

## SUBSURFACE INVESTIGATION REPORT

at

Tosco (Unocal) Service Station No. 7376 4191 First Street Pleasanton, California

Report No. 140107.04

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#### INTRODUCTION

This report summarizes field activities performed by Gettler-Ryan Inc. (GR) from October 7 through December 6, 1999, at the subject site. The purpose of this subsurface investigation was to collect data to better understand the local geology/hydrogeology and to delineate the lateral and vertical extent of hydrocarbon-impacted soil and groundwater adjacent to the subject site. The work performed included: drilling three off-site soil borings and constructing groundwater monitoring wells in two of the borings; collecting soil samples for description and chemical analysis; developing and sampling the newly installed groundwater monitoring wells; surveying all of the wells and borings; analyzing the soil and groundwater samples; and preparing this report. In addition, two soil samples were collected for Risk Based Corrective Action (RBCA) evaluation analysis. This work was performed at the request of Tosco Marketing Company (Tosco) and in response to a meeting of Alameda County Health Care Services Agency (ACHCSA), Regional Water Quality Control Board (RWQCB), Tosco, and GR personnel on April 20, 1999. This work was proposed in the GR Report No. 140107.04-1, Work Plan for a Subsurface Investigation, dated May 28, 1999. The Work Plan was approved with conditions in a letter from the ACHCSA dated August 13, 1999.

#### SITE DESCRIPTION

The subject site is an operating service station located on the north corner of the intersection of First Street and Ray Street in Pleasanton, California (Figure 1). The site is bounded to the northwest by a former Southern Pacific Railroad right-of-way currently owned by Alameda County, to the north and northeast by a commercial building, to the southeast by First Street, and to the southwest by Ray Street. Properties in the immediate site vicinity are used for a mix of residential and commercial purposes that include restaurants and shopping facilities. The site is located at an approximate elevation of 366 feet above sea level. Current site facilities consist of a kiosk with four product dispenser islands and two 12,000-gallon double-wall fiberglass gasoline underground storage tanks (USTs). Locations of the pertinent site features are shown on the Site Plan (Figure 2).

#### SITE HISTORY/PREVIOUS ENVIRONMENTAL WORK

Below is a summary of data presented in a meeting between RWQCB, ACHSCA, Tosco and GR personnel on April 20, 1999. Historical analytical data are included in Appendix A.

The site was developed in 1899 as a warehouse to store grains and hay (Amador-Livermore Valley Historical Society, 1994). According to a Sanborn map, an "in-ground" storage tank for oil was installed on-site in 1907. The first service station was built on the site in 1976 (Enviros, 1995). Between November 8, 1982 and February 8, 1985, the Pleasanton Fire Department (PFD) responded to five separate fuel releases at the site (PFD, 1988).

On June 30, 1987, exploratory soil borings B-1, B-2, and B-3 were drilled at the site and sampled by Applied GeoSystems (AGS). Borings B-1 and B-2 were drilled to a final depth of 46.5 feet below ground surface (bgs) and B-3 was drilled to 55 feet bgs (Figure 2). Three soil samples from each boring were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg) and benzene, toluene, ethylbenzene, and xylenes (BTEX), except for a sample collected at 35 feet bgs from B-1 (sample S-35-B1) which was also analyzed for Total Petroleum Hydrocarbons as diesel (TPHd). A sample collected at 10 feet bgs from B-3 was reported as not detected for all analytes. The remaining samples contained petroleum hydrocarbons at concentrations ranging from 7.72 to 188.8 parts per million (ppm) of TPHg and 0.07 to 17.1 ppm of benzene. Sample S-35-B1 also contained 1,325 ppm of TPHd. Groundwater was not encountered in the borings (AGS, 1987).

On August 21, 1987, soil boring B-4 was advanced by AGS to a total depth of 66.5 feet bgs (Figure 2). One soil sample collected at 35 feet bgs contained 100.5 ppm of TPHg, 1.4 ppm of benzene, and 1,835 ppm of TPHd. A second soil sample collected at 65 feet bgs was reported as not detected for TPHg, TPHd, and BTEX. Groundwater was not encountered in the boring (AGS, 1987a).

On December 2 through 7, 1987, AGS advanced three soil borings (B-5, B-6, B-7) to a total depth of 96.5 feet bgs and completed the borings as groundwater monitoring wells MW-1, MW-2, and MW-3 (Figure2). The wells were completed at depths of 96.5, 85, and 96.5 feet bgs, respectively. Saturated soil was initially encountered at approximately 80 feet bgs. Two soil samples collected at 35 and 70 feet bgs in boring B-5 were reported as not detected for TPHg, TPHd, and BTEX. One soil sample collected at 35 feet bgs in boring B-6 contained 15.0 ppm of TPHg, 6,300 ppm of TPHd and was not detected for benzene. One soil sample collected at 70 feet bgs in Boring B-6 were reported as not detected for TPHg, TPHd, and BTEX. A sample collected at 55 feet bgs in boring B-7 contained 390 ppm of TPHg, 1.3 ppm of benzene, and 220 ppm of TPHd. A sample collected at 75 feet bgs in boring B-7 contained 5.0 ppm of TPHg, 30.0 ppm of TPHd, and was not detected for BTEX. Groundwater samples collected from well MW-1, MW-2, and MW-3 contained petroleum hydrocarbon concentrations ranging from 0.0500 to 24.000 ppm of TPHg, 0.058 to 2.600 ppm of benzene, and 0.620 to 2.300 ppm of TPHd (AGS, 1987b).

A 1/2-mile radius well survey was performed by AGS in late 1987 or early 1988. A review of the Alameda County Flood Control and Water Conversation District - Zone 7 (Zone 7) files identified five water wells and two cathodic protection wells within the 1/2-mile radius of the site. Four of the five water wells are domestic wells and the fifth appears to be a monitoring well (AGS, 1987b and KEI, 1996).

Reportedly, in December 1987, the four 12,000-gallon USTs were replaced with two 12,000-gallon double-wall USTs. An unknown volume of contaminated soil was reportedly removed and transported to a Class I facility. The property and facilities were sold to the Unocal Corporation in February 1988 (KEI, 1996 and Enviros, 1995).

In September 1994, KEI performed soil sampling services during a dispenser and product piping upgrade at the site. A total of twelve trench soil samples were collected at approximately 3 feet bgs. Petroleum hydrocarbons were detected in the samples at concentrations ranging from not detected to 8,900 ppm of TPHg, and not detected to 65 ppm of benzene. Upon receipt of the analytical data, overexcavation was performed in the area of two soil samples with elevated hydrocarbon concentrations. Three soil samples were collected at approximately 9 feet bgs. The two overexcavation samples were reported to contain 13 and 17 ppm of TPHg and 0.020 to 0.029 ppm of benzene. The third soil sample, collected laterally between the two overexcavation samples contained 4,400 ppm of TPHg and 29 ppm of benzene (KEI, 1994).

On February 6 and 7, 1995, KEI destroyed monitoring well MW-2 and advanced two soil borings (MW-2B and EB-1). Boring MW-2B was completed as a monitoring well. Well MW-2 was destroyed due to asphalt tar being introduced into the well casing during repaving activities at the site. Soil boring EB-1 was drilled to a total depth of 66 feet bgs and well MW-2B was drilled and constructed to a total depth of 91 feet bgs (Figure 2). A total of twenty-nine soil samples were collected during boring EB-1 and MW-2B drilling activities. Samples collected from 5 to 50 feet bgs from EB-1 contained petroleum hydrocarbon concentrations ranging from 27 to 15,000 ppm of TPHg, 0.29 to 340 ppm of benzene, and 55 to 3,600 ppm of TPHd. Samples collected from 55 to 65 feet bgs from EB-1 contained petroleum hydrocarbon concentrations ranging from not detected to 6.4 ppm of TPHg, not detected to 0.89 ppm of benzene, and not detected for TPHd. Soil samples collected from 5 to 65 feet bgs in well boring MW-2B contained petroleum hydrocarbons concentrations ranging from 1.0 to 720 ppm of TPHg, not detected to 9.5 ppm of benzene, and not detected to 2,400 ppm of TPHd. Soil samples collected from 70 to 80 feet bgs in well boring MW-2B were reported as not detected for TPHg, BTEX, and TPHd (KEI, 1995).

Enviros was contracted to perform a Phase I Environmental Site Assessment for the site in early 1995 (Enviros, 1995).

On July 23 and 24, 1996, KEI advanced three soil borings and completed them as groundwater monitoring wells MW-4, MW-5 and MW-6 to total depths of 73.5 to 93 feet bgs. Well MW-4 was installed on-site and wells MW-5 and MW-6 were installed off-site on the former Southern Pacific Railroad right-of-way (Figure 2). A total of forty-seven soil samples were collected from the well borings and analyzed for TPHg, BTEX, and fuel fingerprinting. Soil samples from well boring MW-4 contained low concentrations of petroleum hydrocarbons ranging from not detected to 47 ppm of TPHg, not detected to 0.27 ppm of benzene, not detected to 15 ppm of TPHd. Soil samples collected in the upper 50 feet of well boring and NW-5 were reported as not detected for TPHg and TPHd, and contained benzene in concentrations ranging from not detected to 0.038 ppm. Samples collected

between 55 and 65 feet bgs in MW-5 contained petroleum hydrocarbon concentrations ranging from 32 to 560 ppm of TPHg, 0.28 to 3.9 ppm of benzene, and not detected to 450 ppm of TPHd. Samples collected from MW-6 contain petroleum hydrocarbon concentrations ranging from not detected to 5.0 ppm of TPHg, not detected to 1.2 ppm of benzene, and not detected for TPHd except for 200 ppm detected at 55 feet bgs. Petroleum hydrocarbon concentrations in the range of kerosene, motor oil, and unidentified extractable hydrocarbons were also identified in the samples collected from the well borings (KEI, 1996).

Free product was found in well MW-5 during quarterly monitoring activities on June 27, 1997. In December 1997, (Entrix) performed a forensic geochemical analysis of free product extracted from well MW-5. The Entrix study determined that the free product was most included mixture of over 50% refined gasoline and 50% heavier hydrocarbons. The gasoline constituents appeared to be relatively fresh according to Entrix. The heavier hydrocarbon mixture had a carbon distribution ranging from about nC13 to nC33. The distribution is similar in nature to a very weathered crude oil or Bunker C fuel, petroleum products such as diesel #2, motor oil, lube oil, etc., or mixtures of any of the above heavier hydrocarbons (Entrix, 1997).

Five onsite soil borings (B-8 through B-12) were advanced and two offsite downgradient groundwater monitoring wells (MW-7, MW-8) were installed by GR between June and August 1998 (Figure 2). A total of forty soil samples were collected from the soil and well borings and analyzed for TPHg, BTEX, MTBE, TPHd, and TPHo. Petroleum hydrocarbon concentrations in the soil samples range from not detected for all analytes for soil boring B-8 and well boring MW-7, to a maximum of 1,700 ppm of TPHg and 21 ppm of benzene (B-12 at 37.5 feet bgs), 14,000 ppm of TPHd, 2.6 ppm of MTBE (B-12 at 28.5 feet bgs), and 5,200 ppm of TPHo (B-11 at 10.5 feet bgs). Elevated concentrations of petroleum hydrocarbons were concentrated at 24.5 and 31 feet bgs in boring B-10, from the surface to 61 feet bgs in boring B-11, at 28.5, 37.5 and 47 feet bgs in boring B-12, and at 45.5 feet bgs in well boring MW-8. In addition, two soil samples containing visible free product were collected from boring B-11 (near the former UST excavation) at 10.5 and 61 feet bgs and submitted to Global Geochemistry Corp. for hydrocarbon fingerprinting chemical analysis. The results of these analyses was that the free product from both samples was composed of approximately 90% highly to severely weathered semi-volatile and high boiling components identified as crude oil and 10% of slightly weathered gasoline (GR, 1999).

Groundwater has been monitored on a quarterly basis from December 1994 to the present. Groundwater analytical data collected during monitoring indicates that free product or a product sheen has been present in well MW-5 since December 1996. Excluding MW-5, petroleum hydrocarbon concentrations in the groundwater on-and off-site has ranged from not detected to 23,000 ppb of TPHg, not detected to 950 ppb of benzene, not detected to 4,400 ppb of MTBE, and not detected to 4,000 ppb of TPHd. Depth to groundwater has fluctuated from approximately 49.63 to 87.26 feet bgs (GR, 1999a). The encountered water-bearing zone appears to be unconfined and controlled by the discontinuous nature of the alluvial fan deposits. The elevated water table identified in MW-5 is a result of the discontinuous nature of the alluvial fan deposits that underlie the site.

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Groundwater flow has ranged from southeast to northwest with a hydraulic gradient of approximately 0.07 to 0.1 feet/feet.

#### REGIONAL GEOLOGY

The subject site is located at the base of the northwest end of the Valle De San Jose. The site is underlain by Holocene age coarse grain alluvium interpreted to be alluvial fan deposits. These deposits are composed of unconsolidated, well bedded, moderately sorted, permeable sand and silt, with coarse sand and gravel becoming abundant toward fan heads and in narrow canyons (Helley, 1979). The site is also located approximately 1,000 feet west and north of Pliocene and/or Pleistocene non-marine sedimentary Livermore Gravel (Diblee, 1980).

Previous subsurface studies performed by AGS, KEI, and GR indicate the site is underlain by alluvium to a maximum explored depth of 96.5 feet bgs. The alluvium consists of interbedded layers of silts, sands, clays and gravels in both the vadose and saturated zones (KEI, 1996).

Groundwater has been historically reported at approximately 67.15 to 87.26 feet below top of casing (TOC) in wells MW-1, MW-2B, MW-3, MW-4, and MW-6. Groundwater in well MW-5 has been historically reported at 49.63 to 69.47 feet below TOC. The water-bearing zone appears to be unconfined beneath the site. Groundwater in well MW-5 has historically appeared "perched" and unconfined. Water table elevations in well MW-5 are generally 15 feet higher, compared to nearby well water table elevations (wells MW-6, MW-7 and MW-8). A review of Alameda County Flood Control and Water Conversation District-Zone 7 (1993) groundwater data determined that the regional groundwater flow direction in the vicinity of the site was toward the northwest. The nearest surface water is Arroyo Valle, located approximately 700 feet northwest of the site.

#### FIELD ACTIVITIES

Field work was performed in accordance with the GR Site Safety Plan No. 140107.04, dated October 1, and November 19, 1999, GR Field Methods and Procedures and Site Safety Plan are presented in Appendix B. Underground Service Alert (USA) was notified prior to beginning the drilling activities and a utility locator service was employed to clear each drilling location. Drilling and well installation was performed under Zone 7 Drilling Permit No. 99162 and Alameda County Public Works Agency Roadway Encroachment Permit No. R00-LD0401. A copy of the permits is included in Appendix C.

Soil boring B-13, located approximately 10 feet north of the subject site in an adjacent property's planter, was advanced to a total depth of 135.5 feet below ground surface (bgs) on November 22 and 23, 1999. This boring was advanced to collect additional information regarding the subsurface conditions, geologic information and investigation into the source of the "crude oil" or "heavy" hydrocarbon identified in off-site well MW-5. Two off-site soil borings were drilled on October 7 and November 21, 1999 and completed as groundwater monitoring wells MW-9 and MW-10,

respectively. The wells were installed to total depths of approximately 75 and 100 feet bgs, respectively. The purpose of installing these wells was to delineate impacted groundwater down- and cross-gradient. Locations of the borings and wells are shown on Figure 2.

All borings were drilled using a truck-mounted drill rig equipped with eight-inch diameter hollow stem augers. Drilling was performed by Woodward Drilling Company of Rio Vista, California (#C57 710079). A GR geologist observed the drilling and well installation activities, described the encountered soil, and prepared a log of each boring. Logs of the soil borings are included in Appendix C. Mr. Scott Seery of ACHSCA was present during some of the drilling activities.

Soil cuttings generated during drilling were placed on and covered with plastic sheeting and stored at the site pending disposal. Samples TS-1 (comp) and TS-2 (comp) were collected from the stockpiled soil cuttings and submitted to the laboratory to be composited and analyzed as one sample. Stockpile sampling procedures are presented in Appendix B. Water generated during the cleaning of the drilling equipment was placed in properly labeled drums and stored at the site pending disposal.

### Well Installation

Each well was constructed using 2-inch diameter Schedule 40 polyvinyl chloride (PVC) casing and 0.02-inch machine-slotted well screen. The annular space around the well screen in each well boring was packed with Lonestar #3 sand to approximately one foot above the top of the well screen. The sandpack in each well was followed by a bentonite transition seal and then completed with neat cement. The top of each well is protected by a vault box, locking well cap, and lock. Well construction details are included on the boring logs in Appendix C.

#### Well Monitoring, Development, and Sampling

Monitoring, development, and sampling of the two newly installed and six existing wells were performed by GR personnel. Copies of the well development and field monitoring data sheets are included in Appendix D.

Well MW-9 was developed on November 29, 1999 and sampled during the 4th Quarter 1999 monitoring and sampling event on December 6, 1999. Depth to groundwater in MW-9 was measured and checked for the presence of floating product prior to development. The well did not dewater during development, and yielded a minimum of 10 well casing volumes of purge water. Quarterly groundwater monitoring was performed and groundwater samples were collected in appropriate containers supplied by the laboratory. Well MW-10 was found to be dry on November 29 and December 6, 1999. Approximately 0.82 feet of floating product was measured in well MW-5 on December 6, 1999. Purge water generated during development and sampling procedures was discharged to a truck-mounted tank, then transported to the Tosco Refinery in Rodeo, California for disposal. Monitoring data are summarized in Table 1.

## Wellhead Survey

Following installation of the wells, the well casing elevations were surveyed by Virgil Chavez Land Surveying of Vallejo, California (California Land Surveyor No. 6323). Top of casing and vault box elevations were measured relative to MSL, and the horizontal locations of the wells surveyed. Horizontal locations of soil boring B-13 and other pertinent equipment were also surveyed. Well casing elevations are summarized in Table 1. A copy of the surveyor's report is included in Appendix E.

#### SUBSURFACE CONDITIONS

The unsaturated (vadose) zone is comprised predominantly of fill material overlying a fine-grained unit containing discontinuous strata, overlying a predominantly coarse-grained unit with silt and clay strata. The saturated zone is comprised of interbedded silts, sands, clay and gravels. Groundwater was initially encountered at depths of approximately 61.5 to 77 feet bgs. Two geologic cross sections (A-A' on Figure 3 and B-B' on Figure 4) were constructed from data generated during recent and previous drilling activities. Cross section locations are shown on Figure 2.

Prior to quarterly groundwater sample collection on December 6, 1999, GR personnel measured the depth to groundwater in wells MW-1 through MW-5 and MW-7 through MW-9 at 70.02 to 92.23 feet below top of well casing. Floating product was observed in well MW-5 during the December 6, 1999 monitoring episode. Wells MW-6 and MW-10 contained insufficient groundwater to measure. These data were used to construct a Potentiometric Map (Figure 5). Based on these data, the Potentiometric Map depicts a general groundwater flow of north with a calculated hydraulic gradient of 0.095 to 0.111 feet/feet. Well MW-4 displayed an anomalous depth to water of 92.23 feet below TOC, which was not used for construction of the Potentiometric Map. The groundwater in MW-4 may have been trapped in the bottom of the well casing, and therefore not representative of actual groundwater conditions. This map suggests the water in well MW-5 is perched relative to the other wells. The difference in the groundwater elevations may also be a result of lithological or structural constraints, or possibly some offset or displacement in the soils beneath the site in the area between MW-2B and MW-5 (Figures 3 and 4). The encountered water-bearing zone(s) appears to be unconfined.

#### CHEMICAL ANALYTICAL RESULTS

A total of twenty-eight soil samples from the soil borings, two composite samples from the stockpiled drill cuttings, five grab groundwater samples and eight groundwater monitoring well samples were collected and submitted for chemical analysis. Soil samples were selected using OVM data and geologic interpretation. Analyses of soil, grab groundwater, and monitoring well groundwater samples were performed by Sequoia Analytical of Redwood City, California (ELAP #1210). Two soil samples were tested for specific physical parameters to be used in future RBCA evaluations were

performed by PTS Laboratories, Inc. of Santa Fe Springs, California. Copies of the laboratory reports and chain-of-custody forms are included in Appendix F.

#### Chemical Analytical Procedures

Selected soil samples from the borings were analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene and xylenes (BTEX), and methyl tert-butyl ether (MtBE) according to Environmental Protection Agency (EPA) Method 5030/8015/8020. Grab groundwater samples were analyzed for TPHg, BTEX, and MTBE by EPA Methods 8020 and 8260. Quarterly groundwater samples were analyzed for TPHd, TPHg, BTEX, and MTBE by EPA Method 8020 and sample MW-9 was also analyzed for oxygenate compounds by EPA Method 8260. Soil stockpile sample TS-1 (comp) was analyzed for TPHg, BTEX, total lead, and reactivity, corrosivity and ignitability (RCI). Soil stockpile sample TS-2 (comp) was analyzed for TPHg, TPHd, TPHo, BTEX, total lead, STLC lead, and RCI. Quarterly groundwater chemical analytical data are summarized in Table 1 and shown on Figure 5. Grab groundwater sample chemical analytical data are summarized in Table 2 and shown on Figure 7. Soil chemical analytical data are summarized in Table 3 and shown on Figures 3 and 4.

## Soil Chemical Analytical Results

Soil Boring B-13

Nine soil samples collected from boring B-13 between 7.5 and 73.5 feet bgs contained petroleum hydrocarbons in concentrations ranging from not detected to 14,000 ppm of TPHg and an unidentified hydrocarbon with a carbon chain range of greater than C10, not detected to 100 ppm of benzene, and not detected to 0.18 ppm of MTBE. The highest petroleum hydrocarbon concentrations were identified at 28 and 46 feet bgs. Five soil samples collected between 85.5 and 126 feet bgs did not contain any petroleum hydrocarbons. Soil chemical analytical data are summarized in Table 3 and shown on Figure 4.

Well Boring MW-9

No petroleum hydrocarbons were detected in five soil samples collected between 16 and 60.5 feet bgs. In addition, field screening procedures conducted on retrieved soil samples also indicated an absence of petroleum hydrocarbons in well boring MW-9. Soil chemical analytical data are summarized in Table 3.

Well Boring MW-10

Nine soil samples collected from well boring MW-10 between 5.5 and 90.5 feet bgs were reported as not detected for TPHg, benzene, and MTBE, except for 9.7 ppm of TPHg and 0.035 ppm of benzene detected in the sample collected at 38 feet bgs and 240 ppm of TPHg and unidentified hydrocarbons

with a carbon chain range of C6-C12, 0.71 ppm of benzene, and 1.2 ppm of MTBE (not detected by EPA Method 8260) in the sample collected at 56 feet bgs. No soil samples were collected between 56 and 70 feet bgs due to the overdrilling and recovery of a piece of broken downhole drilling equipment. Soil chemical analytical data are summarized in Table 3 and shown on Figure 3.

## Groundwater Chemical Analytical Results

# Monitoring Well Groundwater Samples

Groundwater samples MW-1 through MW-4 and MW-7 through MW-9 were collected on December 6, 1999. The groundwater sample collected from MW-4 may have been collected from groundwater trapped in the bottom of the well casing, and therefore not representative of actual groundwater conditions. Approximately 0.82 feet of floating product was measured in Well MW-5. Wells MW-6 and MW-10 did not contain adequate groundwater for sample collection. Petroleum hydrocarbons were detected in all groundwater samples at concentrations ranging from not detected to 41,000 ppb (MW-3) of TPHg, not detected to 3,200 ppb (MW-3) of benzene, not detected to 4,200 ppb (MW-3) of TPHd, and not detected to 4,400 ppb (MW-2B) of MTBE. TPHg and TPHd concentrations detected also contained discrete peaks and unidentified hydrocarbons outside of normal TPHg and TPHd parameters. In addition, groundwater sample MW-9 was reported as not detected for oxygenate compounds except for 2.7 ppb of MTBE. See Table 1 for specific notes and explanations. Groundwater analytical data are illustrated on Figure 6.

## Grab Groundwater Samples

Grab groundwater sample G-1, collected from a perched groundwater zone at 55 feet bgs in boring MW-9, was reported as not detected at elevated detection limits for TPHg and BTEX, and 88 and 66 ppb of MTBE by EPA Methods 8020 and 8260, respectively.

A grab groundwater sample collected from well boring MW-10 at 90 feet bgs was reported as not detected for TPHg and benzene, and contained 28 and 34 ppb of MTBE by EPA Methods 8020 and 8260, respectively. A Hydropunch groundwater sample collected from boring MW-10 at 95 feet bgs was reported as not detected at an elevated detection limit for benzene, and contained 230 ppb of TPHg, and 52 and 54 ppb of MTBE by EPA Methods 8020 and 8260, respectively.

A grab groundwater sample collected from boring B-13 at 128.5 feet bgs contained 150 ppb of TPHg, 17 ppb of benzene, and 2.7 and 3.5 ppb of MTBE by EPA Methods 8020 and 8260, respectively. A Hydropunch groundwater sample collected from boring B-13 at 133 feet bgs contained 620 ppb of TPHg, 53 ppb of benzene, and 26.9 and 3.7 ppb of MTBE by EPA Methods 8020 and 8260, respectively. No grab or Hydropunch groundwater samples were collected above 128.5 feet bgs due to insufficient groundwater. Grab groundwater sample chemical analytical data are summarized in Table 2. These data were used to construct the attached groundwater concentration map (Figure 7).

## Stockpile Chemical Analytical Results

Soil stockpile sample TS-1(comp) was reported as not detected for TPHg and BTEX, and contained allowable concentrations of total lead. Soil stockpile sample TS-2 (comp) was reported as not detected for MTBE and STLC lead, and contained 25 ppm of TPHg, 0.011 ppm of benzene, 10 ppm of TPHd, 21 ppm of TPHo, 51 ppm of total lead. Sample analytical data are summarized in Table 3.

### RBCA Sample Results

Two soil samples (MW-10-3.5 and MW-10-13) were collected at 3.5 and 13 feet bgs, respectively from well boring MW-10, and analyzed for specific physical parameters. These data were collected for the possible future use in a RBCA evaluation. The PTS Laboratories, Inc. analytical report is included in Appendix E.

#### WASTE DISPOSAL

Approximately 116 gallons of waste water generated by cleaning the drilling equipment and well development procedures were removed from the site by GR, and transported to the Tosco Refinery in Rodeo, California, for treatment. A total of 9.81 tons of soil (drill cuttings) were removed from the site by Denbeste Transportation, Inc. of Windsor, California and transported to the Forward Incorporated facility in Manteca, California for disposal. A copy of the Forward disposal confirmation forms are included in Appendix G.

#### DISCUSSION

The purpose of this investigation was to collect additional site data to better understand the geology, potential migratory pathways, and determine whether petroleum hydrocarbons are present below the first regional aquifer through the installation of soil boring B-13. In addition, monitoring wells MW-9 and MW-10 were installed down- and cross-gradient of the site to delineate the dissolved hydrocarbons.

Geology and soil analytical data for soil boring B-13 resembles data previously derived from soil boring B-11 and well boring MW-2B. The highest concentrations of petroleum hydrocarbons in soil were encountered at 28 feet bgs (14,000 ppm of TPHg and 100 ppm of benzene). Soil samples collected below 85 feet bgs were reported as not detected for all petroleum hydrocarbons. Although groundwater-saturated soils were encountered at approximately 25, 66, 93, and 106 feet bgs, first sampleable groundwater was not encountered until 127 feet bgs. Grab and Hydropunch groundwater samples were collected at 128.5 and 133 feet bgs and contained detectable concentrations of petroleum hydrocarbons.

No petroleum hydrocarbons were detected in the soil samples collected from downgradient well boring MW-9. A perched zone grab groundwater sample collected at 55 feet bgs was reported as not

detected at an elevated detection limit for TPHg and BTEX and contained 88 and 66 ppb of MTBE by EPA Methods 8020 and 8260, respectively. The groundwater sample for MW-9 collected during the recent quarterly monitoring and sampling event was reported as not detected for TPHg and BTEX and contained 3.0 and 2.7 ppb of MTBE by EPA Methods 8020 and 8260, respectively. The screened interval for well MW-9 is from 55 to 75 feet bgs. Depth to groundwater in well MW-9 has ranged from 73.90 to 74.50 feet below TOC.

Lithology encountered in well boring MW-10 resembles lithology previously encountered in soil boring B-12. Petroleum hydrocarbon concentrations were only detected in soil samples from B-13 at depths of 38 and 56 feet bgs. The sample collected at 38 feet bgs contained 9.7 ppm of TPHg and 0.035 ppm of benzene and the sample collected at 56 feet bgs contained 240 ppm of TPHg, 0.71 ppm of benzene, and 1.2 ppm of MTBE. The grab groundwater sample collected at 90 feet bgs was reported as not detected for TPHg and benzene, and contained 28 and 34 ppb of MTBE by EPA Methods 8020 and 8260, respectively. The subsequent Hydropunch groundwater sample collected at 95 feet bgs was reported as not detected for benzene and contained 230 ppb of TPHg and 52 ppb (EPA 8020) and 54 ppb (EPA 8260) of MTBE. A Hydropunch sample was attempted at 100 feet bgs, but was not successful. Upon construction of well MW-10, groundwater was measured at approximately 90.55 feet bgs. No groundwater was detected in well MW-10 on November 29, 1999 during planned well development activities.

Geologic and hydraulic data generated during this investigation suggest the hydrogeologic conditions responsible for the elevated or perched water table identified in wells MW-5 MW-7, MW-8 and MW-9 as possibly a result of the discontinuous nature of the alluvial fan deposit or some small off-set or displacement of the soils that underlies the site (see cross-sections on Figures 3 and 4). Physical evidence of a possible fault or displacement feature still has not been identified and is suggested based on the cross-section interpretation.

Groundwater data from the grab/Hydropunch and quarterly groundwater samples indicate that petroleum hydrocarbons are present in groundwater at low concentrations down- and cross-gradient (north and northeast) of the site. The dissolved groundwater is predominantly defined downgradient. The vertical extent is most complex, given the imbricated potentiometric surface demonstrated at the site. First sampleable groundwater in boring B-13, located in the "displaced zone", was at 128.5 feet bys. This is approximately 40 feet deeper than MW-3, which is located 40 feet away from B-13. The groundwater samples collected from B-13 contained very low concentrations of TPHg, benzene, and MTBE.

#### DISTRIBUTION

GR recommends that a copy of this report be forwarded to Mr. Chuck Headlee of the California Regional Water Quality Control Board, San Francisco Bay Region at 1515 Clay Street Suite 1400, Oakland, California 94612 and Mr. Scott Seery of the Alameda County Health Care Services Agency at 1131 Harbor Bay Parkway, 2nd Floor, Alameda, California 94502.

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Table 1
Groundwater Monitoring Data and Analytical Results

					1 (Custinton	, Camonia				- 1 (10 m John 1650 to	kankadan eta Bigaga urida 14
				Product							
Well ID/	Date	DTW	GWE	Thickness	TPH(D)	TPH(G)	В	T	E	X	MTBE
TOC*		(ft.)	(msl)	(fl.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
		<del></del>			•	,			ND.	10	
MW-1	12/08/87 <sup>1</sup>	••	-		$2,100^2$	50 <sup>3</sup>	58	8.0	ND	10	
366.99	12/07/94	81.04	285.95	0.00		ND	ND	ND	ND	ND	
	03/01/95	80.09	286.90	0.00	120	ND	ND	1.1	ND	1.3	
	06/01/95	77.53	289.46	0.00	54 <sup>5</sup>	130	1.0	2.9	0.79	4.5	6
	09/06/95	79.00	287.99	0.00	690	ND	ND	ND	ND	ND	
	12/12/95	77.55	289.44	0.00	190 <sup>5</sup>	ND	ND	ND	ND	ND	
	03/01/96	75.09	291.90	0.00	56	ND	ND	ND	ND	ND	370
	06/15/96	75.07	291.92	0.00	ND	ND	ND	ND	ND	ND	270
	09/18/96	79.90°	287.09	0.00	130 <sup>5</sup>	ND	ND	ND	ND	ND	590
	12/21/96	78.96	288.03	0.00	ND	ND	ND	ND	ND .	ND	150
	03/07/97	71.49	295.50	0.00	ND	ND	ND	ND	ND	ND	220
	06/27/97	80.05	286.94	0.00	ND	ND	ND	ND	ND	ND	17
	09/29/97	80.04	286.95	0.00	ND	ND	ND	ND	ND	ND	24
	12/15/97	80.07	286.92	0.00	ND	ND	ND	ND	ND	ND	25
	03/16/98	71.00	295.99	0.00	ND	ND	ND	0.52	ND	0.71	190
366.98	05/16/98	79.29	287.69	0.00	ND	59 <sup>13</sup>	0.90	ND	ND	ND	570
300.70	08/18/98	79.93	287.05	0.00							,
	09/22/98	79.99	286.99	0.00	240 <sup>20</sup>	ND	ND	ND	ND	ND	. 170
	12/15/98	80.02	286.96	0.00	ND	ND	ND	ND	ND	ND	63
		80.02	286.96	0.00						`	**
	12/23/98	78.95	288.03	0.00	67 <sup>24</sup>	NDII	ND <sup>11</sup>	NDII	ND <sup>11</sup>	ND <sup>11</sup>	520
	03/15/99	78.69	288.29	0.00							-
	03/23/99		287.16	0.00	ND	ND	ND	ND	ND	ND	310
	06/07/99	79.82		0.00	76 <sup>19</sup>	ND	ND	ND	ND	ND	67/55.2 <sup>27</sup>
	09/03/99	79.74	287.24		ND	ND	ND	ND	ND	ND	120
	12/06/99	79.74	<b>287.24</b>	0.00		NU	ND	ND.	110		
MW-2	12/08/87				620²	1,800 <sup>3</sup>	910	800	260	1,200	
14 <b>2 14 -7</b>	12/03/87	DAMAGED									_
	02/07/95	DESTROYED		·			<b></b>				'

Table 1
Groundwater Monitoring Data and Analytical Results

Total Comment	alexand in the second	0.10.10.00.00.000			1 (Casamon	, Carrotina				1000	alabadas Cilbera
			ALLES TO SERVICE AND ADDRESS OF THE PERSON ADDRESS OF THE PERSON AND ADDRESS OF THE PERSON ADD	Product	TPH(D)	TPH(G)	В	T	E	x	MTBE
Well ID/	Date	DTW	GWE	Thickness		= :	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
TOC*		(ft.)	(msl)	(Jr.)	(ppb)	(ppb)	(PPV)	(PPV)	VP-9.	18 8 7 7 1 ( 1 Y)	The second secon
MW-2B											
365.05	03/01/95	80.80	284.25	0.00	320	ND	ND	ND	ND	ND	
505.05	06/01/95	75.69	289.36	0.00	280	350	19	5.8	ND	7.7	6
	09/06/95	77.54	287.51	0.00	ND	ND	90	ND	ND	ND	7
	12/12/95	75.96	289.09	0.00	850 <sup>4</sup>	1,200	630	ND	15	57	
	03/01/96	73.27	291.78	0.00	<b>8</b> 70⁴	1,000	620	ND	ND	5.3	4,300
	06/15/96	73.21	291.84	0.00	420	910	350	ND	ND	ND	3,700
	09/18/96	81.08	283.97	0.00	600	1,200	95	ND	ND	ND	5,200
	12/21/96	77.35	287.70	0.00	470	330 <sup>8</sup>	57	ND	ND	ND	2,900
	03/07/97	69.67	295.38	Sheen	870⁴	190	28	0.64	ND .	1.5	4,300
	06/27/97	82.40	282.65	0.00	680 <sup>4</sup>	98	3.4	1.0	0.53	ND	3,100
	09/29/97	82.72	282.33	0.00	430	ND	ND	ND	ND	ND	3,000
	12/15/97	82.72	282.48	0.00	490	54 <sup>9</sup>	ND	ND	ND	ND	4,100
	03/16/98	69.13	295.92	Sheen	4,00010	ND <sup>11</sup>	17	ND	ND <sup>11</sup>	ND <sup>11</sup>	4,400
265.05	05/16/98	77.78	287.27	0.00	790 <sup>14</sup>	ND	ND	ND	ND	ND	4,000
365.05		83.99	281.06	0.00		<del></del>		<u></u> .			
	08/18/98	83.89	281.16	0.00	930 <sup>20</sup>	ND <sup>11</sup>	ND <sup>11</sup>	NDII	ND <sup>11</sup>	21	4,600
	09/22/98	83.8 <del>9</del> 82.84	282.21	0.00	600	ND	ND	NĎ	ND	ND	5,100
	12/15/98	82.55	282.50	0.00							
	12/23/98	77.31	287.74	0.00	390 <sup>25</sup>	NDII	NDII	ND <sup>11</sup>	ND	NDII	4,300/4,800 <sup>27</sup>
	03/15/99		287.74	. 0.00	J/0		••	-			
	03/23/99	77.06		0.00	770 <sup>25</sup>	ND <sup>11</sup>	ND	$ND^{11}$	ND <sup>11</sup>	ND''	5,100
	06/07/99	82.96	282.09		870 <sup>20</sup>	ND <sup>11</sup>	ND <sup>II</sup>	ND <sup>11</sup>	ND <sup>11</sup>	ND <sup>11</sup>	6,300/4,400 <sup>27</sup>
	09/03/99	84.16	280.89	0.00	850 <sup>32</sup>	ND <sup>11</sup>	ND <sup>II</sup>	ND <sup>11</sup>	ND <sup>11</sup>	ND	4,400
-	12/06/99	84.41	280.64	0.00	950	ND	ND	112	1,2		•
1017.7	12/09/07				2,300²	24,000³	2,600	1,300	160	660	
MW-3	12/08/87		281.47	0.00	_,500	ND	ND	ND	ND	ND	
367.01	12/07/94	85.54		0.00	140 <sup>4</sup>	ND	ND	1.1	ND	1.1	
	03/01/95	83.20	283.81		140 140 <sup>5</sup>	62	7.8	0.90	ND	1.6	· 
	06/01/95	77.60	289.41	0.00	880 <sup>5</sup>		7.8 380	490	130	710	6
	09/06/95	79.28	287.73	0.00		4,100				5,300	
	12/12/95	77.73	289.28	0.00	3,100 <sup>4</sup>	19,000	600	380	2,100		59
	03/01/96	75.18	291.83	0.00	1,500 <sup>5</sup>	3,400	950	3.2	1,900	290	29

Table 1
Groundwater Monitoring Data and Analytical Results

					Ficasanton	. a Stavinski tilotopia sa					
				Product				and the second s		x	MTBE
Well ID/	Date	DTW	GWE	Thickness	TPH(D)	TPH(G)	В	T	E	1 111 - 1	(문학생인 기계 가는 아이들에게 하는 사용을 다
TOC*		(ft.)	(msl)	(fl.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
			<b>601.00</b>	. 0.00	400 <sup>4</sup>	780	190	8.8	3.8	4.0	630
MW-3	06/15/96	75.13	291.88	0.00		2,800	340	12	11	110	2,500
(cont)	09/18/96	82.84	284.17	0.00	170 64 <sup>4</sup>	2,800 51	1.3	ND	ND	0.53	20
	12/21/96	79.29	287.72	0.00			53	14	29	68	220
	03/07/97	71.58	295.43	0.00	570 <sup>4</sup>	1,400	ND	ND	ND	ND	27
	06/27/97	83.27	283.74	0.00	ND	ND	ИD	ND	ND	ND	11
	09/29/97	83.33	283.68	0.00	ND	ND		ND	ND	ND	19
	12/15/97	83.35	283.66	0.00	ND	ND	ND	1.9	1.5	1.6	210
	03/16/98	71.07	295.94	0.00	670 <sup>10</sup>	130 <sup>12</sup>	6.5	1.9 ND <sup>11</sup>	ND <sup>II</sup>	1.9	490
367.03	06/26/98	79.65	287.38	0.00	6313	40015	15				
	08/18/98	83.29	283.74	0.00							 24
	09/22/98	83.33	283.70	0.00	95 <sup>20</sup>	ND	ND	ND	ND	ND	
	12/15/98	83.29	283.74	0.00	ND	ND	ND	ND	ND	ND	18
	12/23/98	83.28	283.75	0.00							1 200
	03/15/99	79.19	287.84	0.00	$3,500^{26}$	26,000	3,100	270	2,200	3,100	1,300
	03/23/99	78.92	288.11	0.00							
	06/07/99	83.22	283.81	0.00	ND	ND	ND	ND	0.63	ND	29
	09/03/99	83.31	283.72	0.00	2,900 <sup>20</sup>	23,000 <sup>30</sup>	770	NDII	980	6,400	280/82.4 <sup>27</sup>
	12/06/99	83.41	283.62	0.00	4,20020	41,000 <sup>30</sup>	3,200	3,500	1,300	8,300	ND <sup>11</sup>
								-			
MW-4 369.03	09/18/96	73.67	295.36	0.00	200	160	14	ND	ND	1.6	ND
307.03	12/21/96	77.69	291.34	- : 0.00	ND	ND	ND	ND	ND	ND	ND
	03/07/97	68.04	300.99	0.00	ND	ND	1.9	0.99	ND	1.5	ND
		79.06	289.97	0.00	ND	ND	ND	ND	ND	ND	ND
	06/27/97		283.20	0.00	ND	ND	ND	ND	ND	ND	ND
	09/29/97	85.83		0.00	ND	ND	ND	ND	ND	ND	ND
	12/15/97	87.26	281.77			ND	ND	0.69	ND	0.82	ND
	03/16/98	75.09	293.94	0.00	ND 630 <sup>16</sup>	100 <sup>13</sup>		ND	ND	ND	ND
368.81	06/26/98	73.81	295.00	0.00		•	62				
	08/18/98	78.75	290.06	0.00	 20		> >10>		ND.	NID.	
	09/22/98	83.95	284.86	0.00	74 <sup>20</sup>	ND	ND	ND	ND	ND	2.8
	12/15/98	85.41	283.40	0.00	ND	ND	ND	ND	ND	ND	ND
	12/23/98	84.95	283.86	0.00							

Table 1
Groundwater Monitoring Data and Analytical Results

Pleasanton, California

				Product			de estados				
Well ID/	Date	DTW	GWE	Thickness	TPH(D)	TPH(G)	В	T	E	X	MTBE
TOC*		(ft.)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
						MD	ND	ND	ND	ND	ND
MW-4	03/15/99	78.47	290.34	0.00	ND	ND		ND 			
(cont)	03/23/99	77.37	291.44	0.00	••			ND	ND	ND	ND
	06/07/99	76.60	292.21	0.00	ND	ND	ND		ND	ND	ND/ND <sup>27</sup>
	09/03/99	87.23	281.58	. 0.00	66 <sup>19</sup>	ND	ND	ND	ND	ND	ND
	12/06/99	92.23	276.58	0.00	95 <sup>13</sup>	ND	ND	ND	ND	ND	110
MW-5					. <u>.</u>						4.100
363.23	09/18/96	64.20	299.03	0.00	4,7005	36,000	6,700	410	730	6,500	4,100
	12/21/96	61.77	301.46	Sheen	4,700 <sup>4</sup>	25,000	3,200	300	780	3,600	2,600
	03/07/97	56.30	306.93	Sheen	2,100 <sup>4</sup>	14,000	1,300	120	410	1,200	1,700
	06/27/97	68.88	295.03**	0.90		D DUE TO THI					
	09/29/97	69.47	294.02**	0.35		D DUE TO TH					
	12/15/97	64.92	298.53**	0.30		D DUE TO TH					· . ••
	03/16/98	49.63	313.67**	0.09		D DUE TO THE	E PRESENCE	OF FREE PROI			
363.21	06/26/98	64.13	299.08	Sheen	230,00017	490 <sup>18</sup>	6.3	2.8	4.2	5.1	10
•	08/18/98	70.40	292.81**	0.005						••	
	09/22/98	69.10	294.16**	0.06	NOT SAMPLE	D DUE TO TH	E PRESENCE	OF FREE PRO	DUCT		
	12/15/98	68.84	294.50**	0.17	NOT SAMPLE	ED DUE TO TH	E PRESENCE	OF FREE PRO	DUCT		
	12/23/98	68.42	295,18**	0.50							
	03/15/99	63.81	299.59**	0.25							
	03/23/99	63.59	299.72**	0.13							
	06/07/99	68.25	295.59**	0.82	4,700,000 <sup>26</sup>	210,000	6,700	3,700	5,000	20,000	11,000/4,000 <sup>27</sup>
	09/03/99	69.38	294.37**	0.70		ED DUE TO TH	E PRESENCE	OF FREE PRO	DUCT		
	12/06/99	70.02	293.82**	0.82	NOT SAMPL	ED DUE TO TI	HE PRESENC	E OF FREE P	RODUCT		-
2001			a a	· .							
MW-6	00/18/07	70.07	204.05	0.00	ND	160	5.4	ND	ND	ND	ND
363.12	09/18/96	79.07	284.05		ND ND	300 <sup>8</sup>	96	1.3	ND ND	1.7	21
	12/21/96	75.40	287.72	0.00		1,800 <sup>8</sup>		1.3	ND ND	31	290
	03/07/97	67.61	295.51	0.00	190 <sup>4</sup>	•	920				
	06/27/97	80.45	282.67	0.00	73 <sup>5</sup>	ND	0.73	ND	ND	38	38
	09/29/97	86.02	277.10	0.00	ND	62 <sup>9</sup>	ND	ND	ND	ND	43

7376.xls/#180075

As of 12/06/99

Table 1
Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376

4191 First Street

MW-6						Ficasamon	, Camorina					
MW-6 12/15/97 84.03 279.09 0.00 ND 78° ND	400000000000000000000000000000000000000	Date	2000 1000.0000 to 2000 process (2000)		Thickness	100	• •				X (ppb)	MTBE (ppb)
(cont) 03/16/98 67.15 295.97 0.00 100° 210'1 36 2.5 ND 3 363.13 06/26/98 75.71 287.42 0.00 180'4 530 300 8.3 2.8 8 08/18/98 74.86 288.27 0.00		***************************************		<u></u>			<del></del> .					22
(cont) 03/16/98 67.15 295.97 0.00 100 <sup>10</sup> 210 <sup>12</sup> 36 2.5 ND 3 363.13 06/26/98 75.71 287.42 0.00 180 <sup>14</sup> 530 300 8.3 2.8 8 08/18/98 74.86 288.27 0.00	MW-6	12/15/97	84.03	279.09	0.00						ND	39
08/18/98 75.71 287.42 0.00 180 530 300 8.3 2.8 0 08/18/98 74.86 288.27 0.00				295.97	0.00		21012				3.0	64
08/18/98 74.86 288.27 0.00				287.42	0.00	18014	530	300	8.3	2.8	8.7	81
09/22/98 UNABLE TO LOCATE	303.13				0.00							
12/15/98 UNABLE TO LOCATE  12/23/98 80.80 282.33 0.00 120 <sup>21</sup> 1.1 ND ND 0.00 0.123/99 80.68 282.45 0.00 ND												
12/23/98 80.80 282.33 0.00 - 120 <sup>23</sup> 1.1 ND ND 0.01/23/99 80.68 282.45 0.00 ND								<del></del>				
01/23/99 80.68 282.45 0.00 ND					0.00	•-	120 <sup>23</sup>	1.1	ND	ND	0.78	25
03/15/99 75.29 287.84 0.00 71 <sup>24</sup> 62 <sup>22</sup> 1.4 ND ND ND ND 03/23/99 75.03 288.10 0.00					0.00	ND						
03/23/99 75.03 288.10 0.00 160 <sup>28</sup> ND					0.00	71 <sup>24</sup>	62 <sup>22</sup>	1.4	ND	ND	ND	23
06/07/99 82.27 280.86 0.00 160 <sup>28</sup> ND ND ND ND ND ND ND ND 09/03/99 87.49 275.64 0.00 INSUFFICIENT WATER TO SAMPLE					0.00					•		
MW-7 355.97 06/26/98					0.00	160 <sup>28</sup>	ND	ND	ND	ND	ND	18
MW-7  355.97 06/26/98						INSUFFICIEN	T WATER TO S	AMPLE				_ <del></del>
MW-7 355.97 06/26/98									-	-		-
08/18/98 68.75 287.22 0.00 1,400 <sup>20</sup> 4,000 1,900 48 160 N 09/22/98 66.35 289.62 0.00 780 <sup>20</sup> 3,200 1,100 ND 22 1 12/15/98 65.03 290.94 0.00 350 <sup>21</sup> 1,900 <sup>22</sup> 180 2.7 2.9 12/23/98 64.82 291.15 0.00		06/26/08					øj.		••			
08/18/98 68.75 287.22 0.00 1,400 4,600 1,5	355.97					1.400 <sup>20</sup>		1 900			ND <sup>11</sup>	1,700
12/15/98 65.03 290.94 0.00 350 <sup>21</sup> 1,900 <sup>22</sup> 180 2.7 2.9 12/23/98 64.82 291.15 0.00											ND	1,500
12/15/98 65.03 290.94 0.00 350 1,500 100 100 110 12/23/98 64.82 291.15 0.00											3.8	1,400
12/23/98 64.82 291.15 0.00 1.100 ND <sup>11</sup> 30 03/15/99 60.44 295.53 0.00 460 <sup>26</sup> 2,700 1,100 ND <sup>11</sup> 30 03/23/99 60.43 295.54 0.00												, 
03/23/99 60.43 295.54 0.00											16	1,400/9 <b>7</b> 0 <sup>27</sup>
03/23/99 60.43 293.34 0.00 0.00 0.00 0.00 0.00 0.00 0.00					•							
06/07/99 64.48 291.49 0.00 350 2500 150 09/03/99 69.98 285.99 0.00 550 <sup>20</sup> 870 <sup>30</sup> 69 ND <sup>11</sup> ND <sup>11</sup> N 12/06/99 70.18 285.79 0.00 220 <sup>20</sup> 1,900 <sup>31</sup> 350 ND <sup>11</sup> ND <sup>12</sup> N											13	1,200
12/06/99 70.18 285.79 0.00 220 <sup>20</sup> 1,900 <sup>31</sup> 350 ND <sup>11</sup> ND <sup>11</sup> N											ND <sup>11</sup>	1,100/872 <sup>27</sup>
12/06/99 /0.16 283:77 0.00 220 1700 MW-8											ND <sup>11</sup>	1,100
MW-8		12/06/99	70.18	285.79	0.00	220-	1,900		ND	ND	112	1,100
	MW-8				•							
362.37 06/26/98 63.00 299.37 0.00 80 <sup>19</sup> ND 6.0 ND ND	362.37	06/26/98	63.00	299.37	0.00	80 <sup>19</sup>	ND	6.0	ND	ND	ND	150
08/18/98 73.38 288.99 0.00		08/18/98	73.38	288.99	0.00							
09/22/98 70.89 291.48 0.00 120 <sup>20</sup> ND ND ND ND		09/22/98	70.89	291.48	0.00	120 <sup>20</sup>	ND	ND	ND	ND	ND	9.5
12/15/98 70.29 292.08 0.00 ND ND ND ND ND ND		12/15/98	70.29	292.08	0.00	ND	ND	ND	ND	ND	ND	3.0

Table 1
Groundwater Monitoring Data and Analytical Results

3/98 5/99 ( 3/99 7/99 3/99 6/99	70.03 UNABLE TO LO 64.86 68.30 73.92 74.98	GWE (msl) 292.34 OCATE 296.97 293.53 287.91 286.85	Product Thickness (ft.)  0.00 0.00 0.00 0.00 0.00	TPH(D) (ppb) 60 <sup>24</sup> ND 130 <sup>19</sup>	TPH(G) (ppb)   ND ND	B (ppb)   ND	T (ppb)   0.77	E (ppb) ND	X (ppb)   0.96	MTBE (ppb)   190
3/98 5/99 \ 3/99 7/99 3/99	70.03 UNABLE TO LC 64.86 68.30 73.92	292.34 DCATE 296.97 293.53 287.91	(ft.) 0.00  0.00 0.00 0.00	(ppb)   60 <sup>24</sup> ND	<i>(ppb)</i>   ND	(ppb) 	(ppb)  	(ppb)  	(ppb) 	<i>(ppb)</i>  
3/98 5/99 \ 3/99 7/99 3/99	70.03 UNABLE TO LC 64.86 68.30 73.92	292.34 OCATE 296.97 293.53 287.91	0.00  0.00 0.00 0.00	  60 <sup>24</sup> ND	  ND					
5/99 ( 3/99 7/99 3/99	70.03 UNABLE TO LO 64.86 68.30 73.92	292.34 OCATE 296.97 293.53 287.91	0.00 0.00 0.00	60 <sup>24</sup> ND	 ND					  100
5/99 ( 3/99 7/99 3/99	UNABLE TO LC 64.86 68.30 73.92	296.97 293.53 287.91	0.00 0.00 0.00	60 <sup>24</sup> ND	 ND					  100
5/99 ( 3/99 7/99 3/99	64.86 68.30 73.92	296.97 293.53 287.91	0.00 0.00 0.00	60 <sup>24</sup> ND	ND					100
3/99 7/99 3/99	64.86 68.30 73.92	296.97 293.53 287.91	0.00 0.00	ND		ND	0.77	ND	0.96	
7/99 3/99	68.30 73.92	287.91	0.00		ND					
3/99	73.92			130 <sup>19</sup>		ND	ND	ND	ND	ND 170/146 <sup>27</sup>
		286.85	0.00		ND	ND	0.57	ND	ND	
				160 <sup>19</sup>	ND	ND	ND	ND	ND	150
		-	•							
								,		
9/99	74.50	280.35	0.00					`.	 N/D	3.0/2.7 <sup>27</sup>
6/99	74.35	280.50	00.0	ND	ND	ND	ND	ND	ND	3.0/2.7
29/99	DRY					<del></del>		<b></b>	_	
)6/99	DRY		·	<del></del>		-		-		
16/98					ND	ND	ND			ND
					ND	ND	ND			ND
			. :		ND	ND	ND			ND
					ND	ND	ND	ND		ND
				•••	ND	ND -	ND	ND		ND
23/98					ND	ND	ND	ND	ND	ND
					ND	ND	ND	ND	ND	ND
					ND	ND	ND	ND	ND	ND
					ND	ND	ND	ND	ND	ND
					ND	ND	ND	ND	ND	ND
				**			ND	ND	ND	ND
166 129 166 182 167 167 167 167 167 167 167 167 167 167	5/99 5/99 5/98 5/98 3/98 2/98	74.35  774.35  7799  DRY  7899  DRY  7899  DRY  7899	7/99 74.35 280.50  7/99 DRY	7/99 74.35 280.50 0.00  7/99 DRY	7/99 74.35 280.50 0.00 ND  7/99 DRY  7/99 DRY  7/99 DRY  7/98  8/98  8/98  8/98  8/98  8/98  7/99  7/99  7/99  7/99  7/99  7/99  7/99  7/99	7/99 74.35 280.50 0.00 ND ND  7/99 DRY ND  7/99 DRY ND  7/98 ND  7/98 ND  7/98 ND  7/98 ND  7/98 ND  7/98 ND  7/99 ND	7/99	7/99 DRY	1/99	

#### Table 1

### Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376 4191 First Street Pleasanton, California

#### **EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to March 16, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing

B = Benzene

ppb = Parts per billion

DTW = Depth to Water

T = Toluene

ND = Not Detected

E = Ethylbenzene

-- = Not Measured/Not Analyzed

(ft.) = FeetGWE = Groundwater Elevation

X = Xylenes

msl = Relative to mean sea level

MTBE = Methyl tertiary butyl ether

TPH(G) = Total Petroleum Hydrocarbons as Gasoline

- TOC elevations have been surveyed relative to mean sea level (msl) per City of Pleasanton Benchmark V1, a brass disk on the north curb of Ray Street, approximately 200 feet northwest of the centerline of First Street (Elevation = 367.17 feet msl). On March 22, 1999, MW-8 was re-surveyed and on November 26, 1999, MW-9 and MW-10 were surveyed, the Benchmark was a cut "+" on a concrete transformer pad on the north side of the property to the northwest (Elevation = 353.92 feet, msl).
- Groundwater elevation corrected for the presence of free product; correction factor = [(TOC-DTW)+(Product Thickness x 0.75)].
- 1,2-Dichloroethene (1,2-DCE) was detected at a concentration of 18 ppb.
- Reported as Total Extractable Hydrocarbons (TEH).
- Reported as Total Petroleum Hydrocarbons (TPH).
- Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- Laboratory report indicates the hydrocarbons detected did not appear to be diesel.
- Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
- Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.
- Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- Laboratory report indicates diesel and unidentified hydrocarbons >C16.
- 11 Detection limit raised. Refer to analytical reports.
- Laboratory report indicates gasoline and unidentified hydrocarbons <C7. 12
- Laboratory report indicates discrete peaks.
- Laboratory report indicates diesel and unidentified hydrocarbons >C20.
- Laboratory report indicates discrete peaks and unidentified hydrocarbons < C7.
- Laboratory report indicates diesel and unidentified hydrocarbons <C15.
- Laboratory report indicates diesel and unidentified hydrocarbons <C15 and >C20. 17
- Laboratory report indicates gasoline and unidentified hydrocarbons >C8.
- Laboratory report indicates unidentified hydrocarbons >C16.
- Laboratory report indicates unidentified hydrocarbons C9-C24.
- Laboratory report indicates diesel and unidentified hydrocarbons <C12.
- Laboratory report indicates unidentified hydrocarbons C6-C12.
- Laboratory report indicates unidentified hydrocarbons C6-C9.

## Table 1

# Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376 4191 First Street Pleasanton, California

- Laboratory report indicates unidentified hydrocarbons >C14.
- Laboratory report indicates unidentified hydrocarbons >C10.
- Laboratory report indicates unidentified hydrocarbons >C9.
- MTBE by EPA Method 8260. Other oxygenate compounds were reported as not detected.
- Laboratory report indicates unidentified hydrocarbons >C15.
- Laboratory report indicates gasoline and unidentified hydrocarbons >C6.
- Laboratory report indicates gasoline C6-C12.
- Laboratory report gasoline C6-C12 + unidentified hydrocarbons <C6.
- 32 Laboratory report indicates unidentified hydrocarbons C9-C40.

# TABLE 2 - GRAB GROUNDWATER CHEMICAL ANALYTICAL DATA

Tosco (Unocal) Service Station No. 7376 4191 First Street Pleasanton, California

Sample	Sample	Date Collected	TPHg	Benzene	Toluene	Ethyl- benzene	Xylenes	MTBE by 8020/8260
Location and ID	Depth (feet)	Conecteu	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
Boring B-13		11/00/00	150	17	13	7.6	35	2.7/3.5
B-13-128.5	128.5	11/23/99	150				140	6.9/3.7
B-13-133	133	11/23/99	620	53	43	30	140	0.9/3.7
Well Boring N	∕W-9							
G-1	55	10/7/99	ND'	ND'	ND'	ND'	ND,	88/66
Well Boring N	/IW-10							
MW-10-90	90	11/21/99	ND	ND	ND	ND	1.1	28/34
MW-10-95	95	11/21/99	230	ND,	ND'	ND'	4.6	5254

## **EXPLANATION:**

**ANALYTICAL LABORATORY:** 

feet = feet below ground surface

ppb = parts per billion

ND = not detected

Sequoia Analytical (ELAP #1210)

## **ANALYTICAL METHODS:**

TPHg = Total Petroleum Hydrocarbons as gasoline according to EPA Method 8015 Modified.

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes according to EPA Method 8020.

MTBE = Methyl t-Butyl Ether according to EPA Methods 8020 and 8260.

<sup>&</sup>lt;sup>1</sup> Elevated detection limit. See analytical report for limits.

# TABLE 3 - SOIL CHEMICAL ANALYTICAL DATA

Tosco (Unocal) Service Station No. 7376 4191 First Street Pleasanton, California

Sample	Sample	Date	TPHg	Benzene	Toluene	Ethyl- benzene	Xylenes	MtBE
Location and ID	Depth (feet)	Collected	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
and 112	<u> </u>							
Boring B-13		•	1	?	2.2	$ND^2$	1.1	$ND^2$
B-13-7.5	7.5	11/22/99	93 <sup>1</sup>	$ND^2$	2.3 ND	ND ND	ND	ND
B-13-15.5	15.5	11/22/99	ND	ND		240	1200	$ND^2$
B-13-28	28	11/22/99	14000 <sup>1</sup>	100 🕏	92	•		$ND^2$
B-13-38.5	38.5	11/22/99	65 <sup>1</sup>	0.40	0.088	0.092	0.31	$ND^2$
B-13-46	46	11/22/99	330¹∞	6.7	$ND^2$	7.0	21	
B-13-51	51	11/22/99	<b>72</b> <sup>1</sup>	0.58	0.32	0.97	3.8	$ND^2$
B-13-57	57	11/22/99	6.2 <sup>1</sup>	0.67	0.30	0.068	0.24	0.18
B-13-63	63	11/22/99	2.0	0.38	0.22	0.013	0.16	ND
B-13-73.5	73.5	11/22/99	ND	0.0052	0.0075	ND	0.024	0.058
B-13-85.5	85.5	11/22/99	ND	. ND	ND	ND	ND	ND
B-13-101.5	101.5	11/22/99	ND	ND	ND	ND	ND ′	ND
B-13-106	106	11/23/99	ND	ND	ND	ND	ND	ND ND
B-13-123.5	123.5	11/23/99	ND	ND	ND	ND	ND ND	ND
B-13-126	126	11/23/99	ND	ND	ND	ND	ND	ND
Well Boring MW-9					·		ND	ND
MW-9-16	16	10/7/99	ND	ND	ND	ND	ND ND	ND
MW-9-30.5	30.5	10/7/99	ND	ND	ND	ND ND	ND ND	ND ND
MW-9-41	41	10/7/99	ND	ND	ND	ND	ND	ND
MW-9-46.5	46.5	10/7/99	ND	ND	ND	ND ND	ND	ND ND
MW-9-60.5	60.5	10/7/99	ND	ND	ND	ND	ND	ND.
Well Boring MW-10					MD	ND	ND	ND
MW-10-5.5	5.5	11/21/99	ND	ND ·	ND	ND ND	ND ND	ND ND
MW-10-16.5	16.5	11/21/99	ND	ND	ND	ND	ND ND	ND ND
MW-10-25.5	25.5	11/21/99	ND	ND	ND	ND		
MW-10-38	38	11/21/99	9.7	0.035	0.034	0.062	0.11	ND <sup>2</sup>
MW-10-44	44	11/21/99	ND	ND	ND	ND	ND	ND
MW-10-56 <sup>6</sup>	56	11/21/99	240 <sup>3</sup>	<b>0.71</b>	0.75	2.2	0.65	1.2
MW-10-71	71	11/21/99	ND	ŇD	ND	ND	ND	ND

# TABLE 3 - SOIL CHEMICAL ANALYTICAL DATA

# Tosco (Unocal) Service Station No. 7376 4191 First Street Pleasanton, California

Sample	Sample	Date	TPHg	Benzene	Toluene	Ethyl-	Xylenes	MtBE	
Location and ID	Depth (feet)	Collected	(ррт)	(ppm)	(ppm)	benzene (ppm)	(ppm)	(ppm)	
Well Boring MW-10	0 continued					ND	ND	ND	
/IW-10-82	. 82	11/21/99	ND	ND	ND	ND	ND		
MW-10-90.5	90.5	11/21/99	ND	ND	ND	ND	ND	ND	
Stockpile									
ΓS-1 comp <sup>4</sup>		10/7/99	ND	ND	ND	ND	ND	NA	
ΓS-2 comp <sup>5</sup>		11/23/99	25 <sup>3</sup>	0.011	0.052	0.14	0.66	ND	
13-2 comp		11.40177			<del></del>	ANALYTICAL LA	BOD ATORY		

ANALYTICAL METHODS:

ANALYTICAL LABORATORY:

Columbia Analytical Services(ELAP #1426)

TPHg = Total Petroleum Hydrocarbons as gasoline according to EPA Method 8015 Modified.

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes according to EPA Method 8020.

MtBE = Methyl t-Butyl Ether according to EPA Method 8020.

#### **EXPLANATION:**

feet = feet below ground surface

ppm = parts per million

ND = Not Detected

NA=not analyzed

<sup>&#</sup>x27;= Chromatograph pattern indicates gasoline C6-C12 and unidentified hydrocarbons >C10.

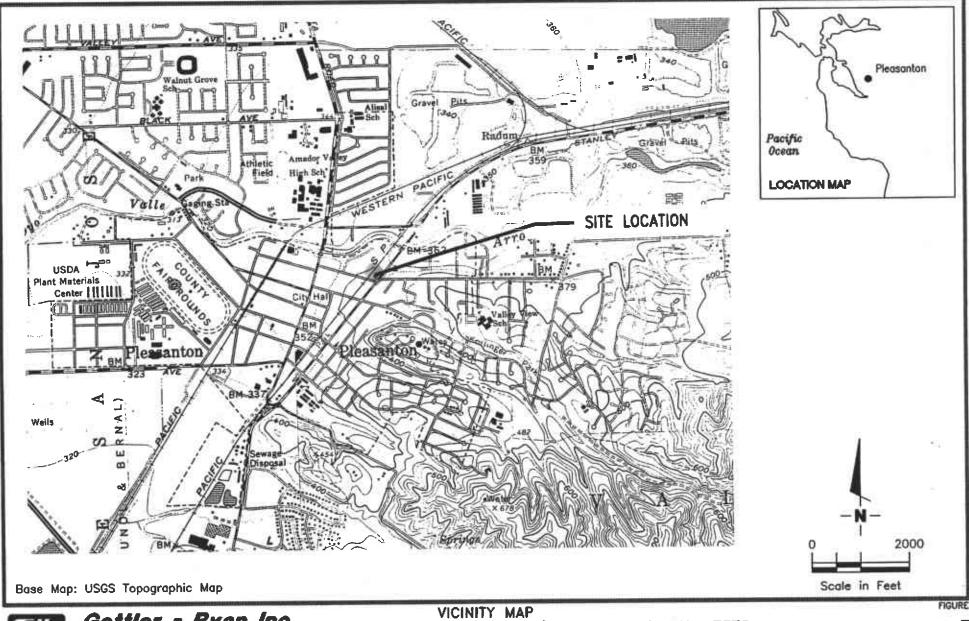
<sup>&</sup>lt;sup>2</sup>= Elevated detection limit. See analytical report for limits.

<sup>&</sup>lt;sup>1</sup>=Chromatograph pattern indicates gasoline C6-C12 and unidentified hydrocarbons C6-C12.

<sup>&</sup>lt;sup>4</sup> = The sample was also analyzed for total lead (34 ppm), reactivity (ND), corrosivity (7.93 pH) and ignitability (>100 degrees celsius).

This sample was also analyzed for TPH diesel (10 ppm), TPH motor oil (21ppm), total lead (51 ppm), STLC lead (ND), reactivity (ND), corrosivity (8.10 pH), and ignitability (>100 degrees celsius).

<sup>&</sup>quot;= The sample was also reported as ND for MtBE by EPA Method 8260 which was analyzed after the two week hold time had passed.





Gettler - Ryan Inc.

6747 Sierro Ct., Suite J Dublin, CA 94568

(925) 551-7555

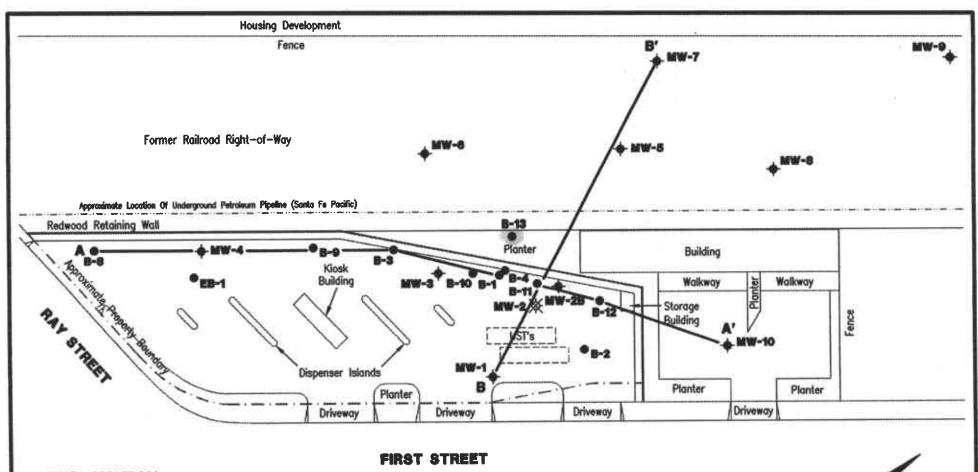
Tosco (Unocal) Service Station No. 7376 4191 First Street Pleasanton, California

February, 1999

JOB NUMBER 140107

REVIEWED BY

REVISED DATE

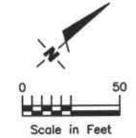


# **EXPLANATION**

Groundwater monitoring well

Destroyed monitoring well

Geological cross-section





# Gettler - Ryan Inc.

6747 Sierra Ct., Suite J Dublin, CA 94568

(925) 551-7555

SITE PLAN Tosco (Unocal) Service Station No. 7376 4191 First Street Pleasanton, California

DATE

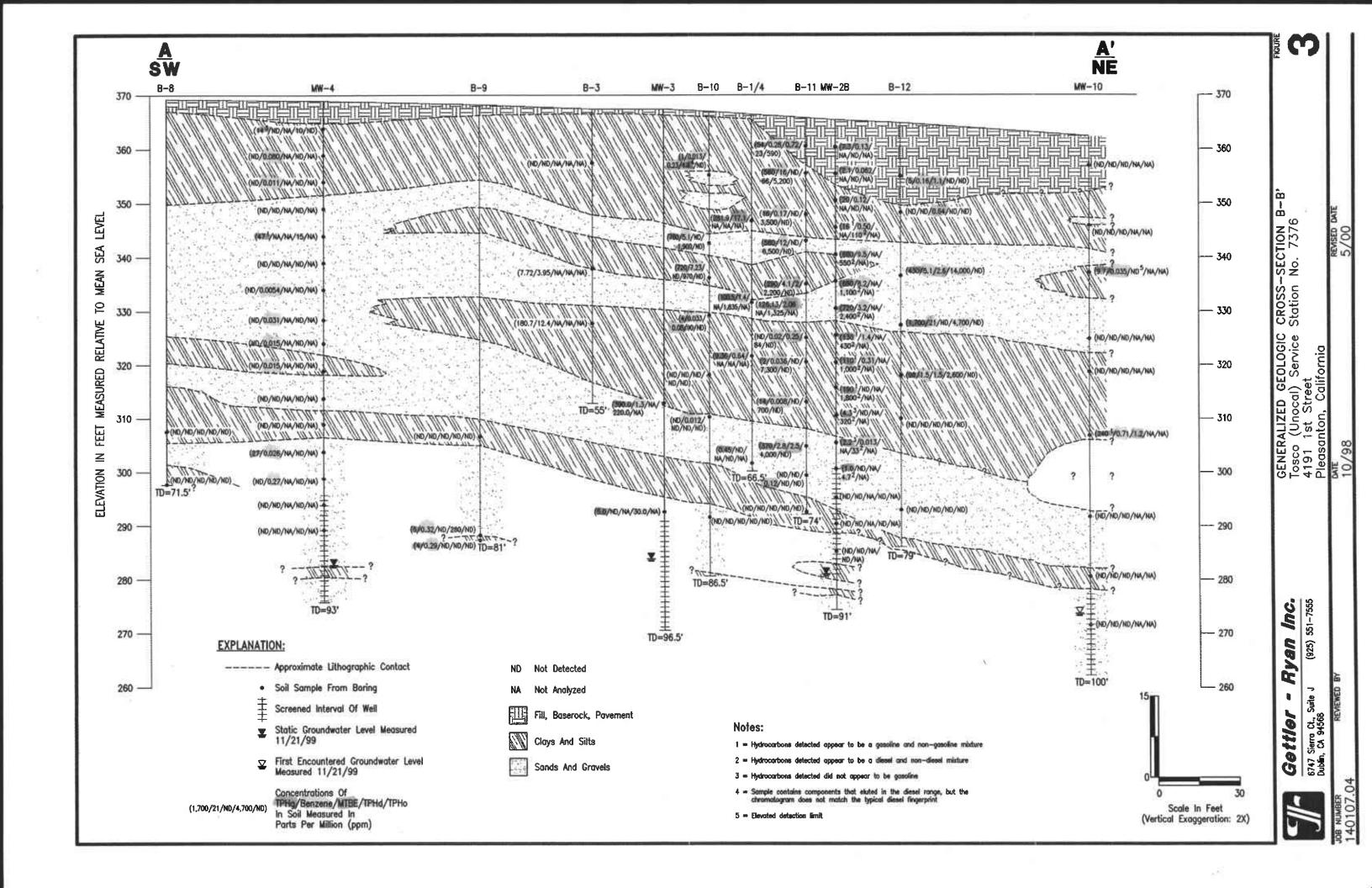
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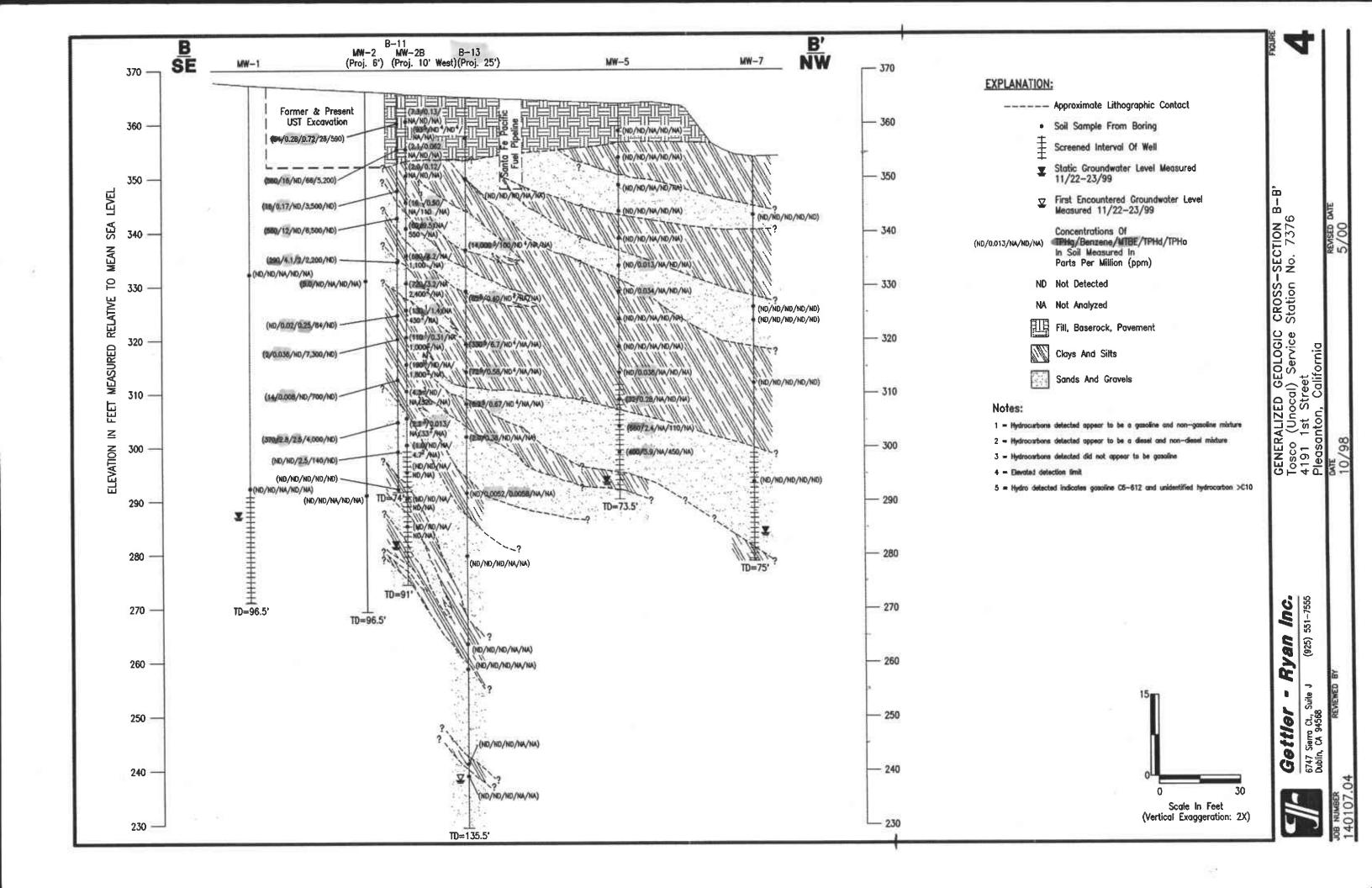
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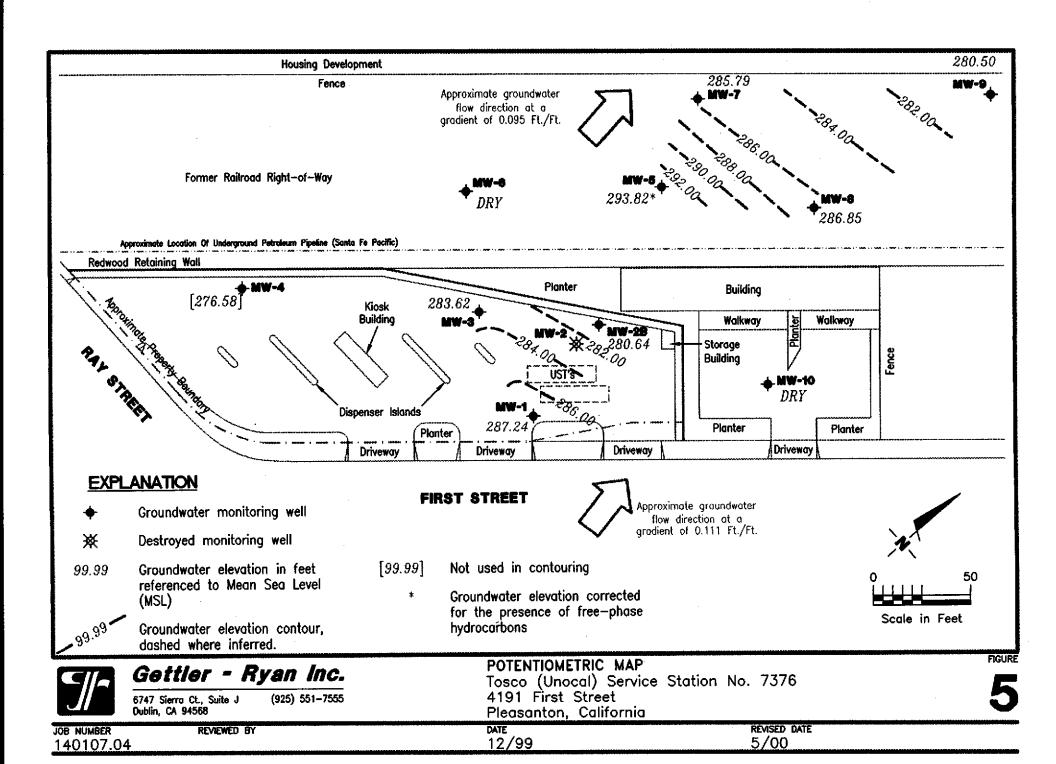
12/99

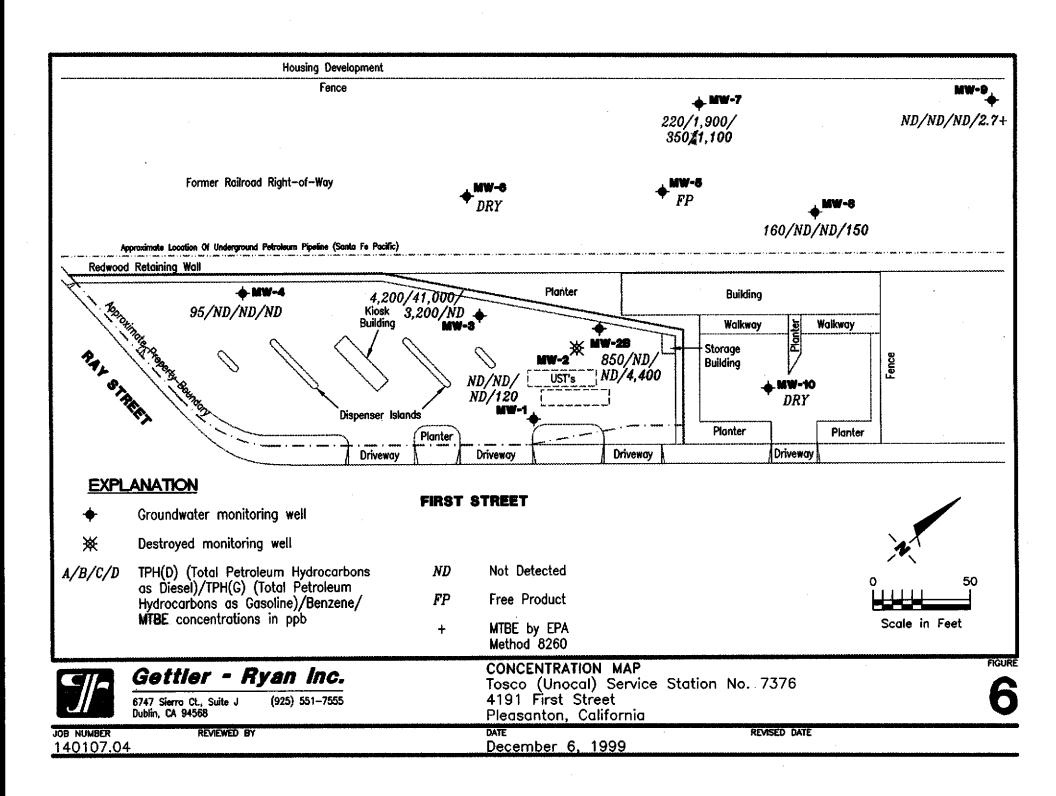
JOB NUMBER

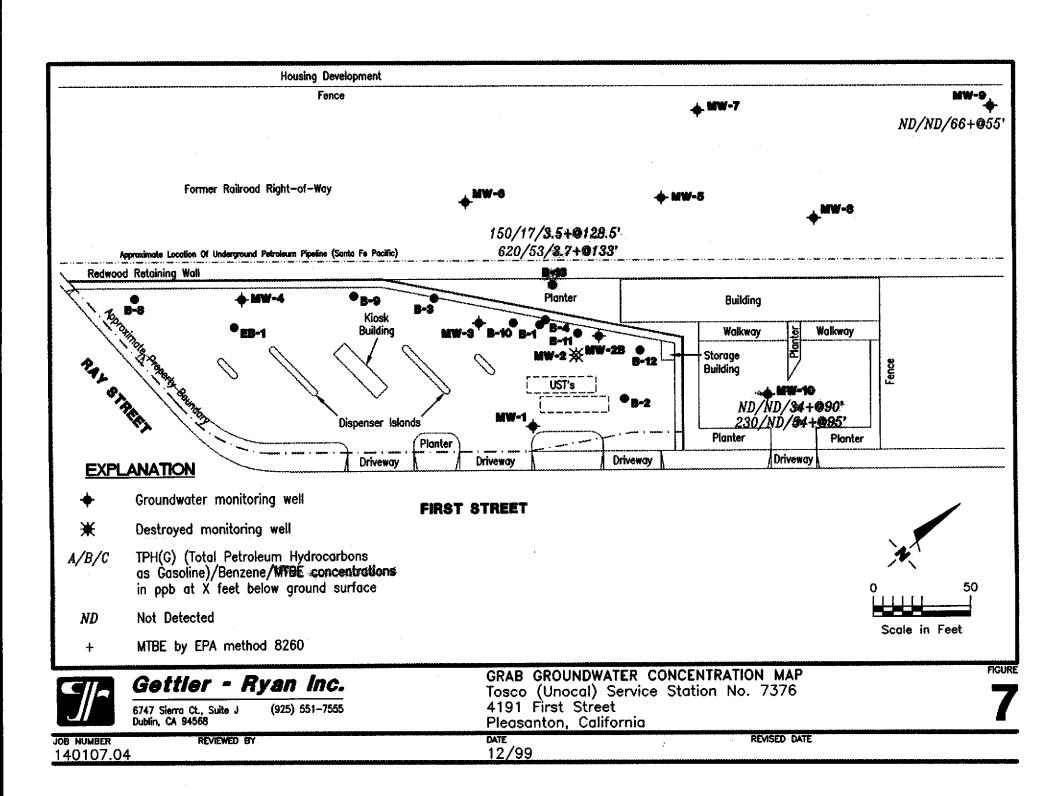
REVISED DATE











# APPENDIX A

Historical Analytical Data

TABLE 3
SUMMARY OF LABORATORY ANALYSES
SOIL

<u>Date</u>	Sample <u>Number</u>	TPH as <u>Diesel</u>	TPH as <u>Gasoline</u>	<u>Benzene</u>	Toluene	Ethyl- <u>benzene</u>	<u>Xylenes</u>
2/06/95	MW2B(5)	ND	7.3	0.13	0.048	0.090	0.63
• •	MW2B(10)	ND	2.1	0.062	0.020	0.0078	0.11
	MW2B(15)	ND	2.0	0.12	0.0076	0.0074	0.02
	MW2B(20)	110*	16♦	0.50	0.042	0.12	0.18
	MW2B(25)	550*	660	9.5	2.6	4.1	11
	MW2B(30)	1,100*	680	8.2	1.1	6.1	11
	MW2B(35)	2,400*	720	3.2	1.1	4.6	15
	MW2B(40)	430*	130♦	1.4	0.45	1.6	5.0
	MW2B(45)	1,000*	110♦	0.31	0.083	0.63	1.7
	MW2B(50)		190♦	ND	0.68	0.33	2.2
	MW2B(55)		4.3♦♦	ND	ND	0.013	0.056
	MW2B(60)	33*	2.2♦♦	0.013	0.0088	ND	0.035
	MW2B(65)	4.7*	1.0	ND	0.0099	ND	0.0097
	MW2B(70)	ND	ND	ND	ND	ND	ND
	MW2B(75)	ND	ND	ND	ND	ND	ND
	MW2B(80)	ND	ND	ND	ND	ND	ND
•	EB1(5)	3,600*	15,000	340	1,700	390	2,100
	EB1(10)	690*	3,200	32	280	73	400
	EB1(15)	*00	1,800	15	140	41	240
	EB1(20)	240*	1,700	4.9	76	39	220
	EB1(25)	840*	2,000	3.9	78	44	250
	EB1(30)	530**	1,500	ND	40	30	170
	EB1(35)	200**	1,800	1.4	52	44	250
	EB1(40)	98*	1,200	1.3	50	25	140
	EB1(45)	2.6**	27	1.4	5.7	0.59	3.2
	EB1(50)	55*	430	0.29	11	7.5	42
	EB1(55)	ND	6.4	0.89	0.097	0.20	1.0
	EB1(60)	ND	1.6	0.0090	0.061	0.021	0.098
	EB1(65)	ИD	ND	ND	0.034	0.011	0.065

TABLE 3 (Continued)
SUMMARY OF LABORATORY ANALYSES
SOIL

	Sample	TPH as	TPH as		Melveno	Ethyl-	Yulonog
<u>Date</u>	<u>Number</u>	<u>Diesel</u>	<u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>benzene</u>	<u>Xylenes</u>
7/23/96	MW4 (5)	10	14♦♦	ND	ND	ND	0.068
&	MW4 (10)	ND	ND	0.080	0.039	0.0059	0.096
7/24/96	MW4 (15)	ND	ND	0.011	ND	ND	ND
• •	MW4 (20)	ND	ND	ND	ND	ND	ND
	MW4 (25)	15	47♦	ND	ND	ND	0.77
	MW4 (30)	ND	ND	ND	0.014	ND	0.029
	MW4 (35)	ND	ND	0.0054	0.015	ND	0.021
	MW4 (40.5		ND	0.031	0.039	0.0083	0.040
	MW4 (45)	ND	ND	0.015	0.0078	ND	0.0089
	MW4 (50)	ND	ND	0.015	ND	ИD	0.0074
	MW4 (55)	ND	ND	ND	ND	ND	ND
	MW4 (60)	ND	ИD	ND	ND	ND O 37	ND 0.35
	MW4 (65)	ND	27	0.026	0.081	0.27 ND	0.35
	MW4 (70)	ND	ND	0.27	0.0053 ND	ND	NÓ NÓ
	MW4 (75)	ND	ND ND	ND ND	ND	ND	ND
	MW4 (79.5	) ND	ND	ND	ND	ND	ND
	MW5 (5)	ND	ND	ND	ND	ND	ND
	MW5 (10)	ND	ND	ND	ND	ND	ND
	MW5 (15)	ND	ND	ND	ND	ND	ND
	MW5 (20)	ND	ND	ND	ND	ND	ND
	MW5 (25)	ND	ND	ND	ND	ND	ND
	MW5(30)	ND	ND	0.013	ND	ND	ND
	MW5 (35)	ND	ND	0.034	ND	ND	0.0055
	MW5 (40)	ND	ND	ND	ND	ND	ND
	MW5(45)	ND	ND	ND	ND	ND	ND
	MW5(50)	ND	- ND	0.038	ND	ND	ND
	MW5 (55)	ND	32	0.28	ND	0.098	0.048
	MW5(60)	110	560	2.4	2.6	2.3	6.5
	MW5 (65)	450	400	3.9	4.1	5.5	56
	MW6 (5)	ND	ND	0.054	0.055	0.052	0.17
	MW6 (10)	ND	ND	0.011	0.0085	0.014	0.043
	MW6(15)	ND	ND	ND	ND	ND	ND
	MW6(20)	ND	ND	ND	ND	ND	ND
	MW6 (25)	ND	ИD	ND	ND	ND	ND
	MW6(35)	ND	4.8	0.59	0.57	0.073	0.71
	MW6(40)	ND	1.2	0.27	0.15	0.010	0.053
	MW6 (45)	ND	4.8	1.2	1.2	0.049	0.50
	MW6 (50)	ND	ND	0.026	ND	0.014	0.0095
	MW6(55)	200	5.0	0.034	0.043	0.049	0.11

### TABLE 3 (Continued)

# SUMMARY OF LABORATORY ANALYSES SOIL

<u>Date</u>	Sample <u>Number</u>	TPH as <u>Diesel</u>	TPH as <u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	Ethyl- <u>benzene</u>	Xylenes
7/23/96 & 7/24/96 (Con't)	MW6(65) MW6(70)	ND ND ND ND ) ND	ND ND ND ND ND	0.0050 0.011 0.17 ND ND	ND ND 0.018 ND ND	ND ND ND ND ND	ND ND 0.039 ND ND

- \* Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- \*\* Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.
- Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a qasoline and non-gasoline mixture.
- ♦♦ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.

NOTE: The soil samples were collected at the depths below grade indicated in the ( ) of the respective sample number.

ND = Non-detectable.

Results are in milligrams per kilogram (mg/kg), unless otherwise indicated.

TABLE 4
SUMMARY OF LABORATORY ANALYSES
SOIL

#### "FUEL FINGERPRINT" RESULTS

<u>Date</u>	Sample <u>Number</u>	Diesel (C10-C22)	JP-4 (C8-C14)	JP-5 (C10-C16)	Kerosene (C10-C16)	Motor Oil (>C16)	Paint Thinner (C10-C12)	Unidentified Extractable <u>Hydrocarbons</u>
7/24/96	MW4 (5)	10	NI	NI	NI	NI	NI	NI
,,24,50	MW4(10)	NI	NI	NI	NI	NI	NI	NI
	MW4 (15)	NI	NI	NI	NI	NI	NI	NI
	MW4 (20)	NI	NI	NI	NI	NI	NI	NI
	MW4 (25)	15	NI	NI	17	NI	NI	, NI
	MW4 (30)	NI	NI	NI	9.6	NI	NI	NI
	MW4 (35)	NI	NI	NI	2.2	NI	NI	NI
	MW4 (40)	NI	NI	NI	NI	NI	NI	NI
	MW4 (45)	NI	NI	NI	NI	NI	NI	NI
	MW4 (50)	NI	NI	NI	NI	NI	NI	NI
	MW4 (55)	NI	NI	NI	NI	NI	NI	NI
	MW4 (60)	NI	NI	NI	NI	NI	NI	NI
	MW4 (65)	NI	NI	NI	4.2	NI	NI	NI
	MW4 (70)	NI	NI	NI	NI	NI	NI	NI
	MW4 (75)	NI	NI	NI	NI	NI	NI	NI
	MW4 (79.5		NI	NI	NI	NI	NI	NI
	MW5 (5)	NI	NI	NI	NI	NI	NI	NI
	MW5 (10)	NI	NI	NI	NI	NI	NI	NI
	MW5(15)	NI	NI	NI	NI	NI	NI	NI
•	MW5 (20)	NI	NI	NI	NI	NI	NI	NI
	MW5 (25)	. NI	NI	NI	, NI	NI	NI	NI
	MW5 (30)	NI	NI	NI	NI	NI	NI	NI

## TABLE 4 (Continued)

# SUMMARY OF LABORATORY ANALYSES SOIL

### "FUEL FINGERPRINT" RESULTS

<u>Date</u>	Sample <u>Number</u>	Diesel (C10-C22)	JP-4 (C8-C14)	JP-5 (C10-C16)	Kerosene (C10-C16)	Motor Oil (>C16)	Paint Thinner (C10-C12)	Unidentified Extractable <u>Hydrocarbons</u>
7/24/96	MW5(35)	NI	NI	NI	NI	NI	NI	NI
(Con't)	MW5 (40)	NI	NI	NI	NI	NI	NI	NI
(5511 5)	MW5 (45)	NI	NI	NI	NI	NI	NI	2.2
	MW5 (50)	NI	NI	NI	NI	NI	NI	NI
	MW5 (55)	NI	NI	NI	NI	NI	NI	, 2.7
	MW5 (60)	110	NI	NI	81	NI	NI	NI
	MW5 (65)	450	NI	NI	310	NI	NI	NI
	,							
	MW6(5)	NI	NI	NI	NI	NI	NI	NI
	MW6(10)	NI	NI	NI	NI	NI	NI	NI
	MW6(15)	NI	NI	NI	NI	NI	NI	NI
	MW6(20)	NI	NI	NI	NÍ	NI	NI	NI
	MW6 (25)	NI	NI	NI	NI	NI	NI	NI
	MW6(35)	NI	NI	NI	NI	NI	NI	NI
	MW6 (40)	NI	NI	NI	NI	NI	NI	. NI
	MW6 (45)	NI	NI	NI	NI	NI	NI	NI
	MW6 (50)	NI	NI	NI	NI	NI	NI	, NI
	MW6 (55)	200	NI	NI	NI	320	NI	NI
	MW6 (60)	NI	NI	NI	NI	NI	NI	NI
	MW6 (65)	NI	NI	NI	NI	NI	NI	NI
	MW6 (70)	NI	NI	NI	NI	NI	NI	NI
	MW6 (75)	NI	NI	NI	NI	NI	NI	NI
	MW6(77.5		NI	NI	NI	NI	NI	NI

## TABLE 4 (Continued)

# SUMMARY OF LABORATORY ANALYSES SOIL

#### "FUEL FINGERPRINT" RESULTS

NOTE: The soil samples were collected at the depths below grade indicated in the ( ) of the respective sample number.

NI = Not identified.

Results are in milligrams per kilogram (mg/kg), unless otherwise indicated.

TABLE 5 SUMMARY OF ANALYTICAL RESULTS SOIL (by AGS)

Sample <u>Number</u>	<u>TVH</u>	<u>Benzene</u>	Ethyl- <u>benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>TEH</u>		
	,	(Collect	ted on June	30, 1987)				
S-20-B1 S-35-B1 S-45-B1 S-25-B2 S-35-B2 S-45-B2	126.13 9.36 188.8 56.81	17.1 2.06 0.64 13.1 1.47 0.07	17.0 0.84 0.26 6.1 1.81 0.18	73.6 1.02 1.06 6.3 1.58 0.26	92.3 6.59 1.47 56.2 18.09 1.30	NA 1,325 NA NA NA NA		
S-10-B3 S-30-B3 S-40-B3	7.72	ND 3.95 12.4	ND 0.13 9.4 ed on Augus	ND 0.51 47.8 t 21. 1987)	ND 0.85 45.1	NA NA ŅA		
S-35-B4 S-65-B4	0.45	1.4 ND	0.5 ND	0.6 ND	4.4 ND	1,835 ND		
S-35-B5 S-75-B5	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND		
S-35-B6 S-70-B6	15.0 ND	ND ND	ND ND	ND ND	ND ND	ND 6,300.0		
S-55-B7 S-75-B7	390.0 5.0	1.3 ND	14.0 ND	6.2 ND	34.0 ND	30.0		
Results are in milligrams per kilogram (mg/kg).  TVH: Total volatile hydrocarbons  See Next page								

Total volatile hydrocarbons TVH:

Total extractable hydrocarbons

ND = Non-detectable.

## TABLE 6 RESULTS OF CHEMICAL ANALYSES SOIL AND WATER SAMPLES FROM BORINGS B-5, B-6, AND B-7 Armour Oil Company Service Station No. 188 First and Ray Streets

Pleasanton, California

Ethyl 🗇 Sample Benzene Benzene Toluene Xylenes Number TPH

Soil:

Water:

2,100 0.010 800.0 < 0.002 0.058 W-85-MW1 0.050 0.620 1.200 0.8000.2600.910 W-75-MW2 1.800 0.660 2.300 1.300 0.160 2.600 W-85-MW3 24.000 0.620 0.100 0.680 0.0007 DHS

Additional compound:

1,2-Dichloroethene 0.018 W-85-MW1 0.016DHS

Water results in milligrams/liter(mg/l)=parts per million(ppm) Soil results in milligrams/kilogram (mg/kg) = (ppm)

TPH: Total petroleum hydrocarbons TEH. Total extractable hydrocarbons

DHS: State of California, Department of Health Services recommended maximum concentration for drinking water.

< = indicates less than detection limit for method of analysis used.

Sample designation: S-35-B5

borehole/well number depth of sample in feet

## TABLE 5 (Continued)

SUMMARY OF ANALYTICAL RESULTS SOIL (by AGS)

NA = Not analyzed.

NOTE: Monitoring wells MW1, MW2, and MW3 were installed in borings B5, B6, and B7, respectively.

The analytical results were obtained from AGS Reports #87065-1, #87086-1, and #87086-3.

TABLE 6
SUMMARY OF LABORATORY ANALYSES
SOIL

<u>Date</u>	<u>Sample</u>	Depth (feet)	TPH as <u>Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	Ethyl- benzene	<u>Xylenes</u>
9/09/94	P1	3	ND	ND	ND	ND	ND
3,03,31	P2	3	1,300	3.3	57	26	130
	P3	3	4.9	0.071	0.028	0.065	0.70
	P4	3	11	0.26	0.014	0.23	1.3
	P5	3	8,900	65	570	160	800
	P6	3	ND	0.0093	0.015	ND	0.028
	P7	3	8.7	0.21	0.028	0.081	0.73
	P8	3	10	0.074	0.27	0.043	0.38
	P9	3	65*	0.69	0.15	0.71	3.9
	P10	3	ND	ND	ND	ND	0.015
•	P11	3	ND	ND	ND	ND	ND
	P12	3	4.7*	0.011	0.17	0.091	0.54
9/15/94	P2(9)	9	13	0.020	0.015	0.013	1.1
-,,	P5 (9)	9	17	0.029	0.031	0.047	1,4
9/23/94	P13	9	4,400	29	390	150	790

ND = Non-detectable.

Results are in milligrams per kilogram (mg/kg), unless otherwise indicated.

<sup>\*</sup> Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.

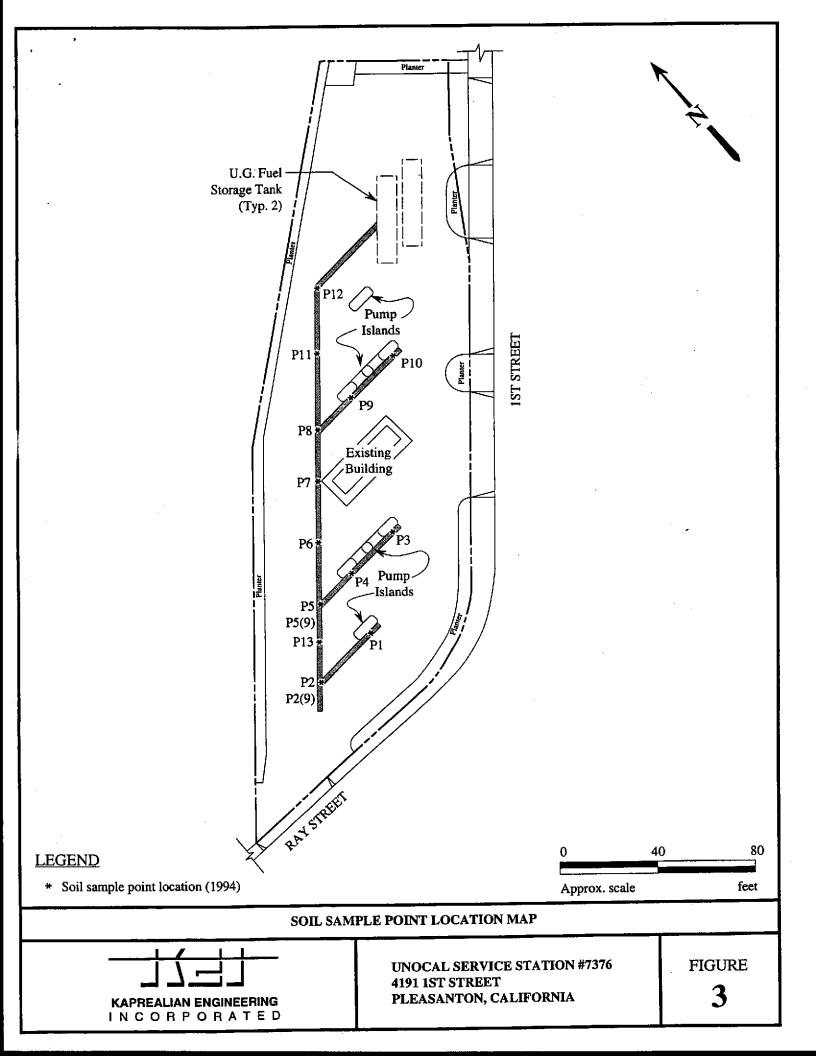


TABLE 7

LISTING OF WATER WELL LOCATIONS WITHIN A
HALF-MILE RADIUS OF UNOCAL SERVICE STATION #7376

(Conducted 1987/1988)

Well <u>Number</u>	Total Depth <u>(feet)</u>	Water Level <u>(feet)</u>	Screened Interval <u>(feet)</u>	Year <u>Constructed</u>	Water <u>Use</u>
	373	NA	NA	1979	Dom?
16-L <b>-</b> 11	NA			1976	Mon
16-P-5	74	65	65 <b>-</b> 70	<del></del>	
16-R-1	239	66	70-226	1948	Dom
			NA	NA	Dom
21-C-2	182	NA			Dom?
21-C-4	115	56	NA	1911	
	43	43	NA '	1977	Cat
21-E-1			=	1974	Cat
21 <b>-</b> G-1	120	100	>95	13/4	

NA = Not available

Dom = Domestic
Mon = Monitoring

Cat = Cathodic protection

NOTE: This list was obtained from Table 4 of the AGS Report

#87086-3. A Location Map is not available with the copy of

this report on file at KEI.

TABLE 8
SUMMARY OF ANALYTICAL RESULTS
WATER

<u>Date</u>	Well #	<u>TPH</u>	<u>Benzene</u>	Ethyl- <u>benzene</u>	<u>Toluene</u>	<u>Xylenes</u>	<u>TEH</u>
12/08/87	MW1*	50	58	ND	8	10	2,100
	MW2	1,800	910	260	800	1,200	620
	MW3	24,000	2,600	160	1,300	660	2,300

TPH = Total petroleum hydrocarbons

TEH = Total extractable hydrocarbons

ND = Non-detectable.

\* 1,2-Dichloroethene was detected at a concentration of 18  $\mu g/L$ . Results are in micrograms per liter ( $\mu g/L$ ), unless otherwise indicated.

NOTE: The above analytical results were obtained from AGS report 86086-3.

## TABLE 2 - SOIL CHEMICAL ANALYTICAL DATA

Unocal Service Station No. 7376 4191 1st Street Pleasanton, California

Sample Location	Sample Depth	Date Collected	ТРНд	Benzene	Toluene	Ethyl- benzene	Xylenes	TPHd	ТРНо	MtBE
and ID	(feet)	Conected	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Boring B-8										
B-8-61.5	61.5	6/8/98	ND -	ND	ND	ND	ND	ND	ND	ND
B-8-71.5	71.5	6/8/98	ND	ND	ND	ND	ND	ND	ND	ND
Boring B-9									h Thu	3775
B-9-61.5	61.5	6/8/98	ND	ND	ND	ND	ND	ND	ND	ND
B-9-80.5	80.5	6/8/98	5	0.32	0.025	0.032	0.43	280¹	ND	ND <sup>3</sup>
B-9-81	81	6/8/98	4	0.29	0.59	0.039	0.31	ND	ND	ND
Boring B-10								•	2	
B-10-12	12	6/11/98	1	0.013	0.013	0.021	0.13	1.81	ND <sup>3</sup>	0.23
B-10-24.5	24.5	6/11/98	760	5.1	0.9	22	25	1900	ND <sup>3</sup>	ND
B-10-31	31	6/11/98	720	7.3	31	11	68	970	ND <sup>3</sup>	$ND^3$
B-10-38	38	6/11/98	. 4	0.033	0.006	0.010	0.032	90	$ND^3$	0.08
B-10-49	49	6/11/98	ИD	ND	ND	ND	ND	ND	ND	ND
B-10-57	57	6/11/98	ND	0.012	0.012	0.006	0.048	ND	ND	ND
B-10-75.5	75.5	6/11/98	ND	ИD	ND	ND	ND	ND	ND	ND
Boring B-11										
B-11-5.5	5.5	6/9/98	54	0.28	0.2	0.3	3.6	23	590 <sup>2</sup>	0.72
B-11-10.5	10.5	6/9/98	560	16	8.0	5.2	25	66	5200 <sup>2</sup>	ND <sup>3</sup>
B-11-18	18	6/9/98	16	0.17	0.031	0.21	0.52	3500	ND <sup>3</sup>	ND
B-11-23	23	6/9/98	580	12	1.3	6.0	17	6500	$ND^3$	$ND^3$
B-11-31	31	6/9/98	290	4.1	0.89	4.7	11	2200	ND³	2
B-11-41	41	6/9/98	ND	0.02	ND	ND	ND	84	ND	0.25
B-11-45.5	45.5	6/9/98	2	0.036	0.15	0.022	0.15	7300	$ND^3$	ND
B-11-53	53	6/9/98	14	0.008	0.008	0.02	0.025	700	ND	ND
B-11-61	61	6/9/98	370	2.8	16	5.2	24	4000	$ND^3$	2.5
B-11-66.5	66.5	6/9/98	ND	ND	ND	ND	ND	140 <sup>1</sup>	ND	0.12
B-11-73.5	73.5	6/9/98	ND	ND	ND	ND	ND	ND	ND	ND

Sample Location	Sample Depth	Date Collected	TPHg	Benzene	Toluene	Ethyl- benzene	Xylenes	ТРНа	TPHo	MtBE by 8020
and ID	(feet)		(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
Boring B-12										
B-12-10	10	6/10/98	5	0.16	0.073	0.02	0.22	ND	ND	1.1
B-12-16.5	16.5	6/10/98	ND	ND	ND	ND	ND	ND	ND	0.64
B-12-28.5	28.5	6/10/98	430	5.1	3.2	6.6	15	14000	$ND^3$	2.6
B-12-37.5	37.5	6/10/98	1700	21	3.8	8.7	7.6	4700	$ND^3$	$ND_3$
B-12-47	47	6/10/98	98	1.5	1.2	2.0	4.4	2600	$ND^3$	1.5
B-12-55	55	6/10/98	ND	ND	ND	ND	0.01	ND	ND	ND
B-12-72	72	6/10/98	ND	ND	ND	ND	ND	ND	ND	ND
Well Boring MW-	7									
MW-7-11	11	8/14/98	ND	ND	ND	ND	ND	ND	ND	ND
MW-7-28	28	8/14/98	ND	ND	ND .	ND	ND	ND	ND	ND
MW-7-30.5	30.5	8/14/98	ND	ND	ND	ND	ND	ND	ND	ND
MW-7-42	42	8/14/98	ND	ND	ND	ND	ND	ND	ND	ND
MW-7-60.5	60.5	8/14/98	· ND	ND	ND	ND	ND	ND	ND	ND
Well Boring MW-	8									-
MW-8-11	11	6/12/98	ND	ND	0.007	ND	0.010	ND	ND	ND
MW-8-37	37	6/12/98	ND	ND	0.006	ND	ND	ND	ND	ND
MW-8-45.5	45.5	6/12/98	60	$ND^3$	0.058	0.27	0.58	79	ND	$ND^3$
MW-8-51.5	51.5	6/12/98	ND	ND	ND	ND	ND	ND	ND	ND
MW-8-67	67	6/12/98	ND	ND	ND	ND	ND	ND	ND	ND
Stockpile									•	•
US-1(comp) <sup>2</sup>		6/15/98	100	0.27	0.16	0.82	1.9	1100	ND <sup>3</sup>	ND <sup>3</sup>

**ANALYTICAL METHODS:** 

ANALYTICAL LABORATORY:

Columbia Analytical Services(ELAP #1426)

TPHg = Total Petroleum Hydrocarbons as gasoline according to EPA Method 8015 Modified.

BTEX = Benzene, Toluene, Ethylbenzene, and Xylenes according to EPA Method 8020.

MtBE = Methyl t-Butyl Ether according to EPA Method 8020.

#### EXPLANATION:

feet = feet below ground surface

ppm = parts per million

ND = Not Detected

2

<sup>\* =</sup> Sample contains components that eluted in the diesel range, but the chromatogram does not match the typical diesel fingerprint.

This sample was analyzed for CAM 17 metals. Concentrations were below allowable levels for disposal.

3=Elevated detection limit. See analytical report for detection limits.

## APPENDIX B

GR Field Methods and Procedures

# GETTLER-RYAN INC. FIELD METHODS AND PROCEDURES

#### Site Safety Plan

Field work performed by Gettler-Ryan Inc. (GR) is conducted in accordance with GR's Health and Safety Plan and the Site Safety Plan. GR personnel and subcontractors who perform work at the site are briefed on the of these plans contents prior to initiating site work. The GR geologist or engineer at the site when the work is performed acts as the Site Safety Officer. GR utilizes a photoionization detector (PID) to monitor ambient conditions as part of the Health and Safety Plan.

#### **Collection of Soil Samples**

Exploratory soil borings are drilled by a California-licensed well driller. A GR geologist is present to observe the drilling, collect soil samples for description, physical testing, and chemical analysis, and prepare a log of the exploratory soil boring. Soil samples are collected from the exploratory soil boring with a split-barrel sampler or other appropriate sampling device fitted with clean brass or stainless steel liners. The sampling device is driven approximately 18 inches with a 140-pound hammer falling 30 inches. The number of blows required to advance the sampler each successive 6 inches is recorded on the boring log. The encountered soil is described using the Unified Soil Classification System (ASTM 2488-84) and the Munsell Soil Color Chart.

After removal from the sampling device, soil samples for chemical analysis are covered on both ends with teflon sheeting or aluminum foil, capped, labeled, and placed in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Samples are selected for chemical analysis based on:

- a. depth relative to underground storage tanks and existing ground surface
- b. depth relative to known or suspected groundwater
- c. presence or absence of contaminant migration pathways
- d. presence or absence of discoloration or staining
- e. presence or absence of obvious gasoline hydrocarbon odors
- f. presence or absence of organic vapors detected by headspace analysis

#### Field Screening of Soil Samples

A PID is used to perform head-space analysis in the field for the presence of organic vapors from the soil sample. This test procedure involves removing some soil from one of the sample tubes not retained for chemical analysis and immediately covering the end of the tube with a plastic cap. The PID probe is inserted into the headspace inside the tube through a hole in the plastic cap. Head-space screening results are recorded on the boring log. Head-space screening procedures are performed and results recorded as reconnaissance data. GR does not consider field screening techniques to be verification of the presence or absence of hydrocarbons.

#### Stockpile Sampling

Stockpile samples consist of four individual sample liners collected from each 100 cubic yards (yd³) of stockpiled soil material. Four arbitrary points on the stockpiled material are chosen, and discrete soil sample is collected at each of these points. Each discrete stockpile sample is collected by removing the upper 3 to 6 inches of soil, and then driving the stainless steel or brass tube into the stockpiled material with a wooden mallet or hand driven soil sampling device. The sample tubes are then covered on both ends with teflon sheeting or aluminum foil, capped, labeled, placed in the

cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Stockpiled soils are covered with plastic sheeting after completion of sampling.

#### **Construction of Monitoring Wells**

Monitoring wells are constructed in the exploratory borings with Schedule 40 polyvinyl Chloride (PVC) casing. All joints are thread-joined; no glues, cements, or solvents are used in well construction. The screened interval is constructed of machine-slotted PVC well screen which generally extends from the total well depth to a point above the groundwater. An appropriately-sized sorted sand is placed in the annular space adjacent to the entire screened interval. A bentonite transition seal is placed in the annular space above the sand, and the remaining annular space is sealed with neat cement or cement grout.

Wellheads are protected with water-resistant traffic rated vault boxes placed flush with the ground surface. The top of the well casing is sealed with a locking cap. A lock is placed on the well cap to prevent vandalism and unintentional introduction of materials into the well.

#### Storing and Sampling of Drill Cuttings

Drill cuttings are stockpiled on plastic sheeting or stored in drums depending on site conditions and regulatory requirements. Stockpile samples are collected and analyzed on the basis of one composite sample per 50 cubic yards of soil. Stockpile samples are composed of four discrete soil samples, each collected from an arbitrary location on the stockpile. The four discrete samples are then composited in the laboratory prior to analysis.

Each discrete stockpile sample is collected by removing the upper 3 to 6 inches of soil, and then driving the stainless or brass sample tube into the stockpiled material with a hand, mallet, or drive sampler. The sample tubes are then covered on both ends with teflon sheeting or aluminum foil, capped, labeled, and placed in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Stockpiled soils are covered with plastic sheeting after completion of sampling.

#### Wellhead Survey

The top of the newly-installed well casing is surveyed by a California-licensed Land Surveyor to mean sea level (MSL).

#### Well Development

The purpose of well development is to improve hydraulic communication between the well and surrounding aquifer. Prior to development, each well is monitored for the presence of separate-phase hydrocarbons and the depth-to-water is recorded. Wells are then developed by alternately surging the well with the bailer, then purging the well with a pump to remove accumulated sediments and draw groundwater into the well. Development continues until the groundwater parameters (temperature, pH, and conductivity) have stabilized.

#### **Groundwater Monitoring and Sampling**

#### Decontamination Procedures

All physical parameter measuring and sampling equipment are decontaminated prior to sample collection using Alconox or equivalent detergent followed by steam cleaning with deionized water. During field sampling, equipment placed in a well are decontaminated before purging or sampling the next well by cleaning with Alconox or equivalent detergent followed by steam cleaning with deionized water.

#### Water-Level Measurements

Prior to sampling each well, the static water level is measured using an electric sounder and/or calibrated portable oil-water interface probe. Both static water-level and separate-phase product thickness are measured to the nearest  $\pm 0.01$  foot. The presence of separate-phase product is confirmed using a clean, acrylic or polyvinylchloride (PVC) bailer, measured to the nearest  $\pm 0.01$  foot with a decimal scale tape. The monofilament line used to lower the bailer is replaced between borings with new line to preclude the possibility of cross-contamination. Field observations (e.g. product color, turbidity, water color, odors, etc.) are noted. Water-levels are measured in wells with known or suspected lowest dissolved chemical concentrations to the highest dissolved concentrations.

#### Sample Collection and Labeling

A temporary PVC screen is installed in the boring to facilitate a grab groundwater sample collection. Samples of groundwater are collected from the surface of the water in each well or boring using the teflon bailer or a pump. The water samples are then gently poured into laboratory-cleaned containers and sealed with teflon-lined caps, and inspected for air bubbles to check for headspace. The samples are then labeled by an adhesive label, noted in permanent ink, and promptly placed in an ice storage. A Chain-of-Custody Record is initiated and updated throughout handling of the samples, and accompanies the samples to the laboratory certified by the State of California for analyses requested.

## APPENDIX C

Permits, Boring Logs, and Well Construction Details



### ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588-5127

PHONE (925) 484-2600 FAX (925) 462-3914

September 2, 1999

Mr. Clyde Galantine Gettler-Ryan, Inc. 6747 Sierra Court, Suite J Djublin, CA 94568

Dear Mr. Galantine:

Enclosed is drilling permit 99162 for a monitoring well construction project at 4191 First Street in Pleasanton for Tosco Marketing Company.

Please note that permit condition A-2 requires that a well construction report be submitted after completion of the work. The report should include drilling and completion logs, location sketch, and permit number. Please submit the original of your completion report. We will forward your submittal to the California Department of Water Resources.

If you have any questions, please contact me at extension 235 or Matt Katen at extension 234.

Sincerely,

Wyman Hong

Water Resources Technician II

Enc.



# **ZONE 7 WATER AGENCY**

5997 PARKSIDE DRIVE, PLEASANTON, CALIFORNIA 94588-5127 PHONE (510) 484-2600 X235

FAX (510) 462-3914

107996

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE	FOR OFFICE USE					
LOCATION OF PROJECT Transportation Corridoreand Private Property adjacent to Unical Service Station #7376 4171 First 61. Pleasanton, CA	PERMIT NUMBER					
California Coordinates Source ft. Accuracy ± ft.  CCN ft. CCE ft.  APN 94-110-12-4	APNPERMIT CONDITIONS					
	Circled Permit Requirements Apply					
CLIENT Name Tosco Marketing Company Address 2000 Gow Caryon Pl. Suite 400 Phone (795) 277-2884 City San Ramon CA Zip 94883  APPLICANT CHIEV- Ryan Inc. Clude Calantine Fax (725) 551-7888 Address 6747 Sieva Ct Suite T Phone (725) 551-7555	A. GENERAL  1. A permit application should be submitted so as to arrive at th Zone 7 office five days prior to proposed starting date.  2. Submit to Zone 7 within 60 days after completion of permitte work the original Department of Water Resources Water We Drillers Report or equivalent for well projects, or drilling log					
City Dublin CA Zip 94568	and location sketch for geotechnical projects.  3. Permit is void if project not begun within 90 days of approve					
TYPE OF PROJECT  Well Construction Geotechnical Investigation Cathodic Protection General General  Water Supply Contamination Monitoring Well Destruction	date.  B. WATER SUPPLY WELLS  1. Minimum surface seal thickness is two inches of cement grouplaced by tremie.  2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless					
PROPOSED WATER SUPPLY WELL USE  New Domestic □ Replacement Domestic □  Municipal □ Irrigation □  Industrial □ Other Environmental □	lesser depth is specially approved. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS  1. Minimum surface seal thickness is two inches of cement group placed by tremie.					
DRILLING METHOD:  Mud Rotary	2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.  D. GEOTECHNICAL. Backfill bore hole with compacted cuttings of heavy bentonite and upper two feet with compacted material.					
DRILLER'S LICENSE NO	areas of known or suspected contamination, tremied cemer grout shall be used in place of compacted cuttings.					
WELL PROJECTS  Drill Hole Diameter	E. CATHODIC. Fill hole above snode zone with concrete placed by tremie.  F. WELL DESTRUCTION. See attached.  G. SPECIAL CONDITIONS					
GEOTECHNICAL PROJECTS  Number of Borings Hole Diameter    Maximum   Maximum   Depth 120 ft.						
ESTIMATED STARTING DATE 10/7/99 ESTIMATED COMPLETION DATE 19/8/99	Approved Myman Hong Date 9/2/99					
I hereby agree to comply with all requirements of this permit and	// Wyman Hong					
Alameda County Ordinance No. 73-68.						

Permit Issuance Date: 1/26/98 Permit Expiration Date: 1/26/98 Public Works Agency 399 Elmhurst St., Hayward, CA 94540 [Store Contractor: 1/26/98  ROADWAY ENCROACHMENT PERMIT This Permit is issued in accordance with Chapter 12.08 of the Alameda County Ordinance Code  Name & Address of Permittee: 1/26/98 Phone Number: 1/26/98 Permit Expiration Date: 1/26/98  Public Works Agency GENERAL CONTRACTO (510) 670-5429  GENERAL CONTRACTO (510) 670-5429  GENERAL CONTRACTO (510) 670-5429  For Alameda County Ordinance Code  Name & Address of Permittee: 1/26/98  Phone Number: 1/26/98 Phone Number: 1/26/98 Phone Number: 1/26/98 Phone Number: 1/26/98  This Permit authorizes an encroachment into roadway right-of-way at the above address; the encroachment shall be subject to the terms and the encroachment shall be subject to the					
Public Works Agency 399 Elmhurst & Hayward, CA 9454DETTER RYANGE (510) 670-5429  ROADWAY FNCROACHMENT PERMIT  This Permit is issued in accordance with Chapter 12.08 of the Alameda County Ordinance Code  Name & Address of Permittee:  Gettler - Ryan Dr  G7447 Schra Ct. Sya J  Dultan CA 94568  Phone Number:  This Permit authorizes an encroachment into roadway right-of-way at the above address; the encroachment shall be subject to the terms an conditions of the said Chapter 12.08 and to all other provisions attached and written hereto.  The Permittee intends to perform the following work scope:  Unless otherwise specified below, all work or access shall be subject to the terms and conditions of the attached General Provisions:  See attached.  Bond Information:  # 9000 Suraty  Work Completed (Date):  Work Completed (Date):		Permit Expiration Date:			
Public Works Agency  399 Elmhurst St., Hayward, CA 94543 ETTER RYANGE (510) 670-5429  ROADWAY FNCROACHMENT PERMIT  This Permit is issued in accordance with Chapter 12.08 of the Alameda County Ordinance Code  Name & Address of Permittee:  Gettler - Ryan Proc.  G747 Scitra Ct., Sya J  Dulling CA 94568  Phone Number:  This Permit authorizes an encroachment into roadway right-of-way at the above address; the encroachment shall be subject to the terms an conditions of the said Chapter 12.08 and to all other provisions attached and written hereto.  The Permittee intends to perform the following work scope:  Ontall and aperate 3 monitoring work scope:  Unless otherwise specified below, all work or access shall be subject to the terms and conditions of the attached General Provisions:  See attached.  Bond Information:  # 9000 Suraty  Work Completed (Date):  Work Completed (Date):		CALANTO A TIME 9 7 DECEMBER			
Public Works Agency  399 Elmhursts, Hayward, CA 94543 ETTER RYANGE (510) 670-5429  ROADWAY FNCROACHMENT PERMIT  This Permit is issued in accordance with Chapter 12.08 of the Alameda County Ordinance Code  Name & Address of Permittee:  Gettlers - Ryan Drc.  G747 Sidra Ct. Syed Dulling CA 94568  Phone Number:  This Permit authorizes an encroachment into roadway right-of-way at the above address; the encroachment shall be subject to the terms an conditions of the said Chapter 12.08 and to all other provisions attached and written hereto.  The Permittee intends to perform the following work scope:  Ontall and aperate 3 means therefore a shall be subject to the terms and conditions of the attached Seneral Provisions:  See attached.  Unless otherwise specified below, all work or access shall be subject to the terms and conditions of the attached General Provisions:  See attached.  Bond Information:  ### Pood Surety  Work Completed (Date):  Work Completed (Date):	COUNTY O	OF ALAMEDA WAS INC			
This Permit is issued in accordance with Chapter 12.08 of the Alameda County Ordinance Code  Name & Address of Permittee:  Gettler - Ryan Drc.  G747 Surface C. Swa J  Dutler, CR 74568  Phone Number:  This Permit authorizes an encroachment into roadway right-of-way at the above address; the encroachment shall be subject to the terms and conditions of the said Chapter 12.08 and to all other provisions attached and written hereto.  The Permittee intends to perform the following work scope:  Onotall and aperate 3 monitoring work scope:  Unless otherwise specified below, all work or access shall be subject to the terms and conditions of the attached General Provisions:  See attached  Bond Information:  \$\textit{\textit{\textit{B}}} \textit{\textit{Particles}} \textit{\textit{More Completed (Date):}}  Work Completed (Date):	Public We	orke Agency			
Cettlers - Ryan Oric.  G747 Sierra Ct. Sye J  Dutlin CA 94568  Phone Number: 551-7555  Name & Address of Contractor:  This Permit authorizes an encroachment into roadway right-of-way at the above address; the encroachment shall be subject to the terms and conditions of the said Chapter 12.08 and to all other provisions attached and written hereto.  The Permittee intends to perform the following work scope:  Onstall and aperate 3 more taring wells without the conditions of the attached. The Corridor as otherwise specified below, all work or access shall be subject to the terms and conditions of the attached General Provisions:  See attached.  Bond Information:  ### Page Surfly  Work Completed (Date):  Work Completed (Date):					
Cettlers - Ryan Oric.  G747 Sierra Ct. Sye J  Dutlin CA 94568  Phone Number: 551-7555  Name & Address of Contractor:  This Permit authorizes an encroachment into roadway right-of-way at the above address; the encroachment shall be subject to the terms and conditions of the said Chapter 12.08 and to all other provisions attached and written hereto.  The Permittee intends to perform the following work scope:  Onstall and aperate 3 more taring wells without the conditions of the attached. The Corridor as otherwise specified below, all work or access shall be subject to the terms and conditions of the attached General Provisions:  See attached.  Bond Information:  ### Page Surfly  Work Completed (Date):  Work Completed (Date):	Name & Address of Permittee:	Tob Site Address:			
Phone Number: 551-7555  Name & Address of Contractor:  This Permit authorizes an encroachment into roadway right-of-way at the above address; the encroachment shall be subject to the terms and conditions of the said Chapter 12.08 and to all other provisions attached and written hereto.  The Permittee intends to perform the following work scope:  One tall and operate 3 monitoring work scope:  One tall and operate 3 monitoring work of the said Chapter 12.08 and to all other provisions attached and written hereto.  One tall and operate 3 monitoring work of the said Chapter 12.08 and to all other provisions attached and written hereto.  One tall and operate 3 monitoring work of the said Chapter 12.08 and to all other provisions of the attached General Provisions:  See attached.  Bond Information:  # 9000 Suraty  Work Completed (Date):  Work Completed (Date):		Transportation Core.			
Name & Address of Contractor:  This Permit authorizes an encroachment into roadway right-of-way at the above address; the encroachment shall be subject to the terms and conditions of the said Chapter 12.08 and to all other provisions attached and written hereto.  The Permittee intends to perform the following work scope:  Distable and aperate 3 mornitaring wells without the conditions of the attached. The Corridor so observed and conditions of the attached General Provisions:  See attached.  Bond Information:  # 9000 Suraty  Work Completed (Date):  Work Completed (Date):	6747 Sierra Ct., SXE J	(4191) 1 st st., PLS)			
roadway right-of-way at the above address; the encroachment shall be subject to the terms and conditions of the said Chapter 12.08 and to all other provisions attached and written hereto.  The Permittee intends to perform the following work scope:    Interpretation	Phone Number: 551-7555				
The Permittee intends to perform the following work scope:  Onetall and operate 3 monstaring wells within the Corridor so shows affected below, all work or access shall be subject to the terms and conditions of the attached General Provisions:  See attached.  Bond Information:  # 9000 Surety  Mameda County  Work Completed (Date):	Name & Address of Contractor:	This Permit authorizes an encroachment into the roadway right-of-way at the above address; this encroachment shall be subject to the terms and conditions of the said Chapter 12.08 and to all			
Onatall and aperate 3 monitoring  wells within 9hrs. Corridor so shows  on 9hr attached map.  Unless otherwise specified below, all work or access shall be subject to the terms and conditions of the attached General Provisions:  See attached.  Bond Information:  \$ 9000 Surety  Work Completed (Date):  BY: Phong Mameda County	Phone Number:	_			
Unless otherwise specified below, all work or access shall be subject to the terms and conditions of the attached General Provisions:  See attached.  Bond Information:  \$ 9000 Surety  Work Completed (Date):  BY: Phone Mameda County		8			
Unless otherwise specified below, all work or access shall be subject to the terms and conditions of the attached General Provisions:  See attached.  Bond Information:  \$ 9000 Surety  Work Completed (Date):	Install and aperat	e 3 mondanna			
Unless otherwise specified below, all work or access shall be subject to the terms and conditions of the attached General Provisions:  See attached.  Bond Information:  \$ 9000 Serraly  Work Completed (Date):					
Bond Information:  \$ 9000 SureTy  Work Completed (Date):	on the attached m				
Bond Information:  \$ 9000 SureTy  Work Completed (Date):	14				
Bond Information:  \$ 9000 Swaly    # 125    BY: Hong Mameda County   Work Completed (Date):	conditions of the attached General Provisions				
BY: Work Completed (Date):					
BY: Alameda County		Insp. Fee:  ≠125			
	0.0				
THE RESERVE OF THE PROPERTY OF	BY: Alameda County				
I certify that the information that I have entered into this permit application is correct, and I agree to comply to					

The Permittee is responsible for notifying the Inspection Office listed on the back of this form.
THIS PERMIT IS INCOMPLETE WITHOUT THE ATTACHED GENERAL PROVISIONS

Installation of the subject wells shall be in accordance with the requirements of the Alameda County Flood Control & Water Conservation District (Zone 7).

Removal or abandonment of the subject wells shall require a separate permit from the Public Works Agency.

GOLDENROD - Payee

Note: \$10 fee for returned checks

CANARY - Engineer

WHITE - Auditor

	MAJOR DIVIS	SIONS			TYPICAL NAMES
ñ		CLEAN GRAVELS	GW		WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
), 200 SIE	GRAVELS	WITH LITTLE OR NO FINES	GP		POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
D SOILS THAN NO	COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	GRAVELS WITH	GM		SILTY GRAVELS, SILTY GRAVELS WITH SAND
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE		OVER 15% FINES	GC		CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND
OARSE-		CLEAN SANDS WITH LITTLE	sw		WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
ETHAN	SANDS MORE THAN HALF	OR NO FINES	SP		POORLY GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
MOR	COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	SANDS WITH	SM		SILTY SANDS WITH OR WITHOUT GRAVEL
		OVER 15% FINES	sc		CLAYEY SANDS WITH OR WITHOUT GRAVEL
SIEVE			ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS
SOILS HAN NO, 200		ND CLAYS 50% OR LESS	CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS
NED SO	·		OL		ORGANIC SILTS OR CLAYS OF LOW PLASTICITY
FINE-GRAINED HALF IS FINER T			МН		INORGANIC SILTS, MICACEOUS OR DIATOMACIOUS, FINE SANDY OR SILTY SOILS, ELASTIC SILTS
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO, 200 SIEVE		SILTS AND CLAYS - LIQUID LIMIT GREATER THAN 50%			INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
MORE			ОН		ORGANIC SILTS OR CLAYS OF MEDIUM TO HIGH PLASTICITY
	HIGHLY OR	GANIC SOILS	PT		PEAT AND OTHER HIGHLY ORGANIC SOILS

LL - Liquid Limit (%)

PI - Plastic Index (%)

PID - Volatile Vapors in ppm

MA - Particle Size Analysis

2.5 YR 6/2 - Soil Color according to Munsell Soil Color Charts (1975 Edition)

5 GY 5/2 - GSA Rock Color Chart

No Soil Sample Recovered
 "Undisturbed" Sample
 Bulk or Classification Sample
 First Encountered Ground Water Level
 Plezometric Ground Water Level
 Penetration
 Sample drive hammer weight - 140 pounds falling 30 inches. Blows required to drive sampler 1 foot are indicated on the logs

Unified Soil Classification - ASTM D 2488-85 . and Key to Test Data

	0	Set	ler-R	ya	n, I	nc.		Log of Boring MW-9		
PROJ	ECT:	Tosa	o (76) S	ervic	e Sta	ation No	o. 7376	LOCATION: 419 First Street, Pleasanton, CA		
		T NO.						CASING ELEVATION: 354.85 feet	MSL	
			10/07/	99			-	WL (ft. bgs): 73.85 DATE: 10/07/99	TIME: 1:30 pm	
		SHED						WL (ft. bgs): 71.73 DATE: 10/07/99	TIME: 3:10 pm	
					v-ste	n auge	r	TOTAL DEPTH: 76 feet		
DRILLING METHOD: 8" hollow-stem auger  DRILLING COMPANY: Woodward Drilling								GEOLOGIST: Clyde Galantine		
DEPTH (feet)	PIO (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	G	EOLOGIC DESCRIPTION	WELL DIAGRAM	
4-	<b>a</b> .	13	<i>w</i> −9-6		9	ML	stiff, non-plastic gravel.  Change at 2.5 fe	(ML) - dark brown (10YR 4/3), moist, and silt, 15% fine to coarse sand, 5% seet to dark brown (10YR 3/3).  Seet to SILT (ML) - brown (10YR stiff, non-plastic; 90-100% silt, 0-10%		
- 12 -	0	18	MW-9-11				Change at 10 fe (10YR 4/3), mois coarse sand.	et to SILT with SAND (ML) – brown st, very stiff; 80% silt, 20% fine to	Schedule 40 PVC	
- 16- -	0	56	MW-9-16				Change at 15 fe 4/4).	et to dark yellowish brown (IOYR	2" Clank Schedu	
20-	0	48	MW-9-21	Z			with dark grayis hard; 65% silt, 2	eet to SILT (ML) - brown (7.5YR 5/4) in brown (10YR 4/2) mottling, moist, 5% clay, 10% fine to coarse sand.		
24-		20	MN-0 00			CL	hard, moderatel coarse sand.	ark yellowish brown (10YR 4/4), moist, y plastic; 75% clay, 15% silt, 10% fine to		
28-	0	38	MW-9-26	<sup>°</sup>		GW	to saturated, vo	dark grayish brown (2.5Y 4/2), moist ery dense; 70% subangular to rounded 50% subangular to rounded fine to coarse sand, 5% clay.		

	(	3ett	ler-R	yan, i	Inc.		Log of Boring MW-9			
PROJ	ECT:	Toso	o (76) Se	ervice St	ation N	vo. 7376	LOCATION: 419 First Street, Plea	santon, CA		
DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT. GRAPHIC LOG	SOIL CLASS	G	EOLOGIC DESCRIPTION	WELL DIAGRAM		
-	0				GW	to saturated, ver	dark grayish brown (2.5Y 4/2), moist ry dense; 70% subangular to rounded 90% subangular to rounded fine o coarse sand, 5% clay.			
32- -										
36— -	1	<100			CL	brown (10YR 4/3	nt yellowish gray (2.5Y 6/2) to dark 3), moist to saturated, very stiff, very			
40 - -	0	24	MW-9-41			Change at 41 fe	et to SANDY CLAY with GRAVEL (CL) shitly plastic; 65% clay, 20% very fine 15% fine gravel.	blank Schedule 40 PVC —		
44-	-				SW	saturated, very to coarse sand,	dark vellowish brown (10YR 4/6).			
- - 48-	0	56	MW-9-46.	<b>5</b>	CL.	saturated, very gravel, 20% fine	dense; 75% subangular to rounded fine to coarse sand, 5% clay. rk yellowish brown (10YR 4/6), , plastic; 90% clay, 5% silt, 5% fine			
52-	0	31	MW-9-51			Change at 50 for yellowish brown oxide staining.	eet to brown (10YR 5/3) to light (2.5Y 6/3) with black manganese	VC (0.020 inch)		
56-	0	<100	MW-9-56		SM	SILTY SAND (S very dense, 80 fine sand, 20%	SM) – brown (10YR 4/3), saturated, % subangular to rounded very fine to silt.			

	(	et <sup>•</sup>	tler-R	yε	an,	Inc.			Log of Boring	MW-9
PROJ	ECT:	Tos	co (76) S	erv	ice S	tation N	lo. 7.	376	LOCATION: 419 First Street, Please	anton, CA
ОЕРТН (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS		G	EOLOGIC DESCRIPTION	WELL DIAGRAM
-	0	<100	MW-9-60.5			SM SW-SC		SAND with CLAY (10YR 4/4), satu	et for geologic description.  (SW-SC) - dark yellowish brown rated, very dense; 80% subangular to very coarse sand, 10% fine gravel, 10%	
64-				_		S₩		3/4), saturated.	Et. (SW) – dark yellowish brown (10YR very dense; 65–70% subangular to very coarse sand, 25% fine gravel,	
-	0	<100	!							hine slotted PVC (0.0)
68-										2" machine slotted PVC (0.020 inch)
72-	0	68	MW-9-71.5	5		SW-SC	Ā	SAND with CLAY	(SW-SC) - dark yellowish brown	-capcap
-						3" 30	₹	(IOYR 4/4), satu	irated, very dense; 80% subangular to very coarse sand, 10% fine gravel, 10%	
76-	0	<100	MW-9-76	7		1		Bottom of boring	at 76 feet bgs.	
-	- - - - -							(* = Converted blows/foot.)	to equivalent standard penetration	-
80-			·	-						-
84-					]					_
					1					-
88-	- - -				-					
92-	-				-					Page 3 of 3

	•	et	tler-R	ya	n, Inc.		Log of Boring Mire			
PROJ	ECT:	Tas	ca (76) Si	ervi	ce Station N	Vo. 7376	LOCATION: 419 First Street, Pleasanton, CA			
			.: 14010				CASING ELEVATION: 362.62 feet			
	STA				<u> </u>		WL (ft. bgs): 88.5 DATE:	TIME:		
	FINI						WL (ft. bgs): DATE:	TIME:		
					w-stem augu	<u> </u>	TOTAL DEPTH: 100 feet			
	LING				ard Drilling	<u></u>	GEOLOGIST: Clyde Galantine			
DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG SOIL CLASS		SEOLOGIC DESCRIPTION	WELL DIAGRAM		
					••• GW	Asphalt CRAVEL with SAI	MD (CW) - Fill material			
4-	-		MW-10-3.5		ML	SANDY SILT (MI 3/2), moist, hard to rounded fine	ND (GW) - Fill material.  1) - very dark grayish brown (10YR, non-plastic; 50% silt, 30% subangular to coarse sand, 20% clay.  1) eet to yellowish brown (10YR 5/6).			
8-	0	29	MW-10-5.5							
12-	2	25	MW-10-11	1		yellowish brown non-plastic; 80% gravel, 5% fine t Change at 12.5 f (10YR 4/1); 40%	ieet to SANDY SILT (ML) – dark gray silt, 40% subangular to rounded fine	e 40 PVC		
 16 	0	!	MW-10-16.9		SW-SM ML	to medium sand, Change at 14.5 grayish brown ( 30% subangular to rounded fine SAND with GRAV moist to saturat rounded fine to silt. SILT with SAND 4/6), moist, hard	20% clay.  feet to GRAVELLY SILT (ML) - very 10YR 5/2), hard, non-plastic; 60% silt, to rounded fine gravel, 15% subangular to coarse sand.  FEL (SW-SM) - dark brown (10YR 4/3), ed, very dense; 60% subangular to very coarse sand, 30% fine gravel, 10%  (ML) - dark yellowish brown (10YR d, non-plastic; 70% silt, 25% subangular to very coarse sand, 5% subangular to	2" blank Schedul		
20-	0	54	MW-10-2	Z	SW	rounded fine grassians (SW) - of 85% subangular	ive gray (5Y 4/2), moist, very dense; to rounded fine to coarse sand, 10% bunded fine gravel, 5% silt.			
24-	0	67 46	MW-10-25		111 ML	SILT (ML) - ye non-plastic; 90 sand.	llowish brown (10YR 5/4), moist, hard, % silt, 10% subangular to rounded fine			
28-	1				1111	Change at 27.29 30% clay, 10% s	5 feet to olive gray (5Y 4/2); 60% slit, ubangular to rounded fine sand.			

#### Log of Boring MW-10 Gettler-Ryan, Inc. 419 First Street, Pleasanton, CA Tosco (76) Service Station No. 7376 LOCATION: PROJECT: NUMBE 99 Ϊ ASS OWS/FT. (mdd) **WELL DIAGRAM** GRAPHIC GEOLOGIC DESCRIPTION SAMPLE ರ DEPTH (feet) PID 퓜 SILT (ML) - olive gray (5Y 4/2); moist, hard, ML non-plastic; 60% silt, 30% clay, 10% subangular to MW-10-29 0 48 rounded fine sand. GRAVEL with SILT and SAND (GW-GC) - olive gray GW-GC (5Y 4/2), moist, very dense; 60% subangular to MW-10-31 <100 rounded fine gravel, 30% subangular to rounded fine to SW coarse sand, 10% silt. 32-<100 MW-10-32.5 SAND (SW) - olive gray (5Y 4/2), moist, very dense; 90% subangular to rounded very fine to coarse sand, 10% silt, layers of silt and coarse sand. GRAVEL with SAND (GW) - olive gray (5Y 5/2), moist, GW 36very dense; 60% subangular to rounded fine gravel, 3 <100 MW-10-36.5 30-35% subangular to rounded very fine to coarse sand, 5-10% silt. <100 MW-10-38 31 40 MW-10-40.5 SILT (ML) - brown (10YR 4/3), moist, hard, non-plastic; 60-80% silt, 20-30% clay, 0-10% ML subangular to rounded fine to coarse sand. 2" blank Schedule 40 PVC Coarse sand layer at 43.25 - 43.4 feet. MW-10-44 2 68 44-At 45 feet becomes saturated. Change at 46 feet to grayish brown (10YR 5/2), moist; 80% silt, 20% clay. 0 MW-10-47 63 Gray (5Y 5/1) mottling at 47 to 48.5 feet. 48 <100 MW-10-49 Change at 50 feet to dark yellowish brown (10YR 4/4) with black manganese oxide staining. MW-10-51 2 <100 52 12 <100 MW-10-54 Change at 55 feet to light olive brown (2.5Y 5/3) and greenish gray (56 6/1). MW-10-56 443 72 56 Equipment broken downhole, overdrilled from 57 - 70 feet, no samples were taken.

#### Log of Boring MW-10 Gettler-Ryan, Inc. 419 First Street, Pleasanton, CA Tosco (76) Service Station No. 7376 LOCATION: PROJECT: SAMPLE NUMBEI GRAPHIC LOG CLASS INI BLOWS/FT. WELL DIAGRAM PID (ppm) GEOLOGIC DESCRIPTION SAMPLE 1 SOIL ( Equipment broken downhole, overdrilled from 57 - 70 feet, no samples were taken. 64 68-2" blank Schedule 40 PVC GW-GC GRAVEL with SILT and SAND (GW-GC) - dark yellowish brown (10YR 4/6), saturated, very dense; seat i 0 <100 MW-10-71 70% subangular to rounded fine gravel, 20% subangular to rounded fine to coarse sand, 10% silt. 72-<100 MW-10-72.5 <100 MW-10-76 0 76 <100 MW-10-77.5 80 SILT (ML) - yellowish brown (10YR 5/6), moist, hard, ML non-plastic; 80% silt, 10% clay, 10% subangular to rounded fine sand, trace of fine gravel. 50 MW-10-82 Fine gravel and coarse sand strata at 81.8 - 82.2 feet. <100 MW-10-84 84 (0.020 inch) SAND with SILT and GRAVEL (SW-SM) - yellowish SW-SM brown (10YR 5/6), moist, very dense; 70% subangular <100 | MW−10-85.5 🖾 to rounded fine to coarse sand, 20% gravel, 10% silt. 0 Lonestar sand GRAVEL with SAND (GW) - yellowish brown (10YR 5/6), moist, very dense; 70% subangular to rounded fine machine statted PVC GW gravel, 30% subangular to rounded fine to very coarse 0 <100 MW-10-87.5 sand, trace of silt. 88 ¥ Saturated at 88.5 feet. Grab groundwater sample MW-10-90 at 90 feet. <100 MW-10-90.5 Š Page 3 of 4 JOB NUMBER: 140107,04

## Log of Boring MW-10 Gettler-Ryan, Inc. 419 First Street, Pleasanton, CA Tosco (76) Service Station No. 7376 LOCATION: PROJECT: SAMPLE NUMBER SOIL CLASS SAMPLE INT BLOWS/FT. WELL DIAGRAM GEOLOGIC DESCRIPTION PIO (ppm) GRAVEL with SAND (GW) - yellowish brown (10YR 5/6), moist, very dense; 70% subangular to rounded fine gravel, 30% subangular to rounded fine to very coarse <100 MW-10-92. (0.020 inch) sand, trace of slit. <100 sand Course sand (SW) at bottom of 92.5 foot sample. \( \begin{align\*} \( \bed{align\*} \( \begin{align\*} \( \begin{align\*} < Hydropunch rejection ater 6 inches at 93 feet. 96 Hydropunch sample - MW-10-95'. <100 MW-10-99 2 Hydropunch from 99 - 100 feet, no groundwater after hour wait. 100-Bottom of boring at 100 feet bgs. (\* = Converted to equivalent standard penetration blows/foot.) 104 108 112-116-120·

Gettler-Ryan, Inc.								Log of Boring E	3-13,
PROJI	ECT:	Toso	o (76) Se	er vi	ce St	ation N	lo. 7376	LOCATION: 419 First Street, Pleasants	on, CA
GR PF	ROJEC	T NO.	: 14010	7.04	1			SURFACE ELEVATION: 364.65 feet M.	SL
	STAF							WL (ft. bgs): 102 DATE: TI	ME:
DATE	FINI	SHED	: 11/22/9	99				WL (ft. bgs): DATE: TI	ME:
DRILL	ING N	1ETH	0D: 8" h	ollo	w-ste	m auge	er	TOTAL DEPTH: 135.5 feet	
<u> </u>	ING (					rilling		GEOLOGIST: Clyde Galantine	
DEPTH (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS		GEOLOGIC DESCRIPTION	REMARKS
							Topsoil - planter	material with bark.	
4-				-		CL	hard: 70% clay, 2	EL (CL) – strong brown (7.5YR 5/8), moist, 20% subangular to rounded fine gravel, 10% unded fine to coarse sand, bricks, lt. (fill material)	Boring backfilled with neat cement from the bottom to ground surface.
8-	27	37 42	8-13-6 8-13-7.5	7		ML	non-plastic; 60% 10% fine to coars Change at 6 - 7 3/3), moist, hard	EL (ML) - black (10YR 2/1), moist, hard, silt, 30% subangular to rounded fine gravel, se sand. (fill material) feet to SILT (ML) - dark brown (10YR, non-plastic; 85% silt, 10% subangular to medium sand, 5% fine gravel. (fill material)	
12-	11 -	39 <100	B-13-11 B-13-12.5			SW	material)  Change at 11.25  yellowish brown silt, 15% subangu gravel.	et to dark gray (10YR 4/1), saturated; (fill feet to SILT with SAND (ML) – dark (10YR 4/6), moist, hard, non-plastic; 70% lar to rounded fine sand, trace of fine	
16-	2	<100	8-13-15.5			ML	90-95% very fin	rong brown (10YR 4/6), moist, very dense; e to medium sand, 5-10% silt. k yellowish brown (10YR 4/4), moist, hard, k silt, 5% subangular to rounded fine sand,	
- -	15	<100	B-13-18.5				Change at 18 fe	et to dark grayish brown (2.5Y 4/2).	·
20	144	73	B-13-21			GW-GM	25% clay, 10% su coarse sand, bla GRAVEL with SII moist, very dens 15% subangular 1	eet to dark olive brown (2.5Y 2/2); 60% silt, bangular to rounded fine gravel, 5% fine to ack hydrocarbon in void spaces.  T (GW-GM) - very dark grav (5Y 3/1), se: 75% subangular to rounded fine gravel, to rounded fine to coarse sand, 10% silt, hydrocarbon in void spaces.	
24-	376	<100	B-13-23.5			SW	SAND (SW) - ve dense; 90% suba	ery dark gray (5Y 3/I), saturated, very angular to rounded fine to very coarse sand, gravel, abundant hydrocarbon.	
- - 28	957 >4500		B-13-26.5 B-13-28				Change at 27 fe	eet to 75% sand, 20% fine gravel, 5% silt.	

JOB NUMBER: 140107.04

(mdd) 017 500 6500 6	BLOWS/FT. *	B-13-32 B-13-33	SAMPLE INT.	SM SM GM	See previous page SILT (ML) - very non-plastic; 85% 5% clay, hydroca SILTY SAND (Swery dense; 65% GRAVEL (GW) - dense; 85% suba	GEOLOGIC DESCRIPTION  ge for geologic description.  y dark gray (5Y 3/1), saturated, hard, silt, 10% subangular to rounded fine sand, arbon in void spaces.  4) - very dark gray (5Y 3/1), saturated, subangular to rounded fine sand, 35% silt. very dark gray (5Y 3/1), saturated, very dark gray (5Y 3/1), saturated, very ingular to rounded fine gravel, 10% fine to silt, leydrocarbon in void spaces.	REMARKS
500 <	.T.3/SMO.J.8 44 400	B-13-32 B-13-33		NE SM	SILT (ML) - very non-plastic; 85% 5% clay, hydroca SILTY SAND (Sherry dense; 65% GRAVEL (GW) - dense; 85% suba	ge for geologic description.  y dark gray (5Y 3/1), saturated, hard, silt, 10% subangular to rounded fine sand, arbon in void spaces.  4) - very dark gray (5Y 3/1), saturated, subangular to rounded fine sand, 35% silt.  very dark gray (5Y 3/1), saturated, very angular to rounded fine gravel, 10% fine to	REMARKS
500 4 500 <	44	B-13-32 B-13-33		SW ML SM	SILT (ML) - very non-plastic; 85% 5% clay, hydroca SILTY SAND (Sherry dense; 65% GRAVEL (GW) - dense; 85% suba	y dark gray (5Y 3/1), saturated, hard, silt, 10% subangular to rounded fine sand, arbon in vaid spaces.  4) - very dark gray (5Y 3/1), saturated, subangular to rounded fine sand, 35% silt.  very dark gray (5Y 3/1), saturated, very angular to rounded fine grayel, 10% fine to	
500 < 77 <	100	B-13-33		SM	non-plastic; 85% 5% clay, hydroca SILTY SAND (Swery dense; 65% GRAVEL (GW) -	silt, 10% subangular to rounded fine sand, arbon in void spaces.  4) - very dark gray (5Y 3/1), saturated, subangular to rounded fine sand, 35% silt.  very dark gray (5Y 3/1), saturated, very snoular to rounded fine grayel, 10% fine to	
500 < 77 <	100	B-13-33			very dense; 65% GRAVEL (GW) - dense; 85% suba	subangular to rounded fine sand, 35% silt.  very dark gray (5Y 3/1), saturated, very includer to rounded fine grayel, 10% fine to	
500 < 77 <	100	B-13-33		GM	GRAVEL (GW) -	very dark gray (5Y 3/1), saturated, very	
	<100	B-13-35.5	▆▓▍▍				
				.			
				CL	hard, plastic: 60	own (10YR 4/3) and gray (5Y 5/1), damp, % clay, 30% silt, 10% subangular to rounded of fine gravel, bydrocarbon in void spaces.	
49	72	B-13-38.5					
30	72	B_13_42					
	_	Į		1			
397	69	B-13-46			(10YR 5/3) and clay, 20% suban	gray (5Y 5/1), moist, hard, non-plastic; 60% gular to rounded fine gravel, 10% fine to	
339	<100	B-13-49					
886	<100	B-13-51			A CONTRACTOR OF THE SECOND SEC	50.0 - Day 10.0 to Standard With	
728	<100	R-13-53			Change at 52 fe	eet to bu% clay, 3u% gravel, 1u% sand.	
_	<100			GM	very dense; 709 15% subangular hydrocarben in No sample reco SILT (ML) - ye gray (10YR 6/2	% subangular to rounded fine gravel, 15% silt, to rounded fine to very coarse sand, void spaces.  very.  Illowish brown (10YR 5/4) to light brownish  ), moist, hard, non-plastic; 60% silt, 35% clay,	
9 31 7:	39 86 - 24	68 67 69 39 <100 86 <100 28 <100	68 B-13-43 67 69 B-13-46 68 B-13-46 69 B-13-46 69 B-13-49 69 B-13-51 69 B-13-51 69 B-13-51 69 B-13-51 69 B-13-51	68 B-13-43  69 B-13-46  39 <100 B-13-49  86 <100 B-13-51  28 <100 B-13-53  - <100  24 <100 B-13-57	97 69 B-13-48 39 <100 B-13-49 86 <100 B-13-51 28 <100 B-13-53 GM - <100 24 <100 B-13-57	Change at 45 ft (10YR 5/3) and clay, 20% subant coarse sand, by  86 <100 B-13-49  Change at 45 ft (10YR 5/3) and clay, 20% subant coarse sand, by  Change at 52 ft (10YR 5/3) and clay, 20% subant coarse sand, by  Change at 45 ft (10YR 5/3) and clay, 20% subangular by dense; 10YR 6/2 5% subangular by drocarben in No sample reconstitution of trace of hydroid	Change at 45 feet to CLAY with GRAVEL (CL) - brown (10YR 5/3) and gray (5Y 5/1), moist, hard, non-plastic; 60% clay, 20% subangular to rounded fine gravel, 10% fine to coarse sand, hydrocarbon in void spaces.  Change at 52 feet to 60% clay, 30% gravel, 10% sand.  Change at 52 feet to 60% clay, 30% gravel, 10% sand.  SILTY GRAVEL with SAND (GM) - brown (10YR 5/3), moist, very dense; 70% subangular to rounded fine gravel, 15% slit, 15% subangular to rounded fine to very coarse sand, hydrocarbon in void spaces.  No sample recovery.  SILT (ML) - yellowish brown (10YR 5/4) to light brownish gray (10YR 6/2), moist, hard, non-plastic; 60% slit, 35% clay, 5% subangular to rounded fine sand, trace of fine gravel, trace of hydrocarbon in void spaces.

### Log of Boring B-13 Gettler-Ryan, Inc. 419 First Street, Pleasanton, CA Tosco (76) Service Station No. 7376 LOCATION: PROJECT: SAMPLE NUMBER GRAPHIC LOG IN. CLASS REMARKS GEOLOGIC DESCRIPTION SAMPLE SOIL ML Sand strata at 60.4 - 60.7 feet. 15 <100 B-13-61 GRAVEL with CLAY and SAND (GW-GC) - dark yellowish GW-GC brown (10YR 4/4), moist, very dense; 70% subangular to rounded fine gravel, 20% subangular to rounded fine to B-13-63 833 <100 coarse sand, 10% clay. 64-<100 B-13-65.5 Saturated at 67 feet. <100 B-13-67.5 68 Change at 70 feet to 55% gravel, 35% sand, 10% clay. <100 | B-13-70.5 | 52 SILT (ML) - dark yellowish brown (10YR 4/6) to pale brown (10YR 6/2) with iron oxide staining, moist, hard, non-plastic; ML 72-75% silt, 20% clay, 5% subangular to rounded fine sand. Attempt grab groundwater sample at 68 - 73 feet, no groundwater after 45 minute wait. <100 B-13-73.5 <100 B-13-75.5 76 GRAVEL (GW) - dark yellowish brown (10YR 4/4), moist, very dense; 75% subangular to rounded fine gravel, 20% subangular to rounded fine to coarse sand, 5% clay. 80-<100 B-13-80.5 <100 B-13-82.5 84 Change at 85 feet to 55% gravel, 40% sand, 5% clay. <100 B-13-85.5 6 <100 B-13-87.5 88 <100 B-13-90.5

	6	eti	ller-R	yε	n,	Inc.		Log of Boring B-13		
PROJ	ECT:	Tos	co (76) St	27 VÎ	ce S	tation N	lo. 7376	LOCATION: 419 First Street, Pleasanton,	CA	
DEPTH (feet)	PIO (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	BRAPHIC LOG	SOIL CLASS		GEOLOGIC DESCRIPTION	REMARKS	
	<del>-</del>		B-13-92.5	_		GW	See previous pag	ge for geologic description.		
- -				Ш.		SW-SC	(10YR 5/4), mois	and GRAVEL (SW-SC) — yellowish brown t, very dense; 60% subangular to rounded and, 30% subangular to rounded fine gravel,		
96-		<100	B-13-95.5	<b>a</b> .			<u>-</u> 	I with sand at contact with silt.	_	
-	0	52	8-13-98.5			ML	yellowish brown silt, 25% clay, 5% staining.	t yellowish brown (10YR 6/4) to dark (10YR 4/6), moist, hard, non-plastic; 70% subangular to rounded fine sand, iron oxide		
100-			5 42 424 5				Attempt grab gr groundwater aft	oundwater sample at 91 – 99 feet, no er 30 minute walt.		
	0		B-13-101.5 B-13-103	I	- - - - - - - -		groundwater aft	oundwater sample at 80 - 102 feet, no er overnight wait.		
104-			·				red (5YR 4/6) w non-plastic; 75% medium sand, 105			
-	0		B-13-106	L		GW-60	brown (IOYR 4/	AY and SAND (GW-GC) - dark yellowish 4), saturated, very dense; 70% subangular to avel, 20% subangular to rounded fine to very & clay.	-	
108-		<100	B-13-107.5	-		SW-SO	CAND LIST CLAY	(SW-SC) - dark yellowish brown (10YR		
	-	<100	B-13-110.5	5			4/4), saturated, medium to coars	very dense; 80% subangular to rounded e sand, 10% clay, 10% fine gravel.	-	
112-	-	<100	B-13-112				Attempt grap gr groundwater af Silt strata at 112	condwater sample at 105 - 112 feet, no er 45 minuté weit. 2.3 feet.	_	
-	0	<10.0	B-13-115,5			GW-GC	brown (10YR 4/	AY and SAND (GW-GC) - dark yellowish 4), saturated, very dense; 70% subangular to avel, 20% subangular to rounded fine to % clay.		
116-										
120-	0	<100	B-13-118						-	
		<100					No sample reco	very.		
124-	0	<100	B-13-123.	5		ML	SILT (ML) - ye non-plastic; 80 fine gravel.	llowish brown (10YR 4/4), moist, hard, % silt, 10% clay, 10% subangular to rounded	Page 4 of 5	

	•	3et	tler-R	yε	ın,	Inc.		Log of Boring B-	-13
PROJ	ECT:	Tos	co (76) S	ervi	ce St	ation I	Vo. 7376	LOCATION: 419 First Street, Pleasanton,	CA
ОЕРТН (feet)	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS		GEOLOGIC DESCRIPTION	REMARKS
128-	0	<100 <100	B-13-128			ML GC	CLAYEY GRAVEL 5/8), saturated, gravel, 25% suba 15% clay. No sample recov	ge for geologic description.  with SAND (6C) - yellowish brown (10YR very dense; 60% subangular to rounded fine ngular to rounded fine to very coarse sand,  ery.  er sample - B-13-128.5 at 128.5 feet.	
132-		<100							
- 140- - - - - 144-									
- - 148- - -				_					
152- 156-	-				-	9			-

### APPENDIX D

Well Development and Groundwater Sampling Field Data Sheets



### MONITORING WELL OBSERVATION SUMMARY SHEET

4191 FIRS	TSTREE	T DATE:	11/29	100
015050		onie.	11/27	177
LCEHJHY	UTON, CI			
Total Depth	Depth to Water	Product Thickness	TOB or TOC	Comments
48.20' 92.90	74.50' DRY	\$ \$	TOC	
WERE	PUMPED	1=ROM	3 DAUM	3 (THREE
11/21/	99 RINSA	TE MW-U	D <u>&amp; B-13</u> . BEMOVED	) AND FROM
THE	DRUMS	AND AT	DDED TO	THE
				<del></del>
		<u></u>		
	Depth  18.20  92.90  11/21/  SILT W  THE  Exis	Depth Water  18.20 14.50  92.90 DRY  EXERE PUMPED  11/21/99 RINSA  SILT WAS THE DRUMS  EXISTING ST	Depth Water Thickness  18.20' 14.50' 9  92.90 DRY 9  E; APPROXIMATELY 110 G  WERE PUMPED I-ROM  11/21/99 RINSATE MW-19  SILT WAS THE MW-19  THE DRUMS AND A	Depth Water Thickness TOC  48.20' 44.50' 9 TOC  92.90 DRY 9 TOC  E: APPROXIMATELY 110 GALLONS OF THE PUMPED FROM 3 DRUM  11/21/99 RINSATE MW-10 & B-13  SILT WAS THE PROVEST  THE DRUMS AND ADDED TO  EXISTING STOCKPILE (DRILL)

## WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Facility T05c0 76 # 73	76	Job#:	14010	7,0	4
Address: 4191 FIRST		Date:	1/29	199	
City: PLEASANTON ,		Sampler:	HAIG	KEV	PK
City.					
Well ID MW-9	Well Condition	: <u>OK</u>			·
Well Diameterin.	Hydrocarbon Thickness:	Ø Ft.	Amount Ba	<u> </u>	(gal.)
Total Depth <u>M8.20 ft.</u>	Volume	2" = 0.17	3" = 0.38		" = 0.66
Depth to Water 44.50 ft.	Factor (VF)	6" = .	1.50 	12" = 5.80	
3.70 x VF	0.17 =0.629	(case volume) =	= Estimated Purg	ge Volume: _	6.29(gal.)
Purge Disposable Bailer Equipment: Bailer		npling ipment: Di	sposable Bail	ler	
Stack Suction		1 / 1	iller essure Bailer		
Grundfos Other:	(		ab Sample		
	-	· · ·		•	
Starting Time: 14:15	_ Weather C	onditions: _	CLOUD	ب	
Sampling Time: U/A		or:		Odor:	
		Description:			
Did well de-water?	_ if yes; if	me:	voluli	ie:	<u>(qal.)</u>
Time Volume pH (gal.)	Conductivity  µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
14:16 0.5 7.63	403	19.4			
1 7.51	439	18.9			
1.5 7.40	4-80	18.2			
3 7.28	486	18-0			
3.5 7.24	492	14-6			
<u> </u>	<u>497</u>	14.4			
<u> </u>	502	17.6	·		
5.5 7.15	499	17.7			
14:45 6 4.15 14:45 6 1.13	ABORATORY INF		MA	)	<del></del>
14:45 6 4.15 14:45 6 1.13	497		RATORY	ANALY	rses
14:45 6 4.15 14:45 6 1.13	ABORATORY INF		RATORY	ANALY	/SES
14:45 6 4.15 14:45 6 1.13	ABORATORY INF		RATORY	ANALY	/SES

### WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ 70: Facility# 73:	sco 76		Jo	ob#:			-	
Address: 4191	First st.		۵	ate:		2/6/99	<u></u>	
City: <u>Plea</u>			s	ample	r:	ortkes		
Well ID	Hw-1	Weil	Condition:		OK			
Well Diameter	2in,	•	ocarbon	æ P		Amount Ba		(Gallons)
Total Depth	86.43 n.		mess:	<u> </u>		3" = 0.38	4'	= 0.66
Depth to Water	79.74 t.	Fact	or (VF)		6" = 1	50 	12" = 5.80	
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		= <u>J.13</u> x 3 Samp Equip	ling	Dis Bai Pre Gra	posable Ba	iler	3. 4 / _(gal.)
		 	Weather Co Water Color Sediment Do If yes; Tim	: escripti	<u>کی</u> ion:	<u>'                                  </u>	- <del></del>	
	Volume pH (gal.) 7.54	முரி		Temper:		D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
11:20	2 7.40	8	<u>, 45</u> _	69	<u>z</u>			·
11:23	3.5	<u>8</u> - —	.41	69.	<u>T</u>			
SAMPLE 10	(#) - CONTAINER  3 × 40 m/v 2 A	LABOF REFRIG.	IATORY INFO	YPE	TION LABO SEQUOIA		TPH(G)/btex/	YSES mtbe
HW-1	1 Aucher	~_	NUNE	-	~		<u>17:H-D</u>	
COMMENTS:			<u></u>					
	<del>-,</del>							

9/97-fieldat.fm

## WELL MONITORING/SAMPLING FIELD DATA SHEET

lient/ To: acility# 73	76		Job#		80075		<del></del>
ddress: <u>4191</u>	First st.		Date:			<del></del>	
City: <u>Plea</u>			Samp	oler: <i>V</i>	vetkes		
Well ID	HW-2B	Well Co	endition:	BK			
Vell Diameter		Hydroc Thickne	/ /	,	vmount Ba	711	(Gallons)
otal Depth	85.25 ft	Volume	2" = 0	.17	3" = 0.38	12" = 5.80 4"	= 0.66
Depth to Water	84.41 K	Factor	(VF)	0. = 13			
		vf <u>0.17</u> =	<u> </u>	volume) = E	stimated Pu	rge Volume: <u>Ø</u>	.42 (gal.)
Purge ( Equipment:	Disposable Bailet Bailer Stack		Sampling Equipment	t: Disp	osable Ba	iler )	:
	Suction				sure Baile	r	
	Grundfos Other:				o Sample er:	··	
Starting Time: Sampling Time: Purging Flow Ra	2:00 2:19 te:	<u>apm.</u> Se	eather Conditionate Color:	<i>وک</i> :ption	<u> </u>	<u> </u>	
	er?	If	yes; Time: _		Volum	ne:	(gal.)
2:05	Volume pH (gal.) 7.20		/cm <b>X/00</b> 68	erature F 7. 4	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
2:08 _	0·5 <u>7.03</u> 1. <u>2.03</u>		5 <u>68</u> 52 <u>68</u>	9			
			TORY INFORM				
SAMPLE ID	(#) - CONTAINER		PRESERV. TYPE	LABOR	ATORY	ANAL' TPH(G)/btex/n	
HW- 2B	3×40m/v2A	Y	HCI :	SECOUIA		TPH-D	
HW-2B	1 Aucher	7	NONE				
				<u> </u>			
COMMENTS:							

### WELL MONITORING/SAMPLING FIELD DATA SHEET

acility# 73				Job#:						
	First st.	<u> </u>		Date:		-				
City: <u>Plea</u>	santon		Sampler: Vartkes							
Well ID	HW-3	Well	Condition:	2	K					
Well Diameter	2in,		ocarbon kness:	P		Amount B		(Gallons)		
Total Depth	94.11 tr.	Voi	ume	2" = 0.1	7	3° = 0.38	4	¥" = 0.66		
Depth to Water	83.41 ft.	Fac	tor (VF)		0° = 1.		12 - 5.60			
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundtos Other:		Sam		Dis Bai Pre Gra	posable Baller ssure Baile ab Sample ner:	ailer er	5.4 (qal.)		
Starting Time:	2:35	<del></del>	Weather Co	onditio	ns:	ilaly	•			
	2.58		Water Colo	r:	de		Odor: <u>४</u>			
	te:/		Sediment E	Descrip	tion:					
	er?		If yes; Tir	ne: _		Volun	ne:	(gal.		
Tîme V	/olume pH (gal.) 2 7.03 4 6.85 5.5 6.8	Conc µm. 9.	ductivity hos/cm 28 37	Tempe •F 69	.5	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)		
SAMPLE ID	(#) - CONTAINER	LABOF REFRIG.	ATORY INF		LABO	RATORY	ANA	LYSES		
MW-3	3×40m/vaA	Υ	HCI		SEQUOIA		TPH(G)/btex			
HW-3	1 Aucher	- <u> </u>	NON	<u></u>			<u> </u>			
			<u> </u>				<u> </u>	<u> </u>		

9/97-fleidet.fm

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ Tost facility# 73	First st.		Job#							
City: <u>Plea</u>			Sampler: Vartkes							
Well ID	HW-4	Well	Condition:	OR						
Well Diameter	2in,		rocarbon kness:		ount Bailed duct/water):	(Gaillons)				
Total Depth	93.01 tt	Vol	ume 2" = 0	0.17 3 6" = 1.50	3" = 0.38 12" =	4" = 0.66 5.80				
Depth to Water	92.23 tt.	. Fac	tor (VF)		· · ·					
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		Sampling Equipment	t: <u>Dispos</u> Bailer Pressu Grab S	able Bailer	ume: <u>0, 39 (qal.)</u>				
	te:		Weather Condit Water Color: A Sediment Descr If yes; Time:	iption:	and-silt	r: 100				
	olume pH (gal.) - 7.58 0.5 7.49	μm 7	ductivity Tem hos/cm#&&	perature •F	D.O. (mg/L) (	ORP Alkalinity mV) (ppm)				
SAMPLE ID	(#) - CONTAINER	L'ABOI REFRIG.	RATORY INFORM	LABORAT		ANALYSES				
HW-4	3×40m/v2A	Y	HC1	SEQUOIA		G)/btex/mtbe				
MW-4	1 Aucher		NONE							
COMMENTS:										

9/97-fleidat.irm

## WELL MONITURING/SAMPLING FIELD DATA SHEET

cility# 73 ddress: <u>4191</u> ty: <u>Plea</u>	First st.		Date: Sampler:			
Well ID	HW-5	Well Condition:	OK			
ell Diameter	2 in.	Hydrocarbon	0.82 (feet)	Amount Ba		(Gallons)
otal Depth	72.52 tt	Thickness:	2" = 0.17		4*	= 0.66
epth to Water	70.02 tt.	Factor (VF)			12" = 5.80	
	x v	F ×	3 (case volume) =	= Estimated Pu	rge Valume:	(gal.)
Purge quipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	Equ	Bi Pi G	isposable Ba ailer ressure Baile rab Sample ther:	r	:
Starting Time:		Weather (				
Sampling Time:			lor:			
Purging Flow Ra Did well de-wat	er?	Sediment  If yes; T	Description: _	Volum	ne:	[qa
Time	Volume pH (gal.)	Conductivity µmhos/cm	Temperature •F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
	<u> </u>					
	(#) - CONTAINER	LABORATORY IN	NFORMATION	ORATORY	ANAL	YSES
SAMPLE ID	7:40m/v2A	#el	SEQUE	IIA	TPH(G)/btex/n	ntbe -
HW-	Aucher	101	YE		TP#=1)	
	Not Sample, product bail			<b>.</b>		
	x + c = L	1 dia to	W. hawana	1 2L 1	er Mich	CT

## WELL MONITORING/SAMPLING FIELD DATA SHEET

acility# 73	76		Job				<del>-</del>		
Address: <u>419</u>	I First st.		Dat	_	•		<del></del>		
City: <u>Plea</u>	senton	<del></del>	Sai	Sampler:					
Well ID	HW-6	Well	Condition:	<u>oh</u>			<del></del>		
Well Diameter	2in.		rocarbon kness:	~	Amount Ba (product/wat		(Gallons)		
Total Depth	88.00 ft.		tor (VF)	= 0.17 6" = 1.	3" = 0.38 50	4' 12" = 5.80	'= 0.66		
Depth to Water	DRY to				<u> </u>				
	<u> </u>	VF	= X 3 (c	ase volume) =	Estimated Pu	rge Volume: _	(gal.)		
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		Samplir Equipm	ent: Dis Bai Pre Gra	posable Ba ler ssure Baile ab Sample her:	er .	·		
Starting Time:			Weather Cond	litions:					
Sampling Time:			Water Color:			Odor:			
, –	ate:	gom.	Sediment Des						
	ter?		If yes; Time		Volun	ne:	[gal.		
Time	Volume pH (gal.)		ductivity Te hos/cm	•F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)		
			—— , <del>/</del>			<del></del>	•		
			<u> </u>						
SAMPLE ID	(#) - CONTAINER	LABOF	RATORY INFOF	•	RATORY	ANAL	YSES		
Hu.	3 x 40 m/ v3A	γ	Het-	SEQUOL	\	TPH(G)/btex/	mtbe		
MW-	+ Auster		NUNE			7F#=_D			
					<u> </u>				
COMMENTS:	well is	DRY							
	<u> </u>				<del></del>		····		

### WELL MONITORING/SAMPLING FIELD DATA SHEET

acility <i># 73</i> address: <u>4191</u> city: <u>Plea</u>	First st.		Job#: Date: Samp	/3	***		
Well ID	HW-7	Well	Condition:	0	K		<del> </del>
Well Diameter	2in,		rocarbon		Amount B	4-7	(Gallons)
otal Depth	76,90 tt.		kness:	<u>(feet)</u> 17	product/wat 3" = 0.38		" = 0.66
-	70.18 ft.		tor (VF)	6' = 1.5	io	12" = 5.80	
Depth to Water	6.72 x	VF OIT	= <u>1.14</u> × 3 (case	volume) = l	Estimated Pu	ırge Volume: _	3.42 (gal.)
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		Sampling Equipment	Bail Pres Gra	oosable Ba er ssure Baile b Sample er:	er	:
Carries Time:	1:20		Weather Condition	ns:	clde	· .	
	1:41		Water Color:		<u> </u>	Odor:	34
	te:		Sediment Descrip	otion:	5,7	<u>t</u>	
	er?ne		If yes; Time: _		Volun	ne:	(gal
	Volume pH (gal.) 7.04	Con		erature 3.0	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1:23	7.5 6.91 3.5 6.83		.03 <u>68</u>	3. <u>4</u> 3. (			
SAMPLE ID	(#) - CONTAINER	REFRIG.	RATORY INFORMA	LABOR	IATORY	ANAI	YSES
HW-7	3×40m/v2A	<u> </u>	HCI :	SEQUOIA		Trit-D	
MW-7	1 Ausber		NONE			11112	
COMMENTS:						Ĭ .	

9/97-fieldat.frm

### WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/ To acility# 73				lob#:		18007	5 /			
Address: 4191	First st.			ate:		2/6/99				
	senton		Sampler: <u>Vorfkes</u>							
Well ID	HW-8	Wel	Condition:		ok		<u> </u>			
Well Diameter	2 in.		rocarbon :kness:	P	(face)	Amount B (product/wa		(Gallons)		
Total Depth	86.40 tt					3° = 0.38		4" = 0.66		
Depth to Water	74.98 ft.		tor (VF)		6" = 1	50	12" = 5.80			
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		Samp		Dis Ba Pre Gr	Estimated Possible Baller Balle Bample her:	ailer) er	<u> ぶんちゃ (qal.)</u> :		
	1:02 te: 1	gom,	Weather Color Water Color Sediment D	escrip	brn tion: _	sít_	Odor:_ <u>#</u>			
Time V	/olume pH (gal.) 7.39 4 7.20 6 7.14	Соп. µт — 9	If yes; Tim	Tempe	rature Y	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)		
SAMPLE 10  HW_ 8  HW_ 8	(#) - CONTAINER  3 × 40m/v2A  1 Aucher	LABOF REFRIG. Y	RATORY INFO PRESERV. T HCI NUNE	YPE		RATORY	ANA TPH(G)/bte			
COMMENTS:										

### MACTE IMPORT OUTS COMMISSION

### FIELD DATA SHEET

Total Depth	12-000 W191	First st.		Date:				
Well ID	garess: <u>Till</u>	1		Sample	. Vara	Hes		
Vell Diameter   Z   in	ity: <u>Plea</u>	Santon		Sample				
Note   Diameter   Note   Not	Well ID	HW-9	Well Condition	on:		<u></u>		
Purge Equipment:    Disposable Bailer   Sampling   Equipment:   Disposable Bailer   Stack   Suction   Grundfos   Other:     Other:   Other:     Other:   Other:   Other:     Other:   Other:   Other:   Other:   Other:   Ot	Veil Diameter		-	/ 1/			<u>1: P</u>	(Gallons)
Purge    Disposable Bailer   Sampling   Equipment:   Bailer   Stack   Suction   Grundfos   Other:     Other:   Other:     Other:     Other:     Other:     Other:     Other:   Other:     Other:     Other:     Other:     Other:     Other:   Other:     Other:     Other:     Other:     Other:     Other:   Other:     Other:     Other:     Other:     Other:     Other:   Other:     Other:     Other:   Other	otal Depth	78.20 ft.		$2^n = 0.17$	6" = 1.50	= 0.38		= 0.66
Purge Equipment: Bailer Stack Suction Grundfos Other: Othe	epth to Water		<u> </u>		<del></del>			
Equipment:  Bailer Stack Suction Grundfos Other:  Starting Time:  Starting Tim		3.85 x v	IF 0.17 = 0.65	X 3 (case vo	lume) = Estin	nated Purg	ge Volume: <u>/</u>	96 (qai.)
Stack Suction Grundfos Other:	-			• -		able Bai	- -	:
Suction Grundfos Other:  Starting Time:  12:25  Weather Conditions:  Water Color:  Purging Flow Rate:  purging Flow Rate:    Odor: No   Sediment Description:   Sift	Equipment:			• •		o Bailer	,	
Starting Time: 12:05 Weather Conditions: Cloq  Sampling Time: 12:25 Water Color: brn Odor: rec  Purging Flow Rate: apm. Sediment Description: S./f  Did well de-water? ho If yes; Time: Volume: in the volume pH Conductivity Temperature D.O. ORP Alkalin (mg/L) (mV) (ppn 12:07 0 7.15 7.87 68.8 11:13 2 696 7.79 68.9 11:13 2 696 7.								
Starting Time: 12:05 Weather Conditions: Clor Sampling Time: 12:25 Water Color: brn Odor: rec  Purging Flow Rate: apm. Sediment Description: S./T  Did well de-water? ro If yes; Time: Volume: for the conductivity Temperature D.O. ORP Alkalin (mg/L) (mV) (ppn 12:07 0.) 7-15 7-87 68-8 (mg/L) (mV) (ppn 12:07 1-15 7-87 68-8 11:18 2 696 7-79 68-9 68-9 11:18 2 696 7-79 68-9 11:18 2 696 7-79 68-9 11:18 2 696 7-79 68-9 11:18 2 696 7-79 68-9 11:18 2 696 7-79 68-9 11:18 2 696 7-79 68-9 11:18 2 696 7-79 68-9 11:18 2 696 7-79 68-9 11:18 2 696 7-79 68-9 11:18 2 696 7-79 68-9 11:18 11			_					
Sampling Time: 12:25 Water Color: bry Odor: rec  Purging Flow Rate:					- <u>-</u>		<u> </u>	
Sampling Time: 12:25 Water Color: Bry Odor: res  Purging Flow Rate: gpm. Sediment Description: S:/f  Did well de-water? ro If yes; Time: Volume: [Interpretative of the conductivity of th	Stating Time:	12:05	Weaths	er Condition	s:	104		<u></u>
Purging Flow Rate:    Purging Flow Rate:		12:25				•		
Did well de-water?				ent Descript	ion: <u>ک</u>	<i>15</i>		
Time Volume pH Conductivity Temperature D.O. ORP Alkalir (mg/L) (mV) (ppn 17:07 0.) 7.87 68.8  17:07 1.07 2.07 7.87 68.8  17:07 2.07 7.87 68.8  17:07 1.07 2.07 7.87 68.9  10:18 2 696 7.79 68.9  LABORATORY INFORMATION  SAMPLE 10 (M) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW-9 3×40m/v2A Y HC1 SEQUOIA TPH(G)/btex/mtbe				Time:		Volum	e:	(gal.
Time Volume pH Conductivity Temperature (mg/L) (mV) (ppm 17:07 3.) 7-15 7-87 63.3 (mg/L) (mV) (ppm 17:07 3.) 7-15 7-87 68.8 (mg/L) (mV) (ppm 17:07 3.) 7-15 7-87 68.8 (mg/L) (mV) (ppm 17:07 3.) 7-15 7-15 7-15 68.8 (mg/L) (mV) (ppm 17:07 3.) 7-15 7-15 68.8 (mg/L) (mV) (ppm 17:07 3.) 7-15 7-15 7-15 (mg/L) (mV) (ppm 17:07 3.) 7-15 7-15 7-15 (mg/L) (mV) (ppm 17:07 3.) 7-15 7-15 (mg/L) (mV) (mg/L) (mV) (ppm 17:07 3.) 7-15 7-15 (mg/L) (mV) (mg/L) (mV) (ppm 17:07 3.) 7-15 7-15 (mg/L) (mV) (mg/L) (mV) (ppm 17:07 3.) 7-15 7-15 (mg/L) (mg/L) (mg/L) (mg/L) (mg/L) (mV) (ppm 17:07 3.) 7-15 7-15 (mg/L) (mg/L	Did Meil de-Mar	<u></u>					OPR	Alkalinity
17:07	Time	<del>-</del>		· -				(ppm)
LABORATORY INFORMATION  SAMPLE 10 (#) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW-9 3x40m/v2A Y HCI SEQUOIA TPH(G)/btex/mtbe			7.84	60				
L'ABORATORY INFORMATION  SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  HW-9 3x40m/v2A Y HCI SEQUOIA TPH(G)/btex/mtbe	17:09				<u>·8</u> −			' <del></del>
SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW-9 3x 40m/v2A Y HC   SEQUOIA TPH(G)/btex/mtbe	17:07 -							
SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW-9 3x40m/v2A Y HC   SEQUOIA TPH(G)/btex/mtbe			7.79	68	<del>''</del>			
SAMPLE ID (#) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW-9 3x40m/v2A Y HC   SEQUOIA TPH(G)/btex/mtbe			<u>7.79</u>		<del></del>		<del></del>	
SAMPLE 10 (#) - CONTAINER REFRIG. PRESERV. TYPE LABORATORY ANALYSES  MW-9 3x40m/v2A Y HC   SEQUOIA TPH(G)/btex/mtbe			<u> </u>	<u> 68</u> 	·/			
$MW-9$ $3\times40$ $M/2$ $M$			LABORATORY	/ INFORMA	TION			veec.
MW-9   Aucher ~ NONE ~	12:18	2 696	L'ABORATORY REFRIG. PRESE	/ INFORMATERV. TYPE	TION LABORAT	ORY		
	SAMPLE 10	2 69 (	L'ABORATORY REFRIG. PRESE Y #6	INFORMATERV. TYPE	TION LABORAT SEQUOIA	ORY	TPH(G)/btex/n	
	SAMPLE 10	2 696 (#) - CONTAINER 3 × 40m/v2 A	L'ABORATORY REFRIG. PRESE Y #6	INFORMATERV. TYPE	TION LABORAT SEQUOIA	ORY	TPH(G)/btex/n	
	SAMPLE 10	2 696 (#) - CONTAINER 3 × 40m/v2 A	L'ABORATORY REFRIG. PRESE Y #6	INFORMATERV. TYPE	TION LABORAT SEQUOIA	ORY	TPH(G)/btex/n	

### WELL MONITORING/SAMPLING FIELD DATA SHEET

cility# 73	First st.		Date:	2/6/99		
ity: <u>Plea</u>			Sampler:	Portkes_		
Well 1D	HW-10	Well Condition:	_ 0K			<del></del>
/ell Diameter	2in,	Hydrocarbon Thickness:	Q(feet)	Amount Bail (product/water		(Gallons)
otal Depth	92.90 ft.	Volume Factor (VF)	2" = 0.17 6" = I	3" = 0.38 .50		<b>=</b> 0.66
epth to Water	DRY to	-		<u>.</u>		
	x v	:x	3 (case volume) =	Estimated Purg	ge Volume:	(gal.)
Purge quipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	Equi	Ba Pri Gr	sposable Bail iler essure Bailer ab Sample her:		: 
Time!	/	Weather C	onditions:		<u>)                                    </u>	
Starting Time: Sampling Time:			or:		Odor:	
• =	te:g		Description: _			
Did well de-wat	er?	If yes; Ti	me:	Volume	9:	(gal
Time	Volume pH (gal.)	Conductivity	Temperature •F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
		LABORATORY IN		DRATORY	ANALY	rsesi
SAMPLE ID	(4) = 00(1)	REFRIG. PRESERV.	SEQUOI	·	TPH(G)/btex/m	itbe
Mw	1 Audien	- NON			1P#-D	
HW-						
				<u></u>		
COMMENTS:	well is	DRY				

### APPENDIX E

Surveyor's Report

### Virgil Chavez Land Surveying

312 Georgia Street, Suite 200 Vallejo, California 94590-5907 (707) 553-2476 • Fax (707) 553-8698

> Clyde Galantine Gettler-Ryan, Inc. 6747 Sierra Ct. Suite J Dublin, Ca. 94568

Subject: Monitoring Well Survey

Unocal Service Sta. #7376

4191 First Street Pleasanton, Ca.

Benchmark Elev. = 353.92 feet, MSL.

Plea

Dear Clyde:

December 1, 1999
Project No. 1604-20

UEC 0 - TOO

GETTITE ATAN INC.

This is to confirm that we have proceeded at your request to survey the locations and elevations of MW-9, MW-10, and boring "B-13", at the above referenced location. The survey was performed on November 26, 1999. The benchmark for the survey was a cut "+" on a concrete transformer pad on the north side of the property to the northwest of this site. The coordinates are based on the same datum as used for previous surveys of this site.

Well No.	Rim/Ground Elevation	TOC Elevation	Northing	Easting
MW - 9	352.68 Grd	354.85′	5280.415	5073.902
MW -10	363.14 Rim	362.62′	5095.175	5126.269
B -13	364.65 Grd		5040.891	5015.039

No. 6323 Exp. 12-31-02

Sincerely,

rirgil D. Chavez, PLS

### APPENDIX F

Laboratory Reports and Chain-of-Custody Forms



8 November, 1999

Clyde Galantine Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin, CA 94568

Humm Figling

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 20-Oct-99 16:01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne Fegley Project Manager



Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

08-Nov-99 11:40

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-9-16	W910429-01	Soil	07-Oct-99 09:40	20-Oct-99 16:01
MW-9-30.5	W910429-02	Soil	07-Oct-99 09:55	20-Oct-99 16:01
MW-9-41	W910429-03	Soil	07-Oct-99 10:05	20-Oct-99 16:01
MW-9-46.5	W910429-04	Soil	07-Oct-99 10:10	20-Oct-99 16:01
MW-9-60.5	W910429-05	Soil	07-Oct-99 11:40	20-Oct-99 16:01

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Page 1 of 6



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

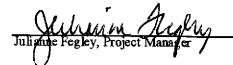
Project Number: Tosco # 7376
Project Manager: Clyde Galantine

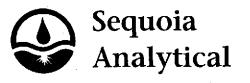
**Reported:** 08-Nov-99 11:40

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9-16 (W910429-01) Soil	Sampled: 07-Oct-99 09:40	Receive	ed: <b>20-O</b> c	:t-99 16:01				· <u> </u>	O-04
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9J22008	22-Oct-99	22-Oct-99	DHS LUFT	
Benzene	ND	0.0050	11		11	11	#1	н	
Toluene	ND	0.0050	**	R	11	'n	,11	н	
Ethylbenzene	ND	0.0050	"		ŧı	11	*1	11 .	
Xylenes (total)	ND	0.0050	u	77	"	11	**	11	
Methyl tert-butyl ether	. ND	0.050	и	n		**	11	**	•
Surrogate: a,a,a-Trifluorotoluen	e	91.7%	40-	-140	"	"	,,	,,	
MW-9-30.5 (W910429-02) Soil	Sampled: 07-Oct-99 09:5	5 Recei	ved: 20-0	Oct-99 16:0	1				O-04
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9J22008	22-Oct-99	22-Oct-99	DHS LUFT	
Benzene	ND	0.0050	11	**	**	11	"	, #	
Toluene	ND	0.0050	77	w .	**		"	u	
Ethylbenzene	ND	0.0050	17		**		n	11	
Xylenes (total)	ND	0.0050	11	Ħ	H	n	н	H	
Methyl tert-butyl ether	ND	0.050	и .	rt	rr	, n	11	. "	
Surrogate: a,a,a-Trifluorotoluen	e	105 %	40-	140	#	tt	,,	n	·
MW-9-41 (W910429-03) Soil	Sampled: 07-Oct-99 10:05	Receive	ed: 20-Oc	:t-99 16:01					O-04
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9J22008	22-Oct-99	22-Oct-99	DHS LUFT	
Benzene	ND	0.0050	*	Ħ	11	er '	**	"	
Toluene	ND	0.0050	H	, н	11			**	
Ethylbenzene	ND	0.0050	R	11	. 4	n	. 17	"	
Xylenes (total)	ND	0.0050	R	n		",	и	77	
Methyl tert-butyl ether	ND	0.050	H	19	**	#	n	tt	
Surrogate: a,a,a-Trifluorotoluen	e	93.3 %	40-	-140	"	"		"	

Sequoia Analytical - Walnut Creek





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376
Project Manager: Clyde Galantine

Reported:

08-Nov-99 11:40

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9-46.5 (W910429-04) Soil	Sampled: 07-Oct-99	10:10 Recei	ved: 20-C	Oct-99 16:0	)1				O-04
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9J22008	22-Oct-99	22-Oct-99	DHS LUFT	
Benzene	ND	0.0050	fi	<b>51</b>	11	II .	**	**	
Toluene	ND	0.0050	11	II	91	ft	*1		
Ethylbenzene	ND	0.0050	H	II	41	n	44	**	
Xylenes (total)	ND	0.0050	H	11	11	II.	π	**	
Methyl tert-butyl ether	ND	0.050	H	п	11	IT	*	••	
Surrogate: a,a,a-Trifluorotoluene		95.0 %	40-	140	"	"	,,	"	
MW-9-60.5 (W910429-05) Soil	Sampled: 07-Oct-99	11:40 Recei	ved: 20-0	Oct-99 16:0	1				O-04
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9J22008	22-Oct-99	22-Oct-99	DHS LUFT	
Benzene	ND	0.0050	11		Ħ	H	Ħ	77	
Toluene	ND	0.0050	11		II	. "	# '	**	
Ethylbenzene	ND	0.0050	11	**	**	II,	**	. 11	
Xylenes (total)	ND	0.0050	11	**	n	**	π .	. 11	
Methyl tert-butyl ether	ND	0.050	11	n	rr .	n	**	11	
Surrogate: a,a,a-Trifluorotoluene		90.0 %	40-	140	н	"	, "	*	

Sequoia Analytical - Walnut Creek



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

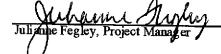
Project Number: Tosco # 7376 Project Manager: Clyde Galantine

**Reported:** 08-Nov-99 11:40

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9J22008:	Prepared 22-Oct-99	Using El	PA 5030B []	MeOH]							
Blank (9J22008-B)	L <b>K1</b> )				•						
Purgeable Hydrocarbo	ns	ND	1.0	mg/kg	<del></del>				<del></del>	<del></del>	<del></del>
Benzene		ND	0.0050	11							•
Toluene		ND	0.0050								
Ethylbenzene		ND	0.0050	и ·							
Xylenes (total)		ND	0.0050	π							-
Methyl tert-butyl ether		ND	0.050								
Surrogate: a,a,a-Triflu	orotoluene	0.646	-	п	0.600		108	40-140			
LCS (9J22008-BS1	)										
Benzene		0.876	0.0050	mg/kg	0.800		109	50-150			
Toluene		0.746	0.0050	**	0.800		93.2	50-150			
Ethylbenzene		0.776	0.0050	**	0.800		97.0	50-150			a .
Xylenes (total)		2.60	0.0050	"	2.40		108	50-150			
Surrogate: a,a,a-Triflu	orotoluene	0.560		"	0.600		93.3	40-140			· <del>-</del>
LCS Dup (9J22008	-BSD1)										
Benzene	<u> </u>	0.860	0.0050	mg/kg	0.800		108	50-150	1.84	20	
Toluene		0.742	0.0050	11	0.800		92.7	50-150	0.538	20	
Ethylbenzene		0.798	0.0050	π	0.800		99.7	50-150	2.80	20	
Xylenes (total)		2.68	0.0050	"	2.40		112	50-150	3.03	20	
Surrogate: a,a,a-Triflu	protoluene	0.588	*	m m	0.600		98.0	40-140	***	<del></del>	<del></del>
Matrix Spike (9J22	008-MS1)					Source: V	V910426-I	02			
Benzene		0.804	0.0050	mg/kg	0.800	ND	101	50-150	-		<del></del> -
Foluene		0.670	0.0050	•	0.800	ND	83.8	50-150			
Ethylbenzene		0.732	0.0050	. #	0.800	ND	91.5	50-150		*	
Kylenes (total)		2.39	0.0050		2.40	0.0082	99.2	50-150			
urrogate: a,a,a-Triftuo	protoluene	0.486		ıı	0.600		81.0	40-140			· · · · · · · · · · · · · · · · · · ·

Sequoia Analytical - Walnut Creek





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376
Project Manager: Clyde Galantine

Reported:

08-Nov-99 11:40

RPD

%REC

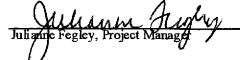
## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Spike

Reporting

Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9J22008:	Prepared 22-Oct-99	Using EP	A 5030B []	МеОН]						:	
Matrix Spike Dup	(9J22008-MSD1)					Source: \	W910426	-02			
Benzene	•••	0.828	0.0050	mg/kg	0.800	ND	103	50-150	2.94	20	
Toluene		0.702	0.0050	"	0.800	ND	87.8	50-150	4.66	20	
Ethylbenzene		0.748	0.0050	11	0.800	ND	93.5	50-150	2.16	20	
Xylenes (total)		2.44	0.0050	tt	2.40	0.0082	101	50-150	2.07	20	
Surrogate: a,a,a-Trifle	uorotoluene	0.502	-	#	0.600		83.7	40-140	_		

Sequoia Analytical - Walnut Creek





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

08-Nov-99 11:40

#### **Notes and Definitions**

O-04 This sample was analyzed outside the EPA recommended holding time.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Julianne Fegley, Project Manager



□ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342 ☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612 Project Name: Y0,7010Y **TOSCO Engineer (required)** State: Zip Code: 94565 Site #, City, State: # 737( 551-7888 Report To: Sampler: □ Level C ☐ Level B ☐ Level A QC Data: D Level D (Standard) Salautine Turnaround # 10 Work Days 1 5 Work Days
Tine: \$2.5 \( \text{Line} \) Work Days **Analyses Requested** ☐ 3 Work Days Drinking Water votelle Organies ten sten In the Confinement of the State ☐ 2-8 Hours ☐ Waste Water Ten er me de CODE 20 Miscs C Detect. DEval 10 Remed Demol. Closure □ Other Client Date/Time Matrix # of Sequoia's Cont. Comments Sample LD By Sampled Desc. Cont. Type Sample # DIA OZA 03A 1.25 044 Date: 10, 7,49 Time: Date: /0/7 Received By: Time:/(\_ / / 🤝 Time: Date: Received By: Date: Time: Time: Date: Relinquished By: Received By: Time: Were Samples Received in Good Condition? ☐ Yes ☐ No Page \_\_\_ of \_\_\_ To be completed upon receipt of report: 解解 图 图 1 1) Were the analyses requested on the Chain of Custody reported? ☐ Yes ☐ No If no, what analyses are still needed? 2) Was the report issued within the requested turnaround time? If no, what was the turnaround time? ☐ Yes ☐ No Date: Signature: Company:

□ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100

# NO 000524 TOSCO

□ 885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308
□ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
□ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673
□ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342
□ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

The professional and the second secon	industriai Ho	oad • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612
Consultant Company CHC Kugu 1401	107.04	Project Name: 7376 W910429
Address: 6747 Sierra G4 Suite J		TOSCO Engineer (required) Dave Del Vitt
City: State: A Zip Code: 9	4568	1
Telephone: (427) 55/-7555 FAX #: 55/-	7888°	Site #, City, State: 47376 Pleasent fon, CA
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		aste Water
CODE: Misc Detect. D Eval. Remed. Demol. Closu		1er st.
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To be completed upon receipt of report:	pies oil ice?	☐ Yes ☐ No Method of Shipment Page of
1) Were the analyses requested on the Chain of Custody reporte	ied? 🔲 Ye	es O No If no, what analyses are still needed?
2) Was the report Issued within the requested turnaround time?  Approved by:		
Approved by: Signature: _		Company:Date: -/

### WORK ORDER Sequoia Analytical - Walnut Creek W910429

Client: Gettler Ryan, Inc. - Dublin

Project Tosco

Tosco # 7376

Report To:

Gettler Ryan, Inc. - Dublin

Clyde Galantine

6747 Sierra Court Suite J

Dublin, CA 94568 Phone: 551-7444x111 Invoice To:

Gettler Ryan, Inc. - Dublin

Accounts Payable

**Project Number:** 

6747 Sierra Court Suite J

Dublin, CA 94568 Phone:551-7444x111

Fax: 925-551-7999

Project Manager: Julianne Fegley

Fax: 925-551-7999

Date Due:

Samples taken off hold on 10/20/99.

03-Nov-99 20:00 (10 day TAT)

Received By:

Ron Jensen

Date Received:

20-Oct-99 16:01

Logged In By:

Ron Jensen

Date Logged In:

21-Oct-99 10:55

Samples Received at:

6°C Yes

All containers intact:

Sample labels/COC agree: Samples Preserved Properly: Yes Yes

Custody Seals Present:

No

Analysis		Due	TAT	Expires	Comments	
W910429-01	MW-9-16	Soil	Sample	ed: 07-Oct-99 09:40		
TPH-G/B/M	ELLY	) 03-Nov-99 20:00	10	21-Oct-99 09:40	Confirm MTBE by 8260.	·
W910429-02	MW-9-30.5	Soil	Sample	ed: 07-Oct-99 09:55	,	
TPH-G/B/M		03-Nov-99 20:00	10	21-Oct-99 09:55	Confirm MTBE by 8260.	
						19. 精神 大道
W910429-03	MW-9-41	Soil	Sampl	ed: 07-Oct-99 10:05		
TPH-G/B/M	i	03-Nov-99 20:00	1Ò	21-Oct-99 10:05	Confirm MTBE by 8260.	
	· ·					r caller it can fine to
W910429-04	MW-9-46.5	Soil	Sampl	ed: 07-Oct-99 10:10		1.0
TPH-G/B/M	1	03-Nov-99 20:00	10	21-Oct-99 10:10	Confirm MTBE by 8260.	an appet same can
32010420 OF	MW-9-60.5	C-11	- Campl	ed: 07-Oct-99 11:40	The state of the s	
W910429-05	M1W-9-60.5	Soil	Sambi		and the state of t	Some and the second
TPH-G/B/M	<u> </u>	03-Nov-99 20:00	10	21-Oct-99 11:40	Confirm MTBE by 9260	Ž.
	· ·					***

printen

Reviewed By

☐ 885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308 ☐ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100 ☑ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673 ☐ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342

□ 1551	I Industrial Road • San Carlos	CA 94070 • (650	1 232-BEAN EAY	<b>/650</b>	1 222-0612
<b>—</b> 1001	i industrial rivau • Sail Carlos	, CA 94070 - (000	) 232-8000 FAA	loou	J 232-90 I2

Consultant Company. Getter Regulation 140107.0	Project Name: 7376 W910429						
Address: Central CHA Suite T	TOSCO Engineer (required)						
City: State CA Zip Code: 945	· 李編編編成的 · · · · · · · · · · · · · · · · · · ·						
Telephone: 425 55/7555 FAX #: 551-78	3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1						
Report To: Class Galant Sampler: Class Galant							
Turnaround ☐ 10 Work Days ☐ 5 Work Days ☐ 3 Work Days ☐ 10 Work Days ☐ 2 Work Days ☐ 1 Work Day ☐ 2-8 Hours	Drinking Water Analyses Requested □						
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Were Samples Received in Good Condition? ☐ Yes ☐ No Samples or	e? ☐ Yes ☐ No Method of Shipment Page of						
To be completed upon receipt of report:							

### Nº 000524 TOSCO

⊇ 885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308	4, 4,
□ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100	SWI.
型 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673	
☐ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865. FAX (707) 79	12-0342
1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612	中的传播

onsultant Company:	"CHHer	IN KUA	u	140	107,04	Project I	Name:			737	<u>Ľ</u> _	W	1104	-29	
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Client Sample I.D.	Date/Time	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	18H	grant we	LEP BEET	En EG	PARTS HER ST	Matca	A SECOND LEA SECOND LE		Commen	its :
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22 October, 1999

Clyde Galantine Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin, CA 94568

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 07-Oct-99 18:06. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne Fegley Project Manager



Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

22-Oct-99 09:23

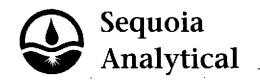
#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
G-1	W910154-01	Water	07-Oct-99 11:30	07-Oct-99 18:06

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Julianne Fegley, Project Manager



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported: 22-Oct-99 09:23

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

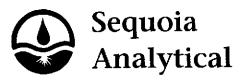
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
G-1 (W910154-01) Water	Sampled: 07-Oct-99 11:30	Received: (	7-Oct-99	18:06					
Purgeable Hydrocarbons	ND	50	ug/l	1	9J18013	13-Oct-99	18-Oct-99	DHS LUFT	
Benzene	ND	0.50	ii .	n	"	n		u u	
Toluene	ND	0.50	н	Ħ	u	Ħ	w	11	
Ethylbenzene	ND	0.50	n	**	,,	n		**	
Xylenes (total)	ND	0.50	n	Ħ	"	H	m	**	
Methyl tert-butyl ether	88	2.5	n	Ħ	•	н	n	*	
Surrogate: a,a,a-Trifluorotol	uene	90.0 %	70-1.	30	"	п	rr	"	·-

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of cust ody document. This analytical report must be reproduced in its entirety.

Juliajine Fegley, Project Manager





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

22-Oct-99 09:23

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes		
Batch 9J18013; Pre	pared 13-Oct-99	Using EP.	A 5030B [I	?/T]									
Blank (9J18013-BLK1)													
Purgeable Hydrocarbons	· • • •	ND	50	ug/l			·	•					
Benzene		ND	0.50	π									
Toluene		ND	0.50	**									
Ethylbenzene		ND	0.50	"									
Xylenes (total)		ND	0.50	"									
Methyl tert-butyl ether		ND	2.5	n					-				
Surrogate: a,a,a-Trifluorotol	uene	27.4		n	30.0		91.3	70-130					
LCS (9J18013-BS1)								•					
Benzene		19.2	0.50	ug/l	20.0		96.0	70-130	****				
Toluene		17.5	0.50	**	20.0		87.5	70-130					
Ethylbenzene		18.8	0.50	"	20.0		94.0	70-130					
Xylenes (total)		61.4	0.50	w	60.0		102	70-130					
Surrogate: a,a,a-Trifluorotol	uene	27.0	. <u></u>	"	30.0		90.0	70-130					
Matrix Spike (9J18013-	MS1)	Source: W910216-02											
Benzene		19.2	0.50	ug/l	20.0	ND	96.0	70-130					
Toluene		17.4	0.50	**	20.0	ND	87.0	70-130			÷		
Ethylbenzene		19.2	0.50	11	20.0	ND	96.0	70-130					
Xylenes (total)		61.0	0.50	н	60.0	ND	102	70-130					
Surrogate: a,a,a-Trifluorotol	uene	25.2		"	30.0		84.0	70-130					
Matrix Spike Dup (9J18	8013-MSD1)					Source:	W910216-	-02					
Benzene	<u>-</u>	18.8	0.50	ug/l	20.0	ND	94.0	70-130	2.11	20			
Toluene		17.1	0.50		20.0	ND	85.5	70-130	1.74	20			
Ethylbenzene		19.4	0.50	"	20.0	ND	97.0	70-130	1.04	20			
Xylenes (total)		60.6	0.50	Ħ	60.0	ND	101	70-130	0.658	20			
Surrogate: a,a,a-Trifluorotol	uene	25.9		"	30.0		86.3	70-130	<del></del> ,				

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Julianne Fegley, Project Manager



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine

Reported: 22-Oct-99 09:23

#### **Notes and Definitions**

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Julianne Fegley, Project Manager



## Nº 000379 TOSCO

□ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100	
☐ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673	
☐ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 7	92-0342
☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612	

Consultant Company:	Gett.	er - R	490	. 14	10107.04	Projec	t Name	):	# 7	737	<u>'</u> _						ĺ
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22 October, 1999

Clyde Galantine Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin, CA 94568

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 19-Oct-99 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne Fegley Project Manager



Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

22-Oct-99 08:38

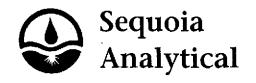
#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
G-1	W910371-01	Water	19-Oct-99 11:30	19-Oct-99 16:30

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Julyanne July Julyanne Fegley, Project Manager



Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

Reported: 22-Oct-99 08:38

Dublin CA, 94568

### MTBE Confirmation by EPA Method 8260A

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
G-1 (W910371-01) Water Sampled: 1	9-Oct-99 11:30	Received: 1	19-Oct-99	16:30			• •		
Methyl tert-butyl ether	66	2.0	ug/l	1	9J15005	20-Oct-99	20-Oct-99	EPA 8260A	<del>·</del>
Surrogate: Dibromofluoromethane		82.0 %	50-	150	,,	"	п	,,	
Surrogate: 1,2-Dichloroethane-d4		78.0 %	50-	150	<i>n</i>	"	"	,,	

Sequoia Analytical - Walnut Creek





Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568

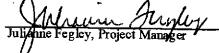
Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported: 22-Oct-99 08:38

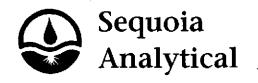
### MTBE Confirmation by EPA Method 8260A - Quality Control Sequoia Analytical - Walnut Creek

4 1.4			Reporting		Spike	Source		%REC		RPD	
Analyte		Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9J15005: Pre	pared 15-Oct-99	Using El	PA 5030B [I	P/T]							
Blank (9J15005-BLK1)	·			-							
Methyl tert-butyl ether		ND	2.0	ug/l				•			
Surrogate: Dibromofluoromet	hane	52.0		"	50.0		104	50-150			<u>.</u>
Surrogate: 1,2-Dichloroethan	e-d4	56.0		"	50.0		112	50-150			
Blank (9J15005-BLK2)											
Methyl tert-butyl ether		ND	2.0	ug/I						<u>;</u>	
Surrogate: Dibromofluoromet	hane	50.0		"	50.0		100	50-150			
Surrogate: 1,2-Dichloroethan	e-d4	60.0		"	50.0		120	50-150			
LCS (9J15005-BS1)											
Methyl tert-butyl ether		59.2	2.0	ug/l	50.0	· · · · · · · · · · · · ·	118	70-130			<del>-</del>
Surrogate: Dibromofluoromet	hane	52.0		rr	50.0		104	50-150			
Surrogate: 1,2-Dichloroethan	e-d4	55.0		**	50.0		110	50-150			
LCS (9J15005-BS2)											.,
Methyl tert-butyl ether		50.7	2.0	ug/l	50.0		· 101	70-130			-
Surrogate: Dibromofluoromet	hane	48.0		#	50.0		96.0	50-150			· · · · ·
Surrogate: 1,2-Dichloroethan	e-d4	52.0		п	50.0	•	104	50-150		•	
LCS Dup (9J15005-BSD)	1)										•
Methyl tert-butyl ether		59.9	2.0	ug/l	50.0		120	70-130	1.18	25	
Surrogate: Dibromofluoromet	hane	53.0		"	50.0	· · · · · · · · · · · · · · · · · · ·	106	50-150			<del></del>
Surrogate: 1,2-Dichloroethan	e-d4	57.0		"	50.0		114	50-150			

Sequoia Analytical - Walnut Creek







Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

Reported: 22-Oct-99 08:38

#### **Notes and Definitions**

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Juliamie Fegley, Project Manager



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Village and Control of the Control o



8 December, 1999

Clyde Galantine Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin, CA 94568

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 22-Nov-99 16:01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Sulianne Fegley Project Manager



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

**Reported:** 08-Dec-99 15:41

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-10-90	W911579-01	Water	21-Nov-99 14:45	22-Nov-99 16:01
MW-10-95	W911579-02	Water	21-Nov-99 16:40	22-Nov-99 16:01

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Julianne Fegley, Project Manager





6747 Sierra Court Suite J

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported: 08-Dec-99 15:41

Dublin CA, 94568

### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-10-90 (W911579-01) Water	Sampled: 21-Nov-9	9 14:45 Rec	eived: 22-	Nov-99 1	6:01				
Purgeable Hydrocarbons	ND	50	ug/l	1	9K24001	24-Nov-99	24-Nov-99	EPA	
Benzene	ND	0.50	11	91	H	11	п	8015M/8020	
Toluene	ND	0.50	11	77	и	11	"	11	
Ethylbenzene	ND	0.50	11		R	п		tt .	
Xylenes (total)	1.1	0.50	н	n	**	11	n	"	
Methyl tert-butyl ether	28	2.5	Ħ	11	•	"	**	"	
Surrogate: a,a,a-Trifluorotoluene		107 %	70-1	30	<b>"</b> .	"	. "	. #	
MW-10-95 (W911579-02) Water	Sampled: 21-Nov-9	9 16:40 Rec	eived: 22-	-Nov-99 1	6:01				P-01
Purgeable Hydrocarbons	230	100	ug/l	2	9K24001	24-Nov-99	24-Nov-99	EPA	
Benzene	ND	1.0	"	11	**	,,	ti ti	8015M/8020	
Toluene	ND	1.0	11	н	n	"	# '		
Ethylbenzene	ND	1.0	n	11	**	"	H	**	
Xylenes (total)	4.6	1.0	n	н	17	11	**	н.,	
Methyl tert-butyl ether	52	5.0	H	н	* w	u		P	
Surrogate: a,a,a-Trifluorotoluene		107 %	70-1	130	"	"	"	#	

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

franne regley, Project Manager





6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376

Reported: 08-Dec-99 15:41

Project Manager: Clyde Galantine

### MTBE Confirmation by EPA Method 8260A

#### Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units I	ilution	Batch	Prepared	Analyzed	Method	Notes
MW-10-90 (W911579-01) Water	Sampled: 21-Nov-9	9 14:45 Rec	eived: 22-N	ov-99 1	6:01				
Methyl tert-butyl ether	34	2.0	ug/l	1	9L01009	03-Dec-99	03-Dec-99	EPA 8260A	
Surrogate: Dibromofluoromethane	<del></del>	118 %	50-150	}	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		112 %	50-150	)	"	#	"	<b>"</b>	
MW-10-95 (W911579-02) Water	Sampled: 21-Nov-9	9 16:40 Rec	eived: 22-N	ov-99 1	6:01	•			
Methyl tert-butyl ether	54	2.0	ug/l	1	9L01009	03-Dec-99	03-Dec-99	EPA 8260A	
Surrogate: Dibromofluoromethane	- NT:	116 %	50-150	}	"	n	"	rr .	
Surrogate: 1,2-Dichloroethane-d4		98.0 %	50-150	)	"	"	"	"	

Sequoia Analytical - Walnut Creek





6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

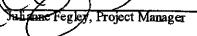
Project Number: Tosco # 7376
Project Manager: Clyde Galantine

**Reported:** 08-Dec-99 15:41

### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Batch 9K24001: Prepared 24-Nov Blank (9K24001-BLK1) Purgeable Hydrocarbons Benzene Toluene	y-99 Using E  ND  ND  ND  ND	PA 5030B	<u>-</u>							
Purgeable Hydrocarbons Benzene	ND		<u>-</u>							
Benzene	ND							•		
		0.50	ug/I	•						
Tobiene	ND	0.50								
		0.50								
Ethylbenzene	ND	0,50	77							•
Xylenes (total)	ND	0.50	77		5					
Methyl tert-butyl ether	ND	2.5	*		•					
Surrogate: a,a,a-Trifluorotoluene	34.0		"	30.0		113	70-130			
LCS (9K24001-BS1)										
Benzene	21.2	0.50	ug/l	20.0		106	70-130			
Toluene	21.2	0.50	**	20.0		106	70-130			
Ethylbenzene	20.8	0.50	11	20.0		104	70-130			
Kylenes (total)	64.2	0.50	н	60.0		107	70-130			
Surrogate: a,a,a-Trifluorotoluene	30.7		"	30.0		102	70-130			
Matrix Spike (9K24001-MS1)					Source: \	W911548-	05			<b>Q-0</b> 1
Benzene	26.3	0.50	ug/l	20.0	ND	131	70-130			<del></del>
Toluene	21.2	0.50	11	20.0	ND	106	70-130			
Ethylbenzene	20.6	0.50	H	20.0	ND	103	70-130			
Kylenes (total)	64.5	0.50	"	60.0	ND	108	70-130			
Surrogate: a,a,a-Trifluorotoluene	30.6		"	30.0		102	70-130			
Matrix Spike Dup (9K24001-MSD1)					Source: \	W911548-	05			Q-01
Benzene	26.3	0.50	uig/l	20.0	ND	131	70-130	0	20	
<b>Foluene</b>	21.8	0.50	tr	20.0	ND	109	70-130	2.79	20	
Ethylbenzene	21.0	0.50	**	20.0	ND	105	70-130	1.92	20	
Kylenes (total)	66.1	0.50	Ħ	60.0	ND	110	70-130	2.45	20	
Surrogate: a,a,a-Trifluorotoluene	31.3		"	30,0		104	70-130			

Sequoia Analytical - Walnut Creek





6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

08-Dec-99 15:41

### MTBE Confirmation by EPA Method 8260A - Quality Control Sequoia Analytical - Walnut Creek

Batch 9L01009: Prepared 03-Dec-99   Using EPA 5030B [P/T]	Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Methyl tert-butyl ether ND 2.0 ug/l  Surrogate: Dibromofluaromethane 50.9 " 50.0 102 50-150  Surrogate: 1,2-Dichloroethane-d4 45.1 " 50.0 90.2 50-150  LCS (9L01009-BS2)  Methyl tert-butyl ether 51.7 2.0 ug/l 50.0 103 70-130  Surrogate: Dibromofluoromethane 50.5 " 50.0 101 50-150  Surrogate: 1,2-Dichloroethane-d4 44.1 " 50.0 88.2 50-150  Matrix Spike (9L01009-MS2)  Methyl tert-butyl ether 41.7 2.0 ug/l 50.0 3.4 76.6 60-150  Surrogate: Dibromofluoromethane 49.3 " 50.0 98.6 50-150  Surrogate: 1,2-Dichloroethane-d4 42.0 " 50.0 84.0 50-150  Matrix Spike Dup (9L01009-MSD2)  Matrix Spike Dup (9L01009-MSD2)  Source: W911580-08  Methyl tert-butyl ether 54.2 2.0 ug/l 50.0 3.4 102 60-150 26.1 25 Q-07  Surrogate: Dibromofluoromethane 52.0 " 50.0 104 50-150	Batch 9L01009:	Prepared 03-Dec-99	Using EI	PA 5030B [	P/T]							
Surrogate: Dibromofluoromethane 50.9 " 50.0 102 50-150 Surrogate: 1,2-Dichloroethane-d4 45.1 " 50.0 90.2 50-150  LCS (9L01009-BS2)  Methyl tert-butyl ether 51.7 2.0 ug/l 50.0 103 70-130  Surrogate: Dibromofluoromethane 50.5 " 50.0 101 50-150  Surrogate: 1,2-Dichloroethane-d4 44.1 " 50.0 88.2 50-150  Matrix Spike (9L01009-MS2)  Methyl tert-butyl ether 41.7 2.0 ug/l 50.0 3.4 76.6 60-150  Surrogate: Dibromofluoromethane 49.3 " 50.0 98.6 50-150  Surrogate: 1,2-Dichloroethane-d4 42.0 " 50.0 84.0 50-150  Matrix Spike Dup (9L01009-MSD2)  Matrix Spike Dup (9L01009-MSD2)  Methyl tert-butyl ether 54.2 2.0 ug/l 50.0 3.4 102 60-150 26.1 25 Q-07  Surrogate: Dibromofluoromethane 52.0 " 50.0 104 50-150	Blank (9L01009-B	LK2)										
Surrogate: 1,2-Dichloroethane-d4	Methyl tert-butyl ether		ND	2.0	ug/l			- "				
LCS (9L01009-BS2)  Methyl tert-butyl ether 51.7 2.0 ug/l 50.0 103 70-130  Surrogate: Dibromofluoromethane 50.5 " 50.0 101 50-150  Surrogate: 1,2-Dichloroethane-d4 44.1 " 50.0 88.2 50-150  Matrix Spike (9L01009-MS2) Source: W911580-08  Methyl tert-butyl ether 41.7 2.0 ug/l 50.0 3.4 76.6 60-150  Surrogate: Dibromofluoromethane 49.3 " 50.0 98.6 50-150  Surrogate: 1,2-Dichloroethane-d4 42.0 " 50.0 84.0 50-150  Matrix Spike Dup (9L01009-MSD2)  Methyl tert-butyl ether 54.2 2.0 ug/l 50.0 3.4 102 60-150 26.1 25 Q-07  Surrogate: Dibromofluoromethane 52.0 " 50.0 104 50-150	Surrogate: Dibromofli	toromethane	50.9		#	50.0		102	50-150			
Methyl tert-butyl ether       51.7       2.0       ug/l       50.0       103       70-130         Surrogate: Dibromofluoromethane       50.5       "       50.0       101       50-150         Surrogate: I, 2-Dichloroethane-d4       44.1       "       50.0       88.2       50-150         Matrix Spike (9L01009-MS2)       Source: W911580-08         Methyl tert-butyl ether       41.7       2.0       ug/l       50.0       3.4       76.6       60-150         Surrogate: Dibromofluoromethane       49.3       "       50.0       98.6       50-150         Surrogate: 1,2-Dichloroethane-d4       42.0       "       50.0       84.0       50-150         Matrix Spike Dup (9L01009-MSD2)       Source: W911580-08         Methyl tert-butyl ether       54.2       2.0       ug/l       50.0       3.4       102       60-150       26.1       25       Q-07         Surrogate: Dibromofluoromethane       52.0       "       50.0       104       50-150	Surrogate: 1,2-Dichlor	roethane-d4	45. I		"	50.0		90.2	50-150			
Surrogate: Dibromofluoromethane   50.5   " 50.0   101 50-150	LCS (9L01009-BS	2)										
Surrogate: 1, 2-Dichloroethane-d4         44.1         " 50.0         88.2         50-150           Matrix Spike (9L01009-MS2)         Source: W911580-08           Methyl tert-butyl ether         41.7         2.0         ug/l         50.0         3.4         76.6         60-150           Surrogate: Dibromofluoromethane         49.3         " 50.0         98.6         50-150           Surrogate: 1,2-Dichloroethane-d4         42.0         " 50.0         84.0         50-150           Matrix Spike Dup (9L01009-MSD2)         Source: W911580-08           Methyl tert-butyl ether         54.2         2.0         ug/l         50.0         3.4         102         60-150         26.1         25         Q-07           Surrogate: Dibromofluoromethane         52.0         " 50.0         104         50-150	Methyl tert-butyl ether		51.7	2.0	ug/l	50.0	-	103	70-130	•		
Matrix Spike (9L01009-MS2)         Source: W911580-08           Methyl tert-butyl ether         41.7         2.0 ug/l         50.0         3.4 76.6 60-150           Surrogate: Dibromofluoromethane         49.3         " 50.0         98.6 50-150           Surrogate: 1,2-Dichloroethane-d4         42.0         " 50.0         84.0 50-150           Matrix Spike Dup (9L01009-MSD2)         Source: W911580-08           Methyl tert-butyl ether         54.2         2.0 ug/l         50.0         3.4 102 60-150 26.1 25 Q-07           Surrogate: Dibromofluoromethane         52.0         " 50.0         104 50-150	Surrogate: Dibromoflu	oromethane	50.5	-	"	50.0		101	50-150			
Methyl tert-butyl ether       41.7       2.0       ug/l       50.0       3.4       76.6       60-150         Surrogate: Dibromofluoromethane       49.3       "       50.0       98.6       50-150         Surrogate: 1,2-Dichloroethane-d4       42.0       "       50.0       84.0       50-150         Matrix Spike Dup (9L01009-MSD2)       Source: W911580-08         Methyl tert-butyl ether       54.2       2.0       ug/l       50.0       3.4       102       60-150       26.1       25       Q-07         Surrogate: Dibromofluoromethane       52.0       "       50.0       104       50-150	Surrogate: 1,2-Dichloi	roethane-d4	44.1		*	50.0		88.2	<i>50-150</i>			
Surrogate: Dibromofluoromethane       49.3       " 50.0       98.6       50-150         Surrogate: 1,2-Dichloroethane-d4       42.0       " 50.0       84.0       50-150         Matrix Spike Dup (9L01009-MSD2)       Source: W911580-08         Methyl tert-butyl ether       54.2       2.0       ug/l       50.0       3.4       102       60-150       26.1       25       Q-07         Surrogate: Dibromofluoromethane       52.0       " 50.0       104       50-150	Matrix Spike (9L0	1009-MS2)					Source: \	W911580-	-08	•		
Surrogate: 1,2-Dichloroethane-d4 42.0 " 50.0 84.0 50-150  Matrix Spike Dup (9L01009-MSD2) Source: W911580-08  Methyl tert-butyl ether 54.2 2.0 ug/l 50.0 3.4 102 60-150 26.1 25 Q-07  Surrogate: Dibromofluoromethane 52.0 " 50.0 104 50-150	Methyl tert-butyl ether	· · · · · · · · · · · · · · · · · · ·	41.7	2.0	ug/l	50.0	3.4	76.6	60-150			
Matrix Spike Dup (9L01009-MSD2)         Source: W911580-08           Methyl tert-butyl ether         54.2         2.0         ug/l         50.0         3.4         102         60-150         26.1         25         Q-07           Surrogate: Dibromofluoromethane         52.0         "         50.0         104         50-150	Surrogate: Dibromofli	oromethane	49.3	-	n	50.0		98.6	50-150			
Methyl tert-butyl ether         54.2         2.0         ug/l         50.0         3.4         102         60-150         26.1         25         Q-07           Surrogate: Dibromofluoromethane         52.0         "         50.0         104         50-150	Surrogate: 1,2-Dichlor	roethane-d4	42.0		" .	50.0		84.0	50-150			
Surrogate: Dibromofluoromethane 52.0 " 50.0 104 50-150	Matrix Spike Dup	(9L01009-MSD2)					Source: \	W911580	-08			
	Methyl tert-butyl ether		54.2	2.0	ug/l	50.0	3.4	102	60-150	26.1	25	Q-07
Surrogate: 1,2-Dichloroethane-d4 45.2 " 50.0 90.4 50-150	Surrogate: Dibromofts	ioromethane	52.0		n	50.0		104	50-150		•	
	Surrogate: 1,2-Dichlor	roethane-d4	45.2		. **	50.0		90.4	50-150			

Sequoia Analytical - Walnut Creek

Julianne Fegley, Project Manager





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

Reported:

08-Dec-99 15:41

#### **Notes and Definitions**

P-01 Chromatogram Pattern: Gasoline C6-C12

Q-01 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the

recovery for this analyte does not represent an out-of-control condition for the batch.

Q-07 The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does

not represent an out-of-control condition for the batch.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Julianne Fegley, Project Manager

14. 000370

### **TOSCO**

□ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100

1404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673

□ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342

□ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

Consultant Company:	Gettler-	-Ryg	<u></u>			Project	Name	: #	F73	76		_					
Address: 6747 S			úte .	J		TOSCO	) Engir				0.	110	e /	de l	Utt.		
City: Dable	State:	CA			94568								91/3	779			
Telephone(925) 5	51-7555			A	1-7888	Site #,	City, S	tate:	***	73	76	1	)/en	590	ton		- Client
Report To:	Dalantine	Sample	- / 1		entine	QC Dat	a: 🔾	Level	D (Stan	dard)	O Le	evel C		Level E	3 🗆 Le	evel A	^
Turnaround #10 Work Time: 0 2 Work	∢Days □ 5	Work Day Work Day		☐ 3 Work ☐ ☐ 2-8 Hour	ays 🗅 Drii	nking Wa ste Water					Anal	yses	Reque	sted	//	7	Pink
CODE: Misc. \$2.0	Detect.   Eval.	□ Remed.	. 🔾 Den	nol. 🗆 Clos	sure 🗆 Oth	er	S.E. HE	Se Segui	SEETEN /	TIS MICE	Daries	E THAI	in C	/ ,	/ /		_
Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	RY	EP BIS	LEP RECEI	E let Brown	EPA BITS MED	Steel Wife	COUNTY	an leave the state of the state			omments	
1.MW-10-90	12194 E145	H20	3	Voas	OIA-C	X	Κ	Y			X						oja Bis
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Relinquished By:	•		Date		Time:	Red	eived	Ву:					Date:	•	Time	e:	
Were Samples Received	in Good Condition	? 🗅 Yes	□ No	Sar	nples on Ice?	☐ Yes	□ No	Meth	od of S	hipmer	nt				Page	of	_
To be completed upon 1) Were the analy 2) Was the report	yses requested o	n the Cha	ain of Cu	stody repo	rted? □ Yes	es 🗆 N			hat ana was th								
1				Signature:					npany:		ai vai il	uiilC	··	·	г	Jate.	-



14 December, 1999

Clyde Galantine Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin, CA 94568 RECEIVED

DEC 2 1 1999

GETTLER-RYAN INC.

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 01-Dec-99 13:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Julianne Fegley Project Manager



Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

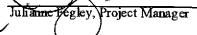
Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

14-Dec-99 12:44

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B-13-7.5	W912014-01	Soil	22-Nov-99 08:50	01-Dec-99 13:45
B-13-15.5	W912014-02	Soil	22-Nov-99 09:05	01-Dec-99 13:45
B-13-28	W912014-03	Soil	22-Nov-99 09:50	01-Dec-99 13:45
B-13-38.5	W912014-04	Soil	22-Nov-99 10:40	01-Dec-99 13:45
B-13-46	W912014-05	Soil	22-Nov-99 10:55	01-Dec-99 13:45
B-13-51	W912014-06	Soil	22-Nov-99 11:00	01-Dec-99 13:45
B-13-57	W912014-07	Soil	22-Nov-99 11:25	01-Dec-99 13:45
B-13-63	W912014-08	Soil	22-Nov-99 11:35	01-Dec-99 13:45
B-13-73.5	W912014-09	Soil	22-Nov-99 12:05	01-Dec-99 13:45
B-13-85.5	W912014-10	Soil	22-Nov-99 13:40	01-Dec-99 13:45
B-13-98.5	W912014-11	Soil	22-Nov-99 14:45	01-Dec-99 13:45
MW-10-5.5	W912014-12	Soil	21-Nov-99 08:30	01-Dec-99 13:45
MW-10-16.5	W912014-13	Soil	21-Nov-99 08:50	01-Dec-99 13:45
MW-10-25.5	W912014-14	Soil	21-Nov-99 09:25	01-Dec-99 13:45
MW-10-38	W912014-15	Soil	21-Nov-99 09:50	01-Dec-99 13:45
MW-10-44	W912014-16	Soil	21-Nov-99 10:00	01-Dec-99 13:45
<b>MW-</b> 10-56	W912014-17	Soil	21-Nov-99 10:45	01-Dec-99 13:45
MW-10-71	W912014-18	Soil	21-Nov-99 13:30	01-Dec-99 13:45
MW-10-82	W912014-19	Soil	21-Nov-99 13:50	01-Dec-99 13:45
MW-10-90.5	W912014-20	Soil	21-Nov-99 14:10	01-Dec-99 13:45

Sequoia Analytical - Walnut Creek





Gettler Ryan, Inc. - Dublin

Project: Tosco

6747 Sierra Court Suite J

Project Number: Tosco # 7376

Reported:

Dublin CA, 94568 Project Manager: Clyde Galantine

14-Dec-99 12:44

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	R Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-13-7.5 (W912014-01) Soil	Sampled: 22-Nov-99 08:50	Received	: 01-Dec	-99 13:45					P-07
Purgeable Hydrocarbons	93	50	mg/kg	1000	9L03002	03-Dec-99	03-Dec-99	EPA	
Benzene	ND	0.25	ŧτ	. "	"	**	**	8015/8020	
Toluene	2.3	0.25	**	**	**	II .	H	70	
Ethylbenzene	ND	0.25	11	•	**		li		
Xylenes (total)	1.1	0.25	11	"	11	н	Ħ	n	
Methyl tert-butyl ether	ND	2.5	II	n	п	"	**	"	
Surrogate: a,a,a-Trifluorotolu	ene	%	40-	140	H	"	"	п	S-01
B-13-15.5 (W912014-02) Soil	Sampled: 22-Nov-99 09:0:	5 Receive	ed: 01-De	c-99 13:45	;				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	91.03002	03-Dec-99	03-Dec-99	EPA	
Benzene	ND	0.0050	11	Ħ	**		H	8015/8020	
Toluene	ND	0.0050	11	**	#	11	**	"	
Ethylbenzene	ND	0.0050	"	**	11	II	11	"	
Xylenes (total)	ND	0.0050	П	11	**	II	11	н	
Methyl tert-butyl ether	ND	0.050	**	II .	11	II .	11	#	
Surrogate: a,a,a-Trifluorotolu	iene	118 %	40-	140	"	. "	"	"	
B-13-28 (W912014-03) Soil	Sampled: 22-Nov-99 09:50	Received	: 01-Dec	-99 13:45	•				P-07
Purgeable Hydrocarbons	14000	500	mg/kg	10000	9L03002	03-Dec-99	03-Dec-99	EPA	
Benzene	100	2.5	ц	"	11	"	**	8015/8020	
Toluene	92	2.5	н	"	. **	**		٠,	
Ethylbenzene	240	2.5	n	11	*1	#	71	11	
Xylenes (total)	1200	2.5	17	H	II	II .	и	П	
Methyl tert-butyl ether	ND	25	**		11	II		п	
Surrogate: a,a,a-Trifluorotoli	uene	%	40-	-140	"	n	n	. "	S-01

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of cust ody document. This analytical report must be reproduced in its entirety.

Julianne Fegley, Project Manager



6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

14-Dec-99 12:44

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-13-38.5 (W912014-04) Soil	Sampled: 22-Nov-99 10:40	Receive	d: 01-De	c-99 13:45				· · · -	P-07
Purgeable Hydrocarbons	65	10	mg/kg	200	9L03002	03-Dec-99	03-Dec-99	EPA	
Benzene	0.40	0.050	"	н	n ·	"	n	8015/8020	
Toluene	0.088	0.050	"	11	II .	11	. 11	II	
Ethylbenzene	0.092	0.050	n	11	н	11	11	II .	
Xylenes (total)	0.31	0.050	<b>11</b>	п	"	n .	n	II	
Methyl tert-butyl ether	ND	0.50	11	ц	Ħ	H	п	n	
Surrogate: a,a,a-Trifluorotolu	ene	132 %	40-	140	н	"	n	"	
B-13-46 (W912014-05) Soil	Sampled: 22-Nov-99 10:55	Received	: 01-Dec-	99 13:45					P-07
Purgeable Hydrocarbons	330	200	mg/kg	4000	9L03002	03-Dec-99	03-Dec-99	EPA	
Benzene	6.7	1.0	H	Ħ	Ħ	п	11	8015/8020	
Toluene	ND	1.0	*1			Ħ	n	ti .	
Ethylbenzene	7.0	1.0	11	н	**	n .	n ,	II .	
Xylenes (total)	21	1.0	11	**	*	н	n	11	
Methyl tert-butyl ether	ND	10	II	H	**	**	l)	11	
Surrogate: a,a,a-Trifluorotolu	ene	%	40-	140	"	. "	. п	n	S-01
B-13-51 (W912014-06) Soil	Sampled: 22-Nov-99 11:00	Received	: 01-Dec-	99 13:45					P-07
Purgeable Hydrocarbons	72	10	mg/kg	200	9L03002	03-Dec-99	03-Dec-99	EPA	
Benzene	0.58	0.050	н		18	**	н	8015/8020	
Toluene	0.32	0.050	tt	"	**	••	u	11	
Ethylbenzene	0.97	0.050	*	"	**		II	11	
Xylenes (total)	3.8	0.050		н	**	***	п	11	
Methyl tert-butyl ether	ND	0.50	Ħ	**	11	11	II	n	
Surrogate: a,a,a-Trifluorotolu	ene	165 %	40-	140	#	"	tt .	n	S-04

Sequoia Analytical - Walnut Creek







6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported: 14-Dec-99 12:44

### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

### Sequoia Analytical - Walnut Creek

A a 1 da		Reporting	TT!4.	Dileai	D-4-5	D1	A maluma d	Mathad	Mata
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-13-57 (W912014-07) Soil	Sampled: 22-Nov-99 11:25	Received	: 01-Dec-	99 13:45		٠.			P-07
Purgeable Hydrocarbons	6.2	1.0	mg/kg	20	9L03002	03-Dec-99	03-Dec-99	EPA	
Benzene	0.67	0.0050	**	11	н	11	н	8015/8020	
Toluene	0.30	0.0050	11	n	**	n	**	n	
Ethylbenzene	0.068	0.0050	π	11	*	**	**	,,	
Xylenes (total)	0.24	0.0050	77	II .		**	**	**	
Methyl tert-butyl ether	0.18	0.050	**	II	"	**	11	Ħ	÷
Surrogate: a,a,a-Trifluorotoli	uene	113 %	40-	140	"	n	"	"	
B-13-63 (W912014-08) Soil	Sampled: 22-Nov-99 11:35	Received	: 01-Dec-	99 13:45					P-01
Purgeable Hydrocarbons	2.0	1.0	mg/kg	20	9L03002	03-Dec-99	03-Dec-99	EPA	
Benzene	0.38	0.0050	11	"	**	11	"	8015/8020	
Toluene	0.22	0.0050	п		**	11	.n	**	
Ethylbenzene	0.013	0.0050	lf .	11		D	п .	π	
Xylenes (total)	0.16	0.0050	IF	*	••	II .	11	***	
Methyl tert-butyl ether	ND	0.050	tt	**	•	11	11	**	
Surrogate: a,a,a-Trifluorotol	uene	113 %	40-	140	"	n	н	"	
B-13-73.5 (W912014-09) Soi	il Sampled: 22-Nov-99 12:0	5 Receive	ed: 01-De	:c-99 13:45	•				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L03002	03-Dec-99	03-Dec-99	EPA	
Benzene	0.0052	0.0050	"	11	II	H	п	8015/8020	
Toluene	0.0075	0.0050	11	tt	n	н	11	17	
Ethylbenzene	ND	0.0050	11	н	ıí	**	п	*	
Xylenes (total)	0.024	0.0050	11	II .	п	n	п	11*	
Methyl tert-butyl ether	0.058	0.050	11	II	н	H	II	#	
Surrogate: a,a,a-Trifluorotol	uene	113 %	40-	140	"	"	11	"	
				•					

Sequoia Analytical - Walnut Creek



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376
Project Manager: Clyde Galantine

Reported:

14-Dec-99 12:44

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analida		eporting	T T= 24+	Dilution	Batch	Dranarad	Analyzed	Method	Notes
Analyte	Result	Limit	Units		<del></del>	Prepared	Munianasen	TATERIOR	140162
B-13-85.5 (W912014-10) Seil	Sampled: 22-Nov-99 13:40	Receive	ed: 01-De	:c-99 13:45					
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L03002	03-Dec-99	03-Dec-99	EPA	
Benzene	ND	0.0050	11	**	**	11	11	8015/8020	
Toluene	ND	0.0050	II	n .	**	11	11	11	
Ethylbenzene	ND	0.0050	11	n	*1	II .	11	11	
Xylenes (total)	ND .	0.0050	"	11	11	31	11	11	
Methyl tert-butyl ether	ND	0.050	Ħ	li	n n	. п	II	n	
Surrogate: a,a,a-Trifluorotolue	ene	108 %	40-	140	II.	ii .	"	и	
B-13-98.5 (W912014-11) Soil	Sampled: 22-Nov-99 14:45	Receiv	ed: 01-De	c-99 13:45	i				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L03002	03-Dec-99	03-Dec-99	EPA	
Веплепе	ND	0.0050	.11	H	II .	u	н .	8015/8020	
Toluene	ND	0.0050	**	. •	п	**	Ħ	"	
Ethylbenzene	ND	0.0050	"	**	н	**	11	11	
Xylenes (total)	ND	0.0050	"	**	Ħ	R	**	11	
Methyl tert-butyl ether	ND	0.050	11	**	**	*	**	n	
Surrogate: a,a,a-Trifluorotolue	ene	118 %	40-	140	"	"	rr -	"	
MW-10-5.5 (W912014-12) So	il Sampled: 21-Nov-99 08:	30 Rece	ived: 01-1	Dec-99 13:	45				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L02002	02-Dec-99	02-Dec-99	EPA	
Benzene	ND	0.0050	Ħ	**	Ħ	**	41	8015/8020	
Toluene	ND	0.0050	"	"	W	*	"	71	
Ethylbenzene	ND	0.0050	"	**	**	m,	. "	11	
Xylenes (total)	ND	0.0050	Ħ	11	Ħ	H	**	11	
Methyl tert-butyl ether	ND	0.050	Ħ	11	π		**	11	
Surrogate: a,a,a-Trifluorotolue	ene	110 %	40-	140	"	"	"	п	

Sequoia Analytical - Walnut Creek



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

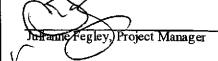
Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

14-Dec-99 12:44

### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-10-16.5 (W912014-13) Soil	Sampled: 21-Nov-9	9 08:50 Rece	ived: 01-	Dec-99 13	:45				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L02002	02-Dec-99	02-Dec-99	EPA	
Benzene	ND	0.0050	**	н .	**	u	11	8015/8020	
Toluene	ND	0.0050	11	*	•	"	"	"	
Ethylbenzene	ND	0.0050	n	н	"	**	11		
Xylenes (total)	ND	0.0050	H	**	**	"	11	•	
Methyl tert-butyl ether	ND	0.050	11	**	n	11	**	**	
Surrogate: a,a,a-Trifluorotoluene		102 %	40-	140	"	п	п	#	
MW-10-25.5 (W912014-14) Soil	Sampled: 21-Nov-9	9 09:25 Rece	eived: 01	-Dec-99 13	:45				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L02002	02-Dec-99	02-Dec-99	EPA	
Benzene	ND	0.0050	11		II	II	н '	8015/8020	
Toluene	ND	0.0050	. 11	H	н	11	II	**	
Ethylbenzene	ND	0.0050	H	11	n	н	Щ	**	
Xylenes (total)	ND	0.0050	п	11	п	II		**	
Methyl tert-butyl ether	ND	0.050	н	11	н	n		**	
Surrogate: a,a,a-Trifluorotoluene		108 %	40-	140	"	"	11	"	
MW-10-38 (W912014-15) Soil	Sampled: 21-Nov-99	09:50 Receiv	ved: 01-D	ec-99 13:4	15				P-01
Purgeable Hydrocarbons	9.7	5.0	mg/kg	100	9L02002	02-Dec-99	02-Dec-99	EPA	
Benzene	0.035	0.025	Ħ	*	#1	H	Ħ	8015/8020	•
Toluene	0.034	0.025	π		. "	**	#	"	
Ethylbenzene	0.062	0.025	**		n		. 4	11	
Xylenes (total)	0.11	. 0.025	11	51		**	ю .	11	
Methyl tert-butyl ether	ND	0.25	11	77	•	**	"	11	
Surrogate: a,a,a-Trifluorotoluene		117%	40-	140	"	"	"	rı	

Sequoia Analytical - Walnut Creek





Gettler Ryan, Inc. - Dublin

Project: Tosco

6747 Sierra Court Suite J

Dublin CA, 94568

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

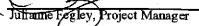
Reported:

14-Dec-99 12:44

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-10-44 (W912014-16) Soil	Sampled: 21-Nov-99	10:00 Receiv	ved: 01-D	ec-99 13:4	5			· · · ·	
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L02002	02-Dec-99	02-Dec-99	EPA	
Benzene	ND	0.0050	11	11	**	н	π	8015/8020	
Toluene	ND	0.0050	II	11	**	, <b>n</b>	"	11	
Ethylbenzene	ND	0.0050	II	и -	**	**	**	11	
Xylenes (total)	ND	0.0050	п.	н	91	Ħ	**	*1	
Methyl tert-butyl ether	ND	0.050	Ħ	"	π	**	**	. 11	•
Surrogate: a,a,a-Trifluorotoluene	?	127 %	40-	140	"	"	"	rr .	
MW-10-56 (W912014-17) Soil	Sampled: 21-Nov-99	10:45 Receiv	ved: 01-D	ec-99 13:4	15				P-04
Purgeable Hydrocarbons	240	20	mg/kg	400	9L02002	02-Dec-99	02-Dec-99	EPA	•
Benzene	0.71	0.10	11	Ħ	n	41	11	8015/8020	
Toluene	0.75	0.10	99	n	II	11	В	п	
Ethylbenzene	2.2	0.10	b	**	II	11		п	
Xylenes (total)	0.65	0.10	II	**	u	11	п	п	
Methyl tert-butyl ether	1.2	1.0	П	19	п	n	n .	• n	
Surrogate: a,a,a-Trifluorotoluene	?	283 %	40-	140	"	н	. "	"	S-04
MW-10-71 (W912014-18) Soil	Sampled: 21-Nov-99	13:30 Recei	ved: 01-D	ec-99 13:4	15				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L02002	02-Dec-99	02-Dec-99	EPA	
Benzene	ND	0.0050	11	H	n	"	Ħ	8015/8020	
Toluene	ND	0.0050	Ħ	Ħ	Ħ	*	н	н	
Ethylbenzene	ND	0.0050	"	Ħ	**		н	n	
Xylenes (total)	ND	0.0050	"	**		"	**	Ħ	
Methyl tert-butyl ether	ND	0.050	11	11	**	"	H	"	
Surrogate: a,a,a-Trifluorotoluen	е	125 %	40-	140	"	"	n	"	

Sequoia Analytical - Walnut Creek





6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

Reported: 14-Dec-99 12:44

### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

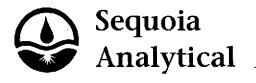
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Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-10-82 (W912014-19) Soil	Sampled: 21-Nov-99 1	3:50 Receiv	ved: 01-D	ec-99 13:4	5				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L03002	03-Dec-99	03-Dec-99	EPA	
Benzene	ND	0.0050	Ħ	e .	н	*	n	8015/8020	
Toluene	ND	0.0050	"	**	н		n	,,	
Ethylbenzene	ND	0.0050	**	н	n	"	•	• .	
Xylenes (total)	ND	0.0050	11	**	Ħ	**	*	**	
Methyl tert-butyl ether	ND	0.050	Ħ	**	***	π	н	11	
Surrogate: a,a,a-Trifluorotoluene		122 %	40-	140	"	"	"	n	
MW-10-90.5 (W912014-20) Soil	Sampled: 21-Nov-99	14:10 Rec	eived: 01	Dec-99 13	:45				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L03002	03-Dec-99	03-Dec-99	EPA	
Benzene	ND	0.0050	11	11	**	"	<b>t+</b> ·	8015/8020	
Toluene	ND	0.0050	11	`ti		**	**	*1	
Ethylbenzene	ND	0.0050	ц	П	11	ti	#1	п	
Xylenes (total)	ND	0.0050	11	III	n	19	**	11	
Methyl tert-butyl ether	ND	0.050	u	н	11	н		41	
Surrogate: a,a,a-Trifluorotoluene		118 %	40-	140	Ħ	н	"	n	

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Juliana regley, Project Manager





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

14-Dec-99 12:44

### MTBE Confirmation by EPA Method 8260A

#### Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-10-56 (W912014-17) Soil Sampled: 21-Nov-99 10:45 Received: 01-Dec-99 13:45									
Methyl tert-butyl ether	ND	1.0	mg/kg	1000	9L09014	06-Dec-99	06-Dec-99	EPA 8260A	<del></del>
Surrogate: Dibromofluoromethane		84.0 %	50	150	"	"	"	n	
Surrogate: 1,2-Dichloroethane-d4		68.0 %	50-	150	71	"	"	"	

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Julianne Fegley, Project Manager



Gettler Ryan, Inc. - Dublin

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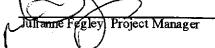
Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

14-Dec-99 12:44

### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L02002: Pi	repared 02-Dec-99	Using E	PA 5030B [	MeOH]				-			
Blank (9L02002-BLK1	)								,		
Purgeable Hydrocarbons	<del></del>	ND	1.0	mg/kg		_					
Benzene		ND	0.0050	н							
Toluene		ND	0.0050	**							
Ethylbenzene		ND	0.0050	•							
Xylenes (total)		ND	0.0050	**							
Methyl tert-butyl ether		ND	0.050	"					•		
Surrogate: a, a, a-Trifluoroto	luene	0.780		'n	0.600		130	40-140		•	
LCS (9L02002-BS1)		•									
Benzene		0.884	0.0050	mg/kg	0.800		110	50-150			
Toluene .		0.882	0.0050		0.800		110	50-150			
Ethylbenzene		0.880	0.0050	II	0.800		110	50-150			
Xylenes (total)		2.65	0.0050	n .	2.40		110	50-150			
Surrogate: a, a, a-Trifluoroto	luene	0.616	11041 4	"	0.600		103	40-140		~-	
Matrix Spike (9L02002	P-MS1)					Source: V	W911669-	01			
Benzene		0.712	0.0050	mg/kg	0.800	ND	89.0	50-150	•		
Toluene		0.716	0.0050	••	0.800	ND	89.5	50-150			
Ethylbenzene		0.726	0.0050	"	0.800	ND	90.8	50-150			
Xylenes (total)		2.22	0.0050	IJ	2.40	ND	92.5	50-150			
Surrogale: a,a,a-Trifluorolo	oluene	0.522		II	0.600		87.0	40-140			
Matrix Spike Dup (9L0	02002-MSD1)					Source: V	W911669-	01			
Benzene		0.742	0.0050	mg/kg	0.800	ND	92.7	50-150	4.13	20	
Toluene		0.754	0.0050	11	0.800	ND	94.2	50-150	5.17	20	
Ethylbenzene		0.780	0.0050	н	0.800	ND	97.5	50-150	7.17	20	
Xylenes (total)		2.38	0.0050	"	2.40	ND	99.2	50-150	6.96	20	
Surrogate: a, a, a-Trifluorote	oluene	0.548		n	0.600	· · · · · · · · · · · · · · · · · · ·	91.3	40-140			

Sequoia Analytical - Walnut Creek





6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

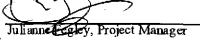
Reported:

14-Dec-99 12:44

### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L03002:	Prepared 03-Dec-99	Using E	PA 5030B [	МеОН]							
Blank (9L03002-BLF	<b>(1)</b>			-	-		-				
Purgeable Hydrocarbons	•	ND	1.0	mg/kg				<del></del>			÷
Benzene		ND	0.0050	. 11							
Toluene		ND	0.0050	tl							-
Ethylben2ene		ND	0.0050	H							
Xylenes (total)		ND	0.0050	••							
Methyl tert-butyl ether		ND	0.050	11							
Surrogate: a,a,a-Trifluor	otoluene	0.742		"	0.600		124	40-140			
LCS (9L03002-BS1)											
Benzene		0.836	0.0050	mg/kg	0.800		105	50-150			
Toluene		0.840	0.0050	ü	0.800		105	50-150			
Ethylbenzene		0.852	0.0050	II .	0.800		106	50-150			
Xylenes (total)		2.57	0.0050		2.40		107	50-150			
Surrogate: a, a, a-Trifluor	otoluene	0.706		#	0.600	·	118	40-140			
Matrix Spike (9L030	002-MS1)					Source:	W912014	-02			
Benzene		0.818	0.0050	mg/kg	0.800	ND	102	50-150			
Toluene	•	0.810	0.0050	"	0.800	ND	101	50-150			
Ethylbenzene		0.824	0.0050	п	0.800	ND	103	50-150			-
Xylenes (total)		2.49	0.0050	н	2.40	ND	104	50-150			
Surrogate: a, a, a-Trifluor	otoluene	0.578		п	0.600		96.3	40-140	<u>.</u>		
Matrix Spike Dup (9	L03002-MSD1)					Source:	W912014	-02			
Benzene	<del></del>	0.818	0.0050	mg/kg	0.800	ND	102	50-150	0	20	
Toluene		0.826	0.0050	•	0.800	ND	103	50-150	1.96	20	
Ethylbenzene		0.842	0.0050	"	0.800	ND	105	50-150	2.16	20	
Xylenes (total)		2.55	0.0050	31	2.40	ND	106	50-150	2.38	20	
Surrogate: a, a, a-Trifluor	rotoluene	0.588		п	0.600		98.0	40-140			

Sequoia Analytical - Walnut Creek





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Dublin CA, 94568

Project: Tosco

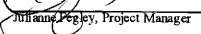
Project Number: Tosco # 7376
Project Manager: Clyde Galantine

Reported: 14-Dec-99 12:44

### MTBE Confirmation by EPA Method 8260A - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L09014: Prepared 06-Dec-99	9 Using E	EPA 5030B [	P/T]							
Blank (9L09014-BLK1)										
Methyl tert-butyl ether	ND	0.0010	mg/kg							
Surrogate: Dibromofluoromethane	0.0271		"	0.0250	-	108	50-150	,		
Surrogate: 1,2-Dichloroethane-d4	0.0241		#	0.0250		96.4	50-150			
LCS (9L09014-BS1)										
Methyl tert-butyl ether	0.0289	0.0010	mg/kg	0.0250		116	70-130			
Surrogate: Dibromofluoromethane	0.0265	·	*	0.0250		106	50-150			-
Surrogate: 1,2-Dichloroethane-d4	0.0231		n	0.0250		92.4	50-150			
Matrix Spike (9L09014-MS1)					Source: \	W911670-	-03			
Methyl tert-butyl ether	0.0264	0.0010	mg/kg	0.0250	ND	106	60-150			
Surrogate: Dibromostuoromethane	0.0238		**	0.0250		95.2	50-150	- ···		
Surrogate: 1,2-Dichloroethane-d4	0.0197		"	0.0250		78.8	50-150			
Matrix Spike Dup (9L09014-MSD1)					Source:	W9116 <b>70</b> -	03			
Methyl tert-butyl ether	0.0216	0.0010	mg/kg	0.0250	ND	86.4	60-150	20.0	25	
Surrogate: Dibromofluoromethane	0.0226		"	0.0250	<del></del>	90.4	50-150			
Surrogate: 1,2-Dichloroethane-d4	0.0184		,,	0.0250		73.6	50-150			

Sequoia Analytical - Walnut Creek





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

P-04

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

Reported:

14-Dec-99 12:44

#### **Notes and Definitions**

A-01 Sample was analyzed one day out of hold time due to instrument
---

P-01 Chromatogram Pattern: Gasoline C6-C12

Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons C6-C12

P-07 Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons > C10

S-01 The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or

matrix interferences.

S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

ulianne Fegley, Project Manager



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VI 404 IV. VVIget Lane • VValidation Clear, CA 94050 (650) 232-9600 FAX (650) 232-9612

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(O (O TROM GETTLER-RYDN INC

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# ☐ 819 Striker Ave., Suite 0 - Statistically 519 988-9600 FAX (925) 988-9673 ☐ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673

L) 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342

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Address: 6747 Sielva	<b></b>	Zip Code: 9	4548	W9/2014
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140107.04	Project Name: 7376	Dave A-112:	-H
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Zip Code: 94568		Do	OA E
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Samples on Ice	7 U Yes U No Meinod of Shipmen		
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	1455 McDowell B 1551 Industrial R 140/07.04  Tip Code: 94568  25) SSI-7888  25) SSI-7888  25) SSI-7888  25) SSI-7888  26) Cont. Sequoia's Sample in the Samp	U 1551 Industrial Road • San Carlos, CA 94070 • (650)    U 1551 Industrial Road • San Carlos, CA 94070 • (650)    U 107, 04	TOSCO Engineer (required)    Date   D

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□ 819 Striker Ave., Suite b • Sacramento, Critoso. (- , ¥ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342

Q 1551 Industrial Road, San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

		0.0	oject Name: # 7374	Pa	asanten_	
consultant Company: Gettler-Ryun	14010	/\(\) \(\) \(\) \(\) \(\) \(\) \(\) \(\)	SCO Engineer (required)	<u> </u>	DeWit	7
address: 6747 Stella Ct Suit	<u>z J</u>		300 Engineer (requirer)	W91	2014	
State / /	Zip Code: 90	(S&B)	e M. City, State: 1737		icanton (	7 <u>4</u>
Telephone: (925) 551-7555	FAX H: (925) 551-	7888 511	C Data: C) Level D (Standard)	C) Level C	U Level B	I I I evel /\
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Relinquished By:	Dale:	Time:	Received By:			Page ol
Were Samples Received in Good Condition?   ☐ Ye	s O No Sar	nples on Ice?	UYes UNo Method of Ship			
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#404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 PAX (925) 988-9600 ☐ 1455 McDowell Blvd. North, Suite () • Pelaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342 ☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

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City: Dublin	State:	CA_				456B	Site	#. Ci	 Iv. Sta	le: 1	173	76	/	Olca	san to	<u>/ / (</u>	L/ <del> -</del>	- Client
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¥ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673 Q 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342 U 1551 Industrial Road • San Carlos, GA 94070 • (650) 232-9600 FAX (650) 232-9612

FAX #: (925) 551-7888   Site #, City, State: #/5/C   FAX #: (925) 551-7888   Site #, City, State: #/5/C   FAX #: (925) 551-7888   Site #, City, State: #/5/C   FAX #: (925) 551-7888   Site #, City, State: #/5/C   FAX #: (925) 551-7888   OC Data: U Level D (standard)   U Level C   U Level B   U Level A   Example: U Level D (standard)   U Level C   U Level B   U Level A   Example: U Level D (standard)   U Level C   U Level B   U Level A   Example: U Level D (standard)   U Level C   U Level B   U Level A   Example: U Level D (standard)   U Level C   U Level B   U Level A   Example: U Level D (standard)   U Level C   U Level B   U Level A   Example: U Level D (standard)   U Level C   U Level B   U Level A   Example: U Level D (standard)   U Level C   U Level B   U Level A   Example: U Level D (standard)   U Level C   U Level B   U Level A   Example: U Level D (standard)   U Level C   U Level B   U Level A   Example: U Level D (standard)   U Level D (standa	tyrt i								-4F_		/						1
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Report To: Clycle Gulantine Sampler: Out Coalantine October Open Total Clycle Gulantine October Open Total Clycle Gulantine October Open Total Clycle Gulantine October Open Total Clycle Open T	City: Dublin	Stale:	(4_	Ziţ	) Code: 2					£					(	2/1	<u>ا</u> ۾
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1. Mu - 10 - 71   N2   97   130   Sol.   Tube   N3   N3   N4   N5   N5   N5   N5   N5   N5   N5			1 ''''''   .	•		Sample A	1 /3	FEET PES	N. S. S.	18/1	Z John	P. P. Co.		<del>/</del>	(1/1	1	
2.MW-IO-72.5		1/21/94 1:30	Sol	1	tube	18/3	-1-X	۲.	K	· <del></del>				<del></del>	1010		equo:
3.MW-10-76 4.MW-10-17.S 1:4.S 5.MW-10-82 1:SS 6.MW-10-84 1:SS 6.MW-0-85.S 2:00 7.MW-10-85.S 2:00 7.MW-10-98.S 7:QC 9.MW-10-98.S 7:QC 9.MW-	2.MW-10-72.5	1:35	.	<del>-</del>	-			- - <del></del>							.]]		1
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8. MW-0-81/S 7:00 9. MW-10-90. S 2!10 10. MW-10-92. S 2!SS  Date: ///22/97 Time: 6:30 Received By: Date: Time:  Relinquished By: Date: Time: Date: Time: Received By: Date: Time: Received By: Date: Time:  Received By: Date: Time:  Page of	6. MW-10-84	<del>  -   -   -                            </del>	1 1 1	-{}			_	-		1							
9. MW-10-92.5 2!SS  Date: //22/97, Time: 6:33 Received By: Date: Time: Pedinquished By: Date: Time: Received By: Date: Time: Received By: Date: Time: Received By: Date: Time: Pedinquished By	7. MO-10-85.5	2:00	1					-		\ <del></del>							
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Were Samples Received in Good Condition?				Date:		Time:	R	eceived	Ву.		·		Date	): - <del></del> -			
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	To be completed upon	on receipt of repo	ort: on the Chai	n of Cus	stody repo	,			ll no, v o, wha	vhat an I was ti	: alyses he turț	are stil naround	l needed time? _	?	·		

10 December, 1999

Clyde Galantine Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin, CA 94568

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 24-Nov-99 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Úulianne Fegley Project Manager



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported: 10-Dec-99 12:41

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory <b>ID</b>	Matrix	Date Sampled	Date Received
B-13-128.5	W911632-01	Water	23-Nov-99 10:55	24-Nov-99 15:00
B-13-133	W911632-02	Water	23-Nov-99 11:45	24-Nov-99 15:00
B-13-106	W911632-03	Soil	23-Nov-99 08:40	24-Nov-99 15:00
B-13-123.5	W911632-04	Soil	23-Nov-99 10:25	24-Nov-99 15:00
B-13-126	W911632-05	Soil	23-Nov-99 10:35	24-Nov-99 15:00

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Julianne Fegley, Project Manager



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

10-Dec-99 12:41

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-13-128.5 (W911632-01) Water									P-01
Purgeable Hydrocarbons	150	50	ug/l	1	9L02001	01-Dec-99	01-Dec-99	EPA	
Benzene	17	0.50	"	. "	"	#	#1	8015M/8020	
Toluene	13	0.50	II.	n	91	•	"	n	
Ethylbenzene	7.6	0.50	11	H	91	41	"	н	
Xylenes (total)	35	0.50	n	"	41	#	**	н	
Methyl tert-butyl ether	2.7	2.5	π		11	u	"	Tr .	•
Surrogate: a,a,a-Trifluorotoluene	11 <b>11 11</b> 11	113 %	70-	130	н	"	"	n	
B-13-133 (W911632-02) Water	Sampled: 23-Nov-99 11:4	15 Rece	ived: 24-1	Nov-99 15:	00				P-01
Purgeable Hydrocarbons	620	50	ug/l	1	9L02001	01-Dec-99	01-Dec-99	EPA	
Benzene	53	0.50	Ħ		**	11	•	8015M/8020	
Toluene	43	0.50	**		"	77	**	*1	
Ethylbenzene	30	0.50	11	M	**	₩ .	**	**	
Xylenes (total)	140	0.50	11	**	**	H	**	"	
Methyl tert-butyl ether	6.9	2.5	11	n	n	**	Ħ	89	
Surrogate: a,a,a-Trifluorotoluene		107 %	70-	130	"	"	"	,,	
B-13-106 (W911632-03) Soil Sa	mpled: 23-Nov-99 08:40	Receive	d: 24-No	v-99 15: <b>0</b> 0					
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L01002	01-Dec-99	01-Dec-99	EPA	
Benzene	ND	0.0050	H	71	11	H		8015/8020	•
Toluene	ND	0.0050	Ħ	π	**	H	**	**	
Ethylbenzene	ND	0.0050	n	11	44			77	
Xylenes (total)	, ND	0.0050	R	n	**	н		•	1
Methyl tert-butyl ether	ND	0.050	H	"	"		**	**	
Surrogate: a,a,a-Trifluorotoluene		95.0 %	40-	140	. н	"	"	. "	<del></del>

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Gettler Ryan, Inc. - Dublin

Project: Tosco

6747 Sierra Court Suite J

Surrogate: a,a,a-Trifluorotoluene

**Dublin CA**, 94568

Project Number: Tosco # 7376
Project Manager: Clyde Galantine

Reported: 10-Dec-99 12:41

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

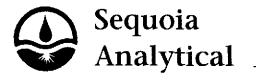
,		eporting	· · -		<del> </del>	<del></del>			
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-13-123.5 (W911632-04) Soil	Sampled: 23-Nov-99 10:2	5 Receiv	ved: 24-N	ov-99 15:0	0				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L01002	01-Dec-99	01-Dec-99	EPA	
Benzene	ND	0.0050	Ħ			H	**	8015/8020	
Toluene	ND	0.0050	11	11	**	le .	11	**	
Ethylbenzene	ND	0.0050	er .	n	. •		11	и ,	
Xylenes (total)	ND	0.0050	77	Ħ	**	, н	н	11	
Methyl tert-butyl ether	ND	0.050	"		"	#	**	11	
Surrogate: a,a,a-Trifluorotolue	ne	102 %	40-	140	"	"	n	n n	
B-13-126 (W911632-05) Soil	Sampled: 23-Nov-99 10:35	Receive	d: 24-No	v-99 15:00					
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9L01002	01-Dec-99	01-Dec-99	EPA	
Benzene	ND	0.0050	II	**	n	**	n '	8015/8020	
Toluene	ND	0.0050	n	11	n	19		**	
Ethylbenzene	ND	0.0050	**	H	-	ti .	**	•	
Xylenes (total)	ND	0.0050	11	Ħ	*	H-	11	77	
Methyl tert-butyl ether	ND	0.050	· n	ıı	11	н	17	π	

40-140

103 %

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

10-Dec-99 12:41

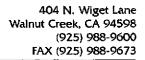
### MTBE Confirmation by EPA Method 8260A

#### Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units :	Dilution	Batch	Prepared	Analyzed	Method	Notes
B-13-128.5 (W911632-01) Water Sam	pled: 23-Nov-99	10:55 Rec	eived: 24-N	lov-99 1	5:00			<del></del>	
Methyl tert-butyl ether	3.5	2.0	ug/l	1 .	9L07012	07-Dec-99	07-Dec-99	EPA 8260A	
Surrogate: Dibromofluoromethane		86.0 %	50-15	0	#	"	n	"	<del></del>
Surrogate: 1,2-Dichloroethane-d4		66.0 %	50-15	o	"	"	"	"	
B-13-133 (W911632-02) Water Samp	led: 23-Nov-99 1	1:45 Recei	ved: 24-No	v-99 15:	:00				
Methyl tert-butyl ether	3.7	2.0	ug/l	1	9L07012	07-Dec-99	07-Dec-99	EPA 8260A	
Surrogate: Dibromofluoromethane		86.0 %	50-15	0	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4	•	68.0 %	50-15	0	"	rr	"	*	

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported: 10-Dec-99 12:41

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

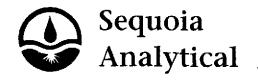
Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L01002:	Prepared 01-Dec-99	Using E	PA 5030B [	MeOH]							
Blank (9L01002-B)	LK1)						٠				
Purgeable Hydrocarbon	ns	ND	1.0	mg/kg							
Benzene		ND	0.0050	W							
Toluene		ND	0,0050	•							
Ethylbenzene		ND	0,0050	77							
Xylenes (total)		ND	0.0050	Ħ							
Methyl tert-butyl ether		ND	0.050	* .							
Surrogate: a, a, a-Triflu	orotoluene	0.622		"	0.600		104	40-140			
LCS (9L01002-BS)	1)										
Benzene		0.850	0.0050	mg/kg	0.800		106	50-150			
Toluene		0.852	0,0050	"	0.800		106	50-150			
Ethylbenzene		0.860	0.0050		0.800		108	50-150			
Xylenes (total)		2.62	0.0050	н .	2.40		109	50-150			
Surrogate: a,a,a-Triflu	orotoluene	0.630		"	0.600		105	40-140			
Matrix Spike (9L0	1002-MS1)					Source: \	W911675-	03			
Benzene		0.944	0.0050	mg/kg	0.800	ND	118	50-150			
Toluene		0.944	0.0050	**	0.800	ND	118	50-150			
Ethylbenzene		0.944	0.0050	P	0.800	ND	118	50-150			
Xylenes (total)		2.85	0.0050		2.40	ND	119	50-150			
Surrogate: a,a,a-Triflu	iorotoluene	0.638	<del></del>	"	0.600		106	40-140			
Matrix Spike Dup	(9L01002-MSD1)					Source: '	W911675-	-03			
Benzene		0.950	0.0050	mg/kg	0.800	ND	119	50-150	0.634	20	
Toluene		0.942	0.0050	**	0.800	ND	118	50-150	0.212	20	
Ethylbenzene		0.934	0.0050	n	0.800	ND	117	50-150	1.06	20	
Xylenes (total)		2.82	0,0050		2.40	ND	117	50-150	1.06	20	
Surrogate: a,a,a-Trifle	iorotoluene	0.638		"	0.600		106	40-140	- i		

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

10-Dec-99 12:41

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L02001:	Prepared 01-Dec-99	Using E	PA 5030B [	P/T]						•	
Blank (9L02001-BL	K1)										•
Purgeable Hydrocarbons		· ND	50	ug/l				<del></del>	·		
Benzene		ND	0.50								
Toluene		ND	0.50	44	,						
Ethylbenzene		ND	0.50	**			•				
Xylenes (total)		ND	0.50	-							
Methyl tert-butyl ether		ND	2.5		•						
Surrogate: a,a,a-Trifluoi	rotoluene	31.4		"	30.0		105	70-130			
LCS (9L02001-BS1)	•										
Benzene		19.0	0.50	ug/l	20.0		95.0	70-130			
Toluene		19.5	0.50	11	20.0		97.5	70-130			
Ethylbenzene		18.4	0.50	# .	20.0		92.0	70-130			
Xylenes (total)		62.5	0.50	. 41	60.0		104	70-130			
Surrogate: a,a,a-Trifluor	rotoluene	30.2		"	30.0		101	70-130	·		
Matrix Spike (9L02(	001-MS1)					Source: V	V911614-	07			
Benzene		18.8	0.50	ug/l	20.0	ND	94.0	70-130		<del> · · · ·</del> -	· · · · · ·
<b>Toluene</b>		19.0	0.50	,	20.0	ND	95.0	70-130			
Ethylbenzene		19.5	0.50		20.0	ND	97.5	70-130			
Xylenes (total)		59.8	0.50		60.0	ND	99.7	70-130			
Surrogate: a,a,a-Trifluor	otoluene	29.3		"	30.0		97.7	70-130			
Matrix Spike Dup (9	L02001-MSD1)		•			Source: V	V911614-	07			
Benzene		19.8	0.50	ug/l	20.0	ND	99.0	70-130	5.18	20	<del></del>
l'oluene		20.0	0.50	"	20.0	ND	100	70-130	5.13	20	
Ethylbenzene		20.2	0.50		20.0	ND	101	70-130	3.53	20	
Kylenes (total)		62.2	0.50	ıı	60.0	ND	104	70-130	3.93	20	
Surrogate: a,a,a-Trifluor	otoluene	29.8			30.0		99.3	70-130			

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

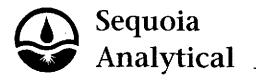
Project Number: Tosco # 7376 Project Manager: Clyde Galantine **Reported:** 10-Dec-99 12:41

# MTBE Confirmation by EPA Method 8260A - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L07012: Prepared 07-Dec-99	9 Using E	EPA 5030B [	P/T]							
Blank (9L07012-BLK2)										
Methyl tert-butyl ether	ND	2.0	ug/l							
Surrogate: Dibromofluoromethane	42.3	-	n	50.0		84.6	50-150			
Surrogate: 1,2-Dichloroethane-d4	33.2		"	50.0		66.4	50-150			
LCS (9L07012-BS2)										
Methyl tert-butyl ether	45.1	2.0	ug/l	50.0	<del></del>	90.2	70-130			
Surrogate: Dibromofluoromethane	45.1		u	50.0		90.2	50-150			
Surrogate: 1,2-Dichloroethane-d4	34.5		Ħ	5,0.0		69.0	<i>50-150</i>			
Matrix Spike (9L07012-MS1)					Source: \	W912114-	-02			•
Methyl tert-butyl ether	47.8	2.0	ug/l	50.0	ND	95.6	60-150			
Surrogate: Dibromofluoromethane	45.0		"	50.0		90.0	50-150		<del></del>	
Surrogate: 1,2-Dichloroethane-d4	36.2		#	50.0		72.4	50-150			
Matrix Spike Dup (9L07012-MSD1)					Source: \	W912114-	02			
Methyl tert-butyl ether	47.5	2.0	ug/l	50.0	ND	95.0	60-150	0.630	25	-
Surrogate: Dibromofluoromethane	44.1		н	50.0		88.2	50-150			
Surrogate: 1,2-Dichloroethane-d4	34.1		"	50.0		68.2	50-150			

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

10-Dec-99 12:41

#### **Notes and Definitions**

P-01 Chromatogram Pattern: Gasoline C6-C12

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Sequoia Analytical - Walnut Creek

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## Nº 000583

# TOSCO

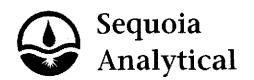
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□ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
<b>2</b> 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673
☐ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342
1551 Industrial Boad • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

Consultant Company: Gettler - Ryan 140107.04	Project Name: 47376
Address: 6747 Sterra Ct Suite J	TOSCO Engineer (required) Dave De Witt
City: D. Lora State: CA Zip Code: 94568	N911632
Telephone 925) 551-7555 FAX #: (25)551-7888	Site #, City, State: #7376 Pleasanton  QC Data: Devel D (Standard) Devel C Devel B Devel A  Analyses Requested
Report To: C Galantine Sampler: C Galantine	QC Data: Level D (Standard) Level C Level B Level A
Turnaround 2 10 Work Days 5 Work Days 3 Work Days	
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I Mele file analyses reduced on the entire of any of the	I Yes □ No If no, what analyses are still needed?s □ No If no, what was the turnaround time?
2) was the report leaded within the requirement	Company:
Approved by: Signature:	

## **TOSCO**

□ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-9600 F

Consultant Company: Gettler -	-Rygn	140107.0	Project I	Name: 473	376		
Address: 6747 Sterra C	. / .			Engineer (required)	Dave	DeWith	F
City: Dubia State:	1	Zip Code: GUS	58		Wall	637	
Telephone:(925) \$51-7555	FAX	#:(125)551-788	_	City, State: #73		Sacre	C Level A Sign
Report To: Calgutive		Galantine		a: Level D (Stand		<del></del>	Level A
Turnaround 10 Work Days	5 Work Days 1Work Day	☐ 3 Work Days ☐ 2-8 Hours	☐ Drinking Wate		<del>, , , , , , , , , , , , , , , , , , , </del>	Requested Requested	<u> </u>
CODE: Misc. Detect. Deval.	□ Remed. □ □	Demol. 🗅 Closure	□ Other	THE HEAL SECTION SECTION	SUTS HOR DESCRIPTION SUPPRINT	<b>3</b> 2/ / /	
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3.B-13-157.5 8:45	\$					-	<del>  </del>
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5.6-13-112 915	<u> </u>					<del>                                     </del>	<del>                                     </del>
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7.8-13-118 1011			<i></i>				¥
8.B-13-123.5 D:25	5	0	- / 4/	<u>X   X                               </u>		<del>                                     </del>	2
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10.	VV						
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Relinquished By:		Date: Time	: Rec	eived By:		Date:	Time:
Were Samples Received in Good Conditio	n? 🖸 Yes 🚨 No	o Samples o	on Ice? 🗆 Yes	□ No Method of Si	nipment		Page of
To be completed upon receipt of report 1) Were the analyses requested 2) Was the report issued within the	on the Chain of	• •	☐ Yes ☐ N ☐ Yes ☐ No	o If no, what and			
Approved by:	•			-			



26 October, 1999

Clyde Galantine Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin, CA 94568

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 07-Oct-99 18:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported: 26-Oct-99 11:57

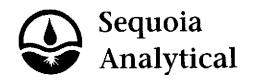
#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TS-1 COMP	W910167-01	Soil	07-Oct-99 14:10	07-Oct-99 18:05

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported: 26-Oct-99 11:57

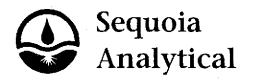
#### Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TS-1 COMP (W910167-01) Soil	Sampled: 07-Oct-99	14:10 Rece	eived: 07-0	Oct-99 18:	05				
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	9J13022	13-Oct-99	13-Oct-99	DHS LUFT	
Benzene	ND	0.0050	ii _	+	**	н	H	n	
Toluene	ND	0.0050	If	#	"	U	H	n	
Ethylbenzene	ND	0.0050	Ħ	**	**	п	<b>1</b> )	"	
Xylenes (total)	ND	0.0050	н	**	n '	111	H	n	
Methyl tert-butyl ether	ND	0.050	Ħ	*	n	п	H	н	•
Surrogate: a,a,a-Trifluorotoluene	<del></del>	91.7%	40	140	н	ıı	"	"	

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine

Reported:

26-Oct-99 11:57

## Total Metals by EPA 6000/7000 Series Methods

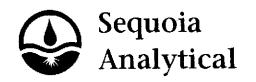
Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TS-1 COMP (W910167-01) Soil	Sampled: 07-Oct-99 1	4:10 Rece	ived: 07-	Oct-99 18:	05				
Lead	34	1.0	mg/kg	1	9J18021	18-Oct-99	19-Oct-99	EPA 6010A	

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported: 26-Oct-99 11:57

Physical Parameters by APHA/ASTM/EPA Methods

Sequoia Analytical - Walnut Creek

Analyte	Result		Units	Dilution		Prepared	Analyzed	Method	Notes
TS-1 COMP (W910167-01) Soil	Sampled: 07-Oct-99 1	4:10 Receiv	/ed: 07-C	Oct-99 18:	05				
Corrosivity	7.93	0 p	H units	1	9J13001	12-Oct-99	12-Oct-99	EPA 9045B	
Ignitability by Flashpoint	ND	10	°C	77	9J11002	11-Oct-99	11-Oct-99	EPA 1010	F-01

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376.

Project Manager: Clyde Galantine

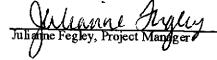
Reported: 26-Oct-99 11:57

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9J13022:	Prepared 13-Oct-99	Using El	PA 5030B []	MeOH]	···	<del></del>				•	
Blank (9J13022-BL	K1)	<u> </u>			· · · · · · · · · · · · · · · ·	•					
Purgeable Hydrocarbon	5	ND	1.0	mg/kg							
Benzene		ND	0.0050	п							
Toluene		ND	0.0050	**						•	
Ethylbenzene		ND	0.0050	19			•				
Xylenes (total)		ND	0.0050	•					•		
Methyl tert-butyl ether		ND	0.050	*							
Surrogate: a,a,a-Trifluc	rotoluene	0.576		"	0.600		96.0	40-140			<del></del>
LCS (9J13022-BS1)	1										
Benzene		0.892	0.0050	mg/kg	0,800		112	50-150			
Toluene		0.758	0.0050	*	0.800		94.8	50-150			
Ethylbenzene		0.790	0.0050	n	0.800		98.8	50-150			
Xylenes (total)		2.64	0.0050	, п	2.40		110	50-150			
Surrogate: a, a, a-Trifluc	rotoluene	0.534	-	"	0.600		89.0	40-140			
Matrix Spike (9J13	022-MS1)					Source: V	V910240-	04			
Benzene	<del></del>	0.846	0.0050	mg/kg	0.800	ND	106	50-150	•		·
Poluene		0.728	0.0050	"	0.800	ND	91.0	50-150			
Ethylbenzene	•	0.762	0.0050	"	0.800	ND	95.3	50-150			
Xylenes (total)		2.58	0.0050	"	2.40	ND	107	50-150			
Surrogate: a,a,a-Trifluo	rotoluene	0.476		"	0.600		79.3	40-140		<del></del>	
Matrix Spike Dup (	9J13022-MSD1)	-				Source: V	V910240-	04			
Benzene	<del></del>	0.840	0.0050	mg/kg	0.800	ND	105	50-150	0.712	20	
l'oluene		0.718	0.0050	"	0.800	ND	89.7	50-150	1.38	20	
Ethylbenzene		0.748	0.0050	н	0.800	ND	93.5	50-150	1.85	20	
(ylenes (total)		2.51	0.0050	11	2.40	ND	105	50-150	2.75	20	
iurrogate: a,a,a-Trifluo	rotoluene	0.474		#	0.600		79.0	40-140	····		

Sequoia Analytical - Walnut Creek

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Page 5 of 8



Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

26-Oct-99 11:57

#### Total Metals by EPA 6000/7000 Series Methods - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9J18021: Prepared 18-Oct-9	9 Using E	PA 3050B								
Blank (9J18021-BLK1)			,		\$					
Lead	ND	1.0	mg/kg					•		
LCS (9J18021-BS1)										
Lead	49.0	1.0	mg/kg	50.0		98.0	80-120			
LCS Dup (9J18021-BSD1)										
Lead	49.5	1.0	mg/kg	50.0		99.0	80-120	1.02	20	
Matrix Spike (9J18021-MS1)					Source: \	W910258	-01			
Lead	85.0	1.0	mg/kg	50.0	35	100	80-120	<del></del>		
Matrix Spike Dup (9J18021-MSD1)					Source: \	W910258	-01			
Lead	75.0	1.0	mg/kg	50.0	35	80.0	80-120	12.5	20	Q-0

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

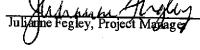
26-Oct-99 11:57

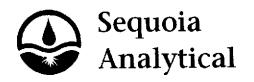
#### Physical Parameters by APHA/ASTM/EPA Methods - Quality Control Sequoia Analytical - Walnut Creek

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9J11002:	Prepared 11-Oct-99				Level	Result	/UKEC	Linus	МЪ	Lum	Notes
Duplicate (9J1100)		Calling Ge	пети тер	41 411011		Source: V	W910073-	 01			
Ignitability by Flashpo	int	ND	10	°C		ND				30	F-01
Batch 9J13001:	Prepared 12-Oct-99	Using Ger	neral Prep	aration						ě	
Duplicate (9J1300)	1-DUP2)		-			Source: V	V910164-	06			
Corrosivity		8.44	0	pH units	••	8.40	·		0.475	30	····

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of cust ody document. This analytical report must be reproduced in its entirety.





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

26-Oct-99 11:57

#### **Notes and Definitions**

F-01 No flash detected up to 100 °C

Q-01 The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the

recovery for this analyte does not represent an out-of-control condition for the batch.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



"OCT. 8.1999" 4:16PM

## SUBCONTRACT ORDER

Sequoia Analytical - Walnut Creek W910167



#### SENDING LABORATORY:

Sequoia Analytical - Walnut Creek

404 N. Wiget Lane

Walnut Creek, CA 94598

Phone: (925) 988-9600

Fax: (925) 988-9673 Project Manager: Julianuc Fegley RECEIVING LABORATORY:

Sequoia Analytical - Petaluma 1455 N. McDowell Blvd Ste D

Petaluma, CA 94954

Phone:707-792-1865 Fax: 707-792-0342 P910202

Subbad Reactivity to PET

Due

Expires

Laboratory ID

Comments

Sample ID: W910167-01

Soll

Sampled: 07-Oct-99 14:10

Composite 4: 1

Reactivity-P/A

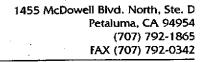
Analysis

22-Oct-99 20:00

04-Nov-99 14:10

PA10202-0

| Released By | Date | Received By | Date | Received By | Date | Received By | Date | Date | Received By | Date |





Sequoia WC (Subbed In) 404 N. Wiget Lane Walnut Creek, CA 94598 Project: Julianne Fegley
Project Number: W910167

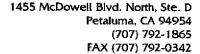
Project Manager: Julianne Fegley

Sampled: 10/7/99 Received: 10/7/99

Reported: 10/13/99

#### ANALYTICAL REPORT FOR P910202

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
W910167-01/TS-1 Comp.	P910202-01	Soil	10/7/99





Sequoia WC (Subbed In) 404 N. Wiget Lane Walnut Creek, CA 94598

Project: Project Number:

Julianne Fegley

W910167 Project Manager: Julianne Fegley Sampled:

10/7/99

Received: 10/7/99 Reported:

10/13/99

#### Physical Parameters by APHA/ASTM/EPA Methods Sequoia Analytical - Petaluma

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
W910167-01/TS-1 Comp.	•		P9102	02-01			Soil	
Reactivity in Water	9100190	10/9/99	10/9/99	EPA Chapter 7		ND	N/A	
Reactive Sulfide		10	n	SW846 Ch 7.3	50.0	ND	mg/kg	
Reactive Cyanide	**	11	н	SW846 Ch. 7.3	10.0	ND	" .	



Sequoia WC (Subbed In) 404 N. Wiget Lane Walnut Creek, CA 94598 Project Number: W910167
Project Manager: Julianne Fegley

Sampled: 10/7/99 Received: 10/7/99 Reported: 10/13/99

#### Physical Parameters by APHA/ASTM/EPA Methods/Quality Control Sequoia Analytical - Petaluma

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov.	RPD Limit	RPD %	Notes*
Batch: 9100190	Date Prepare		9		Extrac	tion Method: Ger	eral Pre	<u>paration</u>		
Blank Reactive Sulfide Reactive Cyanide	<u>91<b>00190-BLK</b></u> 10/9/99 "	<b>71</b>		ND ND	mg/kg "	50.0 10.0				
LCS Reactive Sulfide	<u>9100190-BS1</u> 10/9/99	1730		1430	mg/kg	10.0-120	82.7			
LCS Reactive Cyanide	<u>9100190-BS2</u> 10/9/99	500		70.9	mg/kg	5.00-120	14.2			



1455 McDowell Blvd. North, Ste. D Petaluma, CA 94954 (707) 792-1865 FAX (707) 792-0342

Sequoia WC (Subbed In)Project:Julianne FegleySampled:10/7/99404 N. Wiget LaneProject Number:W910167Received:10/7/99Wainut Creek, CA 94598Project Manager:Julianne FegleyReported:10/13/99

#### Notes and Definitions

# Note

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

Recov. Recovery

RPD Relative Percent Difference

#### SUBCONTRACT ORDER

Sequoia Analytical - Walnut Creek W910167



#### SENDING LABORATORY:

Sequoia Analytical - Walnut Creek

404 N. Wiget Lane Walnut Creek, CA 94598 Phone: (925) 988-9600

Fax: (925) 988-9673

Project Manager: Julianne Fegley

#### **RECEIVING LABORATORY:**

Sequoia Analytical - Morgan Hill

885 Jarvis Drive

Morgan Hill, CA 95037

Phone: 408-776-9600

Fax: 408-782-6308

PCB to MH.

Due

**Expires** 

Laboratory ID

Comments

Sample ID: W910167-01

Soil

Sampled: 07-Oct-99 14:10

Composite 4:1

8080A PCB Only H

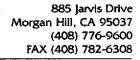
Analysis

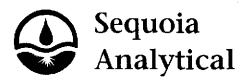
22-Oct-99 20:00

21-Oct-99 14:10

M910376

Released By Released By





Sequoia Analytical-Walnut Creek 404 North Wiget Lane

Project: Gettler-Ryan, Inc.

Project Manager: Julianne Fegley

Sampled: 10/7/99

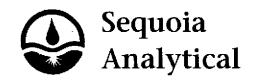
Walnut Creek, CA 94598

Project Number: W910167 (Tosco-7376)

Received: 10/7/99 Reported: 10/25/99

#### **ANALYTICAL REPORT FOR M910376**

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
W910167-01 (TS-1 Comp)	M910376-01	Soil	10/7/99



Sequoia Analytical-Walnut Creek 404 North Wiget Lane Walnut Creek, CA 94598 Project: Gettler-Ryan, Inc.
Project Number: W910167 (Tosco-7376)

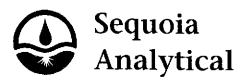
Project Manager: Julianne Fegley

Sampled: 10/7/99 Received: 10/7/99 Reported: 10/25/99

#### Polychlorinated Biphenyls by EPA Method 8080A Sequoia Analytical - Morgan Hill

	Batch	Date	Date	Surrogate	Reporting			
Analyte	Number	Prepared	Analyzed	Limits	Limit	Result	Units	Notes*
							Cail	
W910167-01 (TS-1 Comp)			<u>M9103</u>	<u>/6-01</u>			<u>Soil</u>	
PCB-1016	9100647	10/20/99	10/21/99		20.0	ND	ug/kg	
PCB-1221	H	•	**		80.0	ND	n	
PCB-1232	*	#1	H		20.0	ND	10	
PCB-1242	11	11	H		20.0	ND		
PCB-1248	11	"	н		20.0	ND	m	
PCB-1254	Ħ	**	**		20.0	ND	**	
PCB-1260	Ħ	n	"		20.0	ND	••	
Surrogate: Tetrachloro-m-xylene	"	***	n	30.0-150		67.7	%	
Surrogate: Dibutylchlorendate	"	"	n	30.0-150		123	<i>n</i>	
Surrogate: Decachlorobiphenyl	"	n	10/25/99	30.0-150		ND	n	

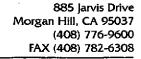




Sequoia Analytical-Walnut CreekProject:Gettler-Ryan, Inc.Sampled:10/7/99404 North Wiget LaneProject Number:W910167 (Tosco-7376)Received:10/7/99Walnut Creek, CA 94598Project Manager:Julianne FegleyReported:10/25/99

#### Polychlorinated Biphenyls by EPA Method 8080A/Quality Control Sequoia Analytical - Morgan Hill

· ·	Date	Spike	Sample	QC		Reporting Limit	Recov.	KPD	KPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	%	Notes*
Batch: 9100647		<u>Date Prepared: 10/20/99</u> 9100647-BLK1			Extract	ion Method: EP				
Blank		<u>LKI</u>			_					
PCB-1016	10/21/99			ND	ug/kg	20.0				
PCB-1221	41			ND	H	80.0				
PCB-1232	11			ND	H	20.0				
PCB-1242	n			ND	į,	20.0				
PCB-1248	H			ND	11	20.0				
PCB-1254	n			ND	H	20.0				
PCB-1260	H			ND	n	20.0				
Surrogate: Tetrachloro-m-xylene	"	16.7		8.15	"	30.0-150	48.8			
Surrogate: Dibutylchlorendate	n	33.3		25.7	**	30.0-150	77.2			
Surrogate: Decachlorobiphenyl	10/25/99			ND	"	30.0-150	ND			
1.00	0100/45 70									
LCS	9100647-BS									
PCB-1260	10/21/99	83.3		62.0	ug/kg	40.0-140	74.4			
Surrogate: Tetrachloro-m-xylene	**	16.7		7.67	"	<i>30.0-150</i>	45.9			
Surrogate: Dibutylchlorendate	**	<i>33.3</i>	•	24.8	"	30.0-150	74.5			
Surrogate: Decachlorobiphenyl	10/25/99			ND	ø	30.0-150	ND			
LCS Dup	9100647 <u>-B</u> 5	SD1								
PCB-1260	10/21/99	83.3		81.7	ug/kg	40.0-140	98.1	50.0	27.5	
Surrogate: Tetrachloro-m-xylene	rr .	16.7		10.0		30.0-150	59.9			
Surrogate: Dibutylchlorendate	"	33.3		<i>39</i> .8	#	30.0-150	120			
Surrogate: Decachlorobiphenyl	10/25/99			ND	n	30.0-150	ND			





Sequoia Analytical-Walnut Creek 404 North Wiget Lane

Walnut Creek, CA 94598

Project: Project Number:

Project Manager: Julianne Fegley

Gettler-Ryan, Inc.

W910167 (Tosco-7376)

Sampled: 10/7/99

Received: 10/7/99

Reported: 10/25/99

#### **Notes and Definitions**

Note DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

dry

Sample results reported on a dry weight basis

Recov.

Recovery

RPD

Relative Percent Difference

## Nº 000522

# TOSCO

→ 885 Jarvis Drive • Morgan Hill, CA 95037 • (408) 776-9600 • FAX (408) 782-6308
☐ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
☐ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673
1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342
☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600, FAX (650) 232-9612

				<u> </u>	i illuusinai n	uau • Sa	n Cano	s, ca	94070	n • (65	U) 232	2-9600	FAX (	650) 232	2-9612	
Consultant Company:	Getter-	Ryan		1401	27,04	Project	Name:		4	7	37	<u>'</u> _				
	Sielly Cr	, U	to i	7		TOSCO	Engine	eer (re	equire	d)	() and	<del>20</del>	0	1,04	<del>_</del>	
City: Deblin	0	CA		Zip Code:	94568	•			****	h	10/6		VE	<u> </u>	<del></del>	
Telephone: 425	551-75	55	FAX #:		1-7888	Site #,	City, Sta	ate:	-	727	7		21	cuto	CA	
Report To:	Calantine	T	· (V)	1	elantin	QC Dat			D (Star	rdard)	<u>р</u>	evel C		_evel B	Level A	
Turnaround 10 Worl	k Days 🔲 🤄	Work Day Work Day	<del></del>	3 Work I	Days 🗆 Dri	nking Wa	ter		<del>- :</del> -	<del></del> .	Ana	lyses I	Renues	sted		` 7
CODE: Misc.	Detect.   Eval.	☐ Remed.	□ Der	nol. 🔾 Clo		er	Hear.	35°/		Jigi	diego.	S (SW St.	I ESK EL		//	
Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	18th	EPARTS MAN	Est Book	Ran Moon	EPR BOTS MO	HE OTGETT	L'Entitle	of the season	\$5º/	Comme	ents
1. TS-1 (comp)	10 7/94 2:10	Soil	4	tube	OIA-L	4	X	X				X	4			
2.						1										
3.												-				
4.																
5.				!												
6.																
7.																
8.																
9.																
10.					<u> </u>							<u> </u>				
Relinquished By:	Uple S	daz	Date	:147/99	Time: /65/	Rec	eived B	y: U	1.TU	<i>b</i>		D	ate: /	0/7/90	Time: /b	:30
Relinquished By:	4.71 H	_	Date	17/10	Time: No	ৰ্ব Rec	eived By	y:				D	ate:		Time:	30
Relinquished By:			Date	:	Time:	Rec	eived By	y: <u>/</u>	STA)	(h	<b>ル</b> )	D	ate: //	2/7/99	Time: /g	:05
Vere Samples Received in	n Good Condition?	□ Yes	□ No	San	ples on Ice?	□Yes	□ No i	Metho	d of St	ipment					Page of	
To be completed upon 1) Were the analys 2) Was the report	ses requested or	n the Chai	n of Cus d turnar	stody repor	ted? □ Ye ? □ Yes	s DNo	lf no, v						ed?			
ph:				Signature:				Com	nanv.						Data	

### $N? = 0\,00522$

## TOSCO

☐ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100 ☐ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673 ☐ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342 ☐ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

Consultant Company: Cotter - Right 140107.04 Project Name: 4 7376
Address: 6747 Sierry Ct Suite J TOSCO Engineer (required) Dave De Witt
Cibi: 1 1/2 State: A Zip Gode: 94/568 W3/0/6 /
Telephone: 925 SSI-7SSI FAX#: SSI-7888 Site #, City, State: 7376 Pleasanten CA  Solution Color C
Report To: Clarke Confactive Sampler: Clark Calentine QC Data: Devel D (Standard) Devel C Devel B Devel A
Turnaround of 10 Work Days U 5 Work Days U 2-8 Hours
CODE: D Misc. D Eval. D Remed. D Demol. D Closure D Other  Client Date/Time Matrix # of Cont. Sequoia's Sample # Property of the Cont. Sequoia's Sample # Property of the Cont. Type Sample # Property of the Cont
CODE: D Misc. D Eval. D Eval. D Demol. D Closure D Other  Client Sample I.D. Sampled Desc. Cont. Type Sample # Tritle of the Cont. Type Sample # Tritle of T
1. TS-1 (comp) 10/7/84 210 501 4 tube OIA-L X X X
2.
3
<u>3.</u> <u>4.</u>
5.
6.
7.
8.
9.
9.
Relinquished By: Olyph Date: 10/7/99 Time: 16:15 Received By: W. W. Beschool By: Date: 10/7/99 Time: 11:30
Refinquished By: 4 4 Date: p/7/40 Time: p: 05 Received By: Date: Time:
Relinquished By: Date:   Date:
Were Samples Received in Good Condition?
To be completed upon receipt of report:  1) Were the analyses requested on the Chain of Custody reported?  2) Was the report issued within the requested turnaround time?  2) Yes  No  1! no, what analyses are still needed?  2) Was the turnaround time?
Approved by: Signature: Company: Date:

13 December, 1999

Clyde Galantine Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin, CA 94568

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 24-Nov-99 15:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

**Reported:** 13-Dec-99 10:47

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TS-2 Comp	W911631-01	Soil	23-Nov-99 00:00	24-Nov-99 15:00
TS-2 Comp	W911631-01	Soil	23-Nov-99 12:20	24-Nov-99 15:00

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of cust ody document. This analytical report must be reproduced in its entirety.





Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

13-Dec-99 10:47

## Semivolatile Fuel Identification by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TS-2 Comp (W911631-01) Soil	Sampled: 23-Nov-99 1	2:20 Recei	ived: 24-No	v-99 15:	00				· ·
Jet-A (C9-C17)	ND	1.0	mg/kg	1	9L03008	03-Dec-99	10-Dec-99	DHS LUFT	<del></del>
Diesel Range Hydrocarbons	10	1.0	11		н ,	н	Ħ	u	D-14
Motor Oil (C16-C36)	21	10	п		n	н	п	11	D-12
Surrogate: n-Pentacosane		117%	50-15	50	tt	<i>"</i>	"	"	

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Gettler Ryan, Inc. - Dublin

Project: Tosco

6747 Sierra Court Suite J

Project Number: Tosco # 7376

Reported:

Dublin CA, 94568 Project Manager: Clyde Galantine

13-Dec-99 10:47

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TS-2 Comp (W911631-01) Soil	Sampled: 23-Nov-99 12:20 Received: 24-Nov-99 15:00								P-04
Purgeable Hydrocarbons	25	1.0	mg/kg	20	9L01002	01-Dec-99	02-Dec-99	EPA	
Benzene	0.011	0.0050	H	#1	11	Ħ	"	8015/8020	
Toluene	0.052	0.0050	n,	n	n	H		19	
Ethylbenzene	0.14	0.0050	n	н	H	"	Ħ	p .	
Xylenes (total)	0.66	0.0050	Ħ	Ħ	н	, "	tt	**	
Methyl tert-butyl ether	ND	0.050	11	**	ii.	"	**	n	
Surrogate: a,a,a-Trifluorotoluene	· · · · · · · · · · · · · · · · · · ·	91.7%	40-1	40	"	"		"	

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

Reported:

13-Dec-99 10:47

#### Diesel Hydrocarbons (C9-C24) by DHS LUFT

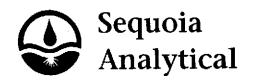
#### Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TS-2 Comp (W911631-01) Soil Sampled: 23-Nov-99 12:20 Received: 24-Nov-99 15:00									
Diesel Range Hydrocarbons	10	1.0	mg/kg	1	91.03008	03-Dec-99	10-Dec-99	DHS LUFT	D-14
Surrogate: n-Pentacosane		117 %	50-1	150	ır .	"	n	"	

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

Reported:

13-Dec-99 10:47

### Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Walnut Creek

Analyte	Rep Result	orting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TS-2 Comp (W911631-01) Soil	Sampled: 23-Nov-99 12:20	Recei	ved: 24-l	Nov-99 15:0	)O				
Lead	51	1.0	mg/kg	1	9L08021	08-Dec-99	09-Dec-99	EPA 6010A	

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

Reported: 13-Dec-99 10:47

Physical Parameters by APHA/ASTM/EPA Methods

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution		Prepared	Analyzed	Method	Notes
TS-2 Comp (W911631-01) Soil	Sampled: 23-Nov-99 1	2:20 Recei	ved: 24-N	lov-99 15:0	00				
Corrosivity Ignitability by Flashpoint	8.10 ND	0.100 10	pH units °C	1		02-Dec-99 24-Nov-99	02-Dec-99 24-Nov-99	EPA 9045B EPA 1010	F-01

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

13-Dec-99 10:47

#### Physical Parameters by APHA/ASTM/EPA Methods

#### Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TS-2 Comp (W911631-01/TS-2) Soil	Sampled: 23-No	v-99 00:00	Received	l: 24-Nov-9	9 15:00				
Reactivity in Water	ND		N/A	1	9110721	30-Nov-99	30-Nov-99	EPA Chapter	·
Reactive Cyanide	ND	10.0	mg/kg	. "	91	. 11	Ħ	SW846 Ch.	
Reactive Sulfide	ND	50.0	n .	n	11	11	tt	SW846 Ch 7.3	

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376

Reported: 13-Dec-99 10:47

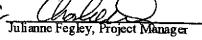
Project Manager: Clyde Galantine

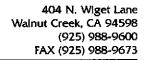
#### Semivolatile Fuel Identification by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

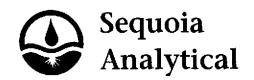
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L03008: Prepared 03-Dec-9	Using E	PA 3550A								
Blank (9L03008-BLK1)	•									
Jet-A (C9-C17)	ND	1.0	mg/kg	• •						
Diesel Range Hydrocarbons	ND	1.0	H							
Motor Oil (C16-C36)	ND	10	**							
Surrogate: n-Pentacosane	0.967		н	1.11		87.1	50-150		· · · · · · · · · · · · · · · · · · ·	
LCS (9L03008-BS1)							•			
Diesel Range Hydrocarbons	18.5	1.0	mg/kg	15.0		123	60-140			· · · · · · · · · · · · · · · · · · ·
Surrogate: n-Pentacosane	1.06		"	1.11		95.5	50-150			•
LCS Dup (9L03008-BSD1)										
Diesel Range Hydrocarbons	18.0	1.0	mg/kg	15.0		120	60-140	2.74	50	
Surrogate: n-Pentacosane	0.956		"	1.11	•	86.1	50-150			
Matrix Spike (9L03008-MS1)					Source: V	W911666-	07			
Diesel Range Hydrocarbons	20.0	1.0	mg/kg	15.0	5.4	97.3	50-150			
Surrogate: n-Pentacosane	1.58		"	1.11		142	50-150			
Matrix Spike Dup (9L03008-MSD1)					Source: \	W911666-	07			
Diesel Range Hydrocarbons	19.2	1.0	mg/kg	15.0	5.4	92.0	50-150	4.08	50	
Surrogate: n-Pentacosane	1.48	•	#	1.11		133	50-150			

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin

Dublin CA, 94568

6747 Sierra Court Suite J

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported: 13-Dec-99 10:47

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte	_	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L01002:	Prepared 01-Dec-99	Using El	PA 5030B [	МеОН]							
Blank (9L01002-BI	.K1)					-					
Purgeable Hydrocarbon	s	ND	1.0	mg/kg		•					
Benzene		ND	0.0050	н .							
Toluene		ND	0.0050	"							
Ethylbenzene		ND	0.0050				*				
Xylenes (total)		ND	0.0050	7							
Methyl tert-butyl ether	-	ND	0.050	77							÷
Surrogate: a, a, a-Triflu	protoluene	0.622	•	н	0.600		104	40-140			
LCS (9L01002-BS1	)										
Benzene	·	0.850	0.0050	mg/kg	0.800	·	106	50-150		•	
Toluene		0.852	0.0050	Ħ	0.800		106	50-150			
Ethylbenzene		0.860	0.0050	"	0.800		108	50-150			
Xylenes (total)		2.62	0.0050	R	2.40		109	50-150			
Surrogate: a,a,a-Triflu	protoluene	0.630		n	0.600	,	105	40-140			
Matrix Spike (9L0)	1002-MS1)					Source: V	W911675-	03			
Benzene		0.944	0.0050	mg/kg	0.800	ND	118	50-150			
Toluene	•	0.944	0.0050	H	0.800	ND	118	50-150			
Ethylbenzene	•	0.944	0.0050	4	0.800	ND	118	50-150			
Xylenes (total)		2.85	0.0050	#	2.40	ND	119	50-150			
Surrogate: a,a,a-Triflu	orotoluene	0.638		#	0,600		106	40-140			
Matrix Spike Dup	(9L01002-MSD1)			-		Source: \	W911675-	03			
Benzene		0,950	0.0050	mg/kg	0.800	ND	119	50-150	0,634	20	
Toluene		0.942	0.0050	11	0.800	ND	118	50-150	0.212	20	
Ethylbenzene		0.934	0.0050	rr	0.800	ND	117	50-150	1.06	20	
Xylenes (total)		2.82	0.0050	•	2.40	ND	117	50-150	1.06	20	
Surrogate: a,a,a-Triflu	ovotoluova	0.638		"	0.600		106	40-140			

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of cust ody document. This analytical report must be reproduced in its entirety.





Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

13-Dec-99 10:47

#### Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L03008; Prepared 03-	Dec-99 Using El	PA 3550A	-		·					
Blank (9L03008-BLK1)							•			•
Diesel Range Hydrocarbons	ND	1.0	mg/kg	•						
Surrogate: n-Pentacosane	0.967		n	1.11		87.1	50-150	•		
LCS (9L03008-BS1)										
Diesel Range Hydrocarbons	18.5	1.0	mg/kg	15.0		123	60-140			
Surrogate; n-Pentacosane	1.06		r	1.11		95.5	50-150	,		
LCS Dup (9L03008-BSD1)		-							4	
Diesel Range Hydrocarbons	18.0	1.0	mg/kg	15.0		120	60-140	2.74	40	
Surrogate: n-Pentacosane	0.956		"	1.11		86.1	50-150			
Matrix Spike (9L03008-MS1)					Source: V	W911666-	07			
Diesel Range Hydrocarbons	20.0	1.0	mg/kg	15.0	5.4	97.3	50-150			
Surrogate: n-Pentacosane	1.58		# .	1.11		142	50-150			
Matrix Spike Dup (9L03008-MSD1	)				Source: V	W911666-	07			
Diesel Range Hydrocarbons	19.2	1.0	mg/kg	15.0	5,4	92.0	50-150	4.08	50	•
Surrogate: n-Pentacosane	1.48		"	1.11	·	133	50-150	· · · · · · · · · · · · · · · · · · ·		

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported: 13-Dec-99 10:47

### Total Metals by EPA 6000/7000 Series Methods - Quality Control Sequoia Analytical - Walnut Creek

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L08021:	Prepared 08-Dec-99	Using E	PA 3050B	-				<u></u>			
Blank (9L08021-BI	LK1)								·		
Lead		ND	1.0	mg/kg							
LCS (9L08021-BS1	.)										
Lead		49.6	1.0	mg/kg	50.0		99.2	80-120			
LCS Dup (9L08021	-BSD1)										
Lead		49.0	1.0	mg/kg	50.0		98.0	80-120	1.22	20	

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

Reported:

13-Dec-99 10:47

#### Physical Parameters by APHA/ASTM/EPA Methods - Quality Control Sequoia Analytical - Walnut Creek

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9K24005;	Prepared 24-Nov-99	Using Go	meral Pre	p		·					
Duplicate (9K2400:	5-DUP1)					Source: V	V911399-	02			
Ignitability by Flashpoi	nt	ND	100	°C		ND				30	-
Batch 9L02015:	Prepared 02-Dec-99	Using Ge	neral Pre <sub>l</sub>	paration							
Duplicate (9L0201	5-DUP1)					Source: V	V911 <b>631</b> -	01			
Corrosivity		8.16	0.100	pH units		8.10			0.738	30	

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

13-Dec-99 10:47

#### Physical Parameters by APHA/ASTM/EPA Methods - Quality Control Sequoia Analytical - Petaluma

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9110721:	Prepared 30-Nov-99	Using G	eneral Prep	aration	=-:						
Blank (9110721-BL)	KI)				-						
Reactive Cyanide		ND	10.0	mg/kg	<del></del>	•					
Reactive Sulfide		ND	50.0	н						٠	
LCS (9110721-BS1)											
Reactive Sulfide		620	50.0	mg/kg	1350		45.9	10.0-120		_	
LCS (9110721-BS2)											
Reactive Cyanide		94.9	10.0	mg/kg	500		19.0	5.00-120			

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of cust ody document. This analytical report must be reproduced in its entirety.



Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

13-Dec-99 10:47

#### **Notes and Definitions**

D-12 Chromatogram Pattern: Unidentified Hydrocarbons > C16

D-14 Chromatogram Pattern: Unidentified Hydrocarbons C9-C24

F-01 No flash detected up to 100 °C

P-04 Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons C6-C12

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Sequoia Analytical - Walnut Creek

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## TOSCO

□ 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100 □ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673 □ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342 □ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

Consultant Company:	Gettler-K	r/Gu		14010	704	Project	Name	:	-	137	6						
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13 December, 1999

Clyde Galantine Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin, CA 94568

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 10-Dec-99 16:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Clyde Galantine

Reported: 13-Dec-99 12:12

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TS-2 Comp	W912233-01	Soil	23-Nov-99 12:20	10-Dec-99 16:00

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

13-Dec-99 12:12

### STLC CAM Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Walnut Creek

Analyte	R Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TS-2 Comp (W912233-01) Soil	Sampled: 23-Nov-99 12:	20 Recei	ved: 10-	Dec-99 16:0	)0				
Lead	ND	0.20	mg/l	10	9L13005	10-Dec-99	13-Dec-99	EPA 6010A	

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

13-Dec-99 12:12

#### STLC CAM Metals by EPA 6000/7000 Series Methods - Quality Control Sequoia Analytical - Walnut Creek

Analyte		Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L13005;	Prepared 10-Dec-99	Using T	Title 22-STL	C							
Blank (9L13005-BI	.Ki)										
Lead	<del> </del>	ND	0.20	mg/l							
LCS (9L13005-BS1	)									•	
Lead		10.1	0.20	mg/l	10.0		101	80-120			
LCS Dup (9L13005	5-BSD1)										
Lead		8,86	0.20	mg/l	10.0		88.6	80-120	13.1	20	
Post Spike (9L1300	05-PS1)					Source: \	W912233-	-01			
Lead		9.59	0.20	mg/l	10.0	ND	95.9	80-120			
Post Spike (9L1300	05-PS2)		•			Source: \	W912233-	-01			
Lead	,	9.63	0.20	mg/l	10.0	ND	96.3	80-120			

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of cust ody document. This analytical report must be reproduced in its entirety.



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Clyde Galantine Reported:

13-Dec-99 12:12

#### **Notes and Definitions**

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Sulte 8 1455 McDowell Blvd. North. Ste. D 1551 Industrial Road Redwood City, CA 94063 Walnut Creek, CA 94598 Sacramento, CA 95834 Petaluma, CA 94954 (650) 364-9600 (925) 988-9600 (916) 921-9600 (707) 792-1865 FAX (650) 364-9233 FAX (925) 988-9673 FAX (916) 921-0100 FAX (707) 792-0342

## REQUEST TO RELOG SAMPLES 232-9612

(Please submit to sample control with a copy of the COC)

CLIENT: Get	ler Ryan MATRIX: Soil
PREVIOUSLY LOGGE	O SAMPLES
TAT Change stat	tus to: tus as of Day: 12/10 Time: 1600
CHANGE ANALYSES	
Add Analyses	Cancel Analyses
Sequoia Project ID:	W91163)
Sample Number	Analyses
NA W9 11631-	DINA STLC Pb
NA	NA
SAMPLES ON HOLD Sample Description	Analyses
NA .	NA
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Client Authorization (Perso	on/Date/Time):
Project Manager:	CLW
	€6

## TOSCO

 ¼ 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673

 □ 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342

 □ 1551 Industrial Road • San Carlos, CA 94070 • (650) 232-9600 FAX (650) 232-9612

Consultant Company:	Gettler-K	Ygu		14010	704	Project	Name	•	•	73	76					
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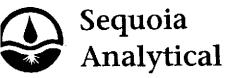
23 December, 1999

Deanna L. Harding Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin, CA 94568

RE: Tosco

Enclosed are the results of analyses for samples received by the laboratory on 07-Dec-99 14:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Deanna L. Harding **Reported:** 23-Dec-99 10:52

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W912147-01	Water	06-Dec-99 00:00	07-Dec-99 14:35
MW-1	W912147-02	Water	06-Dec-99 11:40	07-Dec-99 14:35
MW-2B	W912147-03	Water	06-Dec-99 14:19	07-Dec-99 14:35
MW-3	W912147-04	Water	06-Dec-99 14:58	07-Dec-99 14:35
MW-4	W912147-05	Water	06-Dec-99 11:05	07-Dec-99 14:35
MW-7	W912147-06	Water	06-Dec-99 13:41	07-Dec-99 14:35
MW-8	W912147-07	Water	06-Dec-99 13:02	07-Dec-99 14:35
<b>MW</b> -9	W912147-08	Water	06-Dec-99 12:25	07-Dec-99 14:35
	•			

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Project: Tosco

Project Number: Tosco # 7376 Project Manager: Deanna L. Harding Reported: 23-Dec-99 10:52

Dublin CA, 94568

# Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

	<b>_</b>								
Analyte	Result	porting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (W912147-01) Water	Sampled: 06-Dec-99 00:00	Receive	d: 07-De	c-99 14:35				··	
Purgeable Hydrocarbons	ND	50	ug/l	1	9L09001	09-Dec-99	09-Dec-99	EPA	
Benzene	ND	0.50	н	-	*		•	8015M/8020	
Toluene	ND	0.50	•	п	•	•	**	**	
Ethylbenzene	ND	0.50	н		•		**	• .	
Xylenes (total)	ND	0.50	н		Ħ	<b>n</b> .	10		•
Methyl tert-butyl ether	ND	2.5			н	H		,	
Surrogate: a,a,a-Trifluorotolue	ene	100 %	70-	-130	- "	н	я	,,	
MW-1 (W912147-02) Water		Receive	d: 07-De	c-99 14:35				··-	
Purgeable Hydrocarbons	ND	50	ug/l	1	9L09001	09-Dec-99	09-Dec-99	EPA	
Benzene	ND	0.50	И		n			8015M/8020	
Toluene	ND	0.50	n		*	-	ч	и	
Ethylbenzene	ND	0.50	#	•	**	п	17	"	
Xvienes (total)	ND	0.50			и	••	. "		
Methyl tert-butyl ether	120	2.5	н	H		*	н		
Surrogate: a,a,a-Trifluorotolu	ene	86.7%	70	-130		,,	"	~	
MW-2B (W912147-03) Wate	r Sampled: 06-Dec-99 14:1	9 Recei	ved: 07-I	Dec-99 14:3	35				
Purgeable Hydrocarbons	ND	500	ug/l	10	9L09001	09-Dec-99	09-Dec-99		
Benzene	ND	5.0	n		**			8015M/8020	
Toluene	ND	5.0	11	**	11	*		17	
Ethylbenzene	ND	5.0	"	H	H	10	H	<b>*</b>	
Xylenes (total)	ND	5.0		•	•	-		"	•
Methyl tert-butyl ether	4400	25	11	н	10			11	
Surrogate: a,a,a-Trifluorotolu	iene	93.3 %	70	)-130	и	"	N	. "	

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Deanna L. Harding

Reported: 23-Dec-99 10:52

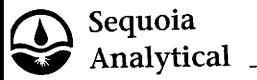
## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

#### Sequoia Analytical - Walnut Creek

Analyte	R Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (W912147-04) Water	Sampled: 06-Dec-99 14:58	Receive	d: 07-Dec-	99 14:35				<del> </del>	P-01
Purgeable Hydrocarbons	41000	5000	ug/l	100	9L09001	09-Dec-99	09-Dec-99	EPA	<del> </del>
Benzene .	3200	50	Ħ	-	•	-	•.	8015M/8020	
<b>Foluene</b>	3500	50		*	*	*	•	"	
Ethylbenzene	1300	50	Ħ	•		•	•	<b>#</b>	
Kylenes (total)	8300	50	. 11		•			٠.	¥
Methyl tert-butyl ether	· ND	250	п	п		-	•	<b>" "</b>	
Surrogate: a,a,a-Trifluorotolue	ne	120 %	70-1	30	#	M	"	н	
MW-4 (W912147-05) Water	Sampled: 06-Dec-99 11:05	Receive	d: <b>07-</b> Dec-	99 14:35					
Purgeable Hydrocarbons	ND	50	ug/l	1	9L09001	09-Dec-99	09-Dec-99	EPA	_
Benzene	ИD	0.50	11	*		H	11	8015M/8020	
<b>Foluene</b>	ND	0.50	It			н	**		
Ethylbenzene	ND	0.50	19	,		•	"	. •	
Kylenes (total)	ND	0.50	If	**		D	н	•	
Viethyl tert-butyl ether	ND	2.5	19	• .		rt.	н		
inrogate: a,a,a-Trifluorotolue	me	103 %	70-1	30	н	*	#		
MW-7 (W912147-06) Water	Sampled: 06-Dec-99 13:41	Receive	d: 07-Dec-	99 14:35					P-02
Purgeable Hydrocarbons	1900	1000	ug/l	20	9L10001	10-Dec-99	10-Dec-99	EPA	•
Benzene	350	10	17		•		10	8015M/8020	
Foluene	ND	10	h	н	н	P	r*	Ħ	
Ethylbenzene	ND	10	**	*		#	**	**	
Kylenes (total)	ND	10	H	"	**	-	•	"	
Methyl tert-butyl ether	1100	50	*		**	M	"	· u	
Surrogate: a,a,a-Trifluorotolue	ene	117%	70-1	30	н	*	н	"	

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376

Project Manager: Deanna L. Harding

Reported: 23-Dec-99 10:52

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Walnut Creek

		-							
Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-8 (W912147-07) Water	Sampled: 06-Dec-99 13:02	Receive	1: 07-Dec	c-99 14:35					
Purgeable Hydrocarbons	ND	50	ug/l	1	9L09001	09-Dec-99	09-Dec-99	EPA	
Benzene	ND	0.50	**			19		8015M/8020	
Foluene	ND	0.50	н			-	*		
Ethylbenzene	ND	0.50		. *	#	•		Ħ	
Xylenes (total)	ND	0.50	н		H		₩,	. •	
Methyl tert-butyl ether	150	2.5	17				•		
Surrogate: a,a,a-Trifluorotolue	ene .	107 %	70-	-130	*	~	#	Ħ	
MW-9 (W912147-08) Water		Receive	d: 07-De	c-99 14:35					
Purgeable Hydrocarbons	ND	50	ug/l	1	9L09001	09-Dec-99	09-Dec-99	EPA	
Benzene	ND	0.50	ī	•	**		n	8015M/8020	
Toluene	ND	0.50	11	11	"	•	**	47	
	ND	0.50	n	**	n	**	•		
Ethylbenzene	ND	0.50		**	**	n	и	41	
Xylenes (total) Methyl tert-butyl ether	3.0	2.5	**	•			11	н	
Surrogate: a,a,a-Trifluorotolu	ene	100 %	70	-130	77	d	, nt	**	

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376 Project Manager: Deanna L. Harding Reported: 23-Dec-99 10:52

### Diesel Hydrocarbons (C9-C24) by DHS LUFT

#### Sequoia Analytical - Walnut Creek

	Re	porting							
Inalyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
IW-1 (W912147-02) Water	Sampled: 06-Dec-99 11:40	Received	: 07-Dec-9	99 14:35	•	•			-
iesel Range Hydrocarbons	ND	50	ug/l	1	9L09004	09-Dec-99	16-Dec-99	EPA 8015M	
urrogate: n-Pentacosane		87.1 %	50-13	50	n		"	"	
IW-2B (W912147-03) Water	Sampled: 06-Dec-99 14:19	Receive	ed: 07-Dec	:-99 14:3:	5				
iesel Range Hydrocarbons	850	71	ug/l	1	9L09004	09-Dec-99	17-Dec-99	EPA 8015M	D-02
urrogate: n-Pentacosane		90.3 %	50-1.	50	H	,	*		
IW-3 (W912147-04) Water	Sampled: 06-Dec-99 14:58	Received	l: 07-Dec-	99 14:35					
iesel Range Hydrocarbons	4200	50	ug/l	ī	9L09004	09-Dec-99	17-Dec-99	EPA 8015M	D-14
urrogate: n-Pentacosane		84.1 %	50-1.	50	н	*		"	
(W-4 (W912147-05) Water	Sampled: 06-Dec-99 11:05	Received	l: 07-Dec-	99 14:35					
iesel Range Hydrocarbons	95	63	ug/l	1	9L09004	09-Dec-99	17-Dec-99	EPA 8015M	D-06
urrogate: n-Pentacosane		81.7%	50-1.	50	и	н		"	
4W-7 (W912147-06) Water	Sampled: 06-Dec-99 13:41	Received	i: 07-Dec-	99 14:35					
Diesel Range Hydrocarbons	220	50	ug/l	l	9L09004	09-Dec-99	17-Dec-99	EPA 8015M	D-14
urrogate: n-Pentacosane		63.1 %	50-1	50	"	. #	н	"	
4W-8 (W912147-07) Water	Sampled: 06-Dec-99 13:02	Received	d: 07-Dec-	99 14:35					
Diesel Range Hydrocarbons	160	100	ug/l	1	9L09004	09-Dec-99	17-Dec-99	EPA 8015M	D-12
urrogate: n-Pentacosane	· · · · · · · · · · · · · · · · · · ·	79.6%	50-1	50		и	"	r	
(W-9 (W912147-08) Water	Sampled: 06-Dec-99 12:25	Received	d: 07-Dec-	.99 14:35					
Diesel Runge Hydrocarbons	ND	63	ug/l	1	9L09004	09-Dec-99	17-Dec-99	EPA 8015M	
urrogate: n-Pentacosane		79.3 %	50-1	50	"	**	н	"	
		-				*			

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

**Dublin CA, 94568** 

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Deanna L. Harding

Reported: 23-Dec-99 10:52

## Volatile Organic Compounds by EPA Method 8260A

## Sequoia Analytical - Walnut Creek

Analyte	R Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9 (W912147-08) Water	Sampled: 06-Dec-99 12:25	Receive	d: 07-Dec-	99 14:35					
tert-Butyl alcohol	ND	100	ug/l	1	9L13022	10-Dec-99	10-Dec-99	EPA 8260A	
Methyl tert-butyl ether	2.7	2.0		Ħ	*	*	**	**	
Di-isopropyl ether	ND	2.0	H		7	7		**	
Ethyl tert-butyl ether	ND	2.0		**		n	*		
1.2-Dichloroethane	ND	2.0		-	•		*	**	
tert-Amyl methyl ether	ND	2.0	H	<b>#</b> ·		*	•	• •	• •
Ethylene dibromide	ND	2.0	•	*			<del></del>	**	
Surrogate: Dibromofluoromet	hane	104 %	50-1	50		"	*	•	
Surrogate: 1,2-Dichloroethan		98.0 %	50-1	50	*	A	*	*	

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin

6747 Sierra Court Suite J

**Dublin CA, 94568** 

Project: Tosco

Project Number: Tosco # 7376
Project Manager: Deanna L. Harding

Reported: 23-Dec-99 10:52

RPD

%REC

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Spike

Source

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 9L09001: Prepared 09-Dec-9	9 Using El	PA 5030B [	P/T]							
Blank (9L09001-BLK1)			•							
Purgeable Hydrocarbons	ND	50	ug/l							
Senzene	. ND	0.50	₩ 1				٠	•		
Toluene	ND	0.50	*		•	•			,	
Ethylbenzene	ND	0.50	H							
Xylenes (total)	ND	0.50	7							
Methyl tert-butyl ether	ND	2.5	Ħ							
Surrogate: a.a.a-Trifluorotoluene	33.1		n	30.0		110	70-130			<u> </u>
LCS (9L09001-BS1)										
Benzene	19.2	0.50	ug/l	20.0		96.0	70-130			
Toluene	19.5	0.50	•	20.0		97.5	70-130			
Ethylbenzene	19.5	0.50	**	20.0		97.5	70-130			
Xylenes (total)	60.4	0.50		60.0		101	70-130	•		
Surrogate: a.a.o-Trifluorotoluene	29.5		#	30.0		98.3	70-130			
Matrix Spike (9L09001-MS1)					Source:	W912091-	-04			
Benzene	18.7	0.50	ug/l	20.0	ND	93.5	70-130			
Toluene	19.0	0.50		20.0	ND	95.0	70-130			
Ethylhenzene	17.8	0.50		20.0	ND	89.0	70-130			
Nylenes (total)	60.0	0.50	*	60.0	ND	100	70-130			
Surrogate: a.a.a-Trifluorotoluene	28.7		*	30.0		95.7	70-130			
Matrix Spike Dup (9L09001-MSD1)					Source:	W912091-	-04			
Benzene	20.7	0.50	ug/l	20.0	ND	104	70-130	10.2	20	
Toluene	20.9	0.50		20.0	ND	104	70-130	9.52	20	
Ethylbenzene	18.5	0.50		20.0	ND	92.5	70-130	3.86	20	
Xylenes (total)	65.8	0.50	•	60.0	ND	110	70-130	9.22	20	
Surrogate: a, a, a-Trifluorotoluene	31.6		¥	30.0		105	70-130			

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

**Dublin CA**, 94568

Project: Tosco

Project Number: Tosco # 7376

Project Manager: Deanna L. Harding

Reported: 23-Dec-99 10:52

## Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L10001: Prepared 10-Dec-9	9 Using E	PA 5030B [	P/T]			<u>.</u>		···		·
Blank (9L10001-BLK1)										
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	- 0.50	۳.							• • • •
Toluene	ND	0.50								•
Ethylbenzene	ND	. 0.50								
Xylenes (total)	ND	0.50	Ħ							
Methyl tert-butyl ether	ND	2.5	•							
Surrogate: a.a.a-Trifluorotoluene	33.4			30.0		111	70-130			
LCS (9L10001-BS1)								· .		
Benzene	17.8	0.50	ug/l	20.0		89.0	70-130			
Toluene	17.9	0.50	*	20.0		89.5	70-130			
Ethylbenzene	18.1	0.50	**	20.0		90.5	70-130			
Nylenes (total)	56.1	0.50	• .	60.0		93.5	70-130			
Surrogate: a.a.a-Trifluorotoluene	30.5		17	30.0		102	70-130			
Matrix Spike (9L10001-MS1)					Source:	W912201	-06	_		
Benzene	20.0	0.50	ug/l	20.0	ND	100	70-130			
Toluene	21.4	0.50		20.0	1.1	101	70-130			
Ethylbenzene	21.2	0.50	*	20.0	ND	106	70-130	*		
Xylenes (total)	64.6	0.50	11	60.0	2.0	104	70-130			
Surrogate: a, a, a-Trifluorotoluene	31.2	<u>_</u>	м	30.0		104	70-130			
Matrix Spike Dup (9L10001-MSD1)					Source:	W912201	1-06			
Benzene	21.8	0.50	ug/l	20.0	ND	109	70-130	8.61	20	
Toluene	23.0	0.50	*	20.0	1.1	109	70-130	7.21	20	
Ethylbenzene	21.9	. 0.50		20.0	ND	109	70-130	3.25	20	
Xylenes (total)	68.4	0.50	**	60.0	2.0	111	70-130	5.71	20	
Surrogate: a.a.a-Trifluorotoluene	32.8		. "	30.0		109	70-130	_		

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J

Dublin CA, 94568

Project: Tosco

Project Number: Tosco # 7376
Project Manager: Deanna L. Harding

Reported: 23-Dec-99 10:52

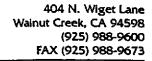
## Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control

#### Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L09004: Prepared 09-Dec-99	Using E	PA 3510B								
Hank (9L09004-BLK1)										
iesel Range Hydrocarbons	ND	50	ug/l							
urrogate: n-Pentacosane	30.0		н	33.3		90.1	50-150			
_CS (9L09004-BS1)										
Diesel Range Hydrocarbons	533	50	ug/l	500		107	60-140			
urrogate: n-Pentacosane	32.0		*	33.3		96.1	50-150			
LCS Dup (9L09004-BSD1)										
Diesel Range Hydrocarbons	552	50	ug/l	500		110	60-140	3.50	50	
Surrogate: n-Pentacosane	31.3		*	33.3		94.0	50-150			

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

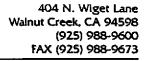
Project Number: Tosco # 7376 Project Manager: Deanna L. Harding Reported: 23-Dec-99 10:52

## Volatile Organic Compounds by EPA Method 8260A - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 9L13022: Prepared 10-Dec-	99 Using E	PA 5030B [	P/T]				<u></u> .			· · · · · · · · · · · · · · · · · · ·
Blank (9L13022-BLK1)			_							
tert-Butyl alcohol	ND	100	ug/l							•
Methyl tert-butyl ether	ND	2.0	Ħ							
Di-isopropyl ether	ND	2.0	н ",	• .			• • •			
Ethyl tert-butyl ether	ND	2.0			•					
,2-Dichloroethane	ND	2.0	. н							
ert-Amyl methyl ether	ND	2.0	n						•	
Ethylene dibromide	ND	2.0								
Surrogate: Dibromofluoromethane	30.0		н	25.0		120	50-150			÷
Surrogate: 1,2-Dichloroethane-d4	31.0		**	25.0		124	50-150	-		
LCS (9L13022-BS1)								<u>-</u>		
Methyl tert-butyl ether	25.5	2.0	ug/l	25.0		102	70-130			
Surrogate: Dibromofluoromethane	28.0			25.0		112	50-150			
Surrogate: 1,2-Dichloroethane-d4	27.0		#	25.0		108	50-150			
Matrix Spike (9L13022-MS1)					Source:	W912027	-03			
Methyl tert-butyl ether	25.7	2.0	ug/i	25.0	ND	103	60-150			
Surrogate: Dibromofluoromethane	25.0		ш	25.0		100	50-150			
Surrogate: 1,2-Dichloroethane-d4	22.0		#	25.0		88.0	50-150			
Matrix Spike Dup (9L13022-MSD1)					Source:	W912027	7-03			· ·
Methyl tert-butyl ether	30.1	2.0	ug/l	25.0	ND	120	60-150	15.8	25	
Surrogate: Dibromofluoromethane	25.0			25.0	•	100	50-150		-	
Surroyate: 1,2-Dichloroethane-d4	23.0			25.0		92.0	50-150			

Sequoia Analytical - Walnut Creek

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568 Project: Tosco

Project Number: Tosco # 7376 Project Manager: Deanna L. Harding Reported: 23-Dec-99 10:52

#### **Notes and Definitions**

	•
D-02	Chromatogram Pattern: Unidentified Hydrocarbons C9-C40.
D-06	Discrete peaks.
D-12	Chromatogram Pattern: Unidentified Hydrocarbons > C16
D-14	Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
P-01	Chromatogram Pattern: Gasoline C6-C12
P-02	Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons <c6< td=""></c6<>
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Tours Markeday Company 2000 Case Caryon Pt., St., 409 See Ferrer, Castrola (434)

Foolity Address 4191 First Street, Pleasanton, CA	1
I '	
Consultant Project Number 180075.85	Loboratory Name
Consultant Name Gettler-Ryan Inc. (G-R Inc.)	Laboratory Relea
Address 6747 Sierra Court, Suite J. Dublin, CA 94568	Samples Collecte
Project Contact (Name) Deanna L. Harding	Collection Date
(Phone) 510-551-7555 (Fax Number) 510-551-7888	Signature

(Phone) (910) 277-2324

Laboratory Name Sequoia Analytical

Laboratory Release Number 9/1/4/

Samples Collected by (Name) Varthes Tashica Collection Date: 12/6/99

Signature With Geld

			8					,					Anolys	•• To B	e Perfo	rmed					DO NOT BILL
Sample Number	Lob Sample Number	Number of Containers	Mother Soll A - Air	Type (C) a Grob  Composite  D a Discrete	Тто	Sample Preservation	load (Yes or No.)	TPH GM+ BTEX WATBE	TPH Diesed (Bo15)	Oil and Greone (5520)	Purpeable Halboarbons (8010)	Purpeoble Arometics (8020)	Purpeable Organics (8240)	Extractable Organics (8270)	Metals CACLPSZANI (ICVP or AA)	8260 (5-)	1,2.0 CA &				TB-LB ANALYSI
TB-LB	0//	·	IJ	۵.		HU	4	X							•	·		,			
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4W-2B	03	4	¥	-	2190	J	7	X	X							ļ					
HW -3	OY	4	ب	4	258	¥	4	X	X			-							<u> </u>	ļ	
MW-4	os	4	<b>,</b>	4	17	فد		X	Х									· 	ļ	<u> </u>	
HW-7	06	¥	٠	1. 4-4	140	٠,	e,	X	X			·		<u> </u>	•				ļ	ļ. 	
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MW-9	08A-H	8	•	~	12 1/p	4	~	X	×	<u> </u>						X	X			<u> </u>	
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Relinquished By  Meth UE  Relinquished By	(Signature)		G-1	nization R Inc	12	ote/Ilme 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		erved By	_ k	مالاج(	<u> </u>	(	ganizali 2, ~ (2 ganizali	INC.	12/	/Time :		1	Turn Ar	24	ne (Cirole Choloe) Hre. Hre.
See 4	)alva_			· R In	ر، ا،،	17/99	Z)	Ned By	_H	- -		15	29. L		147	71111197 1791	V . 13			5	Daye Dave
Relinguished By			I -	nization	D	ote/Ilme 14:3 2/7/44	S Reol	eved Fo	r Labor	atory By	(Signal	lura)	vc en	•		/Jm• /7/ 4:3	19	ı			ntracted

Geotechnical Services

8100 Secura Way • Santa Fe Springs • CA 90670 Phone (562) 907-3607 • Fax (562) 907-3610

December 28, 1999

Mr. Clyde Galantine Gettler-Ryan 6747 Sierra Ct. Suite J. Dublin, CA 94568

Re: Tosco # 7376/140107.04

PTS File: 29571

Dear Mr. Galantine:

Enclosed are final data for samples submitted from your Tosco 7376 Project # 140107.04. All analyses were performed by applicable ASTM, EPA or API methodology. Samples will be retained for 30 days before disposal unless other arrangements are made.

We appreciate the opportunity to be of service and trust these data will prove beneficial in the development of this project. Please feel free to call myself or Larry Kunkel, District Manager, should you have any questions or require additional information.

Sincerely,

PTS Laboratories, Inc.

Rick Young

Project Manager

RY/vk

encl.

#### PHYSICAL PROPERTIES DATA

(METHODOLOGY: ASTM D2216, ASTM D2937, API RP40, EPA 9045, Walkley-Black, ASTM D5084)

PROJECT NAME: Tosco #7376 PROJECT NO: 140107.04

KOJECT NO.	1-0107.04								25.0 PSI CON	IFINING STRESS
									NATIVE STATE	NATIVE STATE
								TOTAL	EFFECTIVE	EFFECTIVE
	·   · · · · · · · · · · · · · · · · · ·	TSAMPLE	MOISTURE	BULK	POROSITY,	%Vb (2)		ORGANIC	PERMEABILITY	
SAMPLE	DEPTH.	ORIENT.	CONTENT		1	AIR	SOIL	CARBON	TO WATER (5)	CONDUCTIVITY (5)
ID.	ft.	(1)	(% wt)	(g/cc)	EFFECTIVE	FILLED	pН	mg/kg	(millidarcy)	(cm/s)
MW-10	3.50	٧	15.6	1.82	31.5	3.1	7.53	400	0.34	3.36E-07
MW-10	13.00	V	11.4	1.98	26.1	3.4	7.13	1600	0.80	7.77E-07

<sup>(1)</sup> Sample Orientation: H = horizontal; V = vertical (2) Effective Porosity = no pore fluids in place; all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids (3) Water = 0.9981 g/cc; Hydrocarbon = 0.7500 g/cc (4) Native State = As received with pore fluids in place (5) Permeability to water and conductivity measured at saturated conditions

FROM: PTS GeoLabs, Inc.

PHONE NO. : 562 907 3610

Dec. 29 1999 03:47PM P2

PTS Laboratories, Inc.

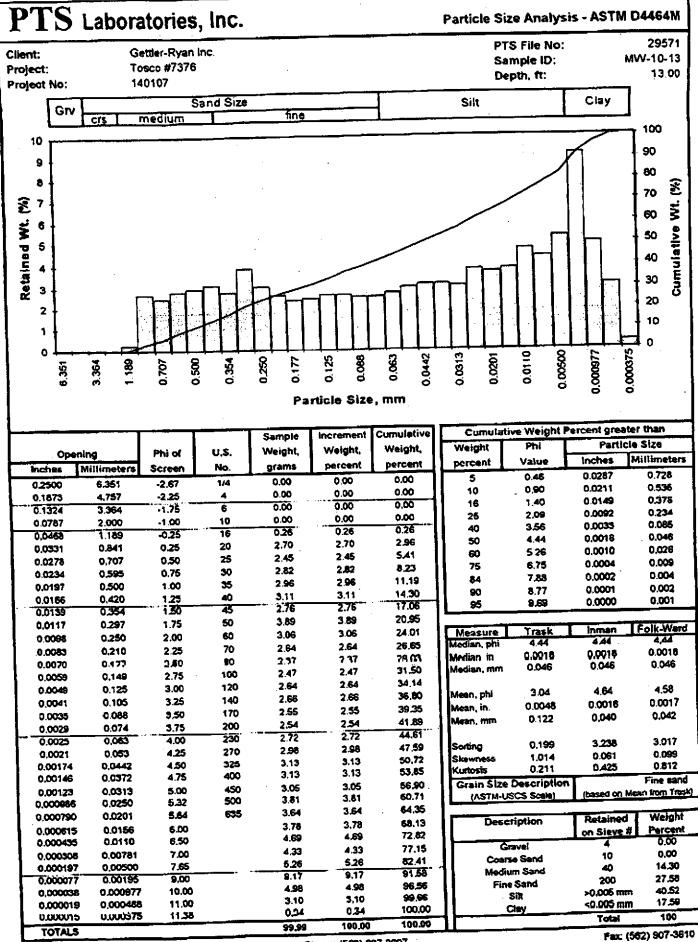
Gettler-Ryan Inc. PTS File No: 29571

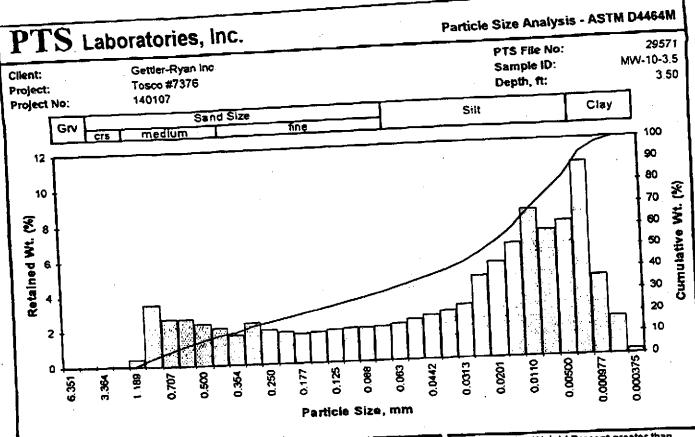
## PARTICLE SIZE SUMMARY

(METHODOLOGY: ASTM D4464M)

PROJECT NAME: Tosco #7376 PROJECT NO: 140107.04

		Description	Median	Particle Size Distribution, wt. percent							
Sample ID	Depth,	Description USCS/ASTM (1)	Grain Size	Gravel		Sand Size   Medium		Sitt	Clay	& Clay	
MVV-10-3.5 MW-10-13	3.5 13	Fine sand Fine sand	0,024 0.046	0.00	0.00	13.53 14.30	18,36 27.58	50.83 40.52	17.28 17.59	68.11 58.11	





<u>-</u>				Semple	Increment	
Ope	nina	Phi of	U.S.	Weight,	Weight,	Weight,
Inches	Millimeters	Screen	No.	grams	percent	percent
0.2500	6,351	-2.67	1/4	0.00	0.00	0,00
0.1873	4.757	-2.25	4	0.00	0.00	0,00
0.1324	3.364	-1.75	- 6	0.00	0.00	0.00
0.1324	2.000	-1,00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.42	0.42	0.42
0.0331	0.841	0.25	20	3.47	3.47	3.89
0.0278	0.707	0.50	<b>25</b>	2.63	2.63	6.51
0.0278	0.595	0.75	30	2.63	2.63	9.14
0.0187	0.500	1.00	35	2.32	2.32	11,46
0.0166	0.420	1.25	40	2.07	2.07	13.53
0.0139	0.754	140	45	1 66	1.85	15.19
0.0117	0.297	1.75	50	2,32	2.32	17.51
0.0098	0.250	2.00	60	1.91	1,91	19.42
0.0083	0.210	2.25	70	1.75	1.75	21.17
0.0070	0.177	2.50	80	1.63	1.63	22.80
0.0059	0.149	2.75	100	1.70	1,70	24.50
0.0049	0.125	3.00	120	1.81	1,81	26.31
0.0041	0.105	3,25	140	1,85	1.85	25.16
0.0036	0.103	3,50	170	1.84	1,84	30.00
0.0029	0.074	3.75	200	1.89	1.89	31.89
0.0025	0.063		230	2.01	2.01	33.90
0.0023	0.053	4.25	270	2.20	2.20	36.10
0.0021	0.0442	4.50	325	2,41	2.41	38.51
0.00146	0.0372	4.75	400	2.64	2.64	41.15
0.00123	0.0313	5.00	450	2,97	2.97	44.12
0.000986	****	5.32	500	4,47	4,47	48.58
0.000790		5.64	635	5.26	5.26	53.84
0.000615		6.00		6.27	6.27	60.11
0.000435	******	6.50		8.16	8.16	68,27
0.000308		7.00		7.00	7.00	75.27
0.000197		7.65		7.45	7.45	82.72
0.000077	**	9.00		10.69	10.69	93.40
0.000038	••••	10.00		4.31	4.31	97.71
0.000019		11.00		2.08	2.08	99,79
0.000015		11,38		0.21	0.21	100.00
TOTALS				100.02	100.00	100,00

Weight	Phi	Percent greater than Particle Size					
percent	Value	inches	Millimeters				
5	0.36	0.0306	0.781				
10	0.84	0.0220	0.558				
16	1.59	0.0131	0,333				
25	2.82	0,0056	0.142				
40	4.64	0.0016	0.040				
<del>-1</del> 0	5.41	0.0009	0.024				
•	5.99	0.0006	0.016				
60 75	6.98	0.0003	0.008				
	7.81	0.0002	6.004				
<b>34</b>	8.57	0.0001	0.003				
90 95	9,37	0.0001	0.002				

Measure	Trask	loman	Folk-Ward
Median, phi	5.41	5,41	5.41
Median, in.	0,0009	0.0009	0.0009
Modian, mm	0.024	0.024	0.024
Mean, phi	3.74	4.70	4.93
Mean, In.	0.0029	0.0015	0,0013
Mean, mm	0.075	0.039	0.033
Sorting	0.236	3,110	2.921
Skewners	1.420	-0.228	-0.174
Kurtosis	0.121	0.449	0,588
Grain Size (		(based on k	Fine sand keen from Trask)

(ASTM-USCS Scale)	(based on Mean from Itasky					
Description	Retained on Sleve #	Weight Percent				
Gravel Coerse Send Medium Sand Fine Send Sit Clay	4 10 40 200 >0,005 mm <0,005 mm	0.00 0.00 13,53 18,36 50,83 17,28				
	Total	100				
<del></del>	- 450	O 007 3510				

©PTS Laboratories, Inc.

Phone: (552) 907-3507

Fax: (562) 907-3610

29571

OF. PAGE **CHAIN OF CUSTODY RECORD** PTS FILE # DATE PO# ANALYSIS REQUEST PTS Laboratories, Inc. SPECIAL HANDLING HYDRAULIC CONDUCTIVITY, EPA 9100. API RP40 8100 Secura Way Santa Fe Springs, CA 90670 Ph: (562) 907-3607 • Fax: (562) 907-3610 02937 PERMEASINE V- ASTA 0 5084 5 DAYS 24 HOURS **PP** NORMAL 72 HOURS CATION EXCHANGE CAPACITY. EPA 9080 SPECIFIC RETENTIONMELD ASTM D425 PROJECT MANAGER OTHER COMPANY GRAIN SIZE: WET/DRY, 20 MICRON BULK DENSITY - AGENCE ASTA Dave De Witt GRAIN SIZE: LASER: 1 MICHON SAMPLE CONDITIONS Tosco Marketina FAX NUMBER (925) 551-7888 AIR PERMEABILITY. API RP40 GRAIN SIZE: DAY: 400 MESH PROJECT NAME, 7376
PROJECT NUMBER GRAIN DENSITY, API RP40 YES/NO RECEIVED ON ICE **YES/NO** PHONE NUMBER **SEALED** SOIL OH. EPA 9045 55/-7555 YES/NO OTHER 140107.04 ö ADDRESS NUMBER ( SITE LOCATION **COMMENTS** Jaco 7376 SAMPLER SIGNATURE DEPTH, FT TIME SAMPLE ID NUMBER DATE 3.5 4. RECEIVED BY 3. RELINQUISHED BY 2. RECEIVED BY 1. REVINOUISHED BY COMPANY COMPANY COMPANY TIME DATE TIME DATE TIME DATE 12130

## APPENDIX G

Waste Disposal Confirmation Form

#### NORTHERN CALIFORNIA SALES OFFICE • SPECIAL WASTE

Forward • Keller Canyon • Newby Island • Ox Mountain



May 3, 2000

Gettler-Ryan, Inc.
Clyde Galantine
6747 Sierra Court, Suite J
Dublin, CA 94568

Re: FORWARD, INC. Approval No. 891300 Contaminated Soil from 4191 First Street PLEASANTON, CA

Dear Mr. Galantine:

FORWARD, INC. is pleased to confirm the disposal of 2.88 tons of material as referenced above. The material was received at our Manteca, California facility for disposal on 11/09/99. The material was placed in a Class 2 waste management unit.

Approval for this material was based on the information provided in the waste profile and associated materials submitted on behalf of Tosco Marketing Company (Generator). Acceptance of the waste is subject to the "Terms and Conditions" agreed to and signed by the Generator on the Waste Profile Form.

Thank you for the opportunity to be of service. Should you have any questions regarding this matter, please contact me or Customer Service at (800) 204-4242.

Sincerely,

FORWARD, INC.

Brad J. Borliner Sales Manager

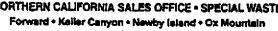
BB/jg

1145 West Charter Way, Stockton, CA 95206 Phone 800.204.4242 Fax 209.466.1067



INDUSTRIES, INC.

NORTHERN CALIFORNIA SALES OFFICE - SPECIAL WASTE







Via Fax (925) 551-7888

March 7, 2000

Gettler-Ryan, Inc. Clyde Galantine 6747 Sierra Court, Suite J Dublin, CA 94568

Re: FORWARD, INC. Approval No. 898500 Contaminated Soil from Tosco S/S# 7376 - 4191 First Street Pleasanton, CA

Dear Mr. Galantine:

FORWARD, INC. is pleased to confirm the disposal of 6.93 tons of material as referenced above. The material was received at our Manteca, California facility for disposal on January 3, 2000. The material was placed in a Class 2 waste management unit.

Approval for this material was based on the information provided in the waste profile and associated materials submitted on behalf of Tosco Marketing Company (Generator). Acceptance of the waste is subject to the "Terms and Conditions" agreed to and signed by the Generator on the Waste Profile Form.

Thank you for the opportunity to be of service. Should you have any questions regarding this matter, please contact me or Customer Service at (800) 204-4242.

Sincerely,

FORWARD. I

Brad J. Bonner Sales Manager

BB/jg

1145 W. Charter Way / Stockton, CA 95206 / 800.204.4242 / 209.466.1067 FAX

209 466 1067 PAGE.001