Woodward-Clyde

Engineering & sciences applied to the earth & its environment

1/25/96 ① Send closure ltr for these USTs removed

② Request investig. rpt for AST removed

January 19, 1996

95 JAN 22 PM 1:18

Ms. Eva Chu
Alameda County Health
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Subject: Closure Report for USTs at Buildings 770, 1135, 1136, and 1180
Parks Reserve Forces Training Area (PRFTA) Dublin, California
Project No. 7112

Dear Eva:

Woodward Clyde Federal Services (WCFS) is pleased to provide one copy of this Closure Report for the USTs at the former locations of Buildings 770, 1135, 1136, and 1180 at Parks Reserve Forces Training Area (PRFTA) in Dublin, California.

WCFS is pleased to have worked with you on this project and we look forward to working with you on other Camp Parks projects in the future. If you have any questions regarding this report please call Laurie Israel at (916) 368-0988 or Michael Sartor at (510) 874-3173.

Very truly yours,

WOODWARD-CLYDE

Laurie B. Israel, R.E.A.
Deputy Project Manager

420 - 500 0.7

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CLOSURE REPORT FOR TANKS AT BUILDING 770, 1135, 1136, AND 1180 PARKS RESERVE FORCES TRAINING AREA DUBLIN, CALIFORNIA

Prepared for

U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, California 95814

January 1996

Woodward-Clyde

Woodward-Clyde Federal Services
10370 Old Placerville Road, Suite 104
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The U.S. Army Corps of Engineers - Sacramento District (USACE) retained Woodward-Clyde Federal Services (WCFS) and Aronson Engineering, Inc. (Aronson) to provide engineering and tank removal services, respectively, for the removal of four underground storage tanks (USTs) at the former locations of Buildings 1135 (one UST), 1136 (one UST), and 770 (two USTs) and one aboveground storage tank (AST) at the former location of Building 1180 at the Parks Reserve Forces Training Area (PRFTA) in Dublin, California.

The UST located at Building 1135 (B1135) was removed on November 4, 1994. During the tank removal activities, one soil sample was collected from the B1135 tank excavation. Two soil samples were collected from the stockpiled soil from the B1135 tank excavation. Detectable levels of TPHD were present in the stockpile sample from the B1135 tank at a concentration of 350 ppm. Detectable concentrations of TPHD were not present in the soil samples analyzed from the excavation at B1135. Concentrations of BTEX were below the detection limits of the analyses for the soil samples submitted for B1135.

The UST located at Building 1136 (B1136) was also removed on November 4, 1994. During the tank removal activities, one soil sample was collected from the B1136 tank excavation. One soil sample was collected from the stockpiled soil from the B1136 excavation. Detectable levels of total petroleum hydrocarbons as diesel (TPHD) were present in the excavation sample (T1136-S1) at a concentration of 2,000 ppm at a depth of 5.5 feet below ground surface (bgs). Detectable concentrations of TPHD were not present in the soil samples analyzed from the stockpile at B1136. On November 9, 1995, WCFS performed additional excavation activities at B1136. Approximately 20 cubic yards of soil were removed from the excavation and stockpiled. Five confirmatory soil samples were collected from the B1136 excavation. Four soil samples were also collected from the new stockpile and composited in the laboratory and submitted for TPHD analysis. Concentrations of TPHD were not detected above the detection limit in the soil samples collected from the excavation. TPHD was detected in the newly excavated soil stockpile at B1136 at a

concentration of 240 ppm. Concentrations of BTEX were below the detection limits of the analyses for the soil samples submitted for B1136.

The excavations at B1135 and B1136 were backfilled by Aronson on January 5, 1996. The B1135 and B1136 excavation soil stockpiles were removed from the site on January 5, 1996 and transported to an approved disposal facility.

Two USTs at Building 770 (a 700-gallon gasoline tank and a 1,500-gallon sewage collection tank) were removed on December 14, 1994. During the excavation of the USTs, one soil sample was collected in the excavation for the 700-gallon gasoline tank and the one soil sample was collected from the stockpile associated with this tank. Soil samples were not collected from the soil beneath the 1,500-gallon sewage collection tank. Total petroleum hydrocarbons as gasoline (TPHG) and BTEX were not detected in the two soil samples analyzed. Total lead was detected in the soil samples from the 700-gallon tank excavation at concentrations of 6.1 ppm and 6.4 ppm which are below the Alameda County Department of Environmental Health (ACDEH) action level of 50 ppm lead. The B770 excavation was backfilled with the stockpiled soil in November 1994.

The 500-gallon AST at Building 1180 was filled with 32 pounds of dry ice and removed and disposed of by Erikson, Inc. on November 4, 1994. Soil samples were not collected at Building 1180.

1.0
INTRODUCTION

1.1 BACKGROUND

The USACE retained Woodward-Clyde Federal Services (WCFS) and Aronson Engineering, Inc. (Aronson) to provide engineering and tank removal services, respectively, for the removal and disposal of four underground storage tanks (USTs) located at former Buildings 770 (two USTs), 1135, and 1136 and one aboveground storage tank (AST) located at former Building 1180 within the Parks Reserve Forces Training Area (PRFTA) in Dublin, California.

1.2 PROJECT OBJECTIVES

The purpose of this project was to perform the following tasks:

1) Excavation, removal, and disposal of the four USTs located at Buildings 770, 1135, and 1136.

2) Removal and disposal of the AST located at Building 1180.

3) Collection of soil samples and groundwater samples (if groundwater was encountered) during the excavation of the USTs.

4) Analysis of representative soil samples from the UST excavations and stockpiles following Alameda County Department of Environmental Health (ACDEH) recommendations.

All tasks were performed in accordance with the State of California, Regional Water Quality Control Board (RWQCB), ACDEH, and Tri-Regional Board Staff Recommendations. UST Closure Plans for the removal of the four USTs were not required by ACDEH.

1.3 REPORT ORGANIZATION

The report has been organized into the following sections: Section 2.0 - Existing Conditions, Section 3.0 - Field Activities, Section 4.0 - Site Restoration, Section 5.0 - Conclusions and Recommendations, and Section 6.0 - References.

2.1 SITE LOCATION AND DESCRIPTION

PRFTA is located northeast of the intersection of the I-580 and I-680 Highways in Dublin, California. PRFTA is situated in portions of Alameda and Contra Costa County (Figure 1). PRFTA occupies approximately 2,800 acres and is bounded by multiple entities. PRFTA's neighbors include a Federal Correctional Institution, Santa Rita Rehabilitation Center, Alameda County Santa Rita Jail, Tassajara Creek Regional Park, local businesses, and residential districts.

PRFTA is a multi-use installation that hosts a variety of tenants, both military and civilian. PRFTA organizations utilize the installation for activities which include: fire services, maintenance of buildings, range control, storage facilities, demolition activities, and administration of utilities. Tenant organizations who lease buildings or space at PRFTA include Federal entities (U.S. Army Reserve components and U.S. Border Patrol), private companies, and private and public organizations.

The former locations of Buildings 1135, 1136, 770, and 1180 are identified on Figure 2.

2.2 SITE BACKGROUND

Building 1135 - UST

Building 1135 was used as a single family home on PRFTA prior to its demolition in May 1994. A vent pipe for the 300-gallon heating fuel UST was observed at this single family house during the Preliminary Assessment (PA) conducted by WCFS in 1994. In a phone conversation on June 21, 1994, Mr. Mervin Alley of PRFTA stated that Building 1135 had been demolished and the UST tank piping was no longer visible at the surface. Ground penetrating radar (GPR) was used by WCFS to successfully locate the UST in July 1994.

The depth to the bottom of the UST was approximately 3.5 feet below ground surface (bgs) (see Figure 3).

Building 1136 - UST

Prior to its demolition in May 1994, Building 1136 was used as a single family home on PRFTA. During the PA, a vent pipe for the 300-gallon heating fuel UST was observed adjacent to the house. Mr. Mervin Alley of PRFTA reported that the UST at Building 1136 contained approximately 7 inches of oil. The depth to the bottom of the UST was approximately 4 feet bgs (see Figure 3).

Building 770 - UST

Prior to its demolition in June 1994, this structure was an underground bunker (bomb shelter) that had not been utilized since the 1960s. Building 770 was constructed in 1959. One 700-gallon fuel UST and one 1,500-gallon sanitary sewage UST were observed on the facility drawings reviewed by WCFS. During the PA, two potential UST fill pipes were observed east of the bunker. According to Mr. Mervin Alley of PRFTA, the fuel tank contained approximately 27 inches of water and oil. PRFTA indicated that the sanitary sewage UST was believed to have been removed in June 1994 concurrent with the demolition of Building 770, however, it was discovered during excavation activities for the 700-gallon UST and was added to the scope of this investigation. The depth to the bottom of the 700-gallon UST was approximately 17 feet bgs. The depth to the bottom of the sanitary sewage UST was approximately 15 feet bgs (see Figure 5).

Building 1180 - AST

Building 1180 was used as a residential building on PRFTA prior to its demolition in May 1994. A fuel AST, with an approximate 500-gallon capacity, was observed on a concrete pad located near the eastern side of Building 1180 during the PA. Dark and oily surface stains and hydrocarbon odors were observed on the concrete pad and soil underneath the tank during the PA. At the time of the PA, Mr. Mervin Alley reported that the tank contained

approximately 36 inches of oil. In a phone conversation on June 21, 1994, Mr. Alley stated that the AST was moved approximately 100 feet west from Building 1180 in May 1994 and was placed on a plastic tarp. According to Mr. Alley, no leaks were visible from the tank. However, a slight oily residue was visible on the plastic after the tank was placed on it. Prior to relocating the AST, Mr. Alley stated that the tank was pumped of its contents and the discharge valve, which was open slightly, was closed. Mr. Alley stated that the concrete pad, which supported the tank, was removed and the soil below the pad was graded to level the area. As a result, the stained area (visible at the time of the PA) was no longer visible.

This area was investigated under a separate scope of work (Delivery Order No. 0027 to Contract No. DACA05-92-D-0032) and the results are presented in the WCFS Remedial Investigation Services for Suspected Soil Contamination and UST Sites Report (WCFS, 1994). In summary, WCFS personnel did not collect soil samples at the former location of the AST at B1180 because due to demolition activities, the stained area could not be located.

2.3 HYDROGEOLOGIC SETTING

The PRFTA facility is located in the Livermore Valley. According to the State of California Department of Water Resources (Ford and Hills, 1974), the geologic units underlying PRFTA are Quaternary alluvium at the southern end and undifferentiated Pliocene formations at the northern end. The Quaternary alluvium is classified as unconsolidated water bearing deposits consisting of stream and lake deposited sediments including various mixtures of continental gravel, sand, silt, and clay. PRFTA is dissected by the northwesterly-southeasterly trending Pleasanton Fault. According to the State of California Department of Water Resources, "Livermore and Sunol Valleys, Evaluation of Groundwater Resources Appendix A: Geology" (1966), it is not known what effect the fault zone has on groundwater movement in the area. However, where the fault nears Highway 580, it apparently has some effect on the quality of groundwater.

PRFTA is located in the Dublin (southwestern PRFTA) and Camp (northeastern PRFTA) subbasins. The Dublin subbasin is bound to the east by the Pleasanton Fault and to the west by non-water bearing marine sediments. In the vicinity of the site of interest, these

sediments are approximately 150 feet thick. Groundwater in the Dublin subbasin is both unconfined and confined. In the shallower, unconfined aquifers, groundwater is generally encountered at about 20 feet below ground surface (bgs) and slopes southward at about 20 feet per mile. In the deeper, confined aquifers, groundwater ranges from about 80 feet bgs in the north to about 50 feet bgs in the south. Groundwater slopes southward at about 30 feet per mile in the northern portion of the site to about 20 feet per mile in the southern portion (Ford and Hills, 1974).

The Camp subbasin is bound to the west by the Pleasanton Fault and to the east by the Mocho Fault. Groundwater in the Camp subbasin is unconfined to semiconfined. The combined potentiometric surface of the various water-producing zones lies at about 10 to 25 feet bgs. The potentiometric surface of the groundwater generally reflects the topography and slopes to the south at a gradient of about 70 feet per mile. Groundwater apparently moves southward as far as Highway 580 and then westward as far as Santa Rita Road (Ford and Hills, 1974).

According to the U.S. Geological Survey, PRFTA's topography varies from an elevation of 330 feet above mean sea level in the south to 760 feet above mean sea level in the northern area. Surface water drains primarily to the south via surface water discharge canals located throughout PRFTA.

2.4 REGULATORY REQUIREMENTS

Ms. Eva Chu with ACDEH provided the regulatory oversight for this project. UST Closure Plans for the removal of the USTs were not required.

3.0
FIELD ACTIVITIES

3.1 TANK REMOVAL AND EXCAVATION

WCFS contacted PRFTA Headquarters, Aronson, ACDEH, the Dougherty Regional Fire Department, and the PRFTA Fire Department to schedule the tank removal activities and required inspections for the UST removals. Aronson prepared a site specific Health and Safety Plan for the UST and AST removal activities.

3.2 MONITORING

A photoionization meter (HNu) was used to measure the presence of petroleum hydrocarbons in the breathing zone and in the headspace of selected soil samples. These measurements were performed by WCFS personnel. Readings for the lower explosive limit (LEL) and the concentration of oxygen ($\%O_2$) inside the USTs prior to removal were taken by Aronson. Representatives from the Dougherty Regional Fire Authority and the PRFTA Fire Department were on site to observe the LEL and $\%O_2$ measurements. Ms. Eva Chu with ACDEH approved the LEL and $\%O_2$ measurements.

3.3 SOIL SAMPLING

Soil samples were collected by WCFS under the direction of Ms. Eva Chu to meet ACDEH requirements. Sampling equipment such as trowels, brass tubes, and plastic caps were decontaminated before use by washing in an Alconox solution and rinsing in tap water followed by distilled water. Decontamination procedures for the excavation equipment (i.e., backhoe bucket) and tank removal equipment were performed by Aronson.

A backhoe was used to collect the samples from each excavation. The soil samples from the stockpiles were collected by hand. A clean brass tube was driven with a rubber mallet into the native soil collected in the backhoe bucket. The soil samples were prepared for

laboratory analysis by covering the ends of the brass tubes with Teflon™ sheeting and plastic end caps, labeling the samples, placing the samples in sealable plastic bags, and storing the samples in an ice chest cooled with ice. The coolers were transported, using chain-of-custody documentation, to Anametrix Laboratories in San Jose, California (November 1994) and Curtis & Tompkins, Ltd., Berkeley, California (November 1995) for analysis.

3.4 UNDERGROUND STORAGE TANK REMOVAL ACTIVITIES

Aronson was responsible for the excavation, removal, inerting, transportation, and disposal of the four USTs (and associated contents) located at the former locations of Buildings 1135, 1136, and 770. The UST removal procedures were conducted following ACDEH recommended guidelines. Aronson was also responsible for the removal and disposal of contaminated soil excavated during the tank removals. The material covering each tank was removed from the tank area. Soil excavated from each tank removal operation was stockpiled adjacent to the excavation.

3.4.1 UST Investigation at Building 1135 (B1135)

Tank removal operations of the UST at B1135 were conducted by Aronson on November 4, 1994. Photo-documentation of the removal is provided in Appendix A. The tank was inspected at the surface by WCFS, Aronson, Ms. Eva Chu (ACDEH), Chief Hardy (PRFTA), and Mr. Ray Zimny (USACE). Several holes were observed in the top of the tank at B1135. Water with an oily sheen was observed inside the tank at B1135. Approximately 175 gallons of oil and oil/water mixture were vacuumed out of the B1135 UST by Evergreen Environmental Services. After the tank was emptied, 35 pounds of dry ice were placed in the tank. The LEL and $\%O_2$ readings were approved by Ms. Eva Chu with ACDEH and Chief Hardy with PRFTA Fire Department and the tank was removed from the excavation and loaded onto a flatbed truck for disposal. The UST was disposed of by Erikson, Inc. The disposal documentation for the UST and its contents is included in Appendix B.

WCFS collected soil samples at the B1135 UST site for submittal to an analytical laboratory for analysis on November 4, 1994. One soil sample was collected from the tank excavation at B1135 per the direction of Ms. Eva Chu (ACDEH). Two soil samples from the stockpile for the B1135 tank were submitted for analysis. The soil sample locations are shown on Figure 3. A summary of the location, depth, and sample type for each soil sample collected is provided in Table 1. Sample T1135-S1 was collected from a depth of 5 feet bgs beneath the center of the tank in the excavation at B1135. Samples SP1135-S1 and SP1135-S2 were comprised of soil collected at a depth of 6 inches from three distinct locations and composited into a single sample for analysis (Figure 3).

The soil samples from the B1135 tank excavation and stockpiles at Building 1135 were analyzed for total petroleum hydrocarbons as diesel (TPHD) using EPA Method 3550 and for benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Methods 5030/8020. The results of the laboratory analyses for the soil samples are shown in Table 2. The detection limit for each analysis is shown in the analytical report located in Appendix C. The analytical results for the soil sample collected from the stockpiled soil from the B1135 tank excavation (SP1135-S1) showed detectable levels of TPHD at 350 ppm. The soil sample from the tank excavation at B1135 had no detectable levels of TPHD. Concentrations of BTEX were below the detection limits of the analyses for the soil samples submitted for B1135. The excavation at B1135 was not backfilled in November 1994 due to inclement weather.

3.4.2 UST Investigation at Building 1136 (B1136)

Tank removal operations of the UST at B1136 were conducted by Aronson on November 4, 1994. Photo-documentation of the removal is provided in Appendix A. The tank was inspected at the surface by WCFS, Aronson, Ms. Eva Chu (ACDEH), Chief Hardy (PRFTA), and Mr. Ray Zimny (USACE). Several holes were observed at the west end of the tank at Building 1136. Seven inches of oil were observed in the tank at B1136. Approximately 175 gallons of oil and oil/water mixture were vacuumed out of the UST by Evergreen Environmental Services. After the tank was emptied, 35 pounds of dry ice were placed in the tank. The LEL and $\%O_2$ readings were approved by Ms. Eva Chu with

ACDEH and Chief Hardy with PRFTA Fire Department and the tank was removed from the excavation and loaded onto a flatbed truck for disposal. The B1136 UST was disposed of by Erikson, Inc. The disposal documentation for the UST and its contents is included in Appendix B.

WCFS collected soil samples at the B1136 UST site for submittal to an analytical laboratory for analysis on November 4, 1994. One soil sample was collected from the tank excavation per the direction of Ms. Eva Chu (ACDEH). One soil sample from the B1136 stockpile was submitted for analysis. The soil sample locations are shown on Figure 3. A summary of the location, depth, and sample type for each soil sample collected is provided in Table 1. Sample T1136-S1 was collected from a depth of 5.5 feet bgs beneath the south end of the tank in the excavation at B1136. Sample SP1136-S1 was comprised of soil collected at a depth of 6 inches from three distinct locations and composited into a single sample for analysis (Figure 3).

The soil samples from the tank excavation and stockpile at B1136 were analyzed for TPHD using EPA Method 3550 and for BTEX using EPA Methods 5030/8020. The results of the laboratory analyses for the soil samples are shown in Table 2. The detection limit for each analysis is shown in the analytical report located in Appendix C. The analytical results for the soil sample collected from the B1136 tank excavation (T1136-S1) showed detectable levels of TPHD at 2,000 ppm. The soil sample from the B1136 stockpile showed no detectable levels of TPHD. Concentrations of BTEX were below the detection limits of the analyses for the B1136 soil samples submitted.

Due to elevated concentrations of TPHD in the soil sample from the excavation at B1136, additional excavation activities were conducted on November 9, 1995. Approximately 20 cubic yards of soil were removed from the excavation and stockpiled onsite. Following the excavation of approximately 20 cubic yards of soil from the excavation at B1136, a Petro Flag Analyzer field test kit for TPH was used to screen the soil in excavation prior to confirmatory sampling. One soil sample was collected at the bottom of the B1136 excavation at 7.0 feet bgs and screened using the Petro Flag kit. The result of the screening analysis was 18 ppm TPH for the soil sample. Based on this result, WCFS collected five

confirmatory soil samples from the B1136 excavation on November 9, 1995 (Figure 4). Four of the soil samples were taken from the side walls (one from each) at depths of 6 feet bgs and one soil sample was collected from the bottom floor of the excavation at a depth of 7 feet bgs. Four soil samples were collected from the newly stockpiled soil and composited in the laboratory (Figure 4). All of the soil samples collected on November 9, 1995 were analyzed for TPHD using Modified EPA Method/8015 and for BTEX using EPA Method 5030/8020.

The results of the laboratory analyses for the soil samples collected on November 9, 1995 are shown in Table 2. The detection limit for each analyses is shown in the analytical report located in Appendix C. The analytical results for the soil samples collected from the B1136 tank excavation (E1136-S1, E1136-S2, E1136-S3, E1136-S4, and E1136-S5) were below the detection limits (1.3 ppm) for TPHD and BTEX. The analytical results for the four part composite soil sample from the November 1995 excavated soil stockpile (SP1136-1109) showed a concentration of 240 ppm TPHD. Concentrations of BTEX were below the detection limits in the stockpile soil sample.

3.4.3 USTs at Building 770 (B770)

Tank removal operations of the USTs at B770 were conducted by Aronson on December 14, 1994. Photo-documentation of the removals is provided in Appendix A. The 700-gallon fuel tank was observed to contain approximately 10 gallons of product. Aronson pumped the product from the UST into a 55-gallon drum. Five small holes were observed on the east end of the fuel tank. The 1,500-gallon sewage water tank was observed to contain a small amount of stale water. Approximately 50 pounds of dry ice were placed in the fuel tank. The LEL and $\%O_2$ readings from each UST were approved by Mr. Eva Chu with ACDEH and the Dougherty Regional Fire Department and the tanks were removed from the excavations. The tanks were inspected at the surface by WCFS, Aronson, Mr. Eva Chu, Dougherty Regional Fire Department, and Mr. Ray Zimny (USACE). After the inspection, the previously removed product from the 700-gallon UST was returned to the tank and both tanks were loaded onto a flatbed truck for disposal. The B770 USTs were disposed of by Erikson, Inc. The disposal documentation for the USTs is included in Appendix B.

WCFS collected soil samples at the 770 UST site for submittal to an analytical laboratory for analysis on November 4, 1994. One soil sample was collected from the B770 tank excavations per the direction of Ms. Eva Chu (ACDEH). One soil sample from each of the stockpiles for the B770 tanks were submitted for analysis. The soil sample locations are shown on Figure 4. A summary of the location, depth, and sample type for each soil sample collected is provided in Table 1. Sample T770-1 was collected from a depth of 16 feet bgs, 3 feet below the tank and directly underneath the center of it in the excavation for the 700-gallon fuel tank at Building 770. Sample SP770123 was a composite soil sample comprised of three soil samples, one collected from each of the three stockpiles of soil removed from the 700-gallon fuel tank excavation (Figure 5). Ms. Chu with ACDEH requested that the three samples collected from the Building 770 stockpiles be submitted for analysis as a composite sample.

The soil samples from the 700-gallon fuel tank and stockpiles at Building 770 were analyzed for total petroleum hydrocarbons as gasoline (TPHG) using EPA Method 5030, lead using EPA Method 6010A, and for BTEX using EPA Method 8020.

The results of the laboratory analyses for the soil samples are shown in Table 2. The detection limit for each analysis is shown in the analytical report located in Appendix C. None of the soil samples from the B770 tank excavation showed detectable levels of TPHD or TPHG. Total lead was detected in the soil samples collected from the 700-gallon fuel tank excavation at B770 and in the stockpile from the 700-gallon tank excavation at 6.4 ppm and 6.1 ppm, respectively. Concentrations of BTEX were below the detection limits of the analyses for the B770 soil samples submitted.

3.4.4 AST at Building 1180

Aronson was responsible for the removal, inerting, transportation, and disposal of the AST (and associated contents) located at Building 1180. The AST removal procedures were conducted following ACDEH recommended guidelines. Photo-documentation of the removal is provided in Appendix A. The AST at Building 1180 was filled with 32 pounds of dry ice

and removed and disposed of by Erikson, Inc. in November 1994. Disposal documentation for the AST is included in Appendix B.

4.0
SITE RESTORATION

4.1 BACKFILLING OF THE EXCAVATIONS

The tank excavations at Building 770 were backfilled in November 1994 with the soil excavated from the tank removal activities under the direction of Mr. Ray Zimny. The excavation was not compacted due to the high moisture content of the soil.

The tank excavation at Building 1136 was not backfilled in November 1994 due to the detected concentrations of TPHD in the soil samples collected. The tank excavation at Building 1135 was not backfilled in November 1994 due to inclement weather. In November 1995, additional soil was excavated from the Building 1136 tank site and stockpiled adjacent to the previously excavated soil. On January 5, 1996, all of the stockpiled soil at Buildings 1135 and 1136 were removed by Aronson and disposed of at an approved disposal facility. Copies of the manifests for the stockpiled soil are provided in Appendix B. The tank excavations at Buildings 1135 and 1136 were backfilled with imported material and compacted on January 5, 1996 by Aronson.

5.0
CONCLUSIONS AND RECOMMENDATIONS

5.1 BUILDING 1135 UST

Detectable levels of TPHD were found in the stockpile from the excavation for the tank at Building 1135 at 350 ppm in November 1994. Concentrations of BTEX were below the detection limits in the stockpile samples. Concentrations of TPH-D and BTEX were below the detection limits in the tank excavation. Groundwater was not encountered in the tank excavation. On January 5, 1996, Aronson backfilled the excavation at Buildings 1135 with imported fill and removed all of the soil stockpiles at Buildings 1135 and disposed of them at an approved disposal facility.

It is recommended that no further investigations be conducted at the former tank location at B1135.

5.2 BUILDING 1136 UST

Detectable levels of TPHD were found in the excavation for the tank at Building 1136 at 2,000 ppm in November 1994. Detectable levels of TPHD were not found in the stockpile for the tank at B1136 in 1994. Groundwater was not encountered in the tank excavation. During the November 1995 re-excavation activities at B1136, concentrations of TPHD and BTEX were below the detection limits in the five soil samples collected from the excavation. In the four-part composite from the November 1995 stockpiled soil, TPH-diesel was detected at 240 ppm. Concentrations of BTEX were below the detection limits in the newly stockpiled sample. On January 5,1996, Aronson backfilled the excavation at B1136 with imported fill and removed all of the soil stockpiles at B1136 and disposed of them at an approved disposal facility.

It is recommended that no further investigations be conducted at the former tank location at B1136.

5.3 BUILDING 770 USTs

Lead was detected in the soil sample collected from the 700-gallon fuel tank excavation at Building 770 and in the stockpile from the tank excavation at 6.4 ppm and 6.1 ppm, respectively. The presence of lead in the soil samples analyzed did not exceed the 50 ppm allowable limit set forth by the Alameda County Department of Environmental Health (ACDEH). Detectable levels of TPHG were not found in the excavation or stockpiled soil for the tanks at B770 in November 1994. Groundwater was not encountered in the tank excavations. Aronson backfilled the excavation at B770 with the stockpiled soil in November 1994.

It is recommended that no further investigations be conducted at the former tank locations at B770.

5.4 BUILDING 1180 AST

The AST at Building 1180 was removed in November 1994. Dark and oily surface stains and hydrocarbon odors were observed on the concrete pad and soil underneath the AST at B1180 tank during the PA in May 1994. The concrete pad, which supported the tank, was removed and the soil below the pad was graded to level the area and the AST was moved to an adjacent location. The stained area (visible at the time of the PA in May 1994) was no longer visible during the AST removal activities discussed in this report. This area was investigated under a separate scope of work (Delivery Order No. 0027 to Contract No. DACA05-92-D-0032) and the results are presented in the WCFS Remedial Investigation Services for Suspected Soil Contamination and UST Sites Report (WCFS, 1994). In summary, WCFS personnel did not collect soil samples at the former location of the AST at B1180 because due to demolition activities, the stained area could not be located.

get report

It is recommended that no further investigations be conducted at the former tank location at B1180.

6.0
REFERENCES

Ford, Robert S., Hills, Edward E. 1974. Department of Water Resources "Evaluation of Groundwater Resources: Livermore and Sunol Valleys." Bulletin No. 118-2.

Regional Water Quality Control Board - North Coast, San Francisco Bay, and Central Valley Regions (RWQCB), 1990.

Tri-Regional Board Staff Recommendation for Preliminary Evaluation and Investigation of Underground Tank Sites, August 10, 1991; Appendix A - Reports, August 30, 1991.

Woodward-Clyde, Remedial Investigation Services for Suspected Soil Contamination and UST Sites, September 28, 1994.

Table 1. Summary of Soil Samples, Collected in November/December 1994 and November 1995 at PRFTA, Dublin, California

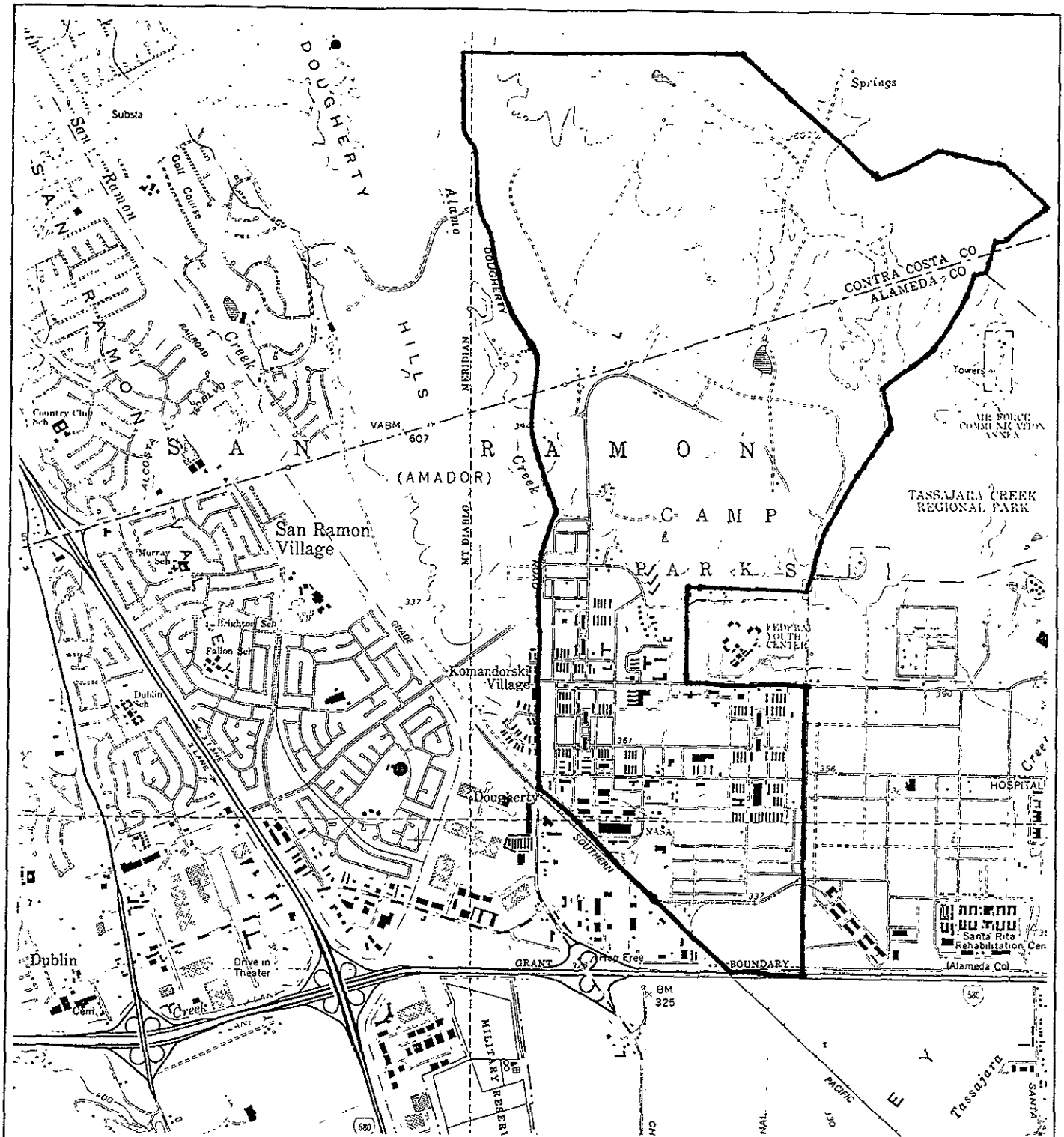
Sample Identification	Location	Depth (feet bgs)	Sample Collection Date
T1135-S1	Underneath the center of UST at Building 1135	5	Nov 1994
T1136-S1	Underneath the south end of the UST at Building 1136	5.5	Nov 1994
SP1135-S1	Stockpile for UST at Building 1135	NA	Nov 1994
SP1136-S1	Stockpile for UST at Building 1136	NA	Nov 1994
SP1135-S2	Stockpile for UST at Building 1135	NA	Nov 1994
T770-1	Underneath the center of 700-gallon UST at Building 770	16	Dec 1994
SP770123	Stockpile for 700-gallon UST at Building 770	NA	Dec 1994
E1136-S1	Bottom of Excavation at Building 1136	7	Nov 1995
E1136-S2	North side wall of Building 1136 excavation	6	Nov 1995
E1136-S3	West side wall of Building 1136 excavation	6	Nov 1995
E1136-S4	South side wall of Building 1136 excavation	6	Nov 1995
E1136-S5	East side wall of Building 1136 excavation	6	Nov 1995
SP1136-1109	Four point composite of new stockpile at Building 1136	NA	Nov 1995

Note: NA - Not Applicable

Table 2. Summary of Laboratory Results, PRFTA, Dublin, California

Sample Identification	TPH-Diesel (ppm)	TPH-Gasoline (ppm)	BTEX (ppm)	Total Lead (ppm)
T1135-S1	ND	NT	ND	NT
T1136-S1	2,000	NT	ND	NT
SP1135-S1	350	NT	ND	NT
SP1136-S1	ND	NT	ND	NT
SP1135-S2	ND	NT	ND	NT
T770-1	NT	ND	ND	6.4
SP770123	NT	ND	ND	6.1
E1136-S1	ND	NT	ND	NT
E1136-S2	ND	NT	ND	NT
E1136-S3	ND	NT	ND	NT
E1136-S4	ND	NT	ND	NT
E1136-S5	ND	NT	ND	NT
SP1136-1109	240	NT	ND	NT

Note: ND - Not detected at or above detection limits for the analysis (see Appendix C for detection limits)
NT - Not Tested

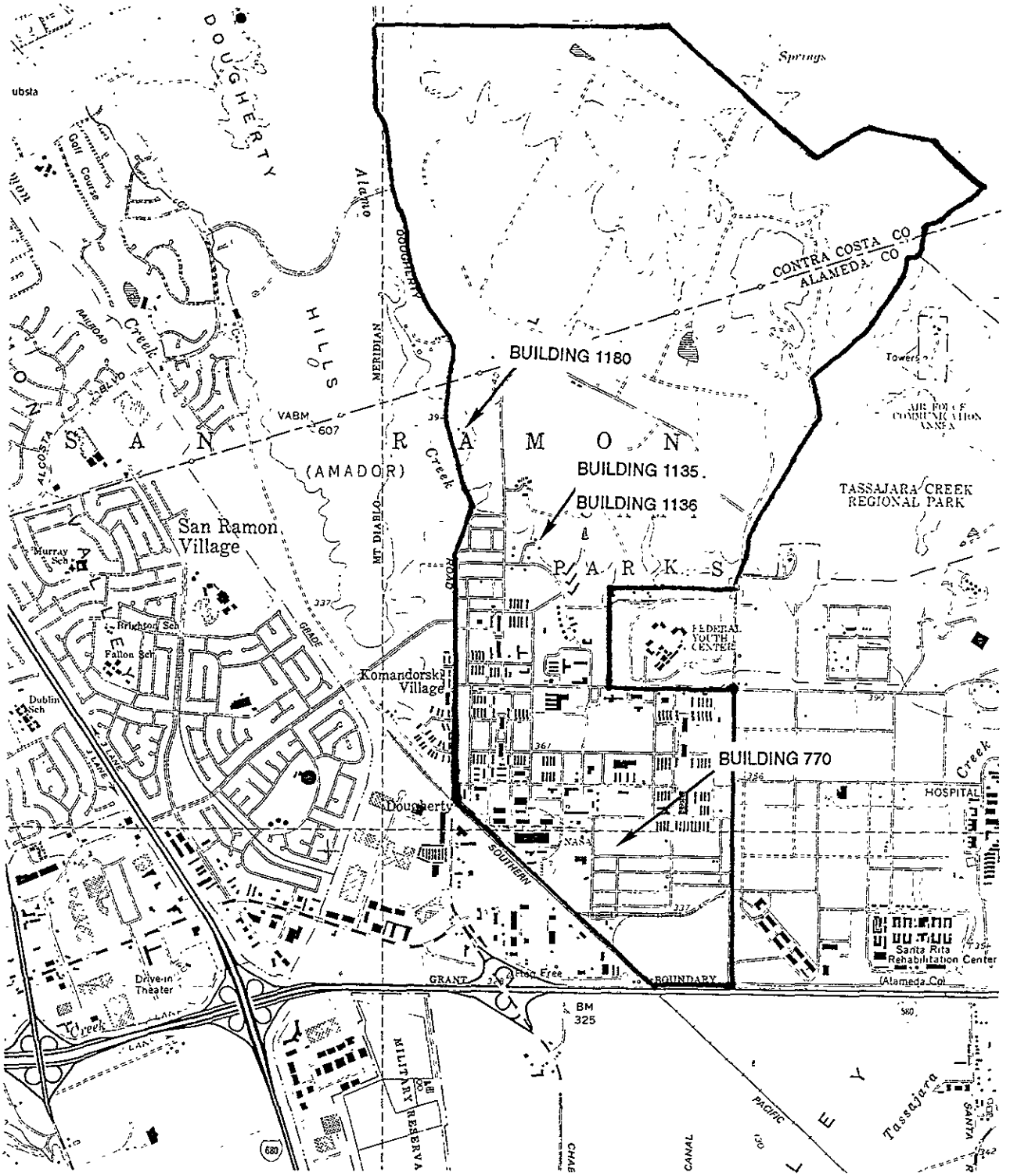


Legend

Site Boundary

Note: Base Map from Dublin Quadrangle, 7.5 Minute Series (Topographic) 1961, Photorevised 1980

Project No. 7112	Parks Reserve Forces Training Area	SITE LOCATION MAP PARKS RESERVE FORCES TRAINING AREA DUBLIN, CALIFORNIA	Figure 1
Woodward-Clyde			

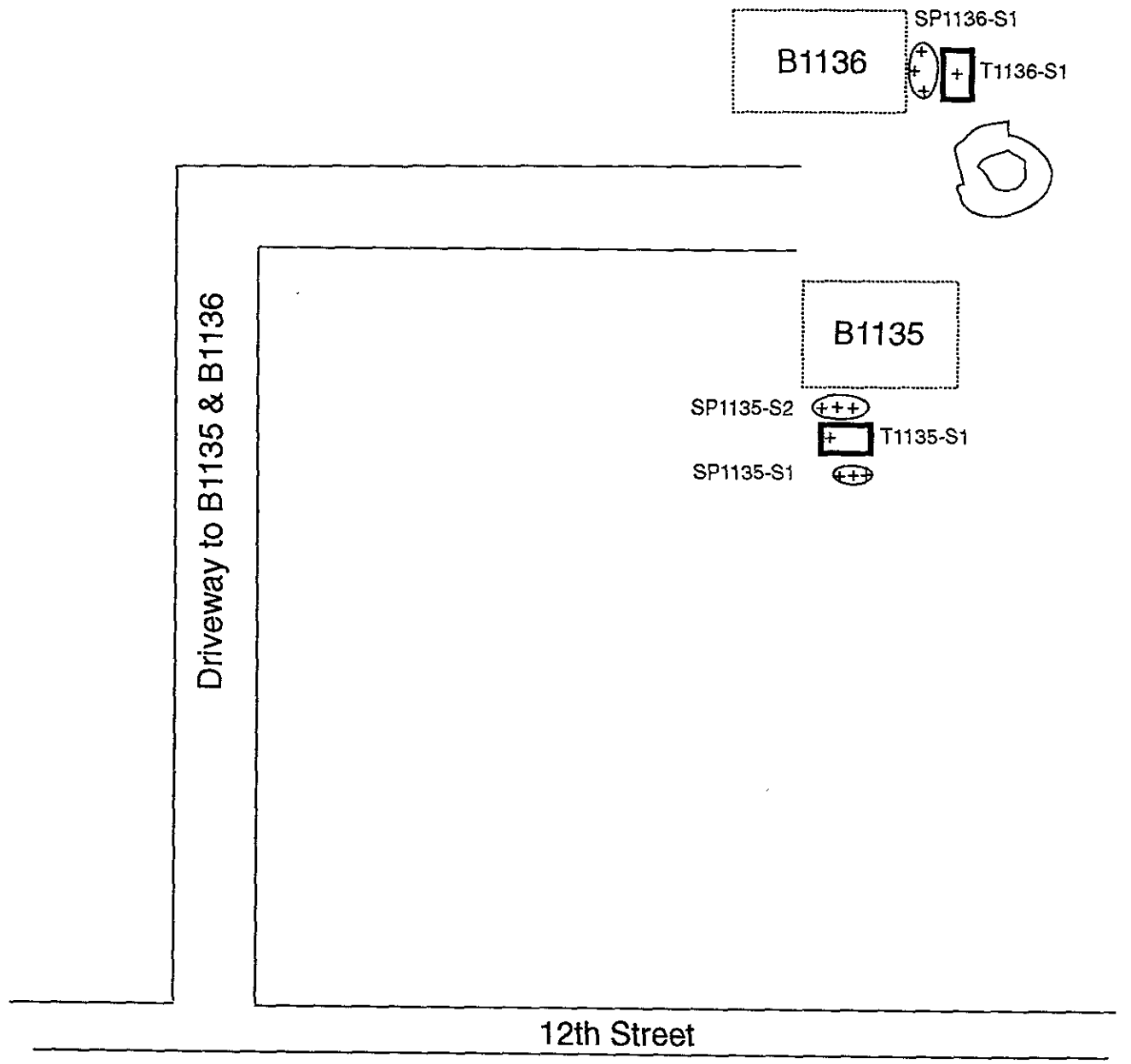


Legend

Site Boundary

Note: Base Map from Dublin Quadrangle, 7.5 Minute Series (Topographic) 1961, Photorevised 1980

Project No. 7112	Parks Reserve Forces Training Area	SITE LOCATION MAP BUILDINGS 770, 1135, 1136, & 1180	Figure 2
Woodward-Clyde			



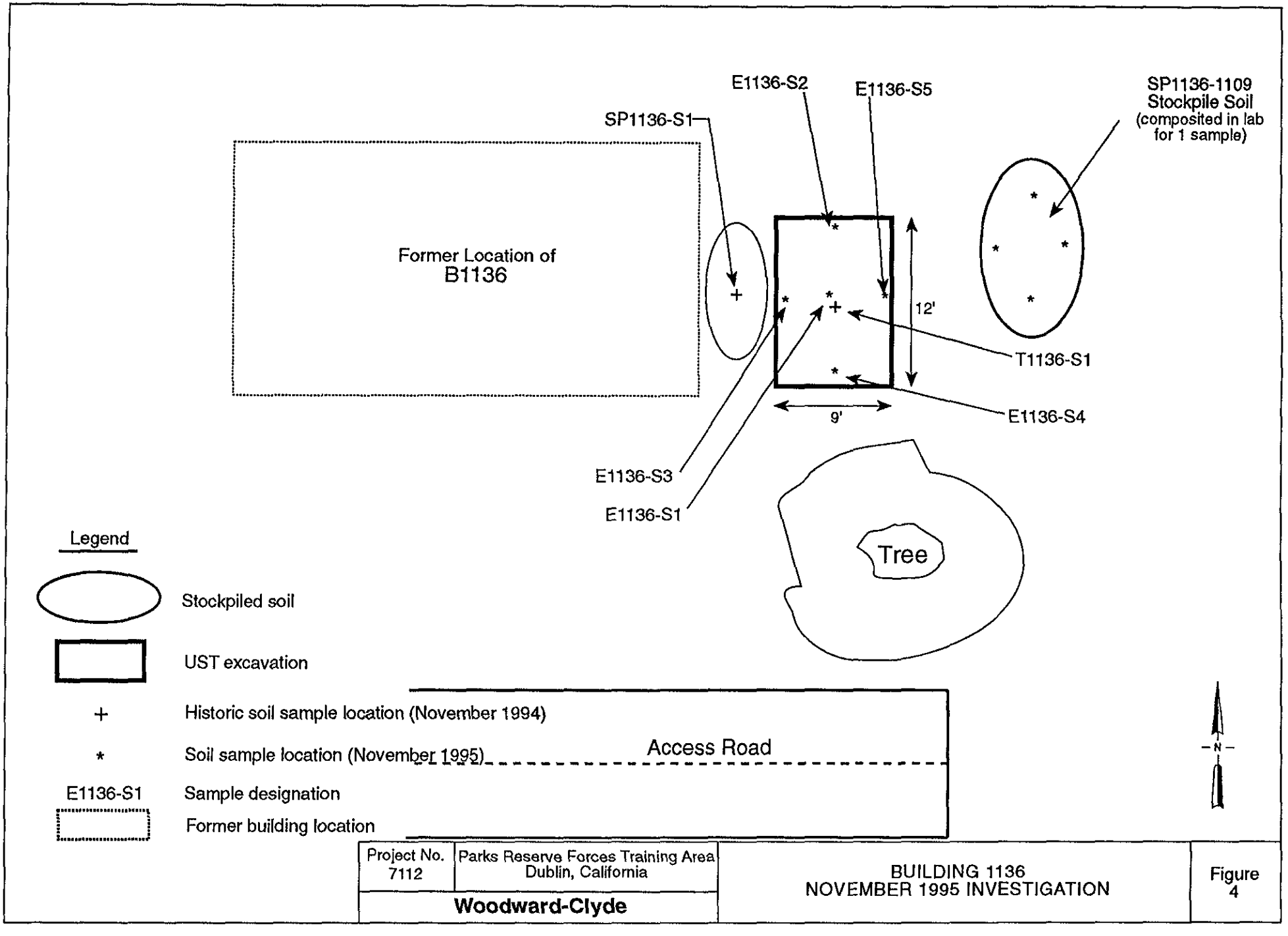
Legend

- Former building location
- UST excavation
- Stockpiled soil
- \+ Soil sample location (November 1994)
- T1135-S1 Sample designation
- Tree

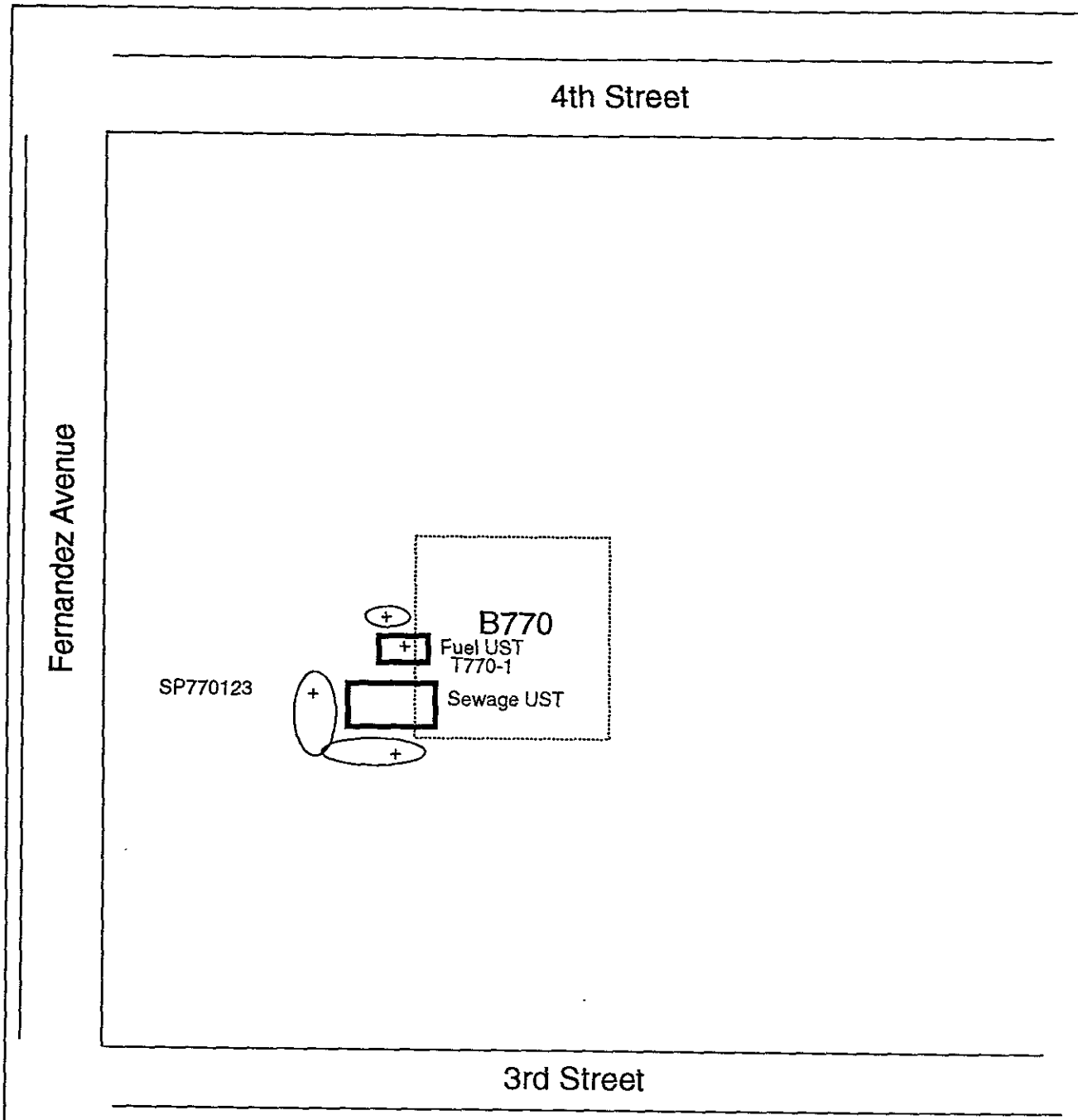
0 60
Approximate scale in feet

N

Project No. 7112	Parks Reserve Forces Training Area Dublin, California	BUILDINGS 1135 AND 1136 NOVEMBER 1994 INVESTIGATION	Figure 3
Woodward-Clyde			



Project No. 7112	Parks Reserve Forces Training Area Dublin, California	BUILDING 1136 NOVEMBER 1995 INVESTIGATION	Figure 4
Woodward-Clyde			



Legend

- Former building location
- UST excavation
- Stockpiled soil
- T770-1 — Sample designation
- \+ — Soil sample location (November 1994)

0 60
Approximate scale in feet

N

Project No. 7112	Parks Reserve Forces Training Area Dublin, California	BUILDING 770 NOVEMBER 1994 INVESTIGATION	Figure 5
Woodward-Clyde			

APPENDIX A
PHOTOGRAPHIC DOCUMENTATION

APPENDIX A

PHOTOGRAPHIC LOG

The photographs listed below were taken during the November/December 1994 tank removals at PRFTA.

Photo 1	-	Location of the 300-gallon UST associated with Building 1135. View to the south.
Photo 2	-	Excavation of the 300-gallon UST associated with Building 1135.
Photo 3	-	Stockpile associated with the UST excavated at Building 1135. View to the south.
Photo 4	-	Location of the 300-gallon UST associated with Building 1136. View to the east.
Photo 5	-	Excavation of the 300-gallon UST associated with Building 1136.
Photo 6	-	Stockpile associated with the UST excavated at Building 1136. View to the northeast.
Photo 7	-	Location of the 700-gallon and 1,500-gallon USTs associated with Building 770. View to the northeast.
Photo 8	-	Excavation of the 1,500-gallon sewage water UST associated with Building 770.
Photo 9	-	Excavation of the 1,500-gallon sewage water UST (left) and the 700-gallon fuel UST (right) associated with Building 770.
Photo 10	-	Loading of the 1,500-gallon and 700-gallon USTs from Building 770 for removal from the site.
Photo 11	-	Stockpiles associated with the USTs excavated at Building 770. View to the northwest.
Photo 12	-	Removal of the 500-gallon AST at Building 1180.

APPENDIX A

PHOTOGRAPHIC LOG (continued)

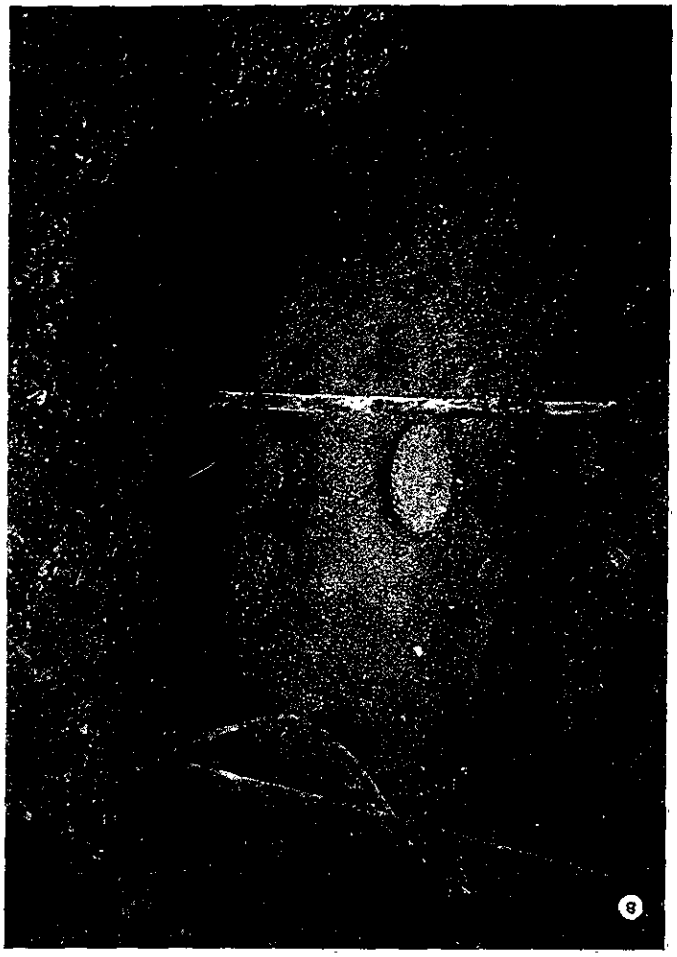
The following photographs listed below were taken during the November 1995 and January 1996 additional activities at B1136 at PRFTA.

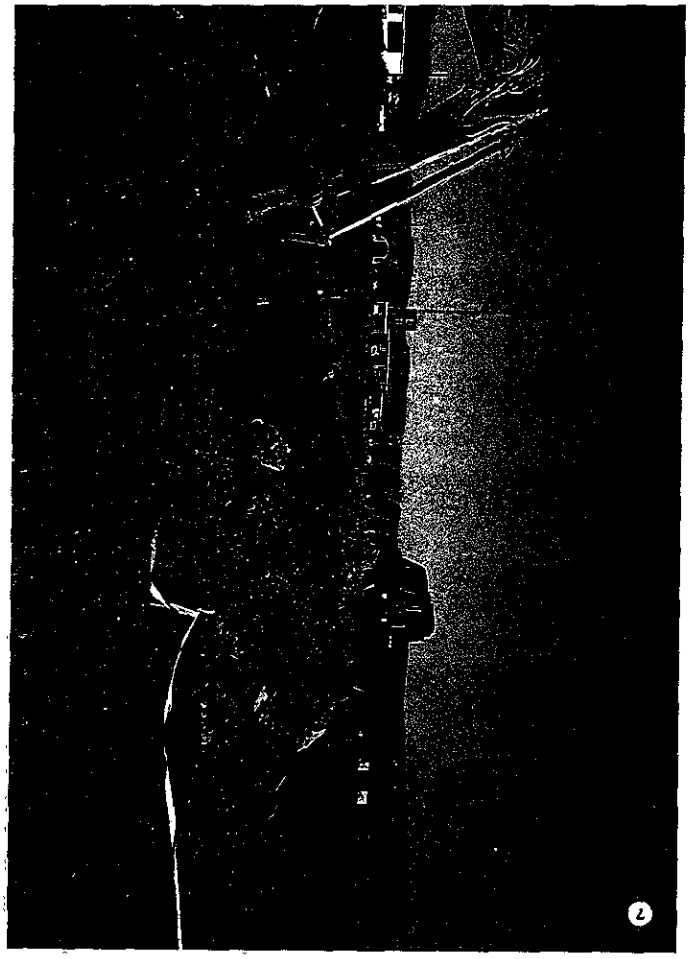
Photo 13 - Re-excavation activities at B1136 on November 9, 1995. View to the east.

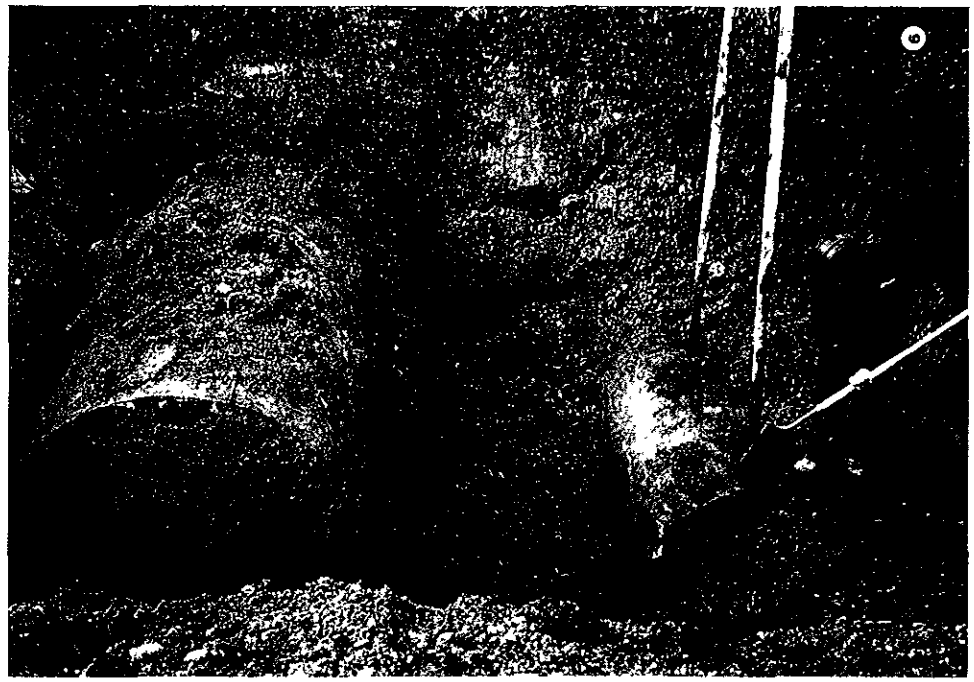
Photo 14 - Re-excavated excavation and new stock pile at B1136 on November 9, 1995. View to the southeast.

Photo 15 - Stockpile removal activities at B1135 on January 5, 1996. View to the northwest.

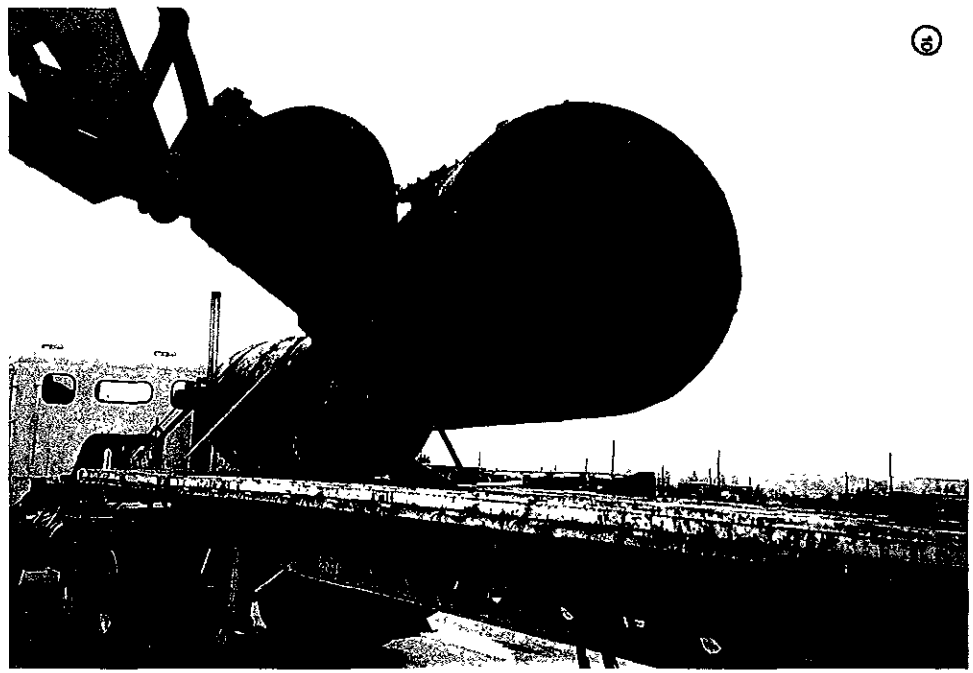
Photo 16 - Backfill and compaction activities at B1135 on January 5, 1996. View to the northeast.

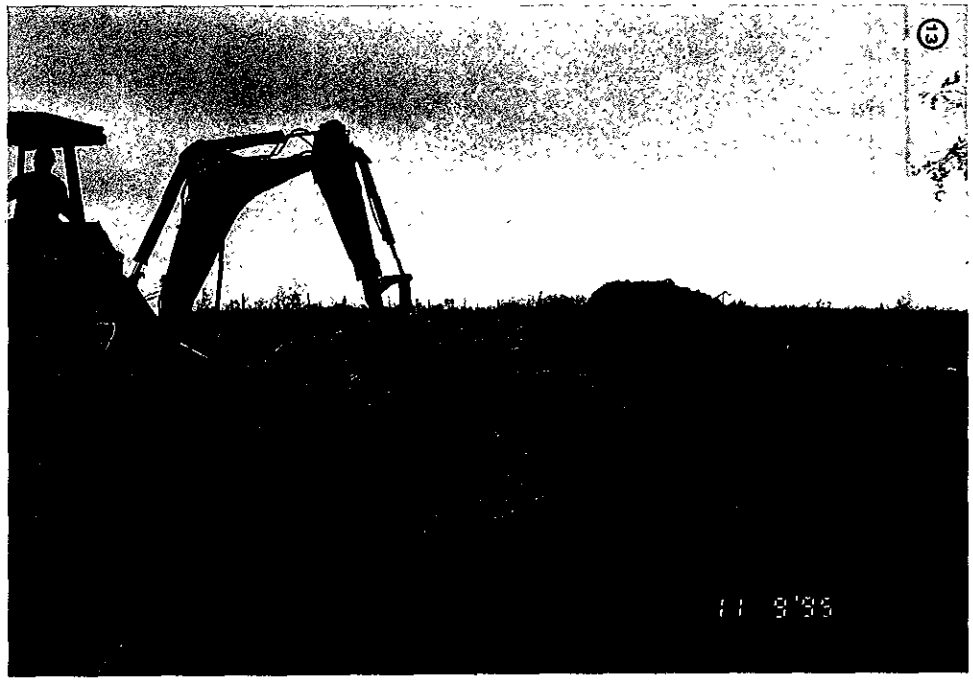







CATERPILLAR





APPENDIX B
PERMITS AND TANK/STOCKPILED SOIL DISPOSAL DOCUMENTATION

PLEASE POST IN A CONSPICUOUS PLACE

PERMIT

NOT TRANSFERABLE

DOUGHERTY REGIONAL FIRE AUTHORITY

The permittee has paid fee(s) to the Dougherty Regional Fire Authority and has been inspected as required by Ordinance 1-92. The permittee is hereby granted permission to perform activities, store products or perform other related functions allowed by the Uniform Fire Code as adopted and amended by THE DOUGHERY REGIONAL FIRE AUTHORITY.

PERMIT NO. 54-000-94

FOR PERIOD 12/94 TO 12/94

TYPE OF PERMIT(S)
Removal of Underground Tank Storage

Sharon Sullivan
10370 Old Placerville Rd , Ste. 104
Sacramento, CA 95827

Camp Parks Facility
LOCATION OF PERMITTED ACTIVITY

FEE PAID $131.00

DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 510/271-4320 (510) 567-6700

Post-it™ brand fax transmittal memo 7671 | # of pages ▸ 2

To Lawrence Israel	From Eva Chu
Co. WCC	Co. Alameda Co Hlth
Dept.	Phone # (510) 567-6762
Fax # 916-368-0967	Fax # (510) 337-9335

DEPARTMENT OF ENVIRONMENTAL HEALTH
470-27th Street, Third Floor
Oakland, CA 94612
Telephone: (415) 874-7737

These plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local health laws. Changes to your plans indicated by the Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction.

One copy of these accepted plans must be on the job site available to all contractors and craftsmen involved with the removal.

Any change or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspection Department to determine if such changes meet the requirements of State and local laws. Notify this Department at least 48 hours prior to the following required inspections:

_____ Removal of Tank and Piping
_____ Sampling
_____ Final Inspection

Issuance of a permit to operate is dependent on compliance with accepted plans and all applicable laws and regulations.

THIS IS A PRELIMINARY REVIEW ONLY NOT

12/12/94

UNDERGROUND TANK CLOSURE PLAN

* * * Complete according to attached instructions * * *

1. Business Name Parks Reserve Forces Training Area (PRFTA)
   Business Owner U.S. Army
2. Site Address PRFTA; Building 770
   City Camp Parks/Dublin Zip 94568 Phone (510) 828-1822
3. Mailing Address PRFTA
   City Camp Parks Zip 94568 Phone (510) 828-1822
4. Land Owner U.S. Army
   Address PRFTA City, State Dublin, CA Zip 94568
5. Generator name under which tank will be manifested
   Parks Reserve Forces Training Area

EPA I.D. No. under which tank will be manifested CAL-000121364

rev 3/92

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

II,III

Site ID # ____ Site Name ____ Today's Date ___/___/___

Site Address ____

City ____ Zip 94 6 Phone ____

____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:
____ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
____ II. Business Plans, Acute Hazardous Materials
____ III. Underground Tanks

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MATLS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	___
___	14. OffSite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(f)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1. Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tstng
8) Annual Tank Testing
Daily Inventory
9) Other ____

___	7. Precis Tank Test Date: ____	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing.	2646
___	10. Ground Water.	2647

New Tanks

___	11. Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: ____	2711
___	14. As Built Date: ____	2635

Rev 6/88

Comments:

II,III

Contact: ____

Title: ____ Inspector: ____

Signature: ____ Signature: ____

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. Form designed for use on elite (12-pi ewriter.

See Instructions on back of page 6.

Department of Toxic Substances Contr
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
CA1099121361	6654 6		

3. Generator's Name and Mailing Address
FAST RESPONSE F.C. TRAINING AREA
CAMP PARKS CA. 94568

4. Generator's Phone (510) 828 1822

5. Transporter 1 Company Name
EVERGREEN ENVIRONMENTAL SERVICES

6. US EPA ID Number
CAD980695761

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
EVERGREEN ENVIRONMENTAL SERVICES

10. US EPA ID Number

A. State Manifest Document Number: 93166586
B. State Generator's ID: EXEMPT
C. State Transporter's ID: 43226
D. Transporter's Phone: (510) 795-4400
E. State Transporter's ID:
F. Transporter's Phone:
G. State Facility's ID:
H. Facility's Phone: (510) 795-4400

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. WASTE H2O + OIL NON-RCRA HAZARDOUS WASTE, LIQUID	001	TT	00250	G	State 221 / EPA/Other NONE
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
IN EMERGENCY
CALL CHEMTREC
1-800-424-9300
DOT ERG 31 WEAR PROTECTIVE EQUIPMENT

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of the consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable federal, state and international laws.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Steve Wilson - Assistant Project Manager		11	31	14

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
JAMES KELLY	James Kelly	11	01	94

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

GENERATOR — TRANSPORTER — FACILITY

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802

93166586

DTSC 8022A (7/92)
EPA 8700—22

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
CAL000112136	18111 56		

GENERATOR

3. Generator's Name and Mailing Address
Parks Reserve Forces Training Area
U.S Army Building 770 1135 and 1136
Camp Parks CA. 94568

4. Generator's Phone (510) 828 1822

A. State Manifest Document Number: 93481156

B. State Generator's ID:

5. Transporter 1 Company Name: Erickson Inc.

6. US EPA ID Number: CAD009466372

C. State Transporter's ID: 430348

D. Transporter's Phone: 510-235-1393

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. State Transporter's ID:

F. Transporter's Phone:

9. Designated Facility Name and Site Address
Erickson, Inc.
255 Parr Blvd.
Richmond, CA. 94801

10. US EPA ID Number: CAD009466392

G. State Facility's ID:

H. Facility's Phone: (510)235-1393

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON-RCRA Hazardous Waste Solid Waste Empty Storage Tank.	003	TP	18000	P	State 512 / EPA/Other NONE
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
Qty. 3 - Empty Storage Tank(s)#1935, 1927, 1937
Tank(s) have been inerted with 15
lbs Dry Ice Per 1000 Gallon Capacity.

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
Keep away from sources of ignition. Always wear hardhats when working around U.G.S.T.'s 24 Hr. Contact Name. Bob Cowen & Phone 510-828-1822

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Shaun T. Sullivan agent for Bob Cowen-DEFTH Depot Commander	Shaun T Sullivan agent for Bob Cowen-DEFTH	11	04	91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Robert Noia	Robert Noia	11	04	91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (8/92)

Sent to Robert Cowan - PRFTA on 12/15/94

S[redacted]e of California Environmental Protection Agency
[redacted]m Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

[redacted]IN C[redacted]SE OF [redacted]GENCY OR [redacted] CA[redacted]E N[redacted]NAL [redacted]ONS[redacted]NTE[redacted]00-4[redacted]02: [redacted]IN C[redacted]ORN[redacted]CALL 1-800-852-7550

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: CA6000213644 Manifest Document No.: 80370
2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

A. State Manifest Document Number: 93480370

3. Generator's Name and Mailing Address: US ARMY CAMP PARKS, 1083 DOUGHERTY RD. DUBLIN CA 94568
4. Generator's Phone: 510) 828-1822

B. State Generator's ID:

5. Transporter 1 Company Name: ERICKSON INC
6. US EPA ID Number: CAD009466392

C. State Transporter's ID: 430334
D. Transporter's Phone: 510-235-1393

7. Transporter 2 Company Name:
8. US EPA ID Number:

E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address: Erickson, Inc. 255 Parr Blvd. Richmond, CA. 94801
10. US EPA ID Number: CAD009466392

G. State Facility's ID:
H. Facility's Phone: (510)235-1393

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON-RCRA Hazardous Waste Solid Waste Empty Storage Tank.	002	TP	02200	P	State 512; EPA/Other NONE
b.					State; EPA/Other
c.					State; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above: Qty. 2 Empty Storage Tank(s) #5092, 15097 Tank(s) have been inerted with 15 lbs. Dry Ice Per 1000 Gallon Capacity.

K. Handling Codes for Wastes Listed Above: a. b. c. d.

15. Special Handling Instructions and Additional Information: Keep away from sources of ignition. Always wear hardhats when working around U.G.S.T.'s 24 Hr. Contact Name Robert Cowan & Phone 510-828-1822

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: [illegible] Signature: [illegible] Month/Day/Year: [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: PAUL JACOBO Signature: Paul Jacobo Month/Day/Year: 12/14/95

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: Signature: Month/Day/Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Signature: Month/Day/Year:

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (9/93)

Yellow: GENERATOR RETAINS

DAY OR NIGHT
TELEPHONE
(510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 19877

CUSTOMER
BRONSON ENGINE
JOB NO.
964399

FOR: ERICKSON, INC. TANK NO. 14875

LOCATION: RICHMOND DATE: 94/11/15 TIME: 07:51

TEST METHOD VISUAL GASTECH/1314 SMRN LAST PRODUCT FO

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 500 GALLON TANK CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1%
ERICKSON, INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.
ERICKSON, INC. HAS THE APPROPRIATE PERMITS FOR, AND HAS ACCEPTED THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

Francisco Luego
REPRESENTATIVE

TITLE

Dave Soto
INSPECTOR

DAY OR NIGHT
TELEPHONE
(510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 1982

CUSTOMER
ARONSON ENGINE

JOB NO.
964399

FOR: ERICKSON, INC. TANK NO. 14876

LOCATION: RICHMOND DATE: 94/11/23 TIME: 11:59

TEST METHOD VISUAL GASTECH/1314 SMPN LAST PRODUCT FO

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 300 GALLON TANK CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1%
ERICKSON, INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.
ERICKSON, INC. HAS THE APPROPRIATE PERMITS FOR, AND HAS ACCEPTED THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

Francisco Cuevas — REPRESENTATIVE

TITLE

INSPECTOR

DAY OR NIGHT
TELEPHONE
(510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 19827

CUSTOMER
ARONSON ENGINE
JOB NO.
964399

FOR: ERICKSON, INC. TANK NO. 14877

LOCATION: RICHMOND DATE: 94/11/23 TIME: 12:02

TEST METHOD VISUAL GASTECH/1314 SMPN LAST PRODUCT FO

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 300 GALLON TANK CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1%
ERICKSON, INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.
ERICKSON, INC. HAS THE APPROPRIATE PERMITS FOR, AND HAS ACCEPTED THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

REPRESENTATIVE TITLE INSPECTOR

DAY OR NIGHT TELEPHONE (510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 19730

CUSTOMER ARONSON ENGINE

JOB NO. 964715

FOR: ERICKSON, INC. TANK NO. 15092

LOCATION: RICHMOND DATE: 94/12/20 TIME: 13:39

TEST METHOD VISUAL, GASTECH/1314 SMPN LAST PRODUCT W

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 1500 GALLON TANK CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1%
ERICKSON, INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.
ERICKSON, INC. HAS THE APPROPRIATE PERMITS FOR, AND HAS ACCEPTED THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

Francisco Cuezo — REPRESENTATIVE

TITLE

Dave Soto — INSPECTOR

DAY OR NIGHT
TELEPHONE
(510) 235-1393

CERTIFICATE

CERTIFIED SERVICES COMPANY

255 Parr Boulevard • Richmond, California 94801

NO. 1973

CUSTOMER
ARONSON ENGINE
JOB NO.
964715

FOR: ERICKSON, INC. TANK NO. 15097

LOCATION: RICHMOND DATE: 94/12/20 TIME: 13:40

TEST METHOD VISUAL, GASTECH/1314 SMPN LAST PRODUCT LG

This is to certify that I have personally determined that this tank is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

TANK SIZE 700 GALLON TANK CONDITION SAFE FOR FIRE

REMARKS: OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1%
ERICKSON, INC. HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED, AND THEREFORE DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.
ERICKSON, INC. HAS THE APPROPRIATE PERMITS FOR, AND HAS ACCEPTED THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

STANDARD SAFETY DESIGNATION

SAFE FOR MEN: Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissable concentrations; and (c) In the judgment of the Inspector, the residues are not capable of producing toxic materials under existing atmospheric conditions while maintained as directed on the Inspector's certificate.

SAFE FOR FIRE: Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) In the judgment of the Inspector, the residues are not capable of producing a higher concentration that permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

REPRESENTATIVE _____ TITLE _____ INSPECTOR _____

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV.
If waste is NOT asbestos waste, complete only Sections I, II and III.

No. 911394

Section I GENERATOR (Generator completes all of Section I)

a. Generator Name: Parks Reserve Force Training Area
b. Generating Location: Building 1138
c. Address: Camp Parks, Dublin CA 94568
d. Address: Camp Parks Dublin, CA
e. Phone No.: (510) 828-4822
f. Phone No.: (510) 828-4822

If owner of the generating facility differs from the generator, provide:

g. Owner's Name: Ron Hob Cowan
h. Owner's Phone No.: (510) 828-4822

i. BFI WASTE CODE: CA405 | 121893 | 043155 | Containers:

TYPE
DM - METAL DRUM
DP - PLASTIC DRUM
B - BAG
BA - 6 MIL. PLASTIC BAG or WRAP
T - TRUCK
O - OTHER

j. Description of Waste: Soil Contaminated w/Diesel

k. Quantity: 20 | Units: T | No.: 1 | TYPE: T

UNITS
P - POUNDS
Y - YARDS
M^3 - CUBIC METERS
Y^3 - CUBIC YARDS
O - OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; **AND, if the waste is a treatment residue of a previously restricted hazardous waste** subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Generator Authorized Agent Name | Signature | Shipment Date

Section II TRANSPORTER (Generator complete a-d; Transporter I complete e-g; Transporter II complete h-n)

TRANSPORTER I

a Name:
b. Address:
c. Driver Name/Title: PRINT/TYPE
d Phone No.:
e. Truck No.:
f. Vehicle License No./State:
Acknowledgement of Receipt of Materials.
g. Driver Signature | Shipment Date

TRANSPORTER II

h. Name:
i Address:
j. Driver Name/Title: PRINT/TYPE
k. Phone No.:
l. Truck No.:
m. Vehicle License No./State:
Acknowledgement of Receipt of Materials.
n Driver Signature | Shipment Date

Section III DESTINATION (Generator completes a-d, destination site completes e-f)

a Site Name: BFI VASCO Road
c. Phone No.:
b. Physical Address:
d. Mailing Address
e. Discrepancy Indication Space:

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

f. Name of Authorized Agent | Signature | Receipt Date

Section IV ASBESTOS (Generator complete a-d, f, g, Operator* completes e.)

a. Operator's* Name:
b. Operator's* Phone No.:
c. Operator's* Address:
d. Special Handling Instructions and additional information:

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

e. Operator's* Name & Title: Print/Type | Operator's Signature | Date

f. Name and Address of Responsible Agency.

g. ☐ Friable; ☐ Non-friable; ☐ Both _____ % friable _____ % nonfriable

* Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation, or both.

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV.
If waste is NOT asbestos waste, complete only Sections I, II and III

No. 911395

Section I GENERATOR (Generator completes all of Section I)

a. Generator Name: Parks Reserve Force Trainin, b. Generating Location: Building 1136

c. Address: Camp Parks, Dublin CA 94568

d. Address: Camp Parks Dublin, CA

e. Phone No.: (510) 828-6822

f. Phone No.: (510) 828-4822

If owner of the generating facility differs from the generator, provide:

g. Owner's Name: Rep. Bob Cowan

h. Owner's Phone No.: (510) 829-4822

i. BFI WASTE CODE: CA405 121495 043151 - Containers

j. Description of Waste: Soil Contaminated w/ Diesel

k. Quantity: 20 Units: T No.: 1 TYPE: T

TYPE
DM - METAL DRUM
DP - PLASTIC DRUM
B - BAG
BA - 6 MIL. PLASTIC BAG or WRAP
T - TRUCK
O - OTHER

UNITS
P - POUNDS
Y - YARDS
M^3 - CUBIC METERS
Y^3 - CUBIC YARDS
O - OTHER

GENERATOR'S CERTIFICATION I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; **AND, if the waste is a treatment residue of a previously restricted hazardous waste** subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Generator Authorized Agent Name _____ Signature _____ Shipment Date _____

Section II TRANSPORTER (Generator complete a-d; Transporter I complete e-g, Transporter II complete h-n)

TRANSPORTER I

a. Name: _____

b. Address: _____

c. Driver Name/Title: _____ PRINT/TYPE

d. Phone No.: _____ e. Truck No.: T 23

f. Vehicle License No./State: _____

Acknowledgement of Receipt of Materials.

g. _____ Driver Signature _____ Shipment Date

TRANSPORTER II

h. Name: _____

i. Address: _____

j. Driver Name/Title: _____ PRINT/TYPE

k. Phone No.: _____ l. Truck No.: _____

m. Vehicle License No./State: _____

Acknowledgement of Receipt of Materials.

n. _____ Driver Signature _____ Shipment Date

Section III DESTINATION (Generator completes a-d, destination site completes e-f.)

a. Site Name: BFI VASCO Road

b. Physical Address: _____

c. Phone No.: _____

d. Mailing Address _____

e. Discrepancy Indication Space: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

f. _____ Name of Authorized Agent _____ Signature _____ Receipt Date

Section IV ASBESTOS (Generator complete a-d, f, g, Operator* completes e.)

a. Operator's* Name: _____ b. Operator's* Phone No.: _____

c. Operator's* Address: _____

d. Special Handling Instructions and additional information: _____

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

e. Operator's* Name & Title: _____ Print/Type _____ Operator's Signature _____ Date

f. Name and Address of Responsible Agency: _____

g. ☐ Friable; ☐ Non-friable; ☐ Both _____ % friable _____ % nonfriable

* Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation, or both

NON-HAZARDOUS SPECIAL WASTE & ASBESTOS MANIFEST

If waste is asbestos waste, complete Sections I, II, III and IV.
If waste is NOT asbestos waste, complete only Sections I, II and III.

No. 907606

Section I GENERATOR (Generator completes all of Section I)

a Generator Name: _____ b. Generating Location: _____

c Address _____ d. Address: _____

e. Phone No.: _____ f. Phone No.: _____

If owner of the generating facility differs from the generator, provide.

g. Owner's Name: _____ h. Owner's Phone No.: _____

i BFI WASTE CODE [B] [ ] [ ] [ ] Containers

j. Description of Waste: _____ k. Quantity _____ Units _____ No. _____ TYPE _____

TYPE
DM - METAL DRUM
DP - PLASTIC DRUM
B - BAG
BA - 6 MIL. PLASTIC BAG or WRAP
T - TRUCK
O - OTHER

UNITS
P - POUNDS
Y - YARDS
M^3 - CUBIC METERS
Y^3 - CUBIC YARDS
O - OTHER

GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations, **AND, if the waste is a treatment residue of a previously restricted hazardous waste** subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.

Generator Authorized Agent Name _____ Signature _____ Shipment Date _____

Section II TRANSPORTER (Generator complete a-d: Transporter I complete e-g, Transporter II complete h-n)

TRANSPORTER I

a. Name: _____

b. Address: _____

c. Driver Name/Title: _____ PRINT/TYPE

d. Phone No.: _____ e. Truck No.: _____

f. Vehicle License No./State: _____

Acknowledgement of Receipt of Materials.

g. _____ Driver Signature _____ Shipment Date

TRANSPORTER II

h. Name: _____

i. Address _____

j. Driver Name/Title: _____ PRINT/TYPE

k. Phone No.: _____ Truck No.: _____

m. Vehicle License No./State: _____

Acknowledgement of Receipt of Materials.

n. _____ Driver Signature _____ Shipment Date

Section III DESTINATION (Generator completes a-d, destination site completes e-f.)

a. Site Name: _____ c. Phone No : _____

b. Physical Address: _____ d. Mailing Address _____

e. Discrepancy Indication Space: _____

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

f. _____ Name of Authorized Agent _____ Signature _____ Receipt Date

Section IV ASBESTOS (Generator complete a-d, f, g, Operator* completes e.)

a. Operator's* Name: _____ b. Operator's* Phone No.: _____

c. Operator's* Address: _____

d. Special Handling Instructions and additional information: _____

OPERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

e. Operator's* Name & Title: _____ Print/Type _____ Operator's Signature _____ Date

f. Name and Address of Responsible Agency: _____

g. ☐ Friable; ☐ Non-friable; ☐ Both _____ % friable _____ % nonfriable

* Operator refers to the company which owns, leases, operates, controls, or supervises the facility being demolished or renovated, or the demolition or renovation operation, or both.

APPENDIX C
LABORATORY ANALYTICAL REPORTS FOR NOVEMBER/DECEMBER 1994 AND NOVEMBER 1995 SAMPLING EVENTS

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MS. SHARON SULLIVAN
WOODWARD CLYDE CONSULTANTS
10370 OLD PLACERVILLE ROAD, SUITE 104
SACRAMENTO, CA 95827

Workorder # : 9411068
Date Received : 11/04/94
Project ID : 7112/9200
Purchase Order: N/A

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9411068- 1	T1135-S1
9411068- 2	T1136-S1
9411068- 3	SP1135-S1
9411068- 4	SP1136-S1
9411068- 5	SP1135-S2

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

Corinne Khan for
Susan Kraska Yeager
Laboratory Director

11/22/94
Date

Cristina V Kayburn
Project Manager

This report consists of 12 pages.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. SHARON SULLIVAN
WOODWARD CLYDE CONSULTANTS
10370 OLD PLACERVILLE ROAD, SUITE 104
SACRAMENTO, CA 95827

Workorder # : 9411068
Date Received : 11/04/94
Project ID : 7112/9200
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9411068- 1	T1135-S1	SOIL	11/04/94	BTEX
9411068- 2	T1136-S1	SOIL	11/04/94	BTEX
9411068- 3	SP1135-S1	SOIL	11/04/94	BTEX
9411068- 4	SP1136-S1	SOIL	11/04/94	BTEX
9411068- 5	SP1135-S2	SOIL	11/04/94	BTEX
9411068- 1	T1135-S1	SOIL	11/04/94	TPHd
9411068- 2	T1136-S1	SOIL	11/04/94	TPHd
9411068- 3	SP1135-S1	SOIL	11/04/94	TPHd
9411068- 4	SP1136-S1	SOIL	11/04/94	TPHd
9411068- 5	SP1135-S2	SOIL	11/04/94	TPHd

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. SHARON SULLIVAN
WOODWARD CLYDE CONSULTANTS
10370 OLD PLACERVILLE ROAD, SUITE 104
SACRAMENTO, CA 95827

Workorder # : 9411068
Date Received : 11/04/94
Project ID : 7112/9200
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- The concentration reported as diesel for sample SP1135-S1 is primarily due to the presence of a heavier petroleum product of hydrocarbon range C18-C36, possibly motor oil.

Cheryl Balman 11/18/94
Department Supervisor Date

CRPatel 11118194
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9411068
Matrix : SOIL
Date Sampled : 11/04/94

Project Number : 7112/9200
Date Released : 11/17/94

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# T1135-S1 -01	Sample I.D.# T1136-S1 -02	Sample I.D.# SP1135-S1 -03	Sample I.D.# SP1136S1 -04	Sample I.D.# SP1135S2 -05
Benzene	0.005	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	ND	ND
% Surrogate Recovery		107%	101%	106%	101%	120%
Instrument I.D.		HP21	HP21	HP21	HP21	HP21
Date Analyzed		11/11/94	11/11/94	11/11/94	11/11/94	11/11/94
RLMF		1	1	1	1	1

ND - Not detected at or above the practical quantitation limit for the method.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

CRPatel 11/22/94
Analyst Date

Cheryl Balmer 11/22/94
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9411068
Matrix : SOIL
Date Sampled : N/A

Project Number : 7112/9200
Date Released : 11/17/94

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# BN1002E1 BLANK	Sample I.D.# BN1101E1 BLANK
Benzene	0.005	ND	ND
Toluene	0.005	ND	ND
Ethylbenzene	0.005	ND	ND
Total Xylenes	0.005	ND	ND
% Surrogate Recovery		109%	112%
Instrument I.D.		HP21	HP21
Date Analyzed		11/10/94	11/11/94
RLMF		1	1

ND - Not detected at or above the practical quantitation limit for the method.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 11/22/94 Date

Supervisor 11/22/94 Date

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 5030 WITH GC/PID
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: 7112/9200 SP1135-S1	Anametrix I.D.	: 9411068-03
Matrix	: SOIL	Analyst	: AR
Date Sampled	: 11/04/94	Supervisor	: CS
Date Analyzed	: 11/11/94	Date Released	: 11/17/94
		Instrument I.D.	: HP21

COMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC (mg/Kg)	REC MS (mg/Kg)	% REC MS	REC MD (mg/Kg)	% REC MD	RPD	% REC LIMITS *
BENZENE	0.040	0.000	0.045	113%	0.048	120%	6%	45-139
TOLUENE	0.040	0.000	0.045	113%	0.049	123%	9%	51-138
ETHYLBENZENE	0.040	0.000	0.042	105%	0.047	118%	11%	48-146
TOTAL XYLENES	0.040	0.000	0.041	102%	0.046	115%	11%	50-139
p-BFB				107%		103%		53-147

* Quality control limits established by Anametrix, Inc.

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 5030 WITH GC/PID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Analyzed : 11/11/94

Anametrix I.D. : MN1101E1
Analyst : ES
Supervisor : [illegible]
Date Released : 11/17/94
Instrument ID : HP21

COMPOUND	SPIKE AMT (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS *
BENZENE	0.020	0.020	100%	52-133
TOLUENE	0.020	0.022	110%	57-136
ETHYLBENZENE	0.020	0.023	115%	56-139
TOTAL-XYLENES	0.020	0.022	110%	56-141
SURROGATE			115%	53-147

* Quality control limits established by Anametrix, Inc.

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9411068
Matrix : SOIL
Date Sampled : 11/04/94
Date Extracted: 11/08/94

Project Number : 7112/9200
Date Released : 11/17/94
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)	Surrogate %Rec
9411068-01	T1135-S1	11/10/94	10	ND	91%
9411068-02	T1136-S1	11/10/94	500	2000	89%
9411068-03	SP1135-S1	11/11/94	100	350	93%
9411068-04	SP1136-S1	11/10/94	10	ND	85%
9411068-05	SP1135-S2	11/10/94	10	ND	83%
BN08H2F9	METHOD BLANK	11/09/94	10	ND	89%

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
The surrogate recovery limits for o-terphenyl are 55-129%.

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as C10-C28 is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 11/18/94 Date

Supervisor 11/18/94 Date

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3550 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MN08H2F9
Matrix	: SOIL	Analyst	: AF
Date Sampled	: N/A	Supervisor	:
Date Extracted	: 11/08/94	Date Released	: 11/17/94
Date Analyzed	: 11/09/94	Instrument I.D.	: HP9

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS *
DIESEL	62.5	66.8	107%	48-113
SURROGATE			99%	55-129

* Quality control limits established by Anametrix, Inc.

TOTAL EXTRACTABLE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 3510 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: N/A	Anametrix I.D.	: N/A
Matrix	: WATER	Analyst	: AR
Date Sampled	: 11/01/94	Supervisor	: CS
Date Extracted	: 11/08/94	Date Released	: 11/22/94
Date Analyzed	: 11/11/94	Instrument I.D.	: HP9

COMPOUND	SPIKE AMT (ug/L)	SAMPLE CONC (ug/L)	REC MS (ug/L)	% REC MS	REC MD (ug/L)	% REC MD	RPD	% REC LIMITS *
MOTOR OIL	1250	1106	1630	42%	2500	112%	42%	36-150
SURROGATE				43%		43%		47-114

* Quality control limits established by Anametrix, Inc.

Inchcape Testing Services
Anametrix Laboratories

SAMPLE RECEIVING CHECKLIST

WORKORDER NUMBER: 9411068 CLIENT PROJECT ID: 7112/9200

COOLER

Shipping slip (airbill, etc.) present?	YES	NO	(N/A)
If YES, enter carrier name and airbill # : _____			
Custody Seal on the outside of cooler?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Temperature of sample (s) within range?	(YES)	NO	N/A
List temperature of cooler (s): 1°c			

SAMPLES

Chain of custody seal present for each container?	YES	NO	(N/A)
Condition: INTACT ____ BROKEN ____			
Samples arrived within holding time?	(YES)	NO	N/A
Samples in proper containers for methods requested?	(YES)	NO	
Condition of containers: INTACT ✓ BROKEN ____			
If NO, were samples transferred to proper container? ____			
Were VOA containers received with zero headspace?	YES	NO	(N/A)
If NO, was it noted on the chain of custody? ____			
Were container labels complete? (ID, date, time preservative, etc.)	(YES)	NO	
Were samples preserved with the proper preservative?	YES	NO	(N/A)
If NO, was the proper preservative added at time of receipt? ____			
pH check of samples required at time of receipt?	YES	(NO)	
If YES, pH checked and recorded by: ____			
Sufficient amount of sample received for methods requested?	(YES)	NO	
If NO, has the client or lab project manager been notified? ____			
Field blanks received with sample batch? # of Sets: ____	YES	NO	(N/A)
Trip blanks received with sample batch? # of Sets: ____	YES	NO	(N/A)

CHAIN OF CUSTODY

Chain of custody received with samples?	(YES)	NO
Has it been filled out completely and in ink?	(YES)	NO
Sample ID's on chain of custody agree with container labels?	(YES)	NO
Number of containers indicated on chain of custody agree with number received?	(YES)	NO
Analysis methods clearly specified?	(YES)	NO
Sampling date and time indicated?	(YES)	NO
Proper signatures of sampler, courier, sample custodian in appropriate place? with time and date?	(YES)	NO
Turnaround time? REGULAR ____ RUSH ____		

Any NO response and/or any "BROKEN" that was checked must be detailed in the Corrective Action Form.

Sample Custodian: CN Date: 11-4-94 Project Manager: CWR Date: 11/9/94

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive, Suite E
San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

9411068 (2) Chs 10162

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7112/1200	Parks UST

Send Report Attention of:	Report Due	Verbal Due
Sharon Sullivan	11/21/94	11/21/94

Sample Number	Date	Time	Comp	Matrix	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPH-Diesel	Type of Analysis: BTEX	Condition of Samples	Initial
T1135-S1	4NOV94	1035		Soil	Bldg 1135	1	6x2 tubes	X	X	Iced	STS
T1136-S1	4NOV94	1045		Soil	Bldg 1136	1	6x2tube	X	X	Iced	STS
SP1135-S1	4NOV94	1105		Soil	Bldg 1135	1	6x2 tube	X	X	Iced	STS
SP1136-S1	4NOV94	1130		Soil	Bldg 1136	1	6x2tube	X	X	Iced	STS
SP1135-S2	4NOV94	1120		Soil	Bldg 1135	1	6x2tube	X	X	Iced	STS
										ALL SAMPLES COLD PROPER CONTAINER NO HEADSPACE.	

Sampled by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Sharon J. Sullivan	4Nov94 1600	Colleen Cole	11/04/94 1600
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Colleen Cole	1600 11/04/94		
Relinquished by: (Signature)	Date/Time	Received by Lab:	Date/Time
		Cedric Roberts	11-04-94 1740

Remarks: Standard Turnaround time unless otherwise notified
Fax results to Sharon Sullivan

COMPANY: Woodward-Clyde
ADDRESS: 10970 Old Placerville Road, Suite 104
Sacramento CA 95827
PHONE: (916) 363-0793 FAX: (916) 369-0767

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MS. SHARON SULLIVAN
WOODWARD CLYDE CONSULTANTS
10370 OLD PLACERVILLE ROAD, SUITE 104
SACRAMENTO, CA 95827

Workorder # : 9412155
Date Received : 12/15/94
Project ID : 7112/9200
Purchase Order: N/A

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9412155- 1	T770-1
9412155- 2	SP770123

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call your project manager as soon as possible. Thank you for using Inchcape Testing Services.

Corinne Kraska for
Susan Kraska Yeager
Laboratory Director

12/27/94
Date

Cristina V Rayburn
Project Manager

This report consists of 13 pages.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. SHARON SULLIVAN
WOODWARD CLYDE CONSULTANTS
10370 OLD PLACERVILLE ROAD, SUITE 104
SACRAMENTO, CA 95827

Workorder # : 9412155
Date Received : 12/15/94
Project ID : 7112/9200
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9412155- 1	T770-1	SOIL	12/14/94	TPHgBTEX
9412155- 2	SP770123	SOIL	12/14/94	TPHgBTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. SHARON SULLIVAN
WOODWARD CLYDE CONSULTANTS
10370 OLD PLACERVILLE ROAD, SUITE 104
SACRAMENTO, CA 95827

Workorder # : 9412155
Date Received : 12/15/94
Project ID : 7112/9200
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.
- The gas/BTEX surrogate recovery for sample T770-1 is outside of quality control limits due to a soil matrix effect. This was verified through analysis of a matrix spike and matrix spike duplicate.

Department Supervisor 12/23/94 Date

Chemist 12/23/94 Date

[redacted] Organic Analysis Data Sheet [redacted]

Total Petroleum Hydrocarbons as Gasoline with BTEX

ITS - Anametrix Laboratories - (408)432-8192

Lab Workorder : 9412155

Matrix : SOIL

Client Project ID : 7112/9200

Units : mg/Kg

Compound Name	Method Reporting Limit*	Client ID T770-1 Lab ID 9412155-01	Client ID SP770123 Lab ID 9412155-02	Client ID Lab ID METHOD BLANK	Client ID Lab ID 	Client ID Lab ID
Benzene	0.0050	ND	ND	ND		
Toluene	0.0050	ND	ND	ND		
Ethylbenzene	0.0050	ND	ND	ND		
Total Xylenes	0.0050	ND	ND	ND		
TPH as Gasoline	0.50	ND	ND	ND		
Surrogate Recovery		181%	121%	114%		
Instrument ID		HP21	HP21	HP21		
Date Sampled		12/14/0094	12/14/0094	N/A		
Date Analyzed		12/22/94	12/22/94	12/22/94		
RLMF		1	1	1		
Filename Reference		FPD15501.D	FPD15502.D	BD2201E1.D		

* The Method Reporting Limit must be multiplied by the Reporting Limit Multiplication Factor (RLMF) to achieve the compound's reporting limit in the analysis.

ND : Not detected at or above the reporting limit for the analysis as performed.

TPHg : Determined by GC/FID following sample purge & trap by EPA Method 5030.

BTEX : Determined by modified EPA Method 8020 following sample purge & trap by EPA Method 5030.

Lab Control Limits for surrogate compound p-Bromofluorobenzene are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Irene Shen 12/23/94

Analyst Date

Cheryl Bateman 12/23/94

Supervisor Date

Issued on 12/23/94 @ 11:34 am

Matrix Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Project ID : 7112/9200
Sample ID : T770-1
Matrix : SOIL
Date Sampled : 12/14/94

Laboratory ID : 9412155-01
Analyst : IS
Supervisor : cs
Instrument ID : HP21
Units : mg/Kg

COMPOUND NAME	SPIKE AMOUNT	SAMPLE RESULTS	MS RECOVERY	MSD RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS
Gasoline	1.0	ND	76%	69%	50-139	10%	30
Surrogate Recovery		181%	166%	158%			
Date Analyzed		12/22/94	12/22/94	12/22/94			
Multiplier		1	1	1			
Filename Reference		FPD15501.D	FMD15501.D	FDD15501.D			

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

Laboratory Control Spike Report
Total Petroleum Hydrocarbons as Gasoline
ITS - Anametrix Laboratories - (408)432-8192

Instrument ID : HP21
Matrix : SOLID

Analyst : IS
Supervisor : CS
Units : mg/Kg

COMPOUND NAME	SPIKE AMOUNT	LCS RECOVERY	RECOVERY LIMITS
Gasoline	0.50	84%	56-141
Surrogate Recovery		110%	53-147
Date Analyzed		12/22/94	
Multiplier		1	
Filename Reference		MD2201E1.D	

* Limits established by Inchcape Testing Services, Anametrix Laboratories.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. SHARON SULLIVAN
WOODWARD CLYDE CONSULTANTS
10370 OLD PLACERVILLE ROAD, SUITE 104
SACRAMENTO, CA 95827

Workorder # : 9412155
Date Received : 12/15/94
Project ID : 7112/9200
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9412155- 1	T770-1	SOIL	12/14/94	6010
9412155- 2	SP770123	SOIL	12/14/94	6010

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. SHARON SULLIVAN
WOODWARD CLYDE CONSULTANTS
10370 OLD PLACERVILLE ROAD, SUITE 104
SACRAMENTO, CA 95827

Workorder # : 9412155
Date Received : 12/15/94
Project ID : 7112/9200
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

QA/QC SUMMARY :

- All holding times have been met for the analyses reported in this section.

Department Supervisor 12/21/94 Date

Chemist 12/16/94 Date

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192
DATA REPORT

Analyte-Method: Lead-6010A
Client Project Number: 7112/9200
Matrix - Units: SOIL - mg/Kg

Analyst: SC
Supervisor: MW

Anametrix Sample ID	Client Sample ID	Prep. Method	Instr. ID	Date Sampled	Date Prepared	Date Analyzed	D.F.	Reporting Limit	Results	Q
9412155-01	T770-1	3050A	ICP2	12/14/94	12/20/94	12/20/94	1	0.30	6.4	
9412155-02	SP770123	3050A	ICP2	12/14/94	12/20/94	12/20/94	1	0.30	6.1	
BD204SA	METHOD BLANK	3050A	ICP2	N/A	12/20/94	12/20/94	1	0.30	ND	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192
MATRIX SPIKE REPORT

Anametrix. Sample ID: 9412140-01MS,MD
Client Sample ID: T770-1
Client Proj. Number: 7112/9200
Matrix: SOIL
Associated W.O. #: 9412155

Analyst: SC
Supervisor: MW

Analyte	Analyt. Method	Instr. I.D.	Date Prepared	Date Analyzed	Units	Spike Amount	Sample Conc.	Matrix Spike Conc.	% Rec.	Matrix Sp. Dup. Conc.	% Rec.	RPD	Q
Lead	6010A	ICP2	12/20/94	12/20/94	mg/Kg	50.0	6.4	53.4	94.0	53.4	94.0	0.0	

COMMENTS:

INCHCAPE TESTING SERVICES
ANAMETRIX LABORATORIES
(408) 432-8192

LABORATORY CONTROL SAMPLE REPORT

Lab. Control Sample ID: LD204SA
Anametrix WO #: 9412155
Client Project Number: 7112/9200
Matrix: SOIL

Analyst: SC
Supervisor: MMJ

Analyte	Prep. Method	Analytical Method	Instr. ID	Date Prepared	Date Analyzed	Dil. Factor	Units	Spike Amount	LCS Results	% Recovery	Q
Lead	3050A	6010A	ICP2	12/20/94	12/20/94	1	mg/Kg	50.0	50.3	101	

COMMENTS:

[redacted] ch[redacted]e T[redacted]ng[redacted]vi[redacted]
Anametrix Laboratories

[redacted] Con[redacted]e Driv[redacted]te E [redacted] 94[redacted]21[redacted] [redacted] 4[redacted] C/[redacted] 1:4[redacted] C[redacted] [redacted] [redacted]
San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

CHAIN-OF-CUSTODY RECORD

PROJECT NUMBER	PROJECT NAME
7112/9200	Camp Parks - UST

Send Report Attention of:	Report Due	Verbal Due
Sharon Sullivan/Laurie Israel	12/29/94	/ /

	Sample Number	Date	Time	Comp	Matrix	Station Location	Number of Cntnrs	Type of Containers	TPH-Gas/BTEX	Total Lead (7420 AA)	Condition of Samples	Initial
①	T770-1	14 Dec 94	1050		Soil		1	6"x2" tube	X	X	iced	STS
	SP770-1	14 Dec 94	1115		Soil	Composite	1	6"x2" tube	X	X	iced	STS
②	SP770-2	14 Dec 94	1120		Soil	Composite	1	6"x2" tube	X	X	iced	STS
	SP770-3	14 Dec 94	1125		Soil	Composite	1	6"x2" tube	X	X	iced	STS

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Sharon T. Sullivan	14 Dec 94 1600	Jennifer J. Miller	12-14-94 16:00
Jennifer J. Miller	12-14-94 16:45	[signature] #573	12/15 8:55 WK
Relinquished by: (Signature)	Date/Time	Received by Lab:	Date/Time
		Calvin Robinson	12-15-94 8:50

Remarks: Please composite SP770-1, SP770-2, SP770-3
Standard turnaround time

COMPANY: Woodward-Clyde Federal Services
ADDRESS: 10370 Old Placerville Road
Suite 104
PHONE : Sacramento, CA 95827 FAX : (916) 3[illegible]

Curtis & Tompkins, Ltd.

TEH - CASE NARRATIVE

Client ID: Woodward Clyde Consultants Site: B1136
Project: 7112/9620
Matrix: Soil

Woodward Clyde Sample ID	Curtis & Tompkins Sample ID
E1136-S1	123339-001
E1136-S2	123339-002
E1136-S3	123339-003
E1136-S4	123339-004
E1136-S5	123339-005
SP1136-1109	123339-006

This data package contains the TEH results for B1136 samples received by Curtis & Tompkins, Ltd. on November 9, 1995. No problems were encountered for this analysis.

I certify that this data package has been reviewed for technical correctness and completeness. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: Cynthia E Schaller Date: 11/28/95
Title: Project Manager

123339

Woodward-Clyde Consultants
10370 Old Placerville Rd., Suite 104, Sacramento, CA 95827
Tel. (916) 368-0988 Fax (916) 368-0967

Chain of Custody Record

PROJECT NO. 7112/9620 @ 11/9/95 LI

SAMPLERS: (Signature) David Hart

DATE	TIME	SAMPLE NUMBER	Sample Matrix (S)oil, (W)ater, (A)ir	ANALYSES: EPA Method 355c/Mod 8015	ANALYSES: EPA Method 5030c/8020	ANALYSES: EPA Method	ANALYSES: EPA Method	Number of Containers	REMARKS (Sample preservation, handling procedures, etc.)
11/9/95	1040	E1136-S1	S	X	X			1	
11/9/95	1045	E1136-S2	S	X	X			1	
11/9/95	1052	E1136-S3	S	X	X			1	
11/9/95	1055	E1136-S4	S	X	X			1	
11/9/95	1100	E1136-S5	S	X	X			1	
11/9/95	1115	SP1136-1109	S	X	X			4	— COMPOSITE IN LAB FOR 1 SAMPLE
									355c/MOD 8015 (TPH-D)
									5030/8020 (BTEX)
									WCC P.M. - Laurie Israel Comp Parks B 11736
								TOTAL NUMBER OF CONTAINERS: 9	

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
David Hart	11/9/95 13:45				

METHOD OF SHIPMENT:	SHIPPED BY: (Signature)	COURIER: (Signature)	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
			[illegible]	11/9/95

7112

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login#: 123339 Date Received: 11/9 Number of Coolers: 1

Client: WCC Project: 7112

A. Preliminary Examination Phase

Date Opened: 11/9 By (print): J.W.Williams (sign) Jason Q. Williams

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES (NO)
   If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler? ..... (YES) NO
   How many and where? _____ Seal date: _____ Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival? ..... (YES) NO
4. Were custody papers dry and intact when received? ..... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
6. Did you sign the custody papers in the appropriate place? ..... (YES) NO
7. Was project identifiable from custody papers? ..... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? ..... (YES) NO
   Type of ice: Cube Temperature: 3.75°C

B. Login Phase

Date Logged In: 11/9 By (print): [illegible] (sign) [illegible]

1. Describe type of packing in cooler: _____
2. Did all bottles arrive unbroken? ..... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ... (YES) NO
4. Did bottle labels agree with custody papers? ..... (YES) NO
5. Were appropriate containers used for the tests indicated? ..... (YES) NO
6. Were correct preservatives added to samples? ..... (YES) NO
7. Was sufficient amount of sample sent for tests indicated? ..... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ..... YES NO n/a
9. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, give details below.
   Who was called? _____ By whom? _____ Date: _____

Additional Comments:

CUSTODY SEAL

Shipping Bill ND: DESA - OFF

Signature: [signature] Date: 11/9/95

TEH-Tot Ext Hydrocarbons

Client: Woodward-Clyde Consultants
Project#: 7112/9620
Location: B1136

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: LUFT

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
123339-001	E1136-S1	24364	11/09/95	11/13/95	11/14/95	22%
123339-002	E1136-S2	24364	11/09/95	11/13/95	11/14/95	15%
123339-003	E1136-S3	24364	11/09/95	11/13/95	11/14/95	18%
123339-004	E1136-S4	24364	11/09/95	11/13/95	11/14/95	15%

Analyte Diln Fac:	Units	123339-001 1	123339-002 1	123339-003 1	123339-004 1
Diesel Range	mg/Kg	<1.3	<1.2	<1.2	<1.2
Surrogate					
Hexacosane	%REC	77	78	70	74

TEH-Tot Ext Hydrocarbons

Client: Woodward-Clyde Consultants
Project#: 7112/9620
Location: B1136

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: LUFT

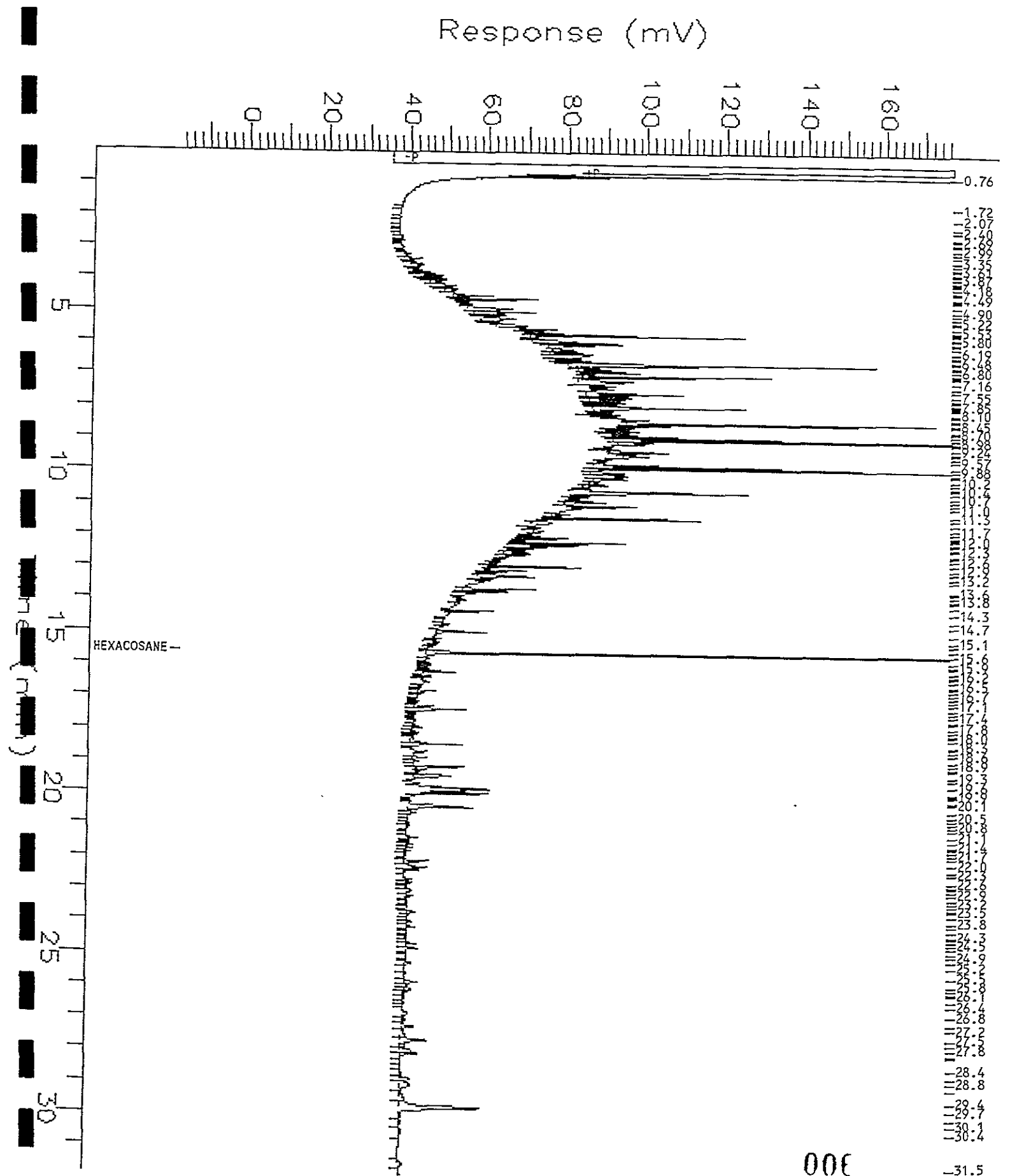
Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
123339-005	E1136-S5	24364	11/09/95	11/13/95	11/14/95	17%
123339-006	SP1136-1109	24364	11/09/95	11/13/95	11/14/95	15%

Analyte	Units	123339-005	123339-006
Diln Fac:		1	1
Diesel Range	mg/Kg	<1.2	240
Surrogate			
Hexacosane	%REC	71	77

TEH Chromatogram - GC 11 Ch B

Sample Name : 123339-006,50:5
FileName : G:\GC11\CHB\3178028.raw
Method : GC11_CHB.ins
Start Time : 0.01 min End Time : 31.92 min
Scale Factor: 0 Plot Offset: -16 mV

Sample #: 24364
Date : 11/15/95 02:16 PM
Time of Injection: 11/14/95 05:53 PM
Low Point : -16.41 mV High Point : 177.05 mV
Plot Scale: 194 mV



300

Lab #: 123339

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Woodward-Clyde Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	7112/9620	Prep Method:	SHAKER TABLE
Location:	B1136		

METHOD BLANK

Matrix:	Soil	Prep Date:	11/13/95
Batch#:	24364	Analysis Date:	11/14/95
Units:	mg/Kg		
Diln Fac:	1		

MB Lab ID: QC08863

Analyte	Result	
Diesel Range	<1.0	
Surrogate	%Rec	Recovery Limits
Hexacosane	73	65-135

Lab #: 123339

BATCH QC REPORT

Curtis & Tompkins, Ltd

TEH-Tot Ext Hydrocarbons

Client: Woodward-Clyde Consultants
Project#: 7112/9620
Location: B1136

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: SHAKER TABLE

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 24364
Units: mg/Kg
Diln Fac: 1

Prep Date: 11/13/95
Analysis Date: 11/14/95

LCS Lab ID: QC08864

Analyte	Result	Spike Added	%Rec #	Limits
Diesel Range	50.8	51.3	99	65-135
Surrogate	%Rec	Limits		
Hexacosane	70	65-135		

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 123339

BATCH QC REPORT

Curtis & Tompkins, Ltd

TEH-Tot Ext Hydrocarbons

Client: Woodward-Clyde Consultants
Project#: 7112/9620
Location: B1136

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: SHAKER TABLE

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: E1136-S1
Lab ID: 123339-001
Matrix: Soil
Batch#: 24364
Units: mg/Kg dry weight
Diln Fac: 1

Sample Date: 11/09/95
Received Date: 11/09/95
Prep Date: 11/13/95
Analysis Date: 11/14/95
Moisture: 22%

MS Lab ID: QC08865

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Diesel Range	65.77	<1.282	56.92	87	65-135
Surrogate	%Rec	Limits			
Hexacosane	65	65-135			

MSD Lab ID: QC08866

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Diesel Range	65.77	63.08	96	65-135	10	<35
Surrogate	%Rec	Limits				
Hexacosane	68	65-135				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

TOTAL EXTRACTABLE HYDROCARBONS INITIAL CALIBRATION DATA
DIESEL

RUN DATE: NOVEMBER 07,1995 INSTRUMENT: GC11 CH B
COLUMN: Rtx-1

RANGE OVER WHICH TO INTEGRATE: 3.795-12.95

(ng)	AREA	RF	Y CALC	RESIDUAL	% ERROR
26.7	270717.6	9.86268E-05	22.6	4.1	15.3%
53	596142.9	8.89049E-05	49.8	3.2	6.1%
107	1183017.	9.04466E-05	98.8	8.2	7.7%
214	2603974	8.21821E-05	217.4	3.4	1.6%
427	5548817.	7.69533E-05	463.3	36.3	8.5%
855	10579718	8.08150E-05	883.3	28.3	3.3%
1710	22169518	7.71329E-05	1851.0	141.0	8.2%
3420	46922340	7.28864E-05	3917.7	497.7	14.6%

MEAN RF: 8.34935E-05
%RSD: 10.2%

DIESEL C12 to C22	RT OF C12 FROM CARBON MIX:	3.795
	RT OF C22 FROM CARBON MIX:	12.95

TOTAL EXTRACTABLE HYDROCARBON CALIBRATION VERIFICATION SUMMARY

Lab Name: Curtis & Tompkins, Ltd.

Lab Code: N/A

Instrument ID: GC11

Channel: B

Init. Calib. Date(s): 11/07/95

ANALYTE	FILENAME	DATE ANALYZED	CALC AMOUNT (mg/L)	NOM AMOUNT (mg/L)	% D
Diesel	317B001	11/13/95	424.2	427.5	1%
Diesel	317B016	11/14/95	456.2	427.5	7%
Diesel	317B030A	11/14/95	404.9	427.5	5%
Diesel	317B044	11/15/95	420.2	427.5	2%
Diesel	317B045	11/15/95	433.8	427.5	1%
Diesel	317B050	11/15/95	431.8	427.5	1%

QC LIMITS: %D of amounts must be less than or equal to 15%

Sequence File : G:\GC11\FILES\NOV13.SEQ
Created by : DC on : 11/13/95 05:17 PM
Edited by : on : 11/13/95 05:17 PM
Number Of Times Edited : 12

Sequence File Header Information:
Study Name : s
Segment Interface : YES
Number of Cycles : 50
Instrument Type : HP 5890A GC with HP 7673 Autosampler
Injection Type : SINGLE

Sequence Sample Descriptions

Cycle	Sample Name	Sample Number	Site	Rack	Vial	Sample Amount	ISTD Amount	Inj. Volume	Dil. Factor	Mult	Divisor	Addend	Inst File	Output Device
1	DIESEL 427.5mg/L	95ws1352	B	1	51	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
2	MOTOR OIL 500mG/L	95ws1265	B	1	52	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
3	JET A 245MG/L	95WS1266	B	1	53	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
4	INSTRUMENT BLANK	317B	B	1	54	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
5	MB,QC08867,500:2.5	24365	B	1	55	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
6	BS,QC08868,500:2.5	24365	B	1	56	1.000	1.000	1.000	0.005	1.000	1.000	0.000	GC11_CHB	LPT1.0
7	BSD,QC08869,500:2.5	24365	B	1	57	1.000	1.000	1.000	0.005	1.000	1.000	0.000	GC11_CHB	LPT1.0
8	MB,QC08863,50:5	24364	B	1	58	1.000	1.000	1.000	0.005	1.000	1.000	0.000	GC11_CHB	LPT1.0
9	LCS,QC08864,50:5	24364	B	1	59	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
10	MS,QC08865,50:5	24364	B	1	60	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
11	MSD,QC08866,50:5	24364	B	1	61	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
12	123339-001,50:5	24364	B	1	62	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
13	123377-001,500:2.5	24365	B	1	63	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
14	123377-002,500:10	24365	B	1	64	1.000	1.000	1.000	0.005	1.000	1.000	0.000	GC11_CHB	LPT1.0
15	INSTRUMENT BLANK	317B	B	1	65	1.000	1.000	1.000	0.020	1.000	1.000	0.000	GC11_CHB	LPT1.0
16	DIESEL427MG/L	95WS1352C	B	1	66	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
17	DIESEL 427MG/L	95WS1352C	B	1	67	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
18	MO 500MG/L	95WS1265	B	1	68	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
19	123376-001,50:25	24364	B	1	69	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
20	123376-002,50:25	24364	B	1	70	1.000	1.000	1.000	0.500	1.000	1.000	0.000	GC11_CHB	LPT1.0
21	123376-003,50:25	24364	B	1	71	1.000	1.000	1.000	0.500	1.000	1.000	0.000	GC11_CHB	LPT1.0
22	123377-002, 500:2.5	24365	B	1	72	1.000	1.000	1.000	0.500	1.000	1.000	0.000	GC11_CHB	LPT1.0
23	INSTRUMENT BLANK	317B	B	1	73	1.000	1.000	1.000	0.005	1.000	1.000	0.000	GC11_CHB	LPT1.0
24	123339-002,50:5	24364	B	1	74	1.000	1.000	1.000	0.500	1.000	1.000	0.000	GC11_CHB	LPT1.0
25	123339-003,50:5	24364	B	1	75	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
26	123339-004,50:5	24364	B	1	76	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
27	123339-005,50:5	24364	B	1	77	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
28	123339-006,50:5	24364	B	1	78	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
29	INSTRUMENT BLANK	317B	B	1	79	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
30	DIESEL 427MG/L	95WS1352C	B	1	80	1.000	1.000	1.000	0.100	1.000	1.000	0.000	GC11_CHB	LPT1.0
31	JETA 245MG/L	95WS1266	B	1	81	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
32	MO 500MG/L	95WS1265	B	1	82	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
33	123391-001,30:30	24393	B	1	83	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
34	123391-002,30:30	24393	B	1	84	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
35	123392-001,30:30	24393	B	1	85	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
36	123392-002,30:30	24393	B	1	86	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
37	123392-003,30:30	24393	B	1	87	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
38	MSS,123392-004,30:30	24393	B	1	88	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
39	123392-005,30:30	24393	B	1	89	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
40	123392-006,30:30	24393	B	1	90	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
41	MS,QC08982,30:30	24393	B	1	91	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
42	MSD,QC08983,30:30	24393	B	1	92	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
43	IB	317B	B	1	93	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
44	DIESEL 427MG/L	95WS1352C	B	1	94	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
45	DIESEL 427MG/L	95WS1352C	B	1	95	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
46	MO 500MG/L	95WS1265	B	1	96	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
47	INSTRUMENT BLANK	317B	B	1	97	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
48	MB,QC08980,30:30	24393	B	1	98	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
49	LCS,QC08981,30:30	24393	B	1	99	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0
50	DIESEL 427MG/L	24393	B	1	100	1.000	1.000	1.000	1.000	1.000	1.000	0.000	GC11_CHB	LPT1.0

ORGANIC EXTRACTION RECORD

11/13/95 20:05:24

Batch Number : 24364
Date Extracted : 13-NOV-95
Extracted By : Dawn Cao

Analysis: TEH ~~10~~ 11/13/95
Bgroup : N/A

Surrogate ID : 95ws1175 c
Internal Std. ID:
B/M Spike ID : 95ws1306 c

Sample No.	Type	Client	Matrx	Init W/V	U	Final Vol	D.F.	pH	Moist	Extraction Method	Clean Up Method	Analysis	Comments
123232-001		The Earth Technology Corporati	Soil	50		5	.1			st		TEH	
123232-005		The Earth Technology Corporati	Soil	50		5	.1			st		TEH	
123339-001		Woodward-Clyde Consultants	Soil	50		5	.1			st		TEH	mss
123339-002		Woodward-Clyde Consultants	Soil	50		5	.1			st		TEH	
123339-003		Woodward-Clyde Consultants	Soil	50		5	.1			st		TEH	
123339-004		Woodward-Clyde Consultants	Soil	50		5	.1			st		TEH	
123339-005		Woodward-Clyde Consultants	Soil	50		5	.1			st		TEH	
123339-006		Woodward-Clyde Consultants	Soil	50		5	.1			st		TEH	
123359-001		Burns & McDonnell	Soil	50		5	.1			st		TEH	split into 2
123359-002		Burns & McDonnell	Soil	50		5	.1			st		TEH	split into 2
123359-003		Burns & McDonnell	Soil	50		5	.1			st		TEH	split into 2
123376-001		Burns & McDonnell	Soil	50		5	.1			st		TEH-10	
123376-002		Burns & McDonnell	Soil	50		5	.1			st		TEH-10	
123376-003		Burns & McDonnell	Soil	50		5	.1			st		TEH-10	
QC08863	BLANK		Soil	50		5	.1			st		TEH	
QC08864	LCS		Soil	50		5	.1			st		TEH	
QC08865	MS of 123339-001		Soil	50		5	.1			st		TEH	
QC08866	MSD of 123339-001		Soil	50		5	.1			st		TEH	

Prep Chemist: _____ Reviewed By: _____ Date: 11/13/95

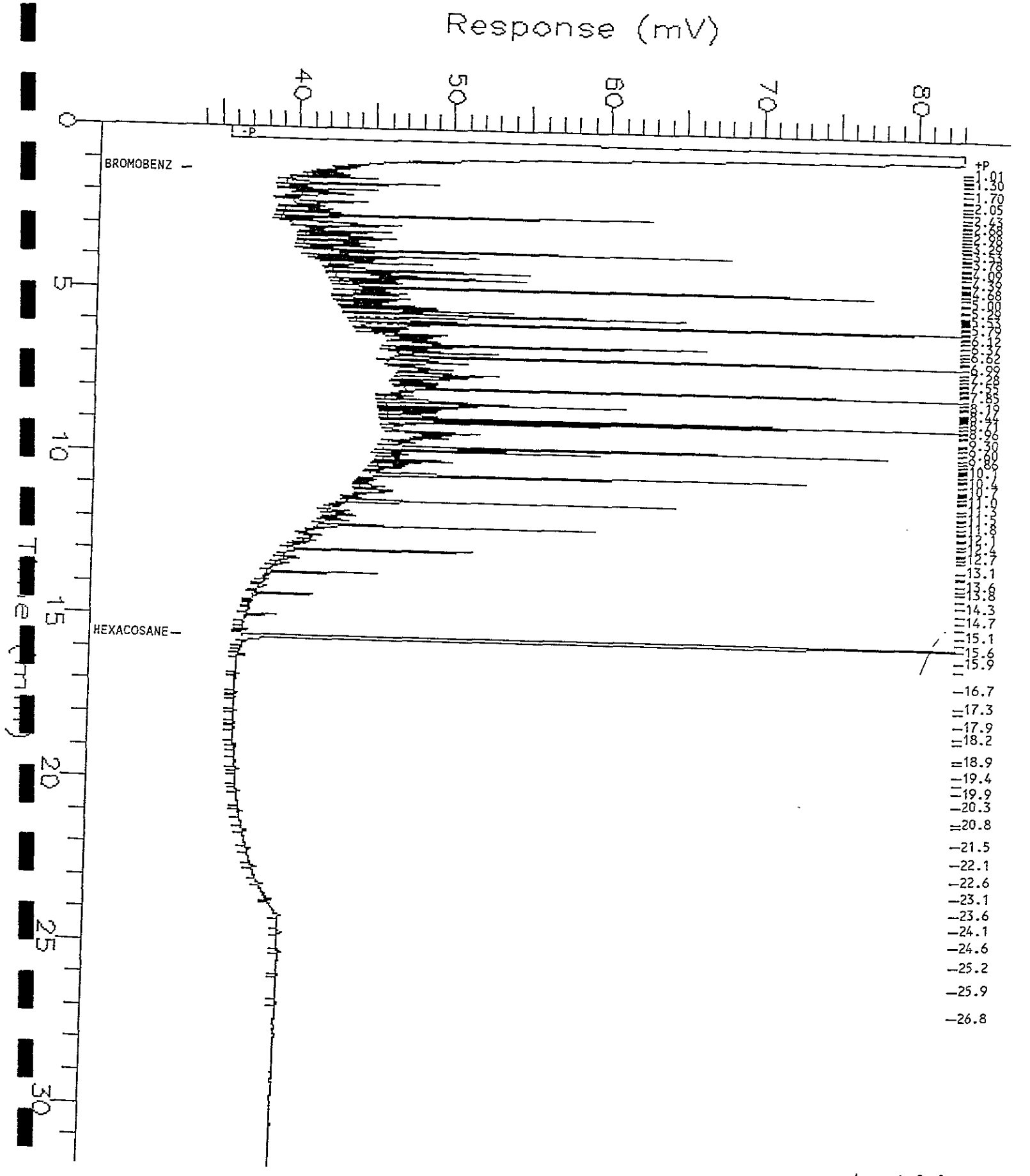
TEH Chromatogram - GC 11 Ch B

Sample Name : DIESEL 427MG/L
FileName : g:\gc11\chb\3178044.raw
Method : GC11_CHB.ins
Start Time : 0.00 min
Scale Factor: -1

End Time : 31.92 min
Plot Offset: 33 mV

Sample #: 95WS1352C
Date : 11/15/95 08:32 AM
Time of Injection: 11/15/95 05:23 AM
Low Point : 33.03 mV
Plot Scale: 50 mV

High Point : 83.03 mV



Percent Moisture Summary Report

Date: 15-NOV-95
Batch: 24374
Analyst: MR

Sample	Method	Date	Tare(g)	Wet(g)	Dry(g)	Percent Solids	Percent Moisture
123339-001	CLP SOW 390	15-NOV-95	15.7849	22.0866	20.7177	78	22
123339-002	CLP SOW 390	15-NOV-95	15.3328	22.0339	20.9989	85	15
123339-003	CLP SOW 390	15-NOV-95	15.3398	21.8636	20.7094	82	18
123339-004	CLP SOW 390	15-NOV-95	15.5714	22.3319	21.3201	85	15
123339-005	CLP SOW 390	15-NOV-95	15.2456	21.9342	20.8238	83	17
123339-006	CLP SOW 390	15-NOV-95	15.0189	21.9397	20.9318	85	15
123356-002	CLP SOW 390	15-NOV-95	15.8917	21.8033	20.7989	83	17
QC08906 of 123339-001	CLP SOW 390	15-NOV-95	15.3303	22.1415	20.7102	79	21
					RPD:	0.9%	3.3%

Curtis & Tompkins, Ltd.

BTXE - CASE NARRATIVE

Client ID: Woodward Clyde Consultants Site: B1136
Project: 7112/9620
Matrix: Soil

Woodward Clyde Sample ID	Curtis & Tompkins Sample ID
E1136-S1	123339-001
E1136-S2	123339-002
E1136-S3	123339-003
E1136-S4	123339-004
E1136-S5	123339-005
SP1136-1109	123339-006

This data package contains the BTXE results for B1136 samples received by Curtis & Tompkins, Ltd. on November 9, 1995. No problems were encountered for this analysis.

I certify that this data package has been reviewed for technical correctness and completeness. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures.

Signature: Cynthia E Schlag
Title: Project Manager

Date: 11/28/95

123339

Woodward-Clyde Consultants
10370 Old Placerville Rd., Suite 104, Sacramento, CA 95827
Tel. (916) 368-0988 Fax (916) 368-0967

Chain of Custody Record

@ 11/9/95

PROJECT NO. 7112/9620 ARCO

SAMPLERS: (Signature) Donald Hess

DATE	TIME	SAMPLE NUMBER	Sample Matrix (S)oil, (W)ater, (A)ir	ANALYSES: EPA Method 3550/Mod 8015	ANALYSES: EPA Method 5030/8020	ANALYSES: EPA Method	ANALYSES: EPA Method	Number of Containers	REMARKS (Sample preservation, handling procedures, etc.)
11/9/95	1040	E1136-S1	S	X	X			1	
11/9/95	1045	E1136-S2	S	X	X			1	
11/9/95	1050	E1136-S3	S	X	X			1	
11/9/95	1055	E1136-S4	S	X	X			1	
11/9/95	1100	E1136-S5	S	X	X			1	
11/9/95	1115	SP1136-1109	S	X	X			4	— COMPOSITE IN LAB FOR 1 SAMPLE

3550/Mod 8015 (TPH-D)

5030/8020 (BTEX)

WCC P.M. - Laurie Israel

Comp Parks 8 93756

TOTAL NUMBER OF CONTAINERS: 9

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
Donald Hess	11/9/95 12:15				002

METHOD OF SHIPMENT:	SHIPPED BY: (Signature)	COURIER: (Signature)	RECEIVED FOR LAB BY: (Signature)	DATE/TIME
			Jason Williams	11/9/95

7112

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login#: 123339 Date Received: 11/9 Number of Coolers: 1
Client: WCC Project: 7112

A. Preliminary Examination Phase
Date Opened: 11/9 By (print): J.W.Williams (sign) [signature]

1. Did cooler come with a shipping slip (airbill, etc.)? ..... YES (NO)
   If YES, enter carrier name and airbill number: _____
2. Were custody seals on outside of cooler? ..... (YES) NO
   How many and where? _____ Seal date: _____ Seal name: _____
3. Were custody seals unbroken and intact at the date and time of arrival? ..... (YES) NO
4. Were custody papers dry and intact when received? ..... (YES) NO
5. Were custody papers filled out properly (ink, signed, etc.)? ..... (YES) NO
6. Did you sign the custody papers in the appropriate place? ..... (YES) NO
7. Was project identifiable from custody papers? ..... (YES) NO
   If YES, enter project name at the top of this form.
8. If required, was sufficient ice used? ..... (YES) NO
   Type of ice: Cube Temperature: 3.75°C

B. Login Phase
Date Logged In: 11/9 By (print): [illegible] (sign) [signature]

1. Describe type of packing in cooler: _____
2. Did all bottles arrive unbroken? ..... (YES) NO
3. Were labels in good condition and complete (ID, date, time, signature, etc.)? ..... (YES) NO
4. Did bottle labels agree with custody papers? ..... (YES) NO
5. Were appropriate containers used for the tests indicated? ..... (YES) NO
6. Were correct preservatives added to samples? ..... (YES) NO
7. Was sufficient amount of sample sent for tests indicated? ..... (YES) NO
8. Were bubbles absent in VOA samples? If NO, list sample Ids below ..... YES NO N/A
9. Was the client contacted concerning this sample delivery? ..... YES NO
   If YES, give details below.
   Who was called? _____ By whom? _____ Date: _____

Additional Comments:

CUSTODY SEAL

Shipping Bill ID: DROP-OFF

Signature: [signature] Date: 11/9/95

003

BTXE

Client: Woodward-Clyde Consultants
Project#: 7112/9620
Location: B1136

Analysis Method: BTXE
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
123339-001	E1136-S1	24412	11/09/95	11/16/95	11/16/95	22%
123339-002	E1136-S2	24412	11/09/95	11/16/95	11/16/95	15%
123339-003	E1136-S3	24412	11/09/95	11/16/95	11/16/95	18%
123339-004	E1136-S4	24412	11/09/95	11/16/95	11/16/95	15%

Analyte Diln Fac:	Units	123339-001 1	123339-002 1	123339-003 1	123339-004 1
Benzene	ug/Kg	<6.4	<5.9	<6.1	<5.9
Toluene	ug/Kg	<6.4	<5.9	<6.1	<5.9
Ethylbenzene	ug/Kg	<6.4	<5.9	<6.1	<5.9
m,p-Xylenes	ug/Kg	<6.4	<5.9	<6.1	<5.9
o-Xylene	ug/Kg	<6.4	<5.9	<6.1	<5.9
Surrogate					
Trifluorotoluene	%REC	81	81	80	82
Bromobenzene	%REC	79	85	84	88

BTXE

Client: Woodward-Clyde Consultants
Project#: 7112/9620
Location: B1136

Analysis Method: BTXE
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
123339-005	E1136-S5	24412	11/09/95	11/16/95	11/16/95	17%
123339-006	SP1136-1109	24412	11/09/95	11/16/95	11/16/95	15%

Analyte Diln Fac:	Units	123339-005 1	123339-006 1
Benzene	ug/Kg	<6	<5.9
Toluene	ug/Kg	<6	<5.9
Ethylbenzene	ug/Kg	<6	<5.9
m,p-Xylenes	ug/Kg	<6	<5.9
o-Xylene	ug/Kg	<6	<5.9
Surrogate			
Trifluorotoluene	%REC	84	82
Bromobenzene	%REC	89	83

Lab #: 123339

Curtis & Tompkins, Ltd.

BATCH QC REPORT

BTXE

Client: Woodward-Clyde Consultants
Project#: 7112/9620
Location: B1136

Analysis Method: BTXE
Prep Method: EPA 5030

METHOD BLANK

Matrix: Soil
Batch#: 24412
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/15/95
Analysis Date: 11/15/95

MB Lab ID: QC09062

Analyte	Result
Benzene	<5.0
Toluene	<5.0
Ethylbenzene	<5.0
m,p-Xylenes	<5.0
o-Xylene	<5.0

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	104	65-135
Bromobenzene	93	65-135

Lab #: 123339

BATCH QC REPORT

Curtis & Tompkins, Ltd

BTXE

Client: Woodward-Clyde Consultants
Project#: 7112/9620
Location: B1136

Analysis Method: BTXE
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 24412
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/15/95
Analysis Date: 11/15/95

LCS Lab ID: QC09061

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	103.3	100	103	65-135
Toluene	108.7	100	109	65-135
Ethylbenzene	116.1	100	116	65-135
m,p-Xylenes	190.2	200	95	65-135
o-Xylene	110	100	110	65-135

Surrogate	%Rec	Limits
Trifluorotoluene	104	65-135
Bromobenzene	98	65-135

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 5 outside limits

Lab #: 123339

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client:	Woodward-Clyde Consultants	Analysis Method:	BTXE
Project#:	7112/9620	Prep Method:	EPA 5030
Location:	B1136		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	E1136-S1	Sample Date:	11/09/95
Lab ID:	123339-001	Received Date:	11/09/95
Matrix:	Soil	Prep Date:	11/15/95
Batch#:	24412	Analysis Date:	11/15/95
Units:	ug/Kg dry weight	Moisture:	22%
Diln Fac:	1		

MS Lab ID: QC09063

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Benzene	128.2	<6.410	130.1	101	65-135
Toluene	128.2	<6.410	137.3	107	65-135
Ethylbenzene	128.2	<6.410	144.7	113	65-135
m,p-Xylenes	256.4	<6.410	233.5	91	65-135
o-Xylene	128.2	<6.410	134.7	105	65-135

Surrogate	%Rec	Limits
Trifluorotoluene	84	65-135
Bromobenzene	90	65-135

MSD Lab ID: QC09064

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Benzene	128.2	126	98	65-135	3	<35
Toluene	128.2	134.2	105	65-135	2	<35
Ethylbenzene	128.2	142.6	111	65-135	2	<35
m,p-Xylenes	256.4	237.9	93	65-135	2	<35
o-Xylene	128.2	132.4	103	65-135	2	<35

Surrogate	%Rec	Limits
Trifluorotoluene	83	65-135
Bromobenzene	90	65-135

Column to be used to flag recovery and RPD values with an asterisk
Values outside of QC limits
RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

Sample File : G:\GC04\BTXE3.smp
Created by : on : 5/12/89 2:54 PM
Edited by : on : 10/13/95 6:00 PM
Number Of Times Edited : 48

range = 2
intensity = 1

Sample Description :
Default Injection Volume = 1.0000 ul
An External Standard Calibration Will Be Used
Unknown Peaks Will Be Quantitated Using A Response Factor of 1000000.0000

Component Information :

MTBE
Retention Time : 1.130 min Search Window: 5 sec, 5 %
Reference Component: TRIFLUOROTOLUENE (Find Largest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
2	12.5000	3465.80	870.74	----------	----------	1
3	50.0000	14573.10	3415.13	----------	----------	1
4	100.4000	25885.00	6310.81	----------	----------	1
5	500.0000	128287.31	31756.41	----------	----------	1
6	750.0000	213168.41	54197.67	----------	----------	1
7	1500.0000	426632.16	105580.49	----------	----------	1

Calibration Curve : y = (-2944.2520) + (284.8286)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99885

BENZENE
Retention Time : 1.824 min Search Window: 5 sec, 5 %
Reference Component: TRIFLUOROTOLUENE (Find Closest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1/x
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	2.5000	4777.10	1428.50	----------	----------	1
2	12.5000	21576.00	6314.98	----------	----------	1
3	50.0000	82906.40	23770.05	----------	----------	1
4	100.0000	154262.20	44222.68	----------	----------	1
5	500.0000	759007.13	216650.52	----------	----------	1
6	750.0000	1205435.00	343725.53	----------	----------	1
7	1500.0000	2390405.25	681201.88	----------	----------	1

Calibration Curve : y = (937.4905) + (1582.0949)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99963

TRIFLUOROTOLUENE
Retention Time : 2.419 min Search Window: 5 sec, 5 %
Reference Component: TRIFLUOROTOLUENE (Find Closest Peak)
Group Name :
Calibrating Height versus Amount Using a Pt. to Pt. Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
8	2.5000	377781.50	81418.47	----------	----------	1

TOLUENE

Retention Time : 3.377 min Search Window: 5 sec, 5 %
Reference Component: TRIFLUOROTOLUENE (Find Closest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1/x
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	2.5000	4572.50	997.12	----------	----------	1
2	12.5000	18671.30	4114.94	----------	----------	1
3	50.0000	73891.60	15823.91	----------	----------	1
4	100.0000	138991.59	29807.28	----------	----------	1
5	500.0000	699834.31	150813.19	----------	----------	1
6	750.0000	1114109.00	241715.61	----------	----------	1
7	1500.0000	2192537.00	483250.41	----------	----------	1

Calibration Curve : y = (702.3695) + (1453.7533)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99962

ETHYLBENZENE
Retention Time : 5.019 min Search Window: 5 sec, 5 %
Reference Component: BROMOBENZENE (Find Closest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1/x
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	2.5000	2577.84	531.11	----------	----------	1
2	12.5000	12778.63	2548.11	----------	----------	1
3	50.0000	52906.07	10671.41	----------	----------	1
4	100.0000	100581.48	20641.36	----------	----------	1
5	500.0000	531564.25	111611.88	----------	----------	1
6	750.0000	857098.69	181856.53	----------	----------	1
7	1500.0000	1720651.00	368383.06	----------	----------	1

Calibration Curve : y = (-807.9122) + (1126.5226)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99904

m,p-XYLENE
Retention Time : 5.173 min Search Window: 5 sec, 5 %
Reference Component: BROMOBENZENE (Find Closest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1/x
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	2.5000	5147.40	953.57	----------	----------	1
2	12.5000	19225.73	3495.12	----------	----------	1
3	50.0000	78394.43	14064.20	----------	----------	1
4	100.0000	146854.28	26836.80	----------	----------	1
5	500.0000	764775.06	142089.14	----------	----------	1
6	750.0000	1214705.25	229573.91	----------	----------	1
7	1500.0000	2385105.50	461529.94	----------	----------	1

Calibration Curve : y = (587.7941) + (1581.5071)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99962

o-XYLENE
Retention Time : 5.583 min Search Window: 5 sec, 5 %
Reference Component: BROMOBENZENE (Find Closest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1/x
Calibration Levels:

Level	Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1		2.5000	3434.80	702.84	----------	----------	1
2		12.5000	14774.60	2879.11	----------	----------	1
3		50.0000	58738.80	11517.09	----------	----------	1
4		100.0000	111755.00	22097.91	----------	----------	1
5		500.0000	611255.06	116657.03	----------	----------	1
6		750.0000	977080.19	188482.17	----------	----------	1
7		1500.0000	1924093.75	376985.91	----------	----------	1

Calibration Curve : y = (-465.7553) + (1270.8036)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99942

BROMOBENZENE

Retention Time : 6.168 min Search Window: 5 sec, 5 %
Reference Component: TRIFLUOROTOLUENE (Find Closest Peak)
Group Name :
Calibrating Height versus Amount Using a Pt. to Pt. Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1
Calibration Levels:

Level	Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
8		2.5000	991597.00	178849.19	----------	----------	1

Sample File : G:\GC04\CONFIRM\CBTXE3.smp
Created by : on : 5/12/89 2:54 PM
Edited by : on : 10/13/95 6:00 PM
Number Of Times Edited : 12

Sample Description :
range = 10
intensity = 1
Default Injection Volume = 1.0000 ul
An External Standard Calibration Will Be Used
Unknown Peaks Will Be Quantitated Using A Response Factor of 1000000.0000

Component Information :

MTBE

Retention Time : 1.180 min Search Window: 5 sec, 5 %
Reference Component: TRIFLUOROTOLUENE (Find Largest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
2	12.5000	3168.20	841.69	----------	----------	1
3	50.0000	15109.40	3713.42	----------	----------	1
4	100.0000	29617.40	7213.17	----------	----------	1
5	500.0000	161609.20	38530.39	----------	----------	1
6	750.0000	267554.81	65084.61	----------	----------	1
7	1500.0000	529845.81	125899.77	----------	----------	1

Calibration Curve : y = (-4925.5610) + (355.8655)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99914

BENZENE

Retention Time : 2.092 min Search Window: 5 sec, 5 %
Reference Component: TRIFLUOROTOLUENE (Find Closest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1/x
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	2.5000	5201.80	1372.99	----------	----------	1
2	12.5000	25891.20	6606.10	----------	----------	1
3	50.0000	102154.31	25606.25	----------	----------	1
4	100.0000	192231.00	48060.74	----------	----------	1
5	500.0000	929206.44	228518.28	----------	----------	1
6	750.0000	1468339.75	359472.38	----------	----------	1
7	1500.0000	2864641.75	694832.50	----------	----------	1

Calibration Curve : y = (855.4188) + (1914.8125)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99972

TRIFLUOROTOLUENE

Retention Time : 2.853 min Search Window: 5 sec, 5 %
Reference Component: TRIFLUOROTOLUENE (Find Closest Peak)
Group Name :
Calibrating Height versus Amount Using a Pt. to Pt. Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
8	2.5000	483339.59	98299.73	----------	----------	1

TOLUENE

Retention Time : 3.750 min Search Window: 5 sec, 5 %
Reference Component: TRIFLUOROTOLUENE (Find Closest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1/x
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	2.5000	4749.20	1052.70	----------	----------	1
2	12.5000	21049.00	4748.39	----------	----------	1
3	50.0000	88511.20	19325.25	----------	----------	1
4	100.0000	170044.30	36598.26	----------	----------	1
5	500.0000	865823.94	181024.47	----------	----------	1
6	750.0000	1371519.88	286530.69	----------	----------	1
7	1500.0000	2674141.75	558869.31	----------	----------	1

Calibration Curve : y = (-160.4510) + (1782.8345)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99968

ETHYLBENZENE
Retention Time : 5.407 min Search Window: 5 sec, 5 %
Reference Component: BROMOBENZENE (Find Closest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1/x
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	2.5000	2909.62	610.31	----------	----------	1
2	12.5000	15267.19	3161.30	----------	----------	1
3	50.0000	68603.35	13840.98	----------	----------	1
4	100.0000	130817.56	26620.97	----------	----------	1
5	500.0000	676086.13	137363.45	----------	----------	1
6	750.0000	1076632.50	219277.70	----------	----------	1
7	1500.0000	2112541.75	430740.81	----------	----------	1

Calibration Curve : y = (-1092.0407) + (1403.2598)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99962

m,p-XYLENE
Retention Time : 5.554 min Search Window: 5 sec, 5 %
Reference Component: BROMOBENZENE (Find Closest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1/x
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	2.5000	5255.74	1100.69	----------	----------	1
2	12.5000	22137.41	4292.44	----------	----------	1
3	50.0000	94230.39	17682.51	----------	----------	1
4	100.0000	184216.88	33930.23	----------	----------	1
5	500.0000	923414.69	171749.78	----------	----------	1
6	750.0000	1463532.38	273889.91	----------	----------	1
7	1500.0000	2857112.00	537019.94	----------	----------	1

Calibration Curve : y = (-48.9988) + (1904.0283)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99969

o-XYLENE
Retention Time : 6.026 min Search Window: 5 sec, 5 %
Reference Component: BROMOBENZENE (Find Closest Peak)
Group Name :
Calibrating Area versus Amount Using a 1st Order Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1/x
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
1	2.5000	3806.80	757.27	----------	----------	1
2	12.5000	16628.40	3401.50	----------	----------	1
3	50.0000	73662.20	14389.84	----------	----------	1
4	100.0000	141477.80	27403.61	----------	----------	1
5	500.0000	729144.81	139603.25	----------	----------	1
6	750.0000	1164595.63	223378.14	----------	----------	1
7	1500.0000	2290066.00	439042.34	----------	----------	1
						1

Calibration Curve : y = (-671.3157) + (1517.6950)x + (0.0000)x^2 + (0.0000)x^3
Correlation Coefficient: 0.99956

BROMOBENZENE

Retention Time : 6.810 min Search Window: 5 sec, 5 %
Reference Component: TRIFLUOROTOLUENE (Find Closest Peak)
Group Name :
Calibrating Height versus Amount Using a Pt. to Pt. Fit
Amounts Will Not Be Scaled Prior To The Regression
Weighting Factor For the Regression: 1
Calibration Levels:

Level Name	Amount	Area	Height	ISTD Resp.	ISTD Amt.	# Replicates
8	2.5000	1247317.00	221707.19	----------	----------	1

BTXE QA/QC

SEQUENCE FILE: NOV15
INSTRUMENT: GC04
BATCH: 24412

MATRIX: SOIL
I.C. DATE: 10/13/95
DATE OF ANALYSIS: 11/15/95

CONTINUING CALIBRATION VERIFICATION: FILE: G:\GC04\319K001

	AMOUNT (ug/Kg) ACTUAL	CALC	%DIFF	STATUS *
MTBE	100	74.7	-25.3	FAIL
BENZENE	100	105.3	5.3	PASS
TOLUENE	100	105.1	5.1	PASS
ETHYL BENZENE	100	108.5	8.5	PASS
M,P-XYLENE	100	103.8	3.8	PASS
O-XYLENE	100	99.2	-0.8	PASS

LABORATORY CONTROL SAMPLE: FILE: G:\GC04\319K003
QC09061

	AMOUNT (ug/Kg) ACTUAL	CALC	%DIFF	STATUS *
MTBE	100	75.9	-24.1	PASS
BENZENE	100	103.3	3.3	PASS
TOLUENE	100	108.7	8.7	PASS
ETHYL BENZENE	100	116.1	16.1	PASS
M,P-XYLENE	200	190.2	-4.9	PASS
O-XYLENE	100	110.1	10.1	PASS

SURROGATE RECOVERIES: TFT = 104 PASS , BB = 98 PASS

CONTINUING CALIBRATION VERIFICATION: FILE: G:\GC04\319K017

	AMOUNT (ug/Kg) ACTUAL	CALC	%DIFF	STATUS *
MTBE	100	83.3	-16.7	PASS
BENZENE	100	108.1	8.1	PASS
TOLUENE	100	107.1	7.1	PASS
ETHYL BENZENE	100	114	14.0	PASS
M,P-XYLENE	100	103.3	3.3	PASS
O-XYLENE	100	103.7	3.7	PASS

CONTINUING CALIBRATION VERIFICATION: FILE: G:\GC04\319K025

	AMOUNT (ug/Kg) ACTUAL	CALC	%DIFF	STATUS *
MTBE	100	81	-19.0	PASS
BENZENE	100	104.5	4.5	PASS
TOLUENE	100	103.2	3.2	PASS
ETHYL BENZENE	100	109.4	9.4	PASS
M,P-XYLENE	100	99.5	-0.5	PASS
O-XYLENE	100	99.7	-0.3	PASS

RECOVERY LIMITS: CCV 85-115% (MTBE 80-120%) TRIFLUOROTOLUENE (43-114%)
LCS 80-120% (MTBE 65-135%) BROMOBENZENE (47-112%)

CURTIS & TOMPKINS, LTD

Curtis & Tompkins GC04 Run Log Notebook

BK0686

Analyst: BHL Date: 11-17-95 Sequence Name: NOV15

Batch No.: 24412 File Prefix: 319 J/K

Continued from Page:

File No.	Std. No	Sample Name	Wt/vol	Comment	Std. NO.	Lims No. STD Name	Vial
1	3	CCV (15:49, 1.5) injected	1µ	Pass	1	95WS1444	A
2	2	CCV	↓	↓		IS 450 mg/L	
3	4	LCS, QC09061			2	95WS1083	D
4		MB, QC09062				Gas 2006 mg/L	
5		123409-1			3	95WS1268	A
6		↓ 2				BTXE 20mg/L	
7		3			4	95WS0853	A
8		↓ 4		O.R.		BTXE 20mg/L	
9		123408-1		E.O.			
10		↓ 3					
11		↓ 2					
12	4	MS, QC09063		PASS		All runs received std.	
13	4	MSD, QC09064		PASS			
14	2	GAS		Pass		Calibration, pp. 47-52	
15	3	BTXE		ethbz fails high			
16	2	CCV		Pass, report			
17	3	CCV		Pass, report			
18		IB					
19		123339-1		miss			
20		↓ 2					
21		3					
22		4					
23		5					
24		↓ 6					
25	3	CCV		PASS. Done 4-24AM 11-16-95			
26	3	BTXE	↓	Done ~~11-10~~ BHL 11/17/95 5-10AM 11-16-95			

Continued on Page:

Read and Understood by

Signed Betty H. Lingle 11-17-95

Curtis & Tompkins, Ltd. Sample Batch Report

Batch Number: 24412
Date Started: 15-NOV-95
Batched By : Betty Lingle

Analysis : N/A
Bgroup: : TVH
Department: Volatile Organics

Sample No.	Type		Client	Matrix	Analysis	Due Date
123339-001			Woodward-Clyde Consultants	Soil	BTXE	21-NOV-95
123339-002			Woodward-Clyde Consultants	Soil	BTXE	21-NOV-95
123339-003			Woodward-Clyde Consultants	Soil	BTXE	21-NOV-95
123339-004			Woodward-Clyde Consultants	Soil	BTXE	21-NOV-95
123339-005			Woodward-Clyde Consultants	Soil	BTXE	21-NOV-95
123339-006			Weiss Associates	Soil	BTXE	21-NOV-95
123407-001			Weiss Associates	Soil	TVH/BTXE	16-NOV-95
123407-002			Weiss Associates	Soil	TVH/BTXE	16-NOV-95
123407-003			Weiss Associates	Soil	TVH/BTXE	16-NOV-95
123407-004			Dames & Moore	Soil	TVH/BTXE	16-NOV-95
123408-001			Dames & Moore	Soil	TVH/BTXE	16-NOV-95
123408-002			Dames & Moore	Soil	TVH/BTXE	17-NOV-95
123408-003				Soil	TVH/BTXE	17-NOV-95
QC09061	LCS			Soil	TVH/BTXE	17-NOV-95
QC09062	MB			Soil		
QC09063	MS	of 123339-001		Soil		
QC09064	MSD	of 123339-001		Soil		

Percent Moisture Summary Report

Date: 15-NOV-95
Batch: 24374
Analyst: MR

Sample	Method	Date	Tare(g)	Wet(g)	Dry(g)	Percent Solids	Percent Moisture
123339-001	CLP SOW 390	15-NOV-95	15.7849	22.0866	20.7177	78	22
123339-002	CLP SOW 390	15-NOV-95	15.3328	22.0339	20.9989	85	15
123339-003	CLP SOW 390	15-NOV-95	15.3398	21.8636	20.7094	82	18
123339-004	CLP SOW 390	15-NOV-95	15.5714	22.3319	21.3201	85	15
123339-005	CLP SOW 390	15-NOV-95	15.2456	21.9342	20.8238	83	17
123339-006	CLP SOW 390	15-NOV-95	15.0189	21.9397	20.9318	85	15
123356-002	CLP SOW 390	15-NOV-95	15.8917	21.8033	20.7989	83	17
QC08906 of 123339-001	CLP SOW 390	15-NOV-95	15.3303	22.1415	20.7102	79	21
					RPD:	0.9%	3.3%