2	Date Received:	09/27/05
Matrix:	SO - Soil	Percent Solids:	70.7
Method:	SW846 8015		
Project:	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021687.D	1	09/29/05	JH	n/a	n/a	GEE976
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.22 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	8.8	4.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	63%		56-139%
98-08-8	aaa-Trifluorotoluene	82%		46-136%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: SB1-20  
 Lab Sample ID: T11495-2  
 Matrix: SO - Soil  
 Method: SW846 8021B  
 Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
 Date Received: 09/27/05  
 Percent Solids: 70.7

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08766.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.05 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.4	0.42	ug/kg	
108-88-3	Toluene	ND	1.4	0.28	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.42	ug/kg	
1330-20-7	Xylenes (total)	ND	2.8	0.84	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	104%		43-154%
98-08-8	aaa-Trifluorotoluene	111%		46-151%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB1-20						
<b>Lab Sample ID:</b>	T11495-2				<b>Date Sampled:</b>	09/21/05	
<b>Matrix:</b>	SO - Soil				<b>Date Received:</b>	09/27/05	
<b>Method:</b>	SW846 8015 M SW846 3550B				<b>Percent Solids:</b>	70.7	
<b>Project:</b>	Texaco QT/205070(2001-10098)						

	<b>File ID</b>	<b>DF</b>	<b>Analyzed</b>	<b>By</b>	<b>Prep Date</b>	<b>Prep Batch</b>	<b>Analytical Batch</b>
Run #1	CC9860.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
Run #2							

	<b>Initial Weight</b>	<b>Final Volume</b>
Run #1	30.0 g	1.0 ml
Run #2		

<b>CAS No.</b>	<b>Compound</b>	<b>Result</b>	<b>RL</b>	<b>MDL</b>	<b>Units</b>	<b>Q</b>
	TPH (C10-C28)	47.7	12	4.7	mg/kg	

<b>CAS No.</b>	<b>Surrogate Recoveries</b>	<b>Run# 1</b>	<b>Run# 2</b>	<b>Limits</b>
84-15-1	o-Terphenyl	71%		41-153%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID: SB1-30  
Lab Sample ID: T11495-3  
Matrix: SO - Soil  
Method: SW846 8015  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 76.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021690.D	1	09/29/05	JH	n/a	n/a	GEE976
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.06 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	8.0	4.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	66%		56-139%
98-08-8	aaa-Trifluorotoluene	76%		46-136%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB1-30	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-3	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	76.3
<b>Method:</b>	SW846 8021B		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08767.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

	Initial Weight	Final Volume
Run #1	5.02 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.3	0.39	ug/kg	
108-88-3	Toluene	ND	1.3	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.39	ug/kg	
1330-20-7	Xylenes (total)	ND	2.6	0.78	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	105%		43-154%
98-08-8	aaa-Trifluorotoluene	113%		46-151%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB1-30	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-3	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	76.3
<b>Method:</b>	SW846 8015 M SW846 3550B		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9861.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	11	4.4	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits		
84-15-1	o-Terphenyl	69%		41-153%		

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB2-5	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-4	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	80.3
<b>Method:</b>	SW846 8015		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021702.D	1	09/30/05	JH	n/a	n/a	GEE976
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.99 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	10.9	7.5	3.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	92%		56-139%
98-08-8	aaa-Trifluorotoluene	80%		46-136%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID:	SB2-5	Date Sampled:	09/21/05
Lab Sample ID:	T11495-4	Date Received:	09/27/05
Matrix:	SO - Soil	Percent Solids:	80.3
Method:	SW846 8021B		
Project:	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08768.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

	Initial Weight	Final Volume
Run #1	5.12 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.2	0.36	ug/kg	
108-88-3	Toluene	ND	1.2	0.24	ug/kg	
100-41-4	Ethylbenzene	1.2	1.2	0.36	ug/kg	
1330-20-7	Xylenes (total)	19.1	2.4	0.73	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		43-154%
98-08-8	aaa-Trifluorotoluene	102%		46-151%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB2-5	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-4	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	80.3
<b>Method:</b>	SW846 8015 M SW846 3550B		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9878.D	5	10/05/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	90.3	52	21	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	80%		41-153%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID: SB2-20  
Lab Sample ID: T11495-5  
Matrix: SO - Soil  
Method: SW846 8015  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 71.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021691.D	1	09/29/05	JH	n/a	n/a	GEE976
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.28 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	8.7	4.3	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	79%		56-139%
98-08-8	aaa-Trifluorotoluene	78%		46-136%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID: SB2-20  
Lab Sample ID: T11495-5  
Matrix: SO - Soil  
Method: SW846 8021B  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 71.3

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08769.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.17 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	0.55	1.4	0.41	ug/kg	J
108-88-3	Toluene	0.64	1.4	0.27	ug/kg	J
100-41-4	Ethylbenzene	ND	1.4	0.41	ug/kg	
1330-20-7	Xylenes (total)	4.6	2.7	0.81	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		43-154%
98-08-8	aaa-Trifluorotoluene	119%		46-151%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b>	SB2-20	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-5	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	71.3
<b>Method:</b>	SW846 8015 M SW846 3550B		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9863.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	10.3	12	4.7	mg/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	55%		41-153%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

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**Client Sample ID:** SB2-30  
**Lab Sample ID:** T11495-6  
**Matrix:** SO - Soil  
**Method:** SW846 8015  
**Project:** Texaco QT/205070(2001-10098)

**Date Sampled:** 09/21/05  
**Date Received:** 09/27/05  
**Percent Solids:** 66.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021692.D	1	09/29/05	JH	n/a	n/a	GEE976
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.18 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	9.9	4.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	60%		56-139%
98-08-8	aaa-Trifluorotoluene	79%		46-136%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	SB2-30	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-6	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	66.1
<b>Method:</b>	SW846 8021B		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08770.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.20 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.5	0.44	ug/kg	
108-88-3	Toluene	ND	1.5	0.29	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	0.44	ug/kg	
1330-20-7	Xylenes (total)	ND	2.9	0.87	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	106%		43-154%
98-08-8	aaa-Trifluorotoluene	114%		46-151%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID: SB2-30  
Lab Sample ID: T11495-6  
Matrix: SO - Soil  
Method: SW846 8015 M SW846 3550B  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 66.1

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9864.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	13	5.0	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	61%		41-153%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID: SB3-10  
Lab Sample ID: T11495-7  
Matrix: SO - Soil  
Method: SW846 8015  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 84.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021693.D	1	09/29/05	JH	n/a	n/a	GEE976
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.28 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	6.5	3.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	57%		56-139%
98-08-8	aaa-Trifluorotoluene	80%		46-136%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** SB3-10  
**Lab Sample ID:** T11495-7  
**Matrix:** SO - Soil  
**Method:** SW846 8021B  
**Project:** Texaco QT/205070(2001-10098)

**Date Sampled:** 09/21/05  
**Date Received:** 09/27/05  
**Percent Solids:** 84.7

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08773.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

	Initial Weight	Final Volume
Run #1	5.03 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.2	0.35	ug/kg	
108-88-3	Toluene	ND	1.2	0.23	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.35	ug/kg	
1330-20-7	Xylenes (total)	ND	2.3	0.70	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	104%		43-154%
98-08-8	aaa-Trifluorotoluene	110%		46-151%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID:	SB3-10	Date Sampled:	09/21/05
Lab Sample ID:	T11495-7	Date Received:	09/27/05
Matrix:	SO - Soil	Percent Solids:	84.7
Method:	SW846 8015 M SW846 3550B		
Project:	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9867.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	9.8	3.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	71%		41-153%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID: SB3-20  
Lab Sample ID: T11495-8  
Matrix: SO - Soil  
Method: SW846 8015  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 86.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021709.D	1	09/30/05	JH	n/a	n/a	GEE977
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.28 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	6.3	3.1	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	58%		56-139%
98-08-8	aaa-Trifluorotoluene	84%		46-136%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

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**Client Sample ID:** SB3-20  
**Lab Sample ID:** T11495-8  
**Matrix:** SO - Soil  
**Method:** SW846 8021B  
**Project:** Texaco QT/205070(2001-10098)

**Date Sampled:** 09/21/05  
**Date Received:** 09/27/05  
**Percent Solids:** 86.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08774.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

	Initial Weight	Final Volume
Run #1	5.11 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.34	ug/kg	
108-88-3	Toluene	ND	1.1	0.23	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.34	ug/kg	
1330-20-7	Xylenes (total)	ND	2.3	0.68	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		43-154%
98-08-8	aaa-Trifluorotoluene	103%		46-151%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID: SB3-20  
Lab Sample ID: T11495-8  
Matrix: SO - Soil  
Method: SW846 8015 M SW846 3550B  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 86.4

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9868.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	9.6	3.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	78%		41-153%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	SB3-30						
<b>Lab Sample ID:</b>	T11495-9			<b>Date Sampled:</b>	09/21/05		
<b>Matrix:</b>	SO - Soil			<b>Date Received:</b>	09/27/05		
<b>Method:</b>	SW846 8015			<b>Percent Solids:</b>	89.8		
<b>Project:</b>	Texaco QT/205070(2001-10098)						

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021697.D	1	09/29/05	JH	n/a	n/a	GEE976
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.28 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.8	2.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	60%		56-139%
98-08-8	aaa-Trifluorotoluene	74%		46-136%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	SB3-30	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-9	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.8
<b>Method:</b>	SW846 8021B		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08775.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

	Initial Weight	Final Volume
Run #1	5.05 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.33	ug/kg	
108-88-3	Toluene	ND	1.1	0.22	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.33	ug/kg	
1330-20-7	Xylenes (total)	ND	2.2	0.66	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	98%		43-154%
98-08-8	aaa-Trifluorotoluene	100%		46-151%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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**Client Sample ID:** SB3-30  
**Lab Sample ID:** T11495-9  
**Matrix:** SO - Soil  
**Method:** SW846 8015 M SW846 3550B  
**Project:** Texaco QT/205070(2001-10098)

**Date Sampled:** 09/21/05  
**Date Received:** 09/27/05  
**Percent Solids:** 89.8

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9869.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	9.3	3.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	73%		41-153%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	SB4-5	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-10	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.6
<b>Method:</b>	SW846 8015		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021698.D	1	09/29/05	JH	n/a	n/a	GEE976
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.16 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	6.4	3.2	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	59%		56-139%
98-08-8	aaa-Trifluorotoluene	76%		46-136%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID: SB4-5  
 Lab Sample ID: T11495-10  
 Matrix: SO - Soil  
 Method: SW846 8021B  
 Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
 Date Received: 09/27/05  
 Percent Solids: 86.6

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08776.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.15 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.34	ug/kg	
108-88-3	Toluene	ND	1.1	0.22	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.34	ug/kg	
1330-20-7	Xylenes (total)	ND	2.2	0.67	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	107%		43-154%
98-08-8	aaa-Trifluorotoluene	112%		46-151%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID: SB4-5  
Lab Sample ID: T11495-10  
Matrix: SO - Soil  
Method: SW846 8015 M SW846 3550B  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 86.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9870.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	9.6	3.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		41-153%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	SB4-10	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-11	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.3
<b>Method:</b>	SW846 8015		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021699.D	1	09/29/05	JH	n/a	n/a	GEE976
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.09 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	6.2	3.1	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	61%		56-139%
98-08-8	aaa-Trifluorotoluene	82%		46-136%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Client Sample ID: SB4-10  
Lab Sample ID: T11495-11  
Matrix: SO - Soil  
Method: SW846 8021B  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 88.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08777.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

	Initial Weight	Final Volume
Run #1	5.15 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.1	0.33	ug/kg	
108-88-3	Toluene	ND	1.1	0.22	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.33	ug/kg	
1330-20-7	Xylenes (total)	ND	2.2	0.66	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	107%		43-154%
98-08-8	aaa-Trifluorotoluene	108%		46-151%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID: SB4-10  
Lab Sample ID: T11495-11  
Matrix: SO - Soil  
Method: SW846 8015 M SW846 3550B  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 88.3

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9871.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	9.4	3.8	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	59%		41-153%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

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Client Sample ID:	SB5-5	Date Sampled:	09/21/05
Lab Sample ID:	T11495-12	Date Received:	09/27/05
Matrix:	SO - Soil	Percent Solids:	71.0
Method:	SW846 8015		
Project:	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021700.D	1	09/29/05	JH	n/a	n/a	GEE976
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.26 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	8.7	4.4	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	60%		56-139%
98-08-8	aaa-Trifluorotoluene	79%		46-136%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b>	SB5-5	<b>Date Sampled:</b>	09/21/05
<b>Lab Sample ID:</b>	T11495-12	<b>Date Received:</b>	09/27/05
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	71.0
<b>Method:</b>	SW846 8021B		
<b>Project:</b>	Texaco QT/205070(2001-10098)		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08778.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

	Initial Weight	Final Volume
Run #1	5.16 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.4	0.41	ug/kg	
108-88-3	Toluene	ND	1.4	0.27	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.41	ug/kg	
1330-20-7	Xylenes (total)	ND	2.7	0.82	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%		43-154%
98-08-8	aaa-Trifluorotoluene	107%		46-151%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

Client Sample ID: SB5-5  
Lab Sample ID: T11495-12  
Matrix: SO - Soil  
Method: SW846 8015 M SW846 3550B  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 71.0

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9872.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	12	4.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	64%		41-153%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

**Client Sample ID:** SB5-10  
**Lab Sample ID:** T11495-13  
**Matrix:** SO - Soil  
**Method:** SW846 8015  
**Project:** Texaco QT/205070(2001-10098)

**Date Sampled:** 09/21/05  
**Date Received:** 09/27/05  
**Percent Solids:** 80.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	EE021701.D	1	09/30/05	JH	n/a	n/a	GEE976
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.13 g	5.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	7.2	3.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	58%		56-139%
98-08-8	aaa-Trifluorotoluene	79%		46-136%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID: SB5-10  
 Lab Sample ID: T11495-13  
 Matrix: SO - Soil  
 Method: SW846 8021B  
 Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
 Date Received: 09/27/05  
 Percent Solids: 80.6

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08779.D	1	09/28/05	JH	n/a	n/a	GKK659
Run #2							

Run #	Initial Weight	Final Volume
Run #1	5.15 g	5.0 ml
Run #2		

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.2	0.36	ug/kg	
108-88-3	Toluene	ND	1.2	0.24	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.36	ug/kg	
1330-20-7	Xylenes (total)	ND	2.4	0.72	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	91%		43-154%
98-08-8	aaa-Trifluorotoluene	97%		46-151%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID: SB5-10  
Lab Sample ID: T11495-13  
Matrix: SO - Soil  
Method: SW846 8015 M SW846 3550B  
Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
Date Received: 09/27/05  
Percent Solids: 80.6

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	CC9873.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	10	4.1	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	57%		41-153%

ND = Not detected      MDL - Method Detection Limit  
RL = Reporting Limit  
E = Indicates value exceeds calibration range

J = Indicates an estimated value  
B = Indicates analyte found in associated method blank  
N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

Client Sample ID: TRIP BLANK  
 Lab Sample ID: T11495-14  
 Matrix: AQ - Trip Blank Water  
 Method: SW846 8021B  
 Project: Texaco QT/205070(2001-10098)

Date Sampled: 09/21/05  
 Date Received: 09/27/05  
 Percent Solids: n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	KK08791.D	1	09/29/05	JH	n/a	n/a	GKK660
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.38	ug/l	
108-88-3	Toluene	ND	1.0	0.36	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.35	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	131%		56-136%
98-08-8	aaa-Trifluorotoluene	125%		50-144%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



Misc. Forms

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Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



# CHAIN OF CUSTODY

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

Page 1 of 1

Client / Reporting Information				Project Information				Requested Analyses				Matrix Codes			
Company Name Premier Environmental Services				Project Name / No. TERACO QT / 205070(2001-10098)											
Project Contact Chan Patel				Bill to PLAIN'S											
Address 4800 Sugar Grove Boulevard, Suite 420				Address											
City Stafford, TX 77477				City State Zip											
Phone No. 281-240-5200				Phone No.											
Fax No.				Fax No.											
Sampler's Name Will Murray				Client Purchase Order #											
Accutest Sample #				Collection				Number of preserved bottles				LAB USE ONLY			
Field ID / Point of Collection				Date				Time				Matrix			
1 SB1-5				9/2/05				1115				SO			
2 SB1-20								1134				SO			
3 SB1-30								1152				SO			
4 SB2-5								1335				SO			
5 SB2-20								1355				SO			
6 SB2-30								1416				SO			
7 SB3-10								1623				SO			
8 SB3-20								1637				SO			
9 SB3-30								1657				SO			
10 SB4-5								1459				SO			
Turnaround Time (Business days)				Data Deliverable Information				Comments / Remarks							
<input checked="" type="checkbox"/> 10 Day STANDARD				Approved By/ Date:				<input type="checkbox"/> Commercial "A"				<input type="checkbox"/> State Forms			
<input type="checkbox"/> 5 Day RUSH								<input type="checkbox"/> Commercial "B"				<input type="checkbox"/> EDO Format			
<input type="checkbox"/> 4 Day RUSH								<input type="checkbox"/> Reduced Tier 1				<input type="checkbox"/> Other			
<input type="checkbox"/> 3 Day EMERGENCY								<input type="checkbox"/> Full Data Package							
<input type="checkbox"/> 2 Day EMERGENCY															
<input type="checkbox"/> 1 Day EMERGENCY															
<input type="checkbox"/> Other															
Real time analytical data available via Lablink															
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY															
Relinquished By: Will Murray				Date Time: 9/26 1200				Received By: 1				Date Time: 2			
Relinquished By: 3				Date Time: 9/26 14:15				Received By: 4				Date Time: 4			
Relinquished By: 5				Date Time: 9/26 14:15				Received By: 5				Date Time: 5			
Custody Seal #				Preserved where applicable				On Ice				Cooler Temp: 5.5			

T11495: Chain of Custody

Page 1 of 3



# CHAIN OF CUSTODY

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

Page 1 of 1

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>T11495</b>

Client / Reporting Information		Project Information		Requested Analyses		Matrix Codes															
Company Name Premier Environmental Services		Project Name / No. TEXACO QT 205070 (300-10098)				DW - Drinking Water															
Project Contact Chan Patel		Bill to PLAINS				GW - Ground Water															
E-Mail C.Patel@Premier-USA.com		Invoice Attn.				WW - Wastewater															
Address 4800 Sugar Grove Boulevard, Suite 420		Address				SO - Soil															
City Stafford, TX 77477		City				SL - Sludge															
State		State				OI - Oil															
Zip		Zip				LQ - Other Liquid															
Phone No. 281-240-5200		Phone No.				SOL - Other Solid															
Fax No.		Fax No.																			
Sampler's Name		Client Purchase Order #																			
Accutest Sample #	Field ID / Point of Collection	Collection		Number of preserved bottles										LAB USE ONLY							
		Date	Time	Matrix	# of bottles	1	2	3	4	5	6	7	8		9	10	11	12			
11	SB 4-10	9/21/05	1506	SO	1																
12	SA 5-5		1542	SO	1																
13	SB 5-10		1548	SO	1																
14	t.b. - AR 9.27.05																				
Turnaround Time (Business days)		Data Deliverable Information		Comments / Remarks																	
<input checked="" type="checkbox"/> 10 Day STANDARD		Approved By / Date:		<input type="checkbox"/> Commercial "A"		<input type="checkbox"/> State Forms															
<input type="checkbox"/> 5 Day RUSH				<input type="checkbox"/> Commercial "B"		<input type="checkbox"/> EDD Format															
<input type="checkbox"/> 4 Day RUSH				<input type="checkbox"/> Reduced Tier 1		<input type="checkbox"/> Other															
<input type="checkbox"/> 3 Day EMERGENCY				<input type="checkbox"/> Full Data Package																	
<input type="checkbox"/> 2 Day EMERGENCY																					
<input type="checkbox"/> 1 Day EMERGENCY																					
<input type="checkbox"/> Other																					
Real time analytical data available via Lablink																					
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																					
Relinquished by Sampler:		Date / Time:		Received By:		Relinquished By:		Date / Time:		Received By:											
1. <i>[Signature]</i>		9/26/05 1:00		1. <i>[Signature]</i>		2. <i>[Signature]</i>				2. <i>[Signature]</i>											
Relinquished by:		Date / Time:		Received By:		Relinquished By:		Date / Time:		Received By:											
3. <i>[Signature]</i>				3. <i>[Signature]</i>		4. <i>[Signature]</i>				4. <i>[Signature]</i>											
Relinquished by:		Date / Time:		Received By:		Relinquished By:		Date / Time:		Received By:											
5. <i>[Signature]</i>				5. <i>[Signature]</i>		6. <i>[Signature]</i>				6. <i>[Signature]</i>											
						Custody Seal #		Preserved where applicable		On Ice		Cooler Temp. <i>5.5</i>									

T11495: Chain of Custody

Page 2 of 3



**ACCUTEST.**

## SAMPLE RECEIPT LOG

JOB #: T11495DATE/TIME RECEIVED: 9/27/05 / 9:15CLIENT: Premier Env. ServicesINITIALS: AR

Condition/Variance (Circle "Y" for yes and "N" for no or NA. If "N" is circled, see variance for explanation):

1. ☒ Y ☐ N Sample received in undamaged condition. 2. ☒ Y ☐ N Samples received within temp. range.  
3. ☒ Y ☐ NA Sample received with proper pH. 4. ☒ Y ☐ N Sample received in proper containers.  
5. ☒ Y ☐ N Sample volume sufficient for analysis. 6. ☒ Y ☐ N Sample received with chain of custody.  
7. ☒ Y ☐ N Chain of Custody matches sample IDs and analysis on containers.  
8. ☒ Y ☐ N NA Custody seal received intact and tamper not evident on cooler.  
9. ☒ Y ☐ N NA Custody seal received intact and tamper not evident on bottles.

SAMPLE or FIELD ID	BOTTLE #	DATE SAMPLED	MATRIX	VOLUME	LOCATION	PRESERV.	PH
1-13	1	9/21	SD	802	VREF	1,2,3,4,5,6	U, <2, >12, NA
14	1-2	N/A	AQ	40ml	L	1,2,3,4,5,6	U, <2, >12, NA
Curl 9-27-05							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA
							1,2,3,4,5,6 U, <2, >12, NA

LOCATION: Wt: Walk-in VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

Comments: \_\_\_\_\_

pH of waters checked excluding volatiles

pH of soils N/A

Delivery method: Courier: FE

Tracking#: \_\_\_\_\_

COOLER TEMP: 5.5

COOLER TEMP: \_\_\_\_\_

COOLER TEMP: \_\_\_\_\_

COOLER TEMP: \_\_\_\_\_

Method of sample disposal: (circle one) Accutest disposal Hold Return to Client Form: SM012, Rev.12/14/04, QAO

T11495: Chain of Custody  
Page 3 of 3

## GC Volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

Job Number: T11495

Account: PESTXST Premier Environmental Services

Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEE976-MB	EE021686.D 1		09/29/05	JH	n/a	n/a	GEE976

The QC reported here applies to the following samples:

Method: SW846 8015

T11495-1, T11495-2, T11495-3, T11495-4, T11495-5, T11495-6, T11495-7, T11495-9, T11495-10, T11495-11, T11495-12, T11495-13

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.0	2.5	mg/kg	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	83%	56-139%
98-08-8	aaa-Trifluorotoluene	95%	46-136%

## Method Blank Summary

Page 1 of 1

Job Number: T11495  
Account: PESTXST Premier Environmental Services  
Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEE977-MB	EE021707.D 1		09/30/05	JH	n/a	n/a	GEE977

The QC reported here applies to the following samples:

Method: SW846 8015

T11495-8

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	5.0	2.5	mg/kg	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	83%	56-139%
98-08-8	aaa-Trifluorotoluene	101%	46-136%

## Method Blank Summary

Page 1 of 1

Job Number: T11495  
Account: PESTXST Premier Environmental Services  
Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK659-MB	KK08761.D	1	09/28/05	JH	n/a	n/a	GKK659

The QC reported here applies to the following samples:

Method: SW846 8021B

T11495-1, T11495-2, T11495-3, T11495-4, T11495-5, T11495-6, T11495-7, T11495-8, T11495-9, T11495-10, T11495-11, T11495-12, T11495-13

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/kg	
108-88-3	Toluene	0.20	1.0	0.20	ug/kg	J
1330-20-7	Xylenes (total)	ND	2.0	0.60	ug/kg	

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	100%	43-154%
98-08-8	aaa-Trifluorotoluene	92%	46-151%

## Method Blank Summary

Page 1 of 1

Job Number: T11495  
Account: PESTXST Premier Environmental Services  
Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK660-MB	KK08788.D	1	09/29/05	JH	n/a	n/a	GKK660

The QC reported here applies to the following samples:

Method: SW846 8021B

T11495-14

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.38	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.35	ug/l	
108-88-3	Toluene	ND	1.0	0.36	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	0.72	ug/l	

CAS No.	Surrogate Recoveries	Limits	
460-00-4	4-Bromofluorobenzene	97%	56-136%
98-08-8	aaa-Trifluorotoluene	106%	50-144%

## Blank Spike Summary

Page 1 of 1

Job Number: T11495

Account: PESTXST Premier Environmental Services

Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEE976-BS	EE021685.D	1	09/29/05	JH	n/a	n/a	GEE976

The QC reported here applies to the following samples:

Method: SW846 8015

T11495-1, T11495-2, T11495-3, T11495-4, T11495-5, T11495-6, T11495-7, T11495-9, T11495-10, T11495-11, T11495-12, T11495-13

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	20	19.4	97	70-119

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	113%	56-139%
98-08-8	aaa-Trifluorotoluene	120%	46-136%

## Blank Spike Summary

Page 1 of 1

Job Number: T11495  
Account: PESTXST Premier Environmental Services  
Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GEE977-BS	EE021708.D 1		09/30/05	JH	n/a	n/a	GEE977

The QC reported here applies to the following samples:

Method: SW846 8015

T11495-8

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH-GRO (C6-C10)	20	19.2	96	70-119

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	104%	56-139%
98-08-8	aaa-Trifluorotoluene	110%	46-136%



# Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: T11495

Account: PESTXST Premier Environmental Services

Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK659-BS	KK08762.D	1	09/28/05	JH	n/a	n/a	GKK659
GKK659-BSD	KK08763.D	1	09/28/05	JH	n/a	n/a	GKK659

The QC reported here applies to the following samples:

Method: SW846 8021B

T11495-1, T11495-2, T11495-3, T11495-4, T11495-5, T11495-6, T11495-7, T11495-8, T11495-9, T11495-10, T11495-11, T11495-12, T11495-13

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	20.1	101	20.3	102	1	46-150/30
100-41-4	Ethylbenzene	20	18.9	95	19.3	97	2	69-134/30
108-88-3	Toluene	20	19.7	99	19.9	100	1	67-132/30
1330-20-7	Xylenes (total)	60	57.0	95	58.1	97	2	67-134/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	109%	111%	43-154%
98-08-8	aaa-Trifluorotoluene	97%	99%	46-151%

## Blank Spike Summary

Page 1 of 1

Job Number: T11495  
Account: PESTXST Premier Environmental Services  
Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GKK660-BS	KK08789.D	1	09/29/05	JH	n/a	n/a	GKK660

The QC reported here applies to the following samples:

Method: SW846 8021B

T11495-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.2	101	72-125
100-41-4	Ethylbenzene	20	19.8	99	76-125
108-88-3	Toluene	20	19.9	100	74-125
1330-20-7	Xylenes (total)	60	59.9	100	78-124

CAS No.	Surrogate Recoveries	BSP	Limits
460-00-4	4-Bromofluorobenzene	94%	56-136%
98-08-8	aaa-Trifluorotoluene	95%	50-144%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T11495  
Account: PESTXST Premier Environmental Services  
Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T11495-2MS	EE021688.D	1	09/29/05	JH	n/a	n/a	GEE976
T11495-2MSD	EE021689.D	1	09/29/05	JH	n/a	n/a	GEE976
T11495-2	EE021687.D	1	09/29/05	JH	n/a	n/a	GEE976

The QC reported here applies to the following samples:

Method: SW846 8015

T11495-1, T11495-2, T11495-3, T11495-4, T11495-5, T11495-6, T11495-7, T11495-9, T11495-10, T11495-11, T11495-12, T11495-13

CAS No.	Compound	T11495-2 mg/kg	Spike Q	mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		35.4	32.4	92	31.8	90	2	66-122/21

CAS No.	Surrogate Recoveries	MS	MSD	T11495-2	Limits
460-00-4	4-Bromofluorobenzene	112%	107%	63%	56-139%
98-08-8	aaa-Trifluorotoluene	114%	111%	82%	46-136%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T11495

Account: PESTXST Premier Environmental Services

Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T11521-1MS	EE021712.D	1	09/30/05	JH	n/a	n/a	GEE977
T11521-1MSD	EE021713.D	1	09/30/05	JH	n/a	n/a	GEE977
T11521-1	EE021711.D	1	09/30/05	JH	n/a	n/a	GEE977

The QC reported here applies to the following samples:

Method: SW846 8015

T11495-8

CAS No.	Compound	T11521-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH-GRO (C6-C10)	ND		28.3	25.3	89	24.7	87	2	66-122/21

CAS No.	Surrogate Recoveries	MS	MSD	T11521-1	Limits
460-00-4	4-Bromofluorobenzene	106%	103%	60%	56-139%
98-08-8	aaa-Trifluorotoluene	108%	105%	79%	46-136%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T11495  
Account: PESTXST Premier Environmental Services  
Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T11495-13MS	KK08780.D	1	09/28/05	JH	n/a	n/a	GKK659
T11495-13MSD	KK08781.D	1	09/28/05	JH	n/a	n/a	GKK659
T11495-13	KK08779.D	1	09/28/05	JH	n/a	n/a	GKK659

The QC reported here applies to the following samples:

Method: SW846 8021B

T11495-1, T11495-2, T11495-3, T11495-4, T11495-5, T11495-6, T11495-7, T11495-8, T11495-9, T11495-10, T11495-11, T11495-12, T11495-13

CAS No.	Compound	T11495-13 ug/kg	Spike Q	MS ug/kg	MS %	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	24.2	19.1	79	20.4	84	7	46-140/15
100-41-4	Ethylbenzene	ND	24.2	19.0	79	20.2	83	6	69-122/11
108-88-3	Toluene	ND	24.2	19.3	80	20.4	84	6	64-125/14
1330-20-7	Xylenes (total)	ND	72.6	58.8	81	62.8	86	7	66-124/13

CAS No.	Surrogate Recoveries	MS	MSD	T11495-13	Limits
460-00-4	4-Bromofluorobenzene	106%	115%	91%	43-154%
98-08-8	aaa-Trifluorotoluene	103%	106%	97%	46-151%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T11495  
Account: PESTXST Premier Environmental Services  
Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T11496-2MS	KK08795.D	10	09/29/05	JH	n/a	n/a	GKK660
T11496-2MSD	KK08796.D	10	09/29/05	JH	n/a	n/a	GKK660
T11496-2	KK08793.D	1	09/29/05	JH	n/a	n/a	GKK660
T11496-2	KK08794.D	10	09/29/05	JH	n/a	n/a	GKK660

The QC reported here applies to the following samples:

Method: SW846 8021B

T11495-14

CAS No.	Compound	T11496-2 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	232 <sup>a</sup>	200	410	89	392	80	4	45-137/21
100-41-4	Ethylbenzene	4.0	200	205	101	197	97	4	68-126/15
108-88-3	Toluene	14.9	200	218	102	208	97	5	63-130/22
1330-20-7	Xylenes (total)	15.1	600	620	101	596	97	4	72-125/19

CAS No.	Surrogate Recoveries	MS	MSD	T11496-2	T11496-2	Limits
460-00-4	4-Bromofluorobenzene	117%	113%	132%	109%	56-136%
98-08-8	aaa-Trifluorotoluene	99%	96%	106%	85%	50-144%

(a) Result is from Run #2.

## GC Semi-volatiles

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

## Method Blank Summary

Page 1 of 1

Job Number: T11495

Account: PESTXST Premier Environmental Services

Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5039-MB	CC9855.D	1	10/04/05	FO	10/03/05	OP5039	GCC479

The QC reported here applies to the following samples:

Method: SW846 8015 M

T11495-1, T11495-2, T11495-3, T11495-4, T11495-5, T11495-6, T11495-7, T11495-8, T11495-9, T11495-10, T11495-11, T11495-12, T11495-13

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	8.3	3.3	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	79% 41-153%



## Blank Spike Summary

Page 1 of 1

Job Number: T11495  
Account: PESTXST Premier Environmental Services  
Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5039-BS	CC9856.D	1	10/04/05	FO	10/03/05	OP5039	GCC479

The QC reported here applies to the following samples:

Method: SW846 8015 M

T11495-1, T11495-2, T11495-3, T11495-4, T11495-5, T11495-6, T11495-7, T11495-8, T11495-9, T11495-10, T11495-11, T11495-12, T11495-13

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	TPH (C10-C28)	33.3	24.4	73	55-131

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	86%	41-153%

# Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: T11495  
Account: PESTXST Premier Environmental Services  
Project: Texaco QT/205070(2001-10098)

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP5039-MS	CC9857.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
OP5039-MSD	CC9858.D	1	10/04/05	FO	10/03/05	OP5039	GCC479
T11495-13	CC9873.D	1	10/04/05	FO	10/03/05	OP5039	GCC479

The QC reported here applies to the following samples:

Method: SW846 8015 M

T11495-1, T11495-2, T11495-3, T11495-4, T11495-5, T11495-6, T11495-7, T11495-8, T11495-9, T11495-10, T11495-11, T11495-12, T11495-13

CAS No.	Compound	T11495-13 mg/kg	Spike mg/kg	MS mg/kg	MS %	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	ND	41.3	24.1	58	24.8	60	3	49-139/24

CAS No.	Surrogate Recoveries	MS	MSD	T11495-13	Limits
84-15-1	o-Terphenyl	80%	81%	57%	41-153%

## ***Appendix D Regulatory Information***

**New Mexico Office of State Engineer Water Well Report**

*New Mexico Office of the State Engineer*  
**Well Reports and Downloads**

Township: 17S Range: 34E Sections: 25,36,26,35

NAD27 X: Y: Zone: Search Radius:

County: Basin: Number: Suffix:

Owner Name: (First) (Last) ☐ Non-Domestic ☐ Domestic  
☒ All

Well / Surface Data Report

Avg Depth to Water Report

Water Column Report

Clear Form

WATERS Menu

Help

**AVERAGE DEPTH OF WATER REPORT 05/14/2004**

Bsn	Tws	Rng	Sec	Zone	X	Y	Wells	(Depth Water in Feet)		
								Min	Max	Avg
L	17S	34E	25				6	75	95	82
L	17S	34E	26				6	80	102	90
L	17S	34E	35				4	95	102	97
L	17S	34E	36				2	102	105	104

Record Count: 18

## Distribution

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District II  
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District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-14  
Revised March 17, 1998  
LinkEnergy  
Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

Name of Company: <b>Link Energy</b>	Contact: <b>Jimmy Bryant</b>	
Address <b>PO Box 1660 5805 East Highway 80 Midland, Texas 79702</b>	Telephone No. <b>432.684.3479</b>	
Facility Name <b>Texaco QT Gathering #2001-11098</b>	Facility Type <b>4" Steel Pipeline</b>	
Surface Owner: <b>State of New Mexico</b>	Mineral Owner	Lease No.

Release Notification and Corrective Action

104'  
OPERATOR

☒ Initial Report ☐ Final Report

LOCATION OF RELEASE

Unit Letter <b>B</b>	Section <b>36</b>	Township <b>T17S</b>	Range <b>R34E</b>	Feet from the	North/South Line	Feet from the	East/West Line	County: <b>Lea</b> Lat. <b>32°47'54"N</b> Lon. <b>103°30'48"W</b>
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Latitude: **32°47'54"N** Longitude: **103°30'48"W**

NATURE OF RELEASE

Type of Release <b>Crude Oil</b>	Volume of Release <b>3 bbls sweet barrels</b>	Volume Recovered <b>0 bbls barrels</b>
Source of Release <b>4" Steel Pipeline</b>	Date and Hour of Occurrence <b>9-6-01 @ 4:30 PM</b>	Date and Hour of Discovery <b>9-6-01 @ 4:30 PM</b>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <b>Paul Sheeley</b>	
By Whom?	Date and Hour <b>NA</b>	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. <b>NA</b>	
If a Watercourse was Impacted, Describe Fully.* <b>NA</b>		
Describe Cause of Problem and Remedial Action Taken.* <b>4" Steel Pipeline Internal corrosion of 4" steel pipe resulted in crude oil release onto right-of way.</b>		
Describe Area Affected and Cleanup Action Taken.* <b>5,078 sqft 50'NW x 225'EW: Site to be delineated. Remedial Goals: TPH 8015m = 1000 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e., the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.</b>		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature:	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: <b>Jimmy Bryant</b>	Approved by District Supervisor:	
E-mail Address: <b>Jimmy_Bryant@linkenergy.com</b>	Approval Date:	Expiration Date:
Title: <b>District Environmental Supervisor</b>	Conditions of Approval:	Attached <input type="checkbox"/>
Date:	Phone: <b>432.684.3479</b>	