# THIRD INTERIM REPORT
# SITE CHARACTERIZATION
# NINTH AVENUE TERMINAL STUDY AREA
# PORT OF OAKLAND
# OAKLAND, CALIFORNIA
# SCI 133.004

VOLUME I OF VI

TEXT

JULY 25
~~AUGUST 15~~, 1997

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**THIRD INTERIM REPORT**
**DATA GAP STUDIES OF**
**JANUARY/FEBRUARY 1997 AND APRIL/MAY 1997**
**SITE CHARACTERIZATION**
**NINTH AVENUE TERMINAL**
**PORT OF OAKLAND, CALIFORNIA**
**SCI 133.005**

**VOLUME I OF VI - TEXT**

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## EXECUTIVE SUMMARY

During October, November, and December 1992, the United States Coast Guard (USCG) traced the source of an Oakland Inner Harbor hydrocarbon release to an active aboveground diesel storage tank system at the Keep On Trucking Company, Inc. (KOT) facility located at 370 Eighth Avenue, Oakland, California, within the Port of Oakland's Ninth Avenue Terminal. Preliminary investigations conducted by others at the Ninth Avenue Terminal as a result of the 1992 KOT release were limited to areas immediately adjacent to the point of release identified by the USCG and at various locations along Eighth Avenue.

Pursuant to numerous written requests for further site characterization from Alameda County Health Care Services Agency (ACHCSA), the Port of Oakland retained Subsurface Consultants, Inc. (SCI) to conduct a phased site characterization study of the Ninth Avenue Terminal area. ACHCSA correspondence to date is presented in Appendix A. Four phases of investigation have been completed. Results of the first phase of investigation were presented in SCI's First Interim Report dated August 9, 1996. The results of the second phase of investigation were presented in our Second Interim Report dated December 23, 1996. Results of the third and fourth phases of investigation are presented herein. In addition to SCI's work, a separate study of the terminal was performed in November 1996 by R. Morrison & Associates (RMA), a consultant retained by KOT. Results of SCI's observations during RMA's study are also presented in this report.

The studies conducted to date document that soil and groundwater throughout the Ninth Avenue Terminal have been impacted by petroleum hydrocarbons, as well as other potentially hazardous chemicals in some areas. The studies also suggest the potential for the KOT release to impact other locations of the terminal via migration along preferential pathways that include a myriad of underground utilities that have been identified.

Results of ongoing research indicate that numerous tenants have been present at the site. The tenants operated a variety of underground and aboveground storage tanks, manufactured and stored chemicals including solvents and fertilizers, operated a plating facility, maintained trucks and forklifts, and processed and recycled metal.

Between January 16 and February 9, 1997, SCI conducted the third phase of investigation at the site, referred herein as the January/February 1997 Data Gap Study. The purpose of the investigation activities was to evaluate a number of data gaps as outlined in our letter "Data Gap Study, Port of Oakland" dated January 9, 1997. A brief synopsis of the findings of this study is presented below. Locations of buildings and site features discussed below are shown on Plate 2. Our findings are summarized to correspond with the recommended items presented in our January 9 letter.

1. Plating chemicals, including solutions of cyanide and hexavalent chromium, are known to have been used by the former plating company Midland Ross. These chemicals were detected in soil and groundwater samples from the processing areas of Building H-232. (4)
2. Elevated levels of petroleum hydrocarbons were encountered in the area of a geophysical anomaly northwest of the former fuel supply tanks for a cannery boiler. SCI was unable to locate an existing subsurface improvement that may have caused the geophysical anomaly.

3. Underground piping was found beneath the existing KOT office building which was constructed over the area of the former cannery boiler fuel tanks. Hence, the tanks may still be present.

4. Additional research indicated that a patch in the southwest corner of former Building H-213 is in the location of a former restroom. Hence, no additional investigation was performed there. (F+G) (KOT)

5. No additional active utility lines were found in the area along the southern wall of former Building H-213.

6. A solvent source area was not identified in the limited areas investigated at the Kalman Company property (Building H-314). However, solvents were discovered in the groundwater at the southwest corner of the rear yard where it is believed chemicals were stored and handled. Active facility operations by Lakeside Nonferrous Metals, the current tenant, have limited the extent of investigations to date. Q

7. Pipelines and floating petroleum product have been identified in the former rail spur alignment near the former fuel loading facility for American Bitumuls/Chevron and Port Petroleum. where's this

8. No significant concentrations of chemicals of concern were identified in the area of Harbor Forklift. We identified some housekeeping practices that should be improved to minimize the potential for future hazardous materials releases. where?

9. No underground tanks, piping, or other potential source areas were identified in the area of former Building H-302. (I)

10. Elevated levels of petroleum hydrocarbons were encountered in the area of a geophysical anomaly near the former location of an underground storage tank situated in the yard area northeast of former Building H-227. SCI was unable to locate a subsurface improvement that may have caused the geophysical anomaly. (K) possible COP

11. A preliminary assessment of leachability of hydrocarbon-impacted soils along the shoreline was not performed during this phase of study.

12. A comprehensive groundwater monitoring event was conducted.

13. One underground tank and some piping were encountered near the south corner of Building H-229. (D)

14. No elevated levels of chemicals of concern were detected in the area of the former bulk material conveyor transformer.

15. No elevated levels of chemicals of concern were identified in the area of former Building H-303. ?

16. Physical evidence (a patch in the concrete slab) and research indicate that an underground storage tank existed in the area behind Building H-314 currently occupied by Lakeside Nonferrous Metals. (Q)

17. Concentrations of hexavalent chromium were detected in some samples from the rail loading area east of the former plating business operated by Midland Ross in Building H-232.

18. No elevated levels of chemicals of concern were identified in an area previously identified as the potential location of USTs at the Marine Terminals Corporation (MTC) storage area south of De Fremery and west of Tenth Avenue. However, evidence of USTs were identified in an open area adjacent to the MTC shop within Building H-317.

19. Impacted soil and groundwater exist throughout the former American Bitumuls/Chevron and Port Petroleum bulk fuel processing areas.

20. The shoreline soils and groundwater in the former Bay City Fuel Oil/East Bay Oil Company (Goldshield) area are impacted by petroleum hydrocarbons.

On the basis of these findings, additional investigation was necessary to better define areas of impact, as well as to further our understanding of the site. SCI implemented a fourth phase of investigation between April 23 and May 20, 1997 (April/May 1997 Data Gap Study) as outlined in our letter "Site Investigation Update, Ninth Avenue Terminal" dated March 26, 1997. A brief synopsis of the findings of this study is presented below. Again, our findings are summarized to correspond with the recommended items listed in our March 26 letter.

1. Levels of hexavalent chromium, cyanide, total extractable hydrocarbons, trichloroethane, and dichloroethane were detected in soils near former plating activity areas located in Building H-232 for former tenant Midland Ross. Copper and cyanide were detected in groundwater adjacent to former treatment area sumps.

   Hexavalent chromium was detected in groundwater obtained from new and existing monitoring wells in close proximity to the plating sumps formerly located at Building H-232, as well as in groundwater samples from other site areas. Because the concentrations of total chromium were below laboratory Method Detection Limits in many of the same samples, SCI suspects that some or all of the hexavalent chromium data may represent false positives.

2. Relatively low concentrations of 4,4'-dichlorodiphyldichloroethane (DDD) was detected in soil and heptachlor epoxide B was detected in groundwater within the former property boundary of the Britz Chemical Company. Because the detected pesticide concentrations were relatively low and were not widespread, it is our opinion that no further investigations of pesticides are warranted in this area.

3. Free floating diesel previously found in the area of the current KOT above ground storage tank (AST) did not extend to the northwest beyond the Cannery Line.

However, the plume appears to extend below the footprint of former Buildings H-213 and H-215.

4. Total extractable hydrocarbons (TEH) and polynuclear aromatic compounds (PNAs) were detected in soil in the area of the former underground storage tank (UST) behind Building H-314, currently occupied by Lakeside Nonferrous Metals. Black oily liquid was observed seeping into a test pit excavated within the area of the former tank at depths of 6 and 9.3 feet below ground surface.

   Data suggest that elevated levels of TEH, total and soluble lead, and polychlorinated biphenyls (PCBs) in soil, and soluble lead in groundwater, are present along the rail spur running through the northwest side of the Lakeside property. In addition, a variety of contaminants including acetone, dichloroethane, methyl ethyl ketone, toluene, xylene, DDT and TEH, were encountered in groundwater at the south west corner of the rear yard area where it is believed that chemicals were stored and handled.

5. Investigation of extensive staining observed in a 1947 aerial photograph near the wharf southwest of the area of the former American Bitumuls/Chevron facility, showed that this area has been impacted by releases of petroleum hydrocarbons likely associated with previous American Bitumuls/Chevron tank loading and unloading practices. Results of additional investigation within and alongside the depressed track area indicated oily petroleum product and groundwater sheen at our sampling locations, suggesting that soil and groundwater impacts from petroleum product processing is more extensive than previously found.

6. Free product in the form of oil globules was observed in groundwater from a boring on the northwest side of Building H-229 in the area of former machinery and a sump associated with the former fertilizer bagging plant operated by MTC. In addition, the pH of soil and groundwater samples was found to be elevated in this area.

7. Former UST support slabs were encountered in the open area adjacent to the MTC shop at Building H-317. Available information suggests that these UST's were probably removed in 1975. Elevated levels of total volatile hydrocarbons (TVH), TEH, benzene, toluene, ethylbenzene and xylenes (BTEX), PCBs, PNAs, and lead likely resulting from releases from the former storage areas were detected in soil and groundwater samples.

8. Further investigation of the solvent area adjacent to former Building H-215 showed that chlorinated solvents do not appear to be widespread in the uppermost groundwater aquifer beyond the depressed track area.

9. Elevated levels of TEH, TVH, BTEX, and 4,4'-dichlorodiphenyltrichloroethene (DDT) were detected in soil and groundwater in the depressed track area adjacent to former Building H-213 where surface staining was observed on an aerial photograph taken during Western Tube & Conduit's tenancy.

10. Results of additional sampling from test pits along Clinton Basin indicate several areas of floating free petroleum product in areas previously used for bulk petroleum fuel processing by Bay City Fuel Oil Company and East Bay Oil Company

11. High concentrations of TVH, BTEX, and motor oil range petroleum hydrocarbons were detected in soil and groundwater samples from the former UST (card lock tank) area at Building H-204.

12. Diesel free product was observed in samples from within and around the Cannery Line and elevated levels of various pesticides and metals were detected in a sample of sludge from inside the Cannery Line at test pit SCITP-24A. The length of the pipe and its bedding material appear to have acted as conduits for contamination migration at least as far as the pipe has been located to date near former Building H-215.

# I INTRODUCTION

This is the third interim report for a Site Characterization Study conducted by Subsurface Consultants, Inc. (SCI) at the Ninth Avenue Terminal of the Port of Oakland (Port). The location of the Ninth Avenue Terminal is shown on the Site Vicinity Map, Plate 1, and the Site Plan, Plate 2. Studies were initially undertaken to evaluate impacts to the site as a result of a 1992 diesel release to the estuary which the United States Coast Guard traced to a Keep-On-Trucking, Inc. (KOT) facility at the Ninth Avenue Terminal. Studies have been expanded to evaluate other chemical releases and potential source areas throughout the Ninth Avenue Terminal. Previous phases of SCI's site characterization study are summarized in two reports entitled "Interim Report, Site Characterization, Eighth Avenue Area, Ninth Avenue Terminal" dated August 9, 1996, and "Second Interim Report, Site Characterization, Eighth Avenue Area, Ninth Avenue Terminal" dated December 23, 1996.

This report presents the results and observations of three subsequent studies. SCI conducted two field investigations referred to herein as Data Gap Studies, in 1997, and R. Morrison & Associates (RMA) performed a separate investigation for KOT in November 1996. SCI's observations and sampling results conducted during RMA's investigation at the site is presented in Section III.

SCI's January/February 1997 Data Gap Study was performed in accordance with a scope of services prepared by SCI entitled "Data Gap Study, Port of Oakland" dated January 9, 1997. Alameda County Health Care Services Agency (ACHCSA) approved the scope of services in their

letter of January 14, 1997. The April/May 1997 Data Gap Study was performed in accordance with a scope of services prepared by SCI entitled "Site Investigation Update, Ninth Avenue Terminal Area" dated March 26, 1997. ACHCSA verbally approved the scope of that investigation as referenced in their letter of April 25, 1997. The purpose of these phases of study was to further evaluate:

- Impacts to the site in areas that have not been investigated to date and supplement existing data in areas already investigated,
- The presence of underground storage tanks (USTs),
- Impacts to the Clinton Basin shoreline, and
- Extent of chemical releases in primary source areas to better understand the site conditions prior to developing a Corrective Action Plan requested by ACHCSA.

## II SITE DESCRIPTION

The Ninth Avenue Terminal (referred to herein as Terminal or site) area is an irregularly shaped parcel of land as shown on the Site Plan, Plate 2. The study area, including wharves, encompasses approximately 33 acres, or approximately 25 acres not including the wharves. The Terminal is bordered by Embarcadero Road, Interstate 880, and Southern Pacific Railroad tracks to the north, Clinton Basin to the west, the Inner Harbor Channel to the south, and Brooklyn Basin to the east. Seventh through Tenth Avenues and DeFremery Avenue transect the Terminal. Eighth Avenue, the main entrance to KOT's facility, extends through the western portion of the Terminal.

The Terminal is generally flat with elevations ranging from approximately 9 to 14 feet above Port of Oakland datum (mean lower low water or 3.2 feet below mean sea level). The

majority of the Terminal is paved with asphaltic concrete except for the portion surrounding Seventh Avenue which is currently unpaved. The remainder of the site is occupied by buildings or remnants thereof such as concrete slabs. Wharves constructed of concrete or asphalt over a wood frame extend along the southeast and southwest sides of the Terminal. The wharf structures are separated from land by a concrete bulkhead retaining wall. Rail spurs extend onto the site along Seventh Avenue, Ninth Avenue and along the south side of Tenth Avenue.

Various aboveground and underground utilities exist throughout the area. Storm water runoff is collected by numerous catch basins and conveyed to a main storm drain collector system below Eighth Avenue which discharges to the Inner Harbor. Storm water runoff from segments of Embarcadero Road, Highway 880 and possibly Fifth Avenue is also conveyed to the Eighth Avenue storm drain system. There are also catch basins east and west of Building H-107 which convey storm water into pipelines which discharge into Clinton Basin. Storm water runoff from the east and southeast sides of the Terminal is collected by a series of catch basins along DeFremery, Ninth and Tenth Avenues that drain to the Inner Harbor in several locations south of Tenth Avenue. Sanitary sewer improvements consist of laterals extending from buildings to main sewer lines below Eighth and Tenth Avenues. The sanitary sewer mainlines flow toward Embarcadero Road where a large collector pipe exists. Other onsite subsurface utilities include water supply lines for domestic and fire protection uses, natural gas, electricity, fire alarm, telephone, abandoned fuel pipes, and other undifferentiated active and abandoned utilities.

The entire study area has been owned by the Port since around the late 1920s and leased to a variety of tenants. Current tenants include the following:

| | |
|---|---|
| H-107 | Keep On Trucking (Truck Repair and Maintenance Shop) |

| | |
|---|---|
| H-228 | Keep On Trucking (Offices) |
| H-229 | Keep On Trucking (Warehouse) |
| H-232 | National Furniture Liquidators (Furniture Warehouse) |
| H-309 | Marine Terminals Corporation (Storage) |
| H-314 | Lakeside Nonferrous Metals (Metal Recycling) |
| H-317[1] | Marine Terminals Corporation (Forklift Repair/General Shop Facility) |
| H-318 | Harbor Forklift Service (Forklift Repair/Storage of Plywood) |
| Nondesignated[2] | Liquid Carbonic (Manufacturing/Containerizing Compressed Gases) |
| Nondesignated | Keep-On-Trucking (Offices adjacent to Building H-232) |

## III NOVEMBER 1996 STUDY BY R. MORRISON & ASSOCIATES FOR KEEP-ON-TRUCKING

In November 1996, KOT retained the services of RMA to conduct additional subsurface investigation at the Ninth Avenue Terminal. It is SCI's understanding that the purpose of this investigation was to confirm existing analytical data and to study areas not investigated to date. RMA subcontracted Transglobal Environmental Geochemistry to collect soil and groundwater samples from 28 borehole locations, and provide mobile laboratory services. RMA concentrated their study in the following areas:

- Chemical Warehouse (former Building H-215).
- Suspected gasoline USTs installed by Vic Adelson Drayage at former Building H-209.
- 1992 KOT pipeline release at former Building H-213.
- Suspected cannery fuel oil supply USTs west of Building H-232.

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1 Building H-317 is located on MTC property that is adjacent to the initial study area boundary. Further site assessment and visual observations lead to the study area being expanded to include this area.

2 Liquid Carbonic occupies approximately 5 acres of land within the Terminal but outside of the study area.

- Metallic anomaly identified west of Building H-232.
- Current KOT aboveground storage tank (AST).
- Suspected 10,000 gallon UST in the yard area northeast of Building H-227.
- American Bitumuls/Chevron and Port Petroleum bulk fuel processing facilities.
- Bay City Fuel Oil Company and East Bay Oil Company bulk fuel processing facilities.
- Britz Chemical Company Buildings H-206 and H-207.

The Port retained SCI to observe RMA's field investigation and to collect selected split soil and groundwater samples as a means to verify the results of the mobile laboratory. The split samples were transported in ice-filled coolers under chain-of-custody documents to Curtis & Tompkins, Ltd., an analytical laboratory certified by the State of California Department of Health Services. All samples were analyzed for petroleum hydrocarbons and selected samples were further analyzed for other potential contaminants of concern. Chain-of-custody forms and analytical test reports for SCI's split samples are presented in Appendix B.

SCI observed the presence of free floating petroleum product in 15 of RMA's 28 sampling locations. Free product was confirmed in the area of the 1992 KOT pipeline release, the current AST at former Building H-213, the area formerly leased by Port Petroleum and American Bitumuls/Chevron, the former depressed track area adjacent to former Building H-215, and the area formerly leased by Bay City Fuel Oil Company and East Bay Oil Company (Goldshield). RMA's borehole locations are presented on the Site Plan, Plate 2.

It is SCI's understanding that RMA has not yet presented a formal report as requested by ACHCSA, but did provide laboratory results to SCI via a transmittal dated January 14, 1997. The data generated through RMA's study indicated the presence of polychlorinated biphenyls (PCBs)

in soil in the former American Bitumuls/Chevron area; benzene, toluene, ethylbenzene, and total xylenes (BTEX) and polynuclear aromatic hydrocarbons (PNAs) in soil in the depressed track area; acetone, methylethylketone (MEK), and 4,4-dichlorodiphenyldichloroethane (4,4-DDD) in soil in the area formerly leased by Britz Chemical Company; and chlorinated solvents in groundwater beneath former Building H-215 and in the area formerly leased by Port Petroleum. The analytical results provided by both RMA and SCI are presented in Tables 2 through 9.

## IV FIELD INVESTIGATION FOR JANUARY/FEBRUARY 1997 DATA GAP STUDY

### A. Purpose and Scope of Work

The primary purpose of this phase of study was to comply with ACHCSA requirements resulting from the documented 1992 KOT petroleum release. Results of previous investigations indicated that shallow groundwater throughout much of the site had been impacted by diesel and motor oil range petroleum hydrocarbons and other contaminants, most notably MEK, various chlorinated solvents, pesticides, lead, and hexavalent chromium. Results of previous site history research and data investigations indicated the possibility for numerous other source and problem areas to exist at the Ninth Avenue Terminal. The ACHCSA henceforth requested that the Port (1) investigate unexplored potential sources at the site, and (2) define limits of contamination for the identified specific releases so that a Corrective Action Plan can be developed and implemented. To comply with the ACHCSA request, SCI presented a scope of investigation in a letter entitled "Data Gap Study, Port of Oakland" dated January 9, 1997. The ACHCSA approved the scope in a letter dated January 14, 1997 (see Appendix A). In general, the scope included investigating the Terminal

property by conducting additional utility and UST locating, performing groundwater sampling, drilling test borings, excavating potholes and test pits, and analyzing selected soil and groundwater samples as described in the following sections.

## B. Utility Survey and UST Locating

Utility surveying and UST locating were conducted by California Utility Surveys (C.U. Surveys). Protocol followed by C.U. Surveys is discussed in Appendix C. The areas surveyed and the results thereof are presented below.

- The southern wall of Building H-213 was surveyed to check for the presence of underground piping where elevated levels of petroleum hydrocarbons were previously detected. Electronic and acoustic instrumentation was utilized. No additional piping was located.
- The railroad spur alignment along Ninth Avenue from Building H-232 to the area formerly leased by American Bitumuls/Chevron was surveyed to check for the presence of an underground fuel pipeline where free product was previously detected. Electronic and acoustic instrumentation was utilized. The survey indicated that a metallic pipeline exists in this area.
- The areas formerly leased by Bay City Fuel Oil Company and East Bay Oil Company were surveyed to check for evidence of underground piping that may have been associated with former ASTs/USTs. C.U. Surveys' electronic and acoustic instrumentation identified two undifferentiated metallic subsurface utilities in the area. One of the utilities meandered along the Clinton Basin shoreline from former Building H-230 and then followed Seventh Avenue before turning in the approximate direction of former Building H-205. C.U. Surveys indicated that this particular utility was probably either a cable or flexible tubing since it did not follow a perfectly straight path with standard bends. The other utility was oriented almost perpendicular to the Clinton Basin shoreline in close proximity to SCIMW-11. The east end of this utility was later exposed in test pit SCITP-14 (see Test Pits below), and was found to be a 1-inch-diameter galvanized steel pipe.
- The Marine Terminals Corporation (MTC) storage yard was surveyed using a magnetometer and electromagnetic induction techniques since MTC submitted a permit application to install two 10,000-gallon gasoline USTs in this area in September 1975. No significant anomalies were identified.
- The former location of Building H-302 where Port records refer to a gasoline UST of unknown size and a pump was surveyed using magnetometer and electromagnetic induction techniques. C.U. Surveys located one 11-foot by 14-foot metallic anomaly in

the area of former Building H-302. Test pit SCITP-1 was later excavated in this area, and no UST was found.

- A possible former UST location behind Building H-314 was surveyed using magnetometer and electromagnetic induction techniques. A patch in the concrete slab was identified on the south side of Building H-314. A metallic anomaly was detected beneath the east end of the patch. Inscribed into the concrete patch was "Lakeside Alloys 6-1-90." — later a UST was found.
- The former location of Building H-303 where records indicate that an AST was installed without permit for Mohns Commercial Company was surveyed using magnetometer and electromagnetic induction techniques. Two metallic anomalies were located in the area of former Building H-303 and measured 10 feet by 3 feet and 22 feet by 25 feet in area. Potholes SCIPH-4 through SCIPH-6 were later excavated in these areas which concluded with no significant findings.

## C. Geophysical Survey

To supplement C.U. Surveys' exploration, a detailed geophysical survey was conducted by Norcal Geophysical Consultants, Inc. (Norcal) in two specific areas where ASTs or USTs were known or believed to exist. Norcal utilized the electromagnetic terrain conductivity (TC) method to determine shallow conductivity variations that could be due to buried foreign objects or changes in subsurface materials. In addition, they used electromagnetic line locating (EMLL) methods to locate buried metallic utilities. A copy of Norcal's report is presented in Appendix D and field protocol is discussed in Appendix C. The areas screened and the results of the survey are presented as follows.

- The former locations of Buildings H-203 and H-204 were geophysically surveyed to check for the presence of underground piping that may have been associated with former ASTs/USTs. The card lock tank facility was housed in Building H-204. Norcal detected a variety of subsurface utilities (metallic pipes or cables) located parallel and perpendicular to the Clinton Basin shoreline. The east end of one utility was later exposed within test pit SCITP-14. Three metallic anomalies and one TC anomaly were also located in the area of former Building H-203. One of the metallic anomalies measured approximately 8 feet by 20 feet, but judging by its nonuniform shape, may be metallic debris. The other metallic anomalies measured 8 feet by 10 feet and 3-1/2 feet by 5 feet and were rectangular in shape. TC anomalies cannot be assigned a definite size.

- The former location of Building H-303 where records indicate that an AST may have been installed without benefit of a permit was surveyed. Norcal detected two undifferentiated metallic subsurface utilities running perpendicular to and what appears to be coming from Building H-314. In addition, a TC anomaly was identified near the north corner of former Building H-303.

## D. Monitoring Well Sampling and Analytical Testing Program

Monitoring wells were previously installed by others in the area of the 1992 KOT pipeline leak at former Building H-213 (MW-1 through MW-6) and in the area of the former UST at Building H-107 (MW-7). SCI previously installed twenty monitoring wells (SCIMW-1 through SCIMW-20) throughout the study area to investigate the extent of dissolved and floating product impacts, as well as to evaluate variation in groundwater flow direction. All monitoring well locations are shown on Plate 2.

A comprehensive monitoring event was conducted in January 1997 by sampling groundwater from 22 of the existing monitoring wells (MW-5, MW-7, and SCIMW-1 through SCIMW-20). The field protocols for well purging and sampling are presented in Appendix C. The samples were transported under chain-of-custody documents to Curtis & Tompkins, Ltd., an analytical laboratory certified by the State of California Department of Health. The analytical testing program is presented on Table 1. Chain-of-custody forms and analytical test reports are presented in Appendix F. Analytical results are presented in Tables 2 through 9.

SCI has measured groundwater elevations on a monthly basis since September 1996 to evaluate the variation in seasonal groundwater flow patterns. A summary of groundwater elevation data is presented in Table 10. Groundwater measurement forms for the January and

February 1997 events are presented in Appendix E. Groundwater flow contours for February 1997 are shown on Plate 3.

## E. Soil and Groundwater Investigation

Drilling of test borings and excavation of test pits were previously performed by others throughout the Terminal (B-1 through B-21 and Trench 1 through Trench 6). SCI previously drilled 39 test borings (SCI-1 through SCI-39) in May and December 1996 to evaluate potential source areas. During the January/February 1997 Data Gap study, SCI drilled an additional 26 test borings (SCI-40 through SCI-65), excavated 6 potholes (SCIPH-1 through SCIPH-6), and excavated 14 test pits (SCITP-1 through SCITP-14) at the locations shown on Plate 2. These activities are detailed in the following sections. Prior to the investigation, Underground Service Alert (USA) was contacted to notify their subscribers to perform a utility check at the planned investigation locations.

### 1. Test Borings

1/97 - 2/97 Study

Test borings were drilled by Precision Sampling, Inc. SCI selected the boring locations to evaluate conditions in uninvestigated areas and to supplement existing data as required by ACHCSA to evaluate appropriate remedial response actions. Prior to the investigation, a drilling application was obtained from the Alameda County Flood Control and Water Conservation District, Zone 7. A copy of the Zone 7 drilling permit is presented in Appendix E. Test boring protocols are described in Appendix C. General conditions encountered in the field are presented below. Analytical results are presented on Tables 2 through 9. Chain-of-custody forms and analytical test reports are presented in Appendix F.

Test borings SCI-40 through SCI-45 were drilled along the Clinton Basin shoreline in the area formerly leased by Bay City Fuel Oil Company and East Bay Oil Company to assess the extent of contamination found during previous studies. Borings SCI-43 and SCI-44 met refusal at 13.5 feet below the ground surface (bgs) and 6.0 feet bgs, respectively, due to buried wood piling. At borings SCI-40 and SCI-43 through SCI-45, we encountered oily layers of soil with accompanying petroleum hydrocarbon odor at varying depths.

Test borings SCI-49 and SCI-50 were drilled within the property currently leased by Lakeside Nonferrous Metals in areas of noticeable surface staining. Boring SCI-49 was located in the southwest corner of the yard behind Building H-314 and boring SCI-50 was located outside the truck and forklift repair area. Oily staining was noted in soil from the surface to 1 foot bgs in both borings.

Test borings SCI-51, SCI-52, SCI-55, SCI-57 and SCI-59 were drilled in the depressed railroad track area behind former Building H-215 to assess the extent of chlorinated solvent contamination detected in groundwater samples from monitoring well SCIMW-7. The depressed track area is currently filled in to the surrounding grade south of the existing foundation ruins of former Building H-213. Chemical odors were detected in borings SCI-55, SCI-57 and SCI-59 from 3 feet to 7 feet bgs. In boring SCI-57, volatile organics were detected on an organic vapor meter (OVM) up to 358 parts per million (ppm) at 7 feet bgs. Volatile organics were detected above 6,000 ppm (beyond the instrument range) in boring SCI-59 at 6 feet bgs.

Test borings SCI-62 through SCI-65 were drilled within Building H-232 in the vicinity of previous chromium plating chambers and a chemical loading/unloading area formerly

operated by Midland-Ross Corporation. Hydrogen cyanide (HCN) was used by Midland-Ross as part of the plating process. Since this compound is extremely dangerous, an HCN meter was used to screen all borings and samples for its presence. HCN and volatile organic vapors were not detected in the 4 borings using the field meters.

SCI's field geologist observed drilling operations, prepared detailed logs of the test borings, and obtained undisturbed samples of the soils encountered. Groundwater samples were obtained from temporary wells placed into the test borings. The temporary wells were removed following collection of groundwater samples and the resulting boreholes were backfilled with cement grout and finished to match the surrounding pavement. The test boring logs are presented on Plates 14 through 31. Soils are classified in accordance with the Unified Soil Classification System described on Plate 82.

## 2. Potholes

In areas where potential damage to subsurface utilities due to the proposed investigation methods was a concern or in areas to confirm the presence of buried tanks, a nondestructive exploration technique referred to herein as "potholing" was employed. The potholing protocol is described in Appendix C. The potholes were excavated by Saf-R-Dig and were used specifically in areas of suspected USTs and where metallic anomalies had previously been identified by utility locators. The specific pothole locations and resulting findings are presented below.

Pothole SCIPH-1 was excavated in close proximity to the suspected location of fuel oil USTs situated west of Building H-232. This pothole was located directly adjacent to the

KOT office trailer and excavated at an angle approximately 45 degrees from vertical because the results of SCI's research suggests that the fuel oil tanks, if still present, would be located beneath the recently constructed office trailer. An 8-inch to 10-inch-diameter ductile iron or steel pipe was encountered about 4 feet bgs running east-west perpendicular to 8th Avenue but no UST was encountered within the limited depth explored.

Pothole SCIPH-2 was excavated in the area of the metallic anomaly previously located just north of the KOT office trailer. Heavy diesel odor was detected in SCIPH-2 which was excavated about 10 feet bgs but again no UST or metallic object was found.

Pothole SCIPH-3 was located to explore the metallic anomaly previously located in the vicinity of the USTs installed for Vic Adelson's Drayage. A UST was located about 3.5 feet bgs.

Potholes SCIPH-4 and SCIPH-5 were excavated within the area of the 22-foot by 25-foot metallic anomaly located just north of former Building H-303. No USTs, metallic objects, or evidence of hydrocarbon contamination was encountered.

Pothole SCIPH-6 was located within the area of the 10-foot by 3-foot metallic anomaly situated in the area of former Building H-303. A concrete slab with wire mesh was encountered, but no UST or evidence of contamination was noted.

The location of the potholes are shown on the Site Plan. SCI's field engineer observed potholing excavations and obtained samples of the materials encountered. Detailed logs of the potholes were not recorded since the holes were relatively shallow and were excavated

only as a means of evaluating the existence of an UST or subsurface metallic anomaly. Since groundwater was not encountered in any pothole during excavation, no groundwater was sampled. Following inspection of the approximately 12-inch-diameter potholes, they were backfilled with soil cuttings and finished to match the surrounding pavement.

### 3. Test Pits

Test pits were excavated by Dillard Environmental Services (Dillard). SCI selected the test pit locations to evaluate conditions in uninvestigated areas and to supplement existing data. Soil, grab groundwater and/or floating product samples were obtained from the test pits to document existing conditions. Field observations are presented below. Analytical results are presented Tables 2 through 9. Analytical reports are provided in Appendix F.

Test pit SCITP-1 was excavated to explore an 11 feet by 14 feet metallic anomaly previously identified near former Building H-302. No UST or metallic object was found.

Test pits SCITP-2 through SCITP-4 were excavated along the Clinton Basin shoreline. Petroleum impacted soil and free floating product were found in each of the pits. The OVM detected 2,500 ppm of organic vapor at 4 feet bgs in test pit SCITP-3 and up to 180 ppm was detected at 5 feet bgs in test pit SCITP-4.

Test pit SCITP-5 was excavated to explore a metallic anomaly previously identified north of the KOT office building. No UST or metallic anomaly was found. However, an oil saturated layer of fruit pits was discovered at 1.5 feet bgs which registered 65 ppm on the OVM. The fruit pits are likely to be associated with the former activities of the cannery.

Test pit SCITP-6 was excavated to explore the source of a storm drain outfall flowing into Clinton Basin. A buried catch basin was found 1.5 feet bgs at the location where utility locators indicated that a pipeline ended. Approximately 5 feet to the southeast, a broken 4-inch-diameter vitrified clay pipe (VCP) was found 3.5 feet bgs running parallel to 8th Avenue and then bending 90 degrees towards 8th Avenue. This pipe is suspected as being the sanitary sewer pipe which serviced former Building H-207 which was previously occupied by Britz Chemical Company. A petroleum-based liquid was observed flowing out of the broken section of pipe heading towards 8th Avenue. In addition, soil was impacted with petroleum hydrocarbons and free floating petroleum product was found on the groundwater surface within the test pit.

One UST was unearthed within test pit SCITP-7 located to correspond with a UST installation plan dated September 1958 for Vic Adelson Drayage. It measured approximately 6 feet in diameter and about 15-1/2 feet in length which corresponds to a volume of about 3,300 gallons. According to Port records and a recent interview with Mr. Adelson, two USTs were apparently installed at this location The second UST was not encountered in the test pit. Based on a review of historic aerial photographs, the second UST may be located on the north side of the exposed UST, adjacent to or beneath the foundation for Building H-229. (one was found near H-229)

Test pit SCITP-8 was excavated to explore an area near former Building H-227 where a 10,000 gallon UST was observed to be located based on a review of Port maps. A wire-reinforced concrete slab was unearthed just beneath the asphalt pavement, but no UST was found. However, petroleum hydrocarbon odor was detected within the excavated soil (up to 10 ppm of organic vapor detected by the OVM).

Test pits SCITP-9 and SCITP-11 were excavated within the areas formerly leased by Port Petroleum and American Bitumuls/Chevron to evaluate subsurface conditions in areas of releases associated with the former ASTs. At test pit SCITP-9, we encountered free product staining and petroleum hydrocarbon odor at 3.5 feet bgs. OVM readings at this depth registered 187 ppm. At test pit SCITP-11, we encountered soil saturated with free product from 1.5 to 2.5 feet bgs. In addition, strong petroleum hydrocarbon odor was detected at 4.5 feet and 7.5 feet bgs.

Test pits SCITP-10, SCITP-12, and SCITP-13 were excavated in the former American Bitumuls/Chevron bulk fuel rail loading/unloading area. Test pit SCITP-10 was excavated to investigate the ending point of a known buried fuel pipe which was shown on Port maps to extend to the face of the wharf as shown on the Site Plan. A 6-inch diameter steel pipe was found at 1.5 feet bgs. The pipe was encased in a sand backfill and was cut at the end, suggesting that at one time it continued north along the rail alignment. The interior of the pipe appeared clean with no evidence of free product. However, petroleum hydrocarbon odor was noted from 2.5 feet to 5.0 feet bgs.

A 12-inch-diameter transite or concrete pipe was located within test pit SCITP-12 at 4.0 feet bgs. The pipe is part of the storm drain system that drains water from a large portion of the Terminal to an outfall beneath the wharf near the foot of 8th Avenue as shown on the Site Plan. The pipe appeared in good condition with no evidence of cracks or ruptures. The sand backfill around the storm drain pipe contained free floating product in the form of oil globules. Groundwater perched within the sand backfill contained a sheen.

A 6-inch-diameter steel pipe was discovered at 5.0 feet bgs within test pit SCITP-13. C.U. Surveys traced the pipe's alignment and confirmed that the pipe runs along the rail spur alignment from former Building H-215 to about 50 feet from the former American Bitumuls/Chevron tanks as shown on the Site Plan. SCI believes that the pipe is a fuel pipeline associated with the bulk fuel facilities operated by American Bitumuls/Chevron. SCI also encountered a layer of railroad ballast material in the test pit from 3.2 to 4.2 feet bgs with viscous free product noted at the bottom of the ballast layer. It is known from historical aerial photographs that the once depressed railroad spur alignment was filled in to match surrounding grades in the early 1970s.

Test pit SCITP-14 was excavated just west of former Building H-204 (in the area formerly leased by Bay City Fuel Oil Company and East Bay Oil Company) where the end of an unknown utility running towards Clinton Basin was identified by C.U. Surveys and again by Norcal. A 1-inch-diameter galvanized steel pipe was found at 2.0 feet bgs as shown in the Test Pit Log. Petroleum hydrocarbon odor was detected from 3.0 feet to 5.0 feet bgs.

SCI's field geologist and field engineer observed test pit excavations, prepared detailed logs of the test pits, and obtained samples of the soils encountered. Groundwater samples were obtained in those test pits where groundwater was encountered. In general, the resulting pits were backfilled with soil cuttings and compacted by Dillard using a tamping wheel. The Port recompacted the subsurface soils and placed aggregate base materials and asphaltic concrete to match the surrounding conditions. The test pit locations are presented on Plate 2 and the test pit logs are presented on Plates 37 through 52. Soils are classified in accordance with the

Unified Soil Classification System described on Plate 82. Protocol regarding the test pits is described in Appendix C.

## V FIELD INVESTIGATION FOR APRIL/MAY 1997 DATA GAP STUDY

### A. Purpose and Scope of Work

Results of the January/February 1997 Data Gap Study and previous investigations indicated additional investigation was still necessary to better define areas of impact so that a Corrective Action Plan can be developed and implemented requested by ACHCSA. To comply with the ACHCSA request, SCI presented a scope of investigation in a letter entitled "Site Investigation Update, Ninth Avenue Terminal Area" dated March 26, 1997. The ACHCSA approved the scope of investigation in a letter dated April 25, 1997 (see Appendix A). The scope, in general, included investigating the Terminal property by locating subsurface utilities, installing and developing monitoring wells, drilling test borings, excavating test pits, and analyzing selected soil and groundwater samples as described in the following sections.

### B. Utility Survey

Utility locating was conducted by C.U. Surveys. Field protocol followed by C.U. Surveys is discussed in Appendix C. The areas surveyed and the results thereof are presented below. The recent utility survey results are presented on the site plan, Plate 2.

- A sewer lateral extending from Eighth Avenue in the vicinity of former Britz Chemical Company was surveyed to verify that it coincided with the 4-inch diameter VCP sewer previously unearthed within test pit SCITP-6 and observed to be extending towards Eighth Avenue. It appears that the lateral extending from Eighth

Avenue is a separate pipe, but may connect with the 4-inch VCP sewer line at some point.

- The area adjacent to Building H-317 (MTC's forklift maintenance and repair shop) was surveyed to check for the presence of underground utilities. Excavation in this area was planned to investigate suspected contamination associated with former USTs operated by MTC. Research of limited records indicate that a release of gasoline from this facility occurred in 1975 which impacted the Oakland Estuary. The tanks were supposedly removed later in the same year. Two parallel storm drain outfalls, approximately 24 inches in diameter, are located in the area of the former USTs.

## C. Soil and Groundwater Investigation

During the January/February 1997 Data Gap Study, SCI drilled 26 test borings (SCI-40 through SCI-65) and excavated 14 test pits (SCITP-1 through SCITP-14). For the April/May 1997 Data Gap Study, SCI installed 9 monitoring wells (SCIMW-21 through SCIMW-29), drilled an additional 9 test borings (SCI-66 through SCI-74), and excavated an additional 28 test pits (SCITP-15 through SCITP-37) at the locations shown on Plate 2. These activities are detailed in the following sections. Prior to this investigation, USA was contacted to notify their subscribers to perform a utility check at the planned investigation locations.

### 1. Monitoring Well Installation

Monitoring wells SCIMW-21 through SCIMW-29 were installed by Bay Area Exploration, Inc. SCI selected the well locations to evaluate the extent of dissolved and separate-phase petroleum hydrocarbon product, as well as other chemicals of potential concern in previously uninvestigated areas as required by ACHCSA. In addition, the wells allowed further evaluation of groundwater flow direction by measurement of groundwater elevations.

Prior to well installation, a drilling permit was obtained from the Alameda County Flood Control and Water Conservation District, Zone 7. A copy of the Zone 7 drilling permit is

presented in Appendix E. The field protocols for drilling, sampling, and well installation are presented in Appendix C. SCI's field engineer observed drilling operations, prepared detailed logs of the test borings, obtained samples of the soils encountered, and tested for organic vapor within selected samples using an OVM. The test boring logs and well completion details are presented on Plates 5 through 13. Soils are classified in accordance with the Unified Soil Classification System described on Plate 82.

Following installation, the wells were developed and groundwater was sampled. In addition, the wells were checked for free floating petroleum hydrocarbon product using a steel tape coated with petroleum product sensitive paste. The depth to groundwater from the top of casing (TOC) was then measured in the wells using an electric well sounder. Well development and sampling protocols are described in Appendix C. To determine the actual elevation of groundwater, a level survey of the TOC elevations of the new monitoring wells was performed by A-N West, Inc., a licensed land surveyor. A-N West referenced all elevations to two City of Oakland monuments with known elevations located within Embarcadero Road. General conditions found in the field are described below. Analytical results are presented in Tables 2 through 9. Analytical reports are provided in Appendix G.

Monitoring well SCIMW-21 was installed near the north corner of Building H-229 to assess possible chemical impacts to groundwater contamination associated with past and present uses of the building. No evidence of contamination (odors, staining, or chemical vapors)was encountered in the field.

Monitoring well SCIMW-22 was installed south of the roll-up door previously located at former Building H-215. The purpose of this well was to the vertical extent of surface staining observed on aerial photographs circa 1960, and to delineate the lateral extent of the solvent plume recently discovered in the nearby depressed track area. SCI noted no evidence of contamination during drilling of this well, with the exception of elevated OVM readings (less than 20 ppm).

Pesticides were previously detected in a grab groundwater sample within the area formerly leased by Britz Chemical Company. Well SCIMW-23 was installed to evaluate dissolved concentrations of pesticides in groundwater. Soil samples obtained at 6 feet bgs registered 104 ppm on the OVM.

To further evaluate the impacts to groundwater from the UST previously located at former Building H-204, monitoring well SCIMW-24 was installed. The field engineer detected strong petroleum hydrocarbon odors from 3 feet to 9 feet bgs registering 400 ppm on an OVM, but no free floating product was encountered.

Monitoring wells SCIMW-25 through SCIMW-27 and SCIMW-29 were installed within and around the former Midland Ross chemical plating facility in Building H-232. The purpose of these wells was to further evaluate the extent of impacts from the past use of cyanide and hexavalent chromium during the former plating operations. In addition, existing wells MW-5 and MW-6 were sampled for the same chemicals of concern. Considering that HCN was used by Midland Ross as part of the plating process and since cyanide had been previously detected, an HCN meter was used to screen borings and samples for HCN in air during well installation and

sampling. HCN was not detected. SCI noted a slight hydrocarbon odor in soil at about 6 feet bgs and in groundwater from well SCIMW-27. This well was installed near the suspected location of underground fuel oil tanks associated with the former cannery operations.

Monitoring well SCIMW-28 was installed within the property currently leased by Lakeside Nonferrous Metals. The purpose of the well was to check for impacts to groundwater in the area where elevated levels of oil and grease, lead and PCBs were previously detected in shallow soil and to evaluate dissolved lead concentrations in groundwater. A layer of sawdust was encountered at about 6 feet bgs. The sawdust is most likely associated with the former lumber companies which also occupied this area. SCI's field engineer noted no evidence of contamination.

## 2. Test Borings

Test borings were drilled by Precision Sampling, Inc. (Precision). SCI selected the boring locations to assess previously uninvestigated areas to supplement existing data, and to evaluate appropriate remedial response actions as required by ACHCSA. Prior to the investigation, a drilling application was obtained from the Alameda County Flood Control and Water Conservation District, Zone 7. A copy of the Zone 7 drilling permit is presented in Appendix E. Test boring protocols are described in Appendix C. General conditions encountered in the field are described below. Analytical results are presented in Tables 2 through 9. Analytical reports are provided in Appendix G.

Test borings SCI-66 through SCI-69 were drilled within the refuse yard currently leased by Lakeside Nonferrous Metals to assess the extent of contamination of oil and grease,

lead, and PCBs previously detected in shallow soils. Most of the refuse yard behind Building H-314 is paved with a 4-inch thick concrete slab except for a strip along the northwest side of the yard where the remnants of a railroad spur exist. Borings SCI-66 and SCI-67 were located within the limits of the concrete slab; borings SCI-68 and SCI-69 were located within the unpaved rail spur area. SCI's field engineer encountered no evidence of contamination during drilling, with the exception of elevated OVM readings in SCI-67 (115 ppm at 10 feet bgs) and SCI-68 (120 ppm at 4 feet bgs).

Test borings SCI-70 through SCI-72 were drilled within the depressed railroad track area adjacent to the loading dock of former Building H-213 where staining was observed on aerial photographs taken when Western Tube and Conduit occupied the building. Slight surface staining was still visible in the area of boring SCI-72, but no other observations regarding contamination were noted.

Test boring SCI-73 was located within Building H-229 in the vicinity of two USTs that were installed for Vic Adelson's Drayage in 1958. Test pit SCITP-7, excavated in January 1997, exposed one of the USTs, but the second UST was not located. It was subsequently suspected that the second UST may be located beneath the foundation for Building H-229. Therefore, boring SCI-73 was located near the building foundation to evaluate the possible presence of the second UST. The boring was hand augered at about a 30 degree angle from vertical towards the location of the previously identified UST. Neither a second UST nor the sandy backfill typically associated with USTs were encountered. In addition, no evidence of contamination was observed.

Test boring SCI-74 was drilled adjacent to the west side of Building H-229. SCI originally intended to drill this boring inside of the building at the location of a former sump and machinery used by MTC as part of their fertilizer bagging operations. Because the concrete slab was greater than 12 inches thick at this location, we moved the boring outside of the building. The field engineer observed oil globules suspended in the groundwater samples taken from this boring.

SCI's field engineer observed drilling operations, prepared detailed logs of the test borings, obtained undisturbed samples of the soils encountered, and tested for organic vapor within selected samples using an OVM. Groundwater samples were obtained from temporary wells placed into the test borings. The temporary wells were removed following collection of groundwater samples and the resulting boreholes were backfilled with cement grout and finished to match the surrounding pavement. The test boring logs are presented on Plates 32 through 36. Soils are classified in accordance with the Unified Soil Classification System described on Plate 82.

### 3. Test Pits

Test pits were excavated by Dillard. SCI selected the test pit locations to further assess previously investigated areas and to supplement existing data. Soil, grab groundwater and/or floating product samples were obtained from the test pits to document existing conditions. General conditions found in the field are discussed below. Analytical results are presented in Tables 2 through 9 and analytical reports are provided in Appendix G.

In the vicinity of the area formerly leased by American Bitumuls, several areas of surface staining were observed on aerial photographs between 1941 and 1970. To explore the extent of this staining, six test pits were excavated in this area. Test pits SCITP-15 and SCITP-16 were excavated near the wharf where a very large surface stain was observed on a 1947 photograph. Test pit SCITP-15 contained a layer of tar at approximately 1 foot bgs and oil-coated sand at 2 feet bgs. Tar was also discovered in test pit SCITP-16 from 1.1 feet to 1.6 feet bgs where organic vapor was detected at 155 ppm using an OVM. Test pits SCITP-21, SCITP-22, SCITP-31 and SCITP-32 were excavated along and near the depressed railroad spurs leading to the area of the former American Bitumuls facility. Free-floating petroleum product and petroleum-saturated railroad ballast were previously encountered in this area. A thin layer of oil was found at 2 feet bgs in test pit SCITP-21. Test pit SCITP-22 contained a black, viscous oil from 1.0 to 1.2 feet bgs which registered 144 ppm on the OVM. The field geologist did not observe impact to the soils within test pits SCITP-31 and SCITP-32, but groundwater in both pits contained a hydrocarbon sheen.

SCI believes that the Cannery Line may serve as a preferential pathway for migration of chemicals at the site. According to Port historical maps, the Cannery Line is oriented as shown on the Site Plan but its actual orientation has still not been confirmed. Diesel free product has been observed 1) within storm drains near the Line's commencement, 2) within borings near KOT's current AST which is located directly above the Line, and 3) within the oil-filled manhole (Plate 2) which is believed to be a part of the Cannery Line. Test pits SCITP-17, SCITP-20, SCITP-23A, SCITP-23B and SCITP-24A were excavated along the assumed location of the Cannery Line to check its location and depth, evaluate the bedding material surrounding

the line and obtain samples of the Cannery Lines contents. Test pit SCITP-17, excavated on the property formerly occupied by Port Petroleum, contained oil-coated gravel at about 1 foot bgs and oil seeping from the side wall of the pit from 1.5 feet to 2 feet bgs. Organic vapor within a soil sample taken near the seeping oil was detected at 220 ppm using an OVM. To avoid possibly contaminating groundwater and/or deeper strata, test pit SCITP-17 was not excavated beyond 4 feet bgs and therefore, the Cannery Line was not encountered. Test pit SCITP-20, situated at the assumed location of the bend in the Line along Eighth Avenue, was excavated to 12 feet bgs. SCI observed no evidence of chemical impacts and the Cannery Line was not encountered. The Cannery Line was encountered at 6 feet bgs within test pit SCITP-23A located approximately 140 feet south of KOT's current AST along Eighth Avenue. SCI's field geologist observed the interior of the pipe through a broken portion of the line and found it to be empty. The sandy gravel backfill surrounding the pipe emitted a strong petroleum hydrocarbon odor which registered 470 ppm on the OVM. SCI also observed a sheen on the groundwater which accumulated within the pit. Test pit SCITP-23B was excavated about 15 feet from test pit SCITP-23A to unearth the main Eighth Avenue storm drain and sanitary sewer pipes and determine whether those trenches also served as possible contamination migration routes. The sanitary sewer pipe was encountered at 6 feet bgs, but the storm drain pipe was not encountered. SCI's field geologist observed no evidence of chemical impacts within the test pit. Test pit SCITP-24A was excavated on Eighth Avenue in close proximity to KOT's current AST. The Cannery Line was encountered at 5 feet bgs. SCI's field geologist was able to remove a piece of the pipe to inspect the interior. The pipe was full of sludge and oil. The pipe bedding material

also contained floating free product with very strong petroleum hydrocarbon odor measured at 120 ppm with the OVM.

Test pits SCITP-18, SCITP-19, SCITP-26 and SCITP-27 were excavated along the Clinton Basin shoreline to further evaluate the extent of chemical impacts due to the former bulk petroleum product processing facilities in that area of the site. Aerial photos showed significant surface staining in this area. Test pit SCITP-18 was excavated at the location of former Building H-203. A 1-inch diameter electrical conduit and a 3-inch diameter galvanized steel pipe ran through the test pit at 2.5 feet bgs and the edge of a broken 3-inch thick concrete slab was found on the northwest wall at 3.5 feet bgs. Pockets of oil-saturated sand were discovered from 3.2 feet to 3.7 feet bgs which were measured by the OVM at levels up to 1,360 ppm. Test pits SCITP-19 and SCITP-26 were excavated in the area formerly leased by Bay City Fuel Oil and East Bay Oil Companies. A 4-inch diameter steel pipe ran through test pit SCITP-19 at 3 feet bgs. The edge of a cut 9.5-inch thick concrete slab was found at 2.5 feet bgs and a thin layer of oil was present above it. Groundwater contained a sheen and oil globules which registered 165 ppm on the OVM. No evidence of impact was observed in test pit SCITP-26. Test pit SCITP-27 was located approximately 80 feet northwest along Clinton Basin in the AST area formerly operated by Bay City Fuel Oil Company and East Bay Oil Company. Hydrocarbon odor was detected in the upper 3 feet of the test pit, but no other signs of chemical impacts were noted.

To further evaluate the extent of organochlorine pesticides in soils in the vicinity of the area formerly leased by Britz Chemical Company, SCI excavated test pits SCITP-25 and SCITP-28. The field geologist noted hydrocarbon odor from 0.7 feet to 1.6 feet bgs in test pit SCITP-25. In addition, pieces of fibrous material, later determined to be asbestos were

encountered in fill material approximately 3.5 feet bgs. Two badly corroded pipes, measuring 1-1/2-inches and 4-inches in diameter, were encountered in test pit SCITP-28 at 1.5 feet bgs. The pipes were oriented parallel to Seventh Avenue and on the basis of the very elevated OVM readings taken inside the pipes (ranging from 120 to 1,200 ppm), it appears that the pipes were used for fuel delivery. Soil adjacent to the 1-1/2-inch diameter pipe registered 333 ppm on the OVM. C.U. Surveys was retained to trace the two pipes and confirmed that both pipes run parallel to Seventh Avenue. The signal from the 1-1/2-inch diameter pipe faded 69 feet north of and 79 feet south of the test pit. The signal from the 4-inch diameter pipe faded 112 feet north of and 42 feet south of the test pit. SCI's field geologist also noted pockets of oil or bitumen at 2.8 feet bgs and hydrocarbon odor at 4 feet bgs.

Because surface staining was observed around Building H-229 in numerous aerial photos, test pits SCITP-29 and SCITP-30 were excavated adjacent to Building H-229 to assess subsurface conditions. Building H-229 was originally constructed as a fertilizer bagging facility for use by MTC, and was later used for vehicle repair and storage of materials and chemicals by KOT. SCI's field geologist observed a hydrocarbon sheen on the groundwater 3.5 feet bgs in test pit SCITP-29, as well as on the groundwater in test pit SCITP-30. No other observations regarding chemical impact were noted.

Test pits SCITP-33A through SCITP-33E were excavated to evaluate subsurface contamination adjacent to Building H-317 in the area of a fueling facility operated by Encinal Terminals and MTC. Research indicates that in 1975 there was a gasoline release to the Oakland Estuary from a UST and the UST may have been removed later in the same year. To further evaluate impacts in this area, SCI excavated 5 test pits. Test pit SCITP-33A contained oily

hydrocarbon product with very strong hydrocarbon odor from 4 feet to 5 feet bgs. Soil samples obtained from the same depth emitted volatile organic vapors greater than 1,500 ppm on the OVM. A concrete slab was encountered at 5 feet bgs which precluded deepening the test pit. A sheen was also observed on groundwater entering the test pit a 4 feet bgs. Test pit SCITP-33B contained petroleum hydrocarbon-coated sand from 5.4 feet to 7 feet bgs which registered 560 ppm of organic vapor on the OVM. A sheen was observed on groundwater and a concrete slab was encountered at 7 feet bgs. Petroleum hydrocarbon-coated sand was also encountered in test pit SCITP-33C from 5 feet to 6 feet bgs which emitted a strong hydrocarbon odor registering about 480 ppm on the OVM. No concrete slab was encountered in this test pit. No observed impact was noted in test pit SCITP-33D. Petroleum hydrocarbon odor was detected in test pit SCITP-33E from 5.5 feet to 9 feet bgs. Soil samples obtained from 6 feet to 8 feet bgs registered between 120 and 220 ppm on the OVM. The side of a 24-inch diameter transite storm drain pipe was encountered between 6.5 feet and 8.5 feet bgs. USTs were not encountered in any test pit excavated in this area.

Recent investigation and research revealed that a UST was at one time located behind Building H-314 which is property currently leased by Lakeside Nonferrous Metals. The tank was reportedly removed around 1990. A patch within the concrete slab, suggesting the former location of a UST is visible behind H-314. Test pit SCITP-34 was excavated within this concrete patch to investigate possible impacts. No UST was encountered within this test pit; however, black oily liquid was observed seeping into the pit at depths of 6 and 9.3 feet bgs.

Test pits SCITP-35 through SCITP-37 were excavated in the vicinity of observed petroleum free product in the area of KOT's current diesel AST to further evaluate the source and

extent of the free product. Test pit SCITP-35 was excavated beneath the 4-inch thick concrete slab remaining of former Building H-213. A second 7-inch thick concrete slab (probably the original floor) was encountered at 0.9 feet bgs. The gravel beneath the slab emitted a slight petroleum hydrocarbon odor and the surface of the deeper slab was stained black. Groundwater that collected in the test pit contained a slight hydrocarbon sheen. A concrete slab was also encountered in test pit SCITP-36 at 4.4 feet bgs which precluded excavating further. Groundwater accumulating on top of the slab had visible floating product. Test pit SCITP-37 was excavated alongside the Cannery Line near the area of the 1992 KOT diesel release. The field geologist observed no chemical impacts.

SCI's field geologist and field engineer observed test pit excavations, prepared detailed logs of the test pits, obtained samples of the soils encountered, and tested for organic vapor within selected samples using an OVM. Groundwater samples were obtained in those test pits where groundwater was encountered. For this phase of study, Dillard backfilled the resulting pits with imported fill and compacted the fill to more than 90 percent compaction in 8-inch lifts by the use of a tamping wheel and whacker. Dillard then placed asphaltic concrete to match the surrounding conditions. Soils excavated from the test pits were placed in storage bins and disposed offsite at Forward Landfill in Manteca, California. The test pit locations are presented on Plate 2 and the test pit logs are presented on Plates 53 through 81. Soils are classified in accordance with the Unified Soil Classification System described on Plate 82. Protocol regarding test pits is described in Appendix C.

## VI ANALYTICAL TESTING PROGRAM

Selected soil and grab groundwater samples were collected from the test borings, potholes, and test pits. The samples were transported in ice-filled coolers under chain-of-custody documents to Curtis & Tompkins, Ltd., an analytical laboratory certified by the State of California Department of Health. All samples were analyzed for petroleum hydrocarbons and selected samples were further analyzed for other potential contaminants of concern. The testing program is presented on Table 1. Chain-of-custody forms and analytical test reports are presented in Appendices F and G. Analytical data are presented in Tables 2 through 9.

## VII SUBSURFACE CONDITIONS

The study area is blanketed by miscellaneous, non-homogeneous fill. The fill typically ranges from 3 feet to 7 feet thick, but measures more than 13 feet thick in some areas toward Clinton Basin. The fill consists of a mixture of silty and sandy clays, clayey and sandy silts, sandy and clayey gravels, and miscellaneous debris including brick, wood and rock fragments.

Bay sediments underlie the miscellaneous fill. The bay sediments consist of soft, highly organic clayey silt, interlayered with thin lenses of sand. The sediments are soft and compressible and extend to the depths investigated, which ranged typically from 13 feet to 18 feet bgs but up to 25 feet bgs in the depressed track area adjacent to former Building H-215.

Groundwater elevation within the monitoring wells has been measured on a monthly basis since September 1996. Groundwater was encountered at depths ranging typically from less

than 3 feet to more than 7 feet bgs in December 1996 through May 1997. These depths correlate to groundwater elevations ranging from less than 5 feet to more than 9 feet above the Port of Oakland Datum. A summary of groundwater elevation data is presented in Table 10. The approximate groundwater elevation contours for February 1997 are presented on Plate 3 and the approximate groundwater elevation contours for May 1997 are presented on Plate 4. Generally, groundwater elevations were found to be approximately 1-1/2 to 2-1/2 feet higher near the center and south side of the site as compared to those measured near Clinton Basin and Embarcadero Road. Groundwater also tends to mound in the area of former Building H-213 where free product exists associated with KOT's 1992 release. The groundwater elevation contours shown on Plate 3 and Plate 4 suggest that the concrete bulkhead wall located along the southern edge of the site may be acting as a barrier to significant groundwater leaching to the estuary. Groundwater is, however, flowing toward Clinton Basin and toward Embarcadero Road where an 84-inch-diameter sanitary sewer interceptor pipe is located.

The elevation of water within the oil-filled manhole has also been measured monthly since December 1996. Water elevations within the manhole have ranged from about 4 feet to about 6 feet above Port of Oakland datum. This elevation has typically been more than 2 feet lower in elevation than surrounding groundwater levels. SCI has compared the elevation of water within the manhole to predicted tide elevations at the time of measurement. There is evidence to suggest that the water elevation within the manhole is tidally influenced, implying that an outfall pipe to the estuary is connected to the manhole. Since the manhole contents never drain completely, the suspected outfall is probably located below the lowest tide.

## VIII SUMMARY OF FINDINGS

The results of chemical analyses on soil and groundwater samples collected during the three phases of study described herein are presented in Tables 2 through 9. The data appears to be consistent with SCI's previous findings that soil and groundwater at the Ninth Avenue Terminal have been impacted by petroleum hydrocarbon releases. In addition, other chemicals of potential concern, including solvents, pesticides, PCBs, cyanide, hexavalent chromium, and lead have been detected in some areas. A summary of the investigation findings to date is as follows.

### Site-Wide

- The predominant petroleum hydrocarbons identified at the site are within the diesel and motor oil range. Petroleum hydrocarbons were found in shallow soils and groundwater in all areas investigated.
- Numerous subsurface utilities exist within impacted soil and groundwater areas. The utility pipelines extend both above and below groundwater levels rendering them potential conduits for contaminant migration. SCI was unable to identify the uses and extent of some of the utilities.

### Former Midland Ross Plating Facility (Building H-232)

- Hexavalent chromium, cyanide, total extractable hydrocarbons (TEH), dichloroethane, and trichloroethane were detected in soil in the area near former plating processing and chemical storage areas.
- Hexavalent chromium, acetone, toluene, xylene, and MEK were detected in soil in the rail loading area adjacent to the building.
- Cyanide and copper were detected in groundwater near previous plating sumps.
- Hexavalent chromium was also detected in groundwater samples obtained from new and existing monitoring wells in close proximity to the plating sumps, as well as at other locations across the site. However, concentrations of total chromium, when analyzed for in the same samples, were not detected. On the basis of these data and our discussions with the chemical testing laboratory, SCI suspects that some or all of the hexavalent chromium data may represent false positives.

## Former Britz Chemical Company Area

- During the January/February Data Gap Study, 4,4'-dichlorodiphenyltrichloroethene (DDT) was detected at 15 µg/l in a grab groundwater sample from boring SCI-46 along a rail spur line extending near the property, and relatively low concentrations of DDT was detected in a soil sample from this boring.
- Results of further sampling and analyses for DDT compounds during the April/May 1997 Data Gap Study indicated detectable concentrations of DDD in a soil sample from test pit SCITP-25, but no detectable concentrations of DDT in the groundwater sample from well SCIMW-23. A low concentration of heptachlor epoxide B (0.05 µg/l) was detected in the well.

## Current KOT AST Area

- Free floating diesel has been observed on the groundwater surface in this area.
- The extent of free floating diesel appears to extend to the northwest as far as the Cannery Line. The plume extends to the south and east below the footprint of former Buildings H-213 and H-215

## Kalman & Company Property/ Metal Recycling Facility

- SCI's reconnaissance of this facility in February 1997 revealed the location of a former UST. Data from the April/May 1997 study indicated that TEH in the motor oil range and PNAs were detected in soil in the area of the former UST. Black oily liquid was observed seeping into test pit SCITP-34 located within the former tank area. (SW 8 314 BLQ)
- Elevated levels of oil and grease, lead, and PCBs were present in shallow soils and elevated lead was detected in at the site. Concentrations appear concentrated along the rail spur along the northwest side of the site.
- In addition, a variety of contaminants including acetone, dichloroethane, MEK, toluene, xylene, DDT and TEH, were encountered in groundwater at the south west corner of the rear yard area where it is believed that chemicals were stored and handled.

## Former American Bitumuls/Chevron Area

- Railroad ballast within the buried portion of the depressed track area has been observed to be saturated with petroleum products. Review of aerial photographs confirms extensive spillage to the ground surface within areas of the track area associated with the former rail loading/unloading facility installed by American Bitumuls (Chevron). Underground piping apparently associated with this fuel loading facility was also revealed in several test pits. Free floating petroleum products were

observed in these pits. The ballast and pipe bedding materials are likely acting as preferential pathways for migration of chemicals.

- Investigation of extensive staining observed in a 1947 aerial photograph near the wharf adjacent to the tank storage area showed that residual petroleum hydrocarbon product remains in the soil likely resulting from spills during previous tank loading and unloading activities.
- Results of additional investigation within and alongside the depressed track area indicates that the presence of oily product and groundwater sheen resulting from past petroleum product processing activities is more extensive than previously found.

**Former Cannery Boiler Fuel Oil Tanks**

- Oily piping was found beneath the existing KOT office building which was constructed over the former boiler fuel oil tanks. The fuel oil tanks were used by operators of the cannery. This finding suggests that the tanks may still be in place. SCI noted petroleum vapors in the pothole excavated in this area.

**Former MTC Fertilizer Bagging Plant - Building H-229**

- Free product in the form of oil globules was observed in a grab groundwater sample from boring SCI-74 on the northwest side of the building in the area of former machinery and a sump. The pH of soil and groundwater samples was also found to be elevated (alkaline) in this area suggesting that releases of fertilizer amendments have likely occurred in this area.

**Former MTC UST Area near Building H-317**

- Former UST concrete support slabs were encountered in the area adjacent to the MTC shop at Building H-317. The tanks were not found and appear to have been removed. Elevated levels of total volatile hydrocarbons (TVH), TEH, BTEX, PCBs, PNAs, and lead likely resulting from releases from the former storage area were detected in soil and groundwater samples from this area.

**Solvent Area at Former Building H-215 (AMCO)**

- Chlorinated solvents were detected in soil and groundwater along the former depressed track area adjacent to former Building H-215. 4,4'-dichlorodiphenyl-dichloroethene (DDE), DDD and a variety of phenols have also been detected in groundwater from this area.
- Results of further investigation suggest that the lateral extent of chlorinated solvents in groundwater is not widespread beyond the depressed track area. The vertical extent of solvents has not yet been investigated.

**Loading Area of Former Building H-213**

- Elevated levels of TEH, TVH, BTEX, and DDT were detected in soil and groundwater samples in the area of observed surface staining on an aerial photograph taken during Western Tube & Conduit's tenancy.

**Bay City Fuel Oil Company/East Bay Oil Company Clinton Basin Area**

- Additional definition of the impacts in this area due to the former bulk fuel processing has been performed. Free floating product was observed in many areas along Clinton Basin. Results of site research indicate that the source is primarily former bulk fuel processing operations. Elevated levels of PNAs were also detected in soil and groundwater at several locations along the basin.

**Former Building H-204 Card Lock Tank Area (East Bay Oil Company/Groeniger)**

- High concentrations of TVH, BTEX, and motor oil range petroleum hydrocarbons were detected in soil and groundwater samples from this area. No UST was identified in this area by studies performed to date.

**Cannery Line**

- The orientation of the entire length of the Cannery Line between former Building H-215 and the oil-filled manhole has not yet been determined. The cannery line was encountered in some test pits during field investigations near the former Buildings H-213 and H-215. However, in other test pits closer to the estuary, groundwater was encountered above the top of the cannery line suggesting that the line is submerged. The cannery line outfall is also believed to be submerged below water, even at low tide which would account for the inability to reduce the water in the oil-filled manhole, also believed to be connected to the cannery line. It may be necessary to locate and seal off the Cannery Line outfall before the line can be effectively traced.
- Diesel free product has been observed and elevated levels of various pesticides and metals have been detected within and around the Cannery Line. A sample of sludge from within the Cannery Line at SCITP-24 contained elevated concentrations of zinc (10,000 ppm), PNAs (1.8 ppm), oil and grease (26,000 ppm), and DDT (1.6 ppm). The pipe and its bedding material appear to be acting as conduits for contamination migration to the extent that the pipe has been investigated to date.

## IX RECOMMENDATIONS

This report should be submitted to ACHCSA and Regional Water Quality Control Board. It is SCI's opinion that additional investigation tasks are necessary prior to preparing a Corrective Action Plan for this site. Due to the complexity of site impacts encountered to date, SCI recommends that Port representatives and SCI meet with the County to discuss the findings to date and to agree upon the scope and rational of the additional studies.

## X LIMITATIONS

This study was intended to provide a preliminary means of evaluating soil and groundwater contamination that exists beneath the site, based on limited subsurface investigation and analytical testing. Contamination may exist in other areas not investigated by SCI. Environmental sampling studies, such as presented herein, are by nature non-comprehensive and subject to limitations including those presented herein.

SCI has prepared this report in a professional manner, using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. SCI shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the report was prepared. SCI also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and

conditions as described at the time of this report. SCI believes that conclusions stated herein to be factual, but no guarantee is made or implied.

This report has been prepared for the benefit of Port of Oakland and its counsel. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express written consent of SCI.

# THIRD INTERIM REPORT
# SITE CHARACTERIZATION
# NINTH AVENUE TERMINAL STUDY AREA
# PORT OF OAKLAND
# OAKLAND, CALIFORNIA
# SCI 133.004

VOLUME II OF VI

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JULY 25, 1997

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**TABLE 1**
**ANALYTICAL TESTING PROGRAM**
**EIGHTH AVENUE STUDY AREA**
**JANUARY THROUGH MAY 1997**

| SAMPLE DESIGNATION | Sample Matrix | SITE REF AREA | Date Sampled | Oil & Grease | TVH | TEH | BTEX | Pests/ PCBs | pH | VOCs | SVOCs /PNAs | Asbestos | Selected Ions | Heavy Metals | Hexa-chrome | Lead |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-5 | GW | H | 1/20/97 5/6/97 | X | X | X | X | | | X | X | | X | X | X | |
| MW-6 | GW | H | 5/6/97 | X | X | X | X | | | X | | | X | | X | |
| MW-7 | GW | M | 1/17/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-1 | GW | E/H | 1/22/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-2 | GW | N | 1/17/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-3 | GW | I/J | 1/20/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-4 | GW | L | 1/22/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-5 | GW | M | 1/20/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-6 | GW | C | 1/22/97 | | X | X | X | X | | X | X | | | X | | |
| SCIMW-7 | GW | P/Q | 1/20/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-8 | GW | I | 1/21/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-9 | GW | I | 1/23/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-10 | GW | J | 1/23/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-11 | GW | N | 1/17/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-12 | GW | O | 1/17/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-13 | GW | J | 1/23/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-14 | GW | I/J | 1/21/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-15 | GW | I/J | 1/17/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-16 | GW | R | 1/22/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-17 | GW | R | 1/22/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-18 | GW | L | 1/20/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-19 | GW | R | 1/21/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-20 | GW | H/Q | 1/20/97 | | X | X | X | | | X | X | | | X | | |
| SCIMW-21@2 | Soil | D | 4/28/97 | X | X | X | X | X | X | X | X | | X | X | | |
| SCIMW-21 | GW | D | 5/6/97 | X | X | X | X | X | X | | | | X | | | X |
| SCIMW-22@3.5 | Soil | P | 4/28/97 | X | X | X | X | X | X | X | X | | X | | X | |
| SCIMW-22 | GW | P | 5/6/97 | X | X | X | X | X | X | X | X | | X | | X | |
| SCIMW-23@5.5 | Soil | B | 4/28/97 | X | | X | X | X | X | X | | | X | X | | |
| SCIMW-23 | GW | B | 5/6/97 | X | | X | | X | X | | | | X | X | X | |
| SCIMW-24@3 | Soil | N | 4/29/97 | X | X | X | X | X | | X | | | | | | X |
| SCIMW-24@6 | Soil | N | 4/29/97 | | X | X | X | | | X | | | | | | |

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**EIGHTH AVENUE STUDY AREA**
**JANUARY THROUGH MAY 1997**

| SAMPLE DESIGNATION | Sample Matrix | SITE REF AREA | Date Sampled | Oil & Grease | TVH | TEH | BTEX | Pests/ PCBs | pH | VOCs | SVOCs /PNAs | Asbestos | Selected Ions | Heavy Metals | Hexa-chrome | Lead |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCIMW-24 | GW | N | 5/6/97 | X | X | X | X | X | | X | X | | X | | X | X |
| SCIMW-25 @10.5 | Soil | H | 4/29/97 | X | X | X | X | X | | X | X | | X | X | X | |
| SCIMW-25 | GW | H | 5/7/97 | X | X | X | X | | | X | | | X | X | X | |
| SCIMW-26@3.5 | Soil | H | 4/30/97 | X | X | X | X | | | X | | | X | | X | |
| SCIMW-26 | GW | H | 5/6/97 | X | X | X | X | | | X | | | X | X | X | |
| SCIMW-27@3.5 | Soil | E/H | 4/30/97 | X | X | X | X | | | X | | | X | | X | |
| SCIMW-27 | GW | E/H | 5/6/97 | X | X | X | X | | | X | | | X | X | X | |
| SCIMW-28@3.5 | Soil | Q | 4/30/97 | X | X | X | X | X | | X | X | | X | | X | X |
| SCIMW-28 | GW | Q | 5/7/97 | X | X | X | X | X | | | | | X | | X | X |
| SCIMW-29@4.6 | Soil | H | 5/14/97 | | | | | | | | | | | | | |
| SCIMW-29 | GW | H | 5/20/97 | | | | | | | | | | | | | |
| SCI-40@4.5 | Soil | C | 1/22/97 | | | X | | | | | | | X | X | | |
| SCI-40@7 | Soil | C | 1/22/97 | | | X | | | | | | | | | | |
| SCI-40@10.5 | Soil | C | 1/22/97 | | | X | | X | | | X | | | | | |
| SCI-40 | GW | C | 1/22/97 | | X | X | X | | | X | X | | | X | | |
| SCI-41@11 | Soil | N | 1/22/97 | | | X | | | | | | | | | | |
| SCI-41 | GW | N | 1/22/97 | | X | X | X | | | X | X | | | X | | |
| SCI-42@4.5 | Soil | C | 1/23/97 | | X | X | X | X | | | | | X | | | |
| SCI-42@10 | Soil | C | 1/23/97 | | | X | | | | | | | | | | |
| SCI-42 | GW | C | 1/23/97 | | X | X | X | | | X | X | | | X | | |
| SCI-43@4.5 | Soil | N | 1/23/97 | | X | X | X | | | | | | | | | |
| SCI-43 | GW | N | 1/23/97 | | X | X | X | | | X | X | | | X | | |
| SCI-44@2 | Soil | N | 1/23/97 | | | X | | | | | | X | | | | |
| SCI-44@4.5 | Soil | N | 1/23/97 | | | X | | | | | | | | | | |
| SCI-45@5 | Soil | N | 1/23/97 | | X | X | X | | | | | | | | | |
| SCI-45@8.5 | Soil | N | 1/23/97 | | | X | | | | | | | | | | |
| SCI-45 | GW | N | 1/23/97 | | X | X | X | | | | | | | | | |
| SCI-46@2 | Soil | B | 1/23/97 | | | X | | X | | | | | X | X | | |
| SCI-46@3 | Soil | B | 1/23/97 | | | X | | X | | | | X | X | | | |
| SCI-46@5 | Soil | B | 1/23/97 | | | X | | | | | | | | | | |
| SCI-46 | GW | B | 1/24/97 | | | X | | X | | | | | X | | | |

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| SAMPLE DESIGNATION | Sample Matrix | SITE REF AREA | Date Sampled | Oil & Grease | TVH | TEH | BTEX | Pests/ PCBs | pH | VOCs | SVOCs /PNAs | Asbestos | Selected Ions | Heavy Metals | Hexa-chrome | Lead |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-47@1 | Soil | G/P | 1/24/97 | | X | X | X | | | X | | X | X | X | | |
| SCI-47@4.5 | Soil | G/P | 1/24/97 | | X | X | X | | | X | | X | | | | |
| SCI-47 | GW | G/P | 1/24/97 | | X | X | X | | | X | | | | | | |
| SCI-48@5.5 | Soil | G/P | 1/24/97 | | X | X | X | | | X | | | | | | |
| SCI-48@8 | Soil | G/P | 1/24/97 | | X | X | X | | | | | | | | | |
| SCI-48 | GW | G/P | 1/24/97 | | X | X | X | | | X | | | X | | | |
| SCI-49@0.5 | Soil | Q | 1/24/97 | X | X | X | X | | | X | | | | X | | |
| SCI-49@3.5 | Soil | Q | 1/24/97 | | X | X | X | | | X | | | | X | | |
| SCI-49@6 | Soil | Q | 1/24/97 | | X | X | X | | | X | | | | | | |
| SCI-49@9.5 | Soil | Q | 1/24/97 | | X | X | X | | | X | | | | | | |
| SCI-49 | GW | Q | 1/24/97 | | X | X | X | X | | X | | | | X | | |
| SCI-50@2 | Soil | Q | 1/24/97 | X | X | X | X | X | | X | X | | X | X | | |
| SCI-50@8 | Soil | Q | 1/24/97 | | X | X | X | X | | X | X | | | X | | |
| SCI-50 | GW | Q | 1/24/97 | | X | X | X | X | | X | | | | X | | |
| SCI-51@1 | Soil | P | 1/30/97 | | X | X | X | X | | X | | | X | X | | |
| SCI-51@5 | Soil | P | 1/30/97 | | X | X | X | | | X | X | | | | | |
| SCI-51@11 | Soil | P | 1/30/97 | | | X | X | | | X | | | | | | |
| SCI-51@20 | Soil | P | 1/30/97 | | | X | X | | | X | | | | | | |
| SCI-51 | GW | P | 1/31/97 | | X | X | X | X | | X | | | | X | | |
| SCI-52 | GW | P/Q | 1/30/97 | | X | X | X | | | X | | | | X | | |
| SCI-53@2 | Soil | H | 1/30/97 | | | X | X | | X | X | | | X | X | X | |
| SCI-53@6 | Soil | H | 1/30/97 | | | X | X | | X | X | | | X | X | X | |
| SCI-53 | GW | H | 1/30/97 | | X | X | X | | X | X | | | X | X | X | |
| SCI-54@6.5 | Soil | P/Q | 1/30/97 | | | X | X | | | X | | | | | | |
| SCI-54@15 | Soil | P/Q | 1/30/97 | | | X | X | | | X | | | | | | |
| SCI-54 | GW | P/Q | 1/31/97 | | X | X | X | X | | X | | | | | | |
| SCI-55@4.5 | Soil | P | 1/30/97 | | | X | X | | | X | | | | X | | |
| SCI-55@7.5 | Soil | P | 1/30/97 | | | X | X | | | X | | | | | | |
| SCI-55 | GW | P | 1/31/97 | | X | X | X | | | X | | | | | | |
| SCI-56@1 | Soil | R | 2/3/97 | | X | X | X | X | | X | | | | X | | |
| SCI-56@3 | Soil | R | 2/3/97 | | | X | X | | | X | | | | | | |

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**JANUARY THROUGH MAY 1997**

| SAMPLE DESIGNATION | Sample Matrix | SITE REF AREA | Date Sampled | Oil & Grease | TVH | TEH | BTEX | Pests/ PCBs | pH | VOCs | SVOCs /PNAs | Asbestos | Selected Ions | Heavy Metals | Hexa-chrome | Lead |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-56@11 | Soil | R | 2/3/97 | | | X | X | | | X | | | | | | |
| SCI-56 | GW | R | 1/31/97 | | X | X | X | | | X | X | | | | | X |
| SCI-57@4 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-57@7 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-57@10 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-57@13 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-57@22 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-57 | GW | P | 2/4/97 | | X | X | X | | | X | | | | | | |
| SCI-58@surface | Soil | R | 1/31/97 | | | X | | X | | | | | | | | |
| SCI-59@6 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-59@10 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-59@19 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-59 | GW | P | 2/4/97 | | X | X | X | | | X | | | | | | |
| SCI-60@2 | Soil | P | 2/3/97 | | X | X | X | | | X | | X | X | X | | |
| SCI-60@4 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-60@7 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-60@10 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-60@19 | Soil | P | 2/3/97 | | X | X | X | | | X | | | | | | |
| SCI-60 | GW | P | 2/4/97 | | X | X | X | | | X | | | | | | |
| SCI-61@4.5 | Soil | R | 2/3/97 | | X | X | X | | | | | | | | | X |
| SCI-61 | GW | R | 2/4/97 | | X | X | X | | | | | | | | | X |
| SCI-62@5 | Soil | H | 2/9/97 | | | X | X | | X | X | | | X | X | X | |
| SCI-62@8 | Soil | H | 2/9/97 | | | X | X | | X | X | | | X | X | X | |
| SCI-62 | GW | H | 2/9/97 | | | X | X | | X | X | | | X | X | X | |
| SCI-63@4.5 | Soil | H | 2/9/97 | | | X | X | | X | X | | | X | X | X | |
| SCI-63@7 | Soil | H | 2/9/97 | | | X | X | | X | X | | | X | X | X | |
| SCI-63 | GW | H | 2/9/97 | | | X | X | | X | X | | | X | X | X | |
| SCI-64@5 | Soil | H | 2/9/97 | | | X | X | | X | X | | | X | X | X | |
| SCI-64@7 | Soil | H | 2/9/97 | | | X | | | X | | | | X | | | |
| SCI-64 | GW | H | 2/9/97 | | | X | X | | X | X | | | X | X | X | |
| SCI-65@4.5 | Soil | H | 2/9/97 | | | X | X | | X | X | | | X | X | X | |

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**JANUARY THROUGH MAY 1997**

| SAMPLE DESIGNATION | Sample Matrix | SITE REF AREA | Date Sampled | Oil & Grease | TVH | TEH | BTEX | Pests/ PCBs | pH | VOCs | SVOCs /PNAs | Asbestos | Selected Ions | Heavy Metals | Hexa-chrome | Lead |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-65@7 | Soil | H | 2/9/97 | | | | | | X | | | | X | | | |
| SCI-65 | GW | H | 2/9/97 | | | X | X | | X | X | | | X | X | X | |
| SCI-66@1 | Soil | Q | 4/23/97 | X | X | X | X | X | | | | | | | | X |
| SCI-66@5 | Soil | Q | 4/23/97 | X | X | X | X | | | | | | | | | X |
| SCI-67@1.5 | Soil | Q | 4/23/97 | X | X | X | X | | | | | | | | | X |
| SCI-67@9.5 | Soil | Q | 4/23/97 | X | X | X | X | X | | X | | | | | | X |
| SCI-68@1.5 | Soil | Q | 4/23/97 | X | X | X | X | | | | | | | | | X |
| SCI-68@4.5 | Soil | Q | 4/23/97 | X | X | X | X | X | | X | X | | | X | | |
| SCI-69@1.5 | Soil | Q | 4/23/97 | X | X | X | X | X | | | | | | | | X |
| SCI-69@5.5 | Soil | Q | 4/23/97 | | X | X | X | | | | | | | | | |
| SCI-70@2 | Soil | F/E/H | 4/23/97 | X | X | X | X | | | | | | | | | |
| SCI-70@4.5 | Soil | F/E/H | 4/23/97 | X | X | X | X | X | | | | | | | | X |
| SCI-71@2 | Soil | F/E/H | 4/23/97 | X | X | X | X | | | | | | | | | |
| SCI-71@5.5 | Soil | F/E/H | 4/23/97 | X | X | X | X | | | | | | | | | |
| SCI-72@1.5 | Soil | F/E/H | 4/24/97 | | X | X | X | X | | X | X | | X | | X | |
| SCI-72@5.5 | Soil | F/E/H | 4/24/97 | | X | X | X | | | | | | X | X | X | |
| SCI-72 | GW | F/E/H | 4/24/97 | | X | | X | | | | | | | | | |
| SCI-73@5 | Soil | D | 4/24/97 | | X | X | X | | | X | | | | | | X |
| SCI-74@2 | Soil | D | 4/24/97 | X | X | X | X | X | X | X | X | | X | | | |
| SCI-74@4.5 | Soil | D | 4/24/97 | X | X | X | X | X | | | | | | X | | |
| SCI-74 | GW | D | 4/24/97 | X | X | X | X | X | X | X | X | | X | X | | |
| SCIPH-1@3.5 | Soil | E | 1/20/97 | X | | X | | | | | | | | | | |
| SCIPH-2@4 | Soil | E | 1/20/97 | X | | X | X | X | | X | | | | | | |
| SCIPH-4@4 | Soil | R | 1/20/97 | | | X | | | | | | | | | | |
| SCIPH-6@6 | Soil | R | 1/20/97 | | | X | | | | | | | | | | |
| SCITP-1@4 | Soil | I | 1/27/97 | | X | X | X | | | | | | | | | |
| SCITP-1@5 | Soil | I | 1/27/97 | | X | X | X | | | | | | | | | |
| SCITP-2@6 | Soil | C | 1/27/97 | | X | X | X | | | | | | | | | |
| SCITP-2@10 | Soil | C | 1/27/97 | | X | X | X | | | | | | | | | |
| SCITP-3@2.5-3 | Soil | N | 1/27/97 | | X | X | X | | | | | | | | | |
| SCITP-3@3.5-4 | Soil | N | 1/27/97 | | X | X | X | | | | | | | | | |

**TABLE 1**
**ANALYTICAL TESTING PROGRAM**
**EIGHTH AVENUE STUDY AREA**
**JANUARY THROUGH MAY 1997**

| SAMPLE DESIGNATION | Sample Matrix | SITE REF AREA | Date Sampled | Oil & Grease | TVH | TEH | BTEX | Pests/ PCBs | pH | VOCs | SVOCs /PNAs | Asbestos | Selected Ions | Heavy Metals | Hexa-chrome | Lead |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCITP-3 | GW | N | 1/27/97 | X | X | X | X | | | X | | | | X | | |
| SCITP-4@5 | Soil | N | 1/28/97 | | X | X | X | | | | | | | | | |
| SCITP-4@5 sidewall | Soil | N | 1/28/97 | | X | X | X | | | | | | | | | |
| SCITP-5@1.5 | Soil | E | 1/28/97 | | X | X | X | | | | | | | | | |
| SCITP-5@4 | Soil | E | 1/28/97 | | X | X | X | | | | | | | | | |
| SCITP-6@3 | Soil | B | 1/28/97 | X | X | X | X | X | | X | | X | X | X | | |
| SCITP-6 | GW | B | 1/28/97 | X | X | X | X | | | X | | | | X | | |
| SCITP-7@3 Fill | Soil | D | 1/29/97 | | X | X | X | | | | | | | | | X |
| SCITP-7 | GW | D | 1/29/97 | | X | X | X | | | | | | | | | X |
| SCITP-8@4.5 | Soil | A/K | 2/3/97 | | X | X | X | | | | | | | | | X |
| SCITP-8@6 | Soil | A/K | 2/3/97 | | X | X | X | | | | | | | | | X |
| SCITP-9@3.5 | Soil | I | 2/3/97 | | X | X | X | X | | X | X | | | | | |
| SCITP-9@6 | Soil | I | 2/3/97 | | X | X | X | X | | X | X | | | | | |
| SCITP-9 | GW | I | 2/3/97 | | X | X | X | X | | X | X | | | X | | |
| SCITP-11@1.5 | Soil | J | 2/4/97 | | X | X | X | X | | X | X | | | | | |
| SCITP-11@4.5 | Soil | J | 2/4/97 | | X | X | X | X | | X | X | | | | | |
| SCITP-11 | GW | J | 2/4/97 | | X | X | X | X | | X | X | | | X | | |
| SCITP-12@4 | Soil | I/J | 2/4/97 | | X | X | X | X | | X | X | | | | | |
| SCITP-12@5 | Soil | I/J | 2/4/97 | | X | X | X | X | | X | X | | | | | |
| SCITP-12 | GW | I/J | 2/4/97 | | X | X | X | | | X | X | | | | | |
| SCITP-13@4.2 | Soil | I/J | 2/5/97 | | X | X | X | X | | X | X | | | | | |
| SCITP-13@5.7 | Soil | I/J | 2/5/97 | | X | X | X | X | | X | X | | | X | | |
| SCITP-13@10 | Soil | I/J | 2/5/97 | | X | X | X | | | X | X | | | | | |
| SCITP-13 | GW | I/J | 2/5/97 | | X | X | X | X | | X | X | | | X | | |
| SCITP-14@4 | Soil | N | 2/5/97 | | X | X | X | | | | | | | | | X |
| SCITP-14 | GW | N | 2/5/97 | | X | X | X | | | | | | | | | X |
| SCITP-15@2 | Soil | I | 4/23/97 | X | X | X | X | X | | X | X | | | | | X |
| SCITP-16@1 | Soil | I | 4/23/97 | X | X | X | X | X | | X | X | | X | X | | |
| SCITP-17@0.8 | Soil | J | 4/24/97 | | X | X | X | X | | X | X | | | | | |
| SCITP-17@1.5 | Soil | J | 4/24/97 | X | X | X | X | X | | X | X | | X | | X | X |
| SCITP-18@3.5 | Soil | O | 4/23/97 | X | X | X | X | X | | X | X | | | | | X |

**TABLE 1**
**ANALYTICAL TESTING PROGRAM**
**EIGHTH AVENUE STUDY AREA**
**JANUARY THROUGH MAY 1997**

| SAMPLE DESIGNATION | Sample Matrix | SITE REF AREA | Date Sampled | Oil & Grease | TVH | TEH | BTEX | Pests/ PCBs | pH | VOCs | SVOCs /PNAs | Asbestos | Selected Ions | Heavy Metals | Hexa-chrome | Lead |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCITP-18@6.5 | Soil | O | 4/23/97 | X | X | X | X | | | X | | | X | | | X |
| SCITP-18 | GW | O | 4/24/97 | X | X | X | X | X | X | X | X | | X | X | X | |
| SCITP-19@2.5 | Soil | N | 4/24/97 | | | X | | | | | X | | | | | |
| SCITP-19@6 | Soil | N | 4/24/97 | X | X | X | X | X | | X | | | X | | X | X |
| SCITP-19 | GW | N | 4/24/97 | X | X | X | X | | | X | | | | | | |
| SCITP-20@3 | Soil | L | 4/24/97 | X | X | X | X | X | | X | | | X | | X | X |
| SCITP-21@2 | Soil | I | 4/25/97 | X | X | X | X | X | | X | X | | | | | X |
| SCITP-21@7 | Soil | I | 4/25/97 | X | X | X | X | X | | X | X | | | | | X |
| SCITP-21 | GW | I | 4/25/97 | X | X | X | X | X | | X | X | | X | X | X | |
| SCITP-22@1 | Soil | I | 4/25/97 | | X | X | X | X | | X | X | | X | X | X | |
| SCITP-22@1.5 | Soil | I | 4/25/97 | X | | | | | X | | | | | | | |
| SCITP-23A@4 | Soil | L | 4/26/97 | | | X | | | | | | | | | | |
| SCITP-23A@6 | Soil | L | 4/26/97 | X | X | X | X | X | | X | X | | | X | X | |
| SCITP-23A | GW | L | 4/26/97 | X | X | X | X | X | | X | X | | X | X | X | |
| SCITP-23B@3 | Soil | L | 4/26/97 | | | X | | | | | | | | | | |
| SCITP-23B@6 | Soil | L | 4/26/97 | X | X | X | X | X | | X | | | | | X | X |
| SCITP-24 CANNERY LINE | Soil | G/L | 4/26/97 | X | X | X | X | X | | X | X | | | X | X | |
| SCITP-24A@1.5 | Soil | G/L | 4/26/97 | X | | X | | | | | | | | | | |
| SCITP-24A | GW | G/L | 4/26/97 | X | X | X | X | X | | X | X | | X | X | X | |
| SCITP-25@1.5 | Soil | B | 4/28/97 | X | | X | | X | | | | | X | | | X |
| SCITP-25@3.5 | Soil | B | 4/28/97 | | | X | | | | | | X | | | | |
| SCITP-25@6 | Soil | B | 4/28/97 | | | X | | | | | | | | | | |
| SCITP-26@3 | Soil | N | 4/28/97 | X | X | X | X | X | | | | | X | | X | X |
| SCITP-26@5 | Soil | N | 4/28/97 | | | X | | | | | | | | | | |
| SCITP-27@3 | Soil | N | 4/28/97 | X | X | X | X | X | | | | | | | | X |
| SCITP-27 | GW | N | 4/28/97 | X | X | X | X | X | | X | X | | X | X | X | |
| SCITP-28@1.5 | Soil | C | 4/29/97 | X | | X | | X | X | | | | X | | | X |
| SCITP-28 | GW | C | 4/29/97 | X | | X | | X | | | X | | | | | |
| SCITP-29@5 | Soil | D | 4/29/97 | X | X | X | X | X | | X | | | | | | X |
| SCITP-30@3 | Soil | D | 4/29/97 | X | X | X | X | X | | | | | | | | X |
| SCITP-30 | GW | D | 4/29/97 | X | | X | | | | | | | | | | X |

**TABLE 1**
**ANALYTICAL TESTING PROGRAM**
**EIGHTH AVENUE STUDY AREA**
**JANUARY THROUGH MAY 1997**

| SAMPLE DESIGNATION | Sample Matrix | SITE REF AREA | Date Sampled | Oil & Grease | TVH | TEH | BTEX | Pests/ PCBs | pH | VOCs | SVOCs /PNAs | Asbestos | Selected Ions | Heavy Metals | Hexa-chrome | Lead |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCITP-31@1.2 | Soil | I/P | 4/30/97 | X | X | X | X | X | | X | | | | | | |
| SCITP-31 | GW | I/P | 4/30/97 | X | X | X | X | X | | X | X | | X | | | |
| SCITP-32@2.5 | Soil | I/P | 4/30/97 | X | X | X | X | X | | X | X | | | | | X |
| SCITP-32 | GW | I/P | 4/30/97 | X | X | X | X | X | | X | X | | | | | |
| SCITP-33A@4 | Soil | R | 4/30/97 | X | X | X | X | | | X | X | | | X | | |
| SCITP-33B@6.5 | Soil | R | 5/2/97 | X | X | X | X | X | | X | X | | | X | | |
| SCITP-33B | GW | R | 5/1/97 | X | X | X | X | X | | X | X | | | X | | |
| SCITP-33C@4.5 | Soil | R | 5/1/97 | X | X | X | X | X | | X | X | | | X | | |
| SCITP-33D@4 | Soil | R | 5/2/97 | X | X | X | X | X | | X | X | | | X | | |
| SCITP-33E@5 | Soil | R | 5/2/97 | X | X | X | X | | | X | X | | | | | X |
| SCITP-34@6 | Soil | Q | 5/1/97 | X | X | X | X | X | | | X | | | X | | |
| SCITP-34@9 | Soil | Q | 5/1/97 | X | X | X | X | | | | | | | | | X |
| SCITP-35@5 | Soil | G | 5/3/97 | X | X | X | X | | X | X | | | X | | X | X |
| SCITP-35 | GW | G | 5/3/97 | X | X | X | X | X | | X | | | X | | | X |
| SCITP-36@4 | Soil | G | 5/3/97 | X | X | X | X | | X | X | X | X | X | | X | X |
| SCITP-36 | GW | G | 5/3/97 | X | X | X | X | X | | | | | | | | X |
| SCITP-37@7 | Soil | F | 5/3/97 | X | X | X | X | X | X | X | X | | X | | X | X |

Notes:
Site reference areas are shown on Plate 2
TVH = Total volatile hydrocarbons (EPA Test Method 8015 modified)
TEH = Total extractable hydrocarbons (EPA Test Method 8015 modified)
BTEX = Benzene, toluene, ethylbenzene, and total xylenes (EPA Test Method 8020)
PCBs = Polychlorinated biphenyls (EPA Test Method 8080)
VOCs = Volatile organic compounds (EPA Test Method 8260)
SVOCs = Semivolatile organic compounds (EPA Test Method 8270)
PNAs = Polynuclear aromatic hydrocarbons (EPA Test Method 8270)
GW = Groundwater

TABLE 2
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (mg/kg) | TVH as GAS (mg/kg) | TEH as DIESEL (mg/kg) | TEH as MOTOR OIL (mg/kg) | TRPH (mg/kg) | BENZENE (mg/kg) | ETHYL-BENZENE (mg/kg) | TOLUENE (mg/kg) | TOTAL XYLENES (mg/kg) | 4,4'-DDD (mg/kg) | 4,4'-DDE (mg/kg) | 4,4'-DDT (mg/kg) | OTHER HERBS/ PESTS (mg/kg) | AROCLOR 1260 (mg/kg) | OTHER PCBs (mg/kg) | Methane (mg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9AV-B1-4 | Uribe | Boring B-1 | O | 11/20/92 | -- | -- | <1 | -- | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B1-7 | Uribe | Boring B-1 | O | 11/20/92 | -- | -- | <1 | -- | 110 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B2-4 | Uribe | Boring B-2 | L | 11/19/92 | -- | -- | <10 | -- | 210 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B2-7 | Uribe | Boring B-2 | L | 11/19/92 | -- | -- | <1 | -- | <30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B3-5 | Uribe | Boring B-3 | L | 11/19/92 | -- | -- | <2 | -- | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B3-7 | Uribe | Boring B-3 | L | 11/19/92 | -- | -- | <2 | -- | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B4-4 | Uribe | Boring B-4 | L | 11/19/92 | -- | -- | <5 | -- | 320 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B4-7 | Uribe | Boring B-4 | L | 11/19/92 | -- | -- | <1h | -- | <30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B5-4 | Uribe | Boring B-5 | L | 11/20/92 | -- | -- | <5 | -- | 320 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B5-7 | Uribe | Boring B-5 | L | 11/20/92 | -- | -- | <5 | -- | <30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B6-4 | Uribe | Boring B-6 | L | 11/20/92 | -- | -- | <300 | -- | 640 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B6-7 | Uribe | Boring B-6 | L | 11/20/92 | -- | -- | <5 | -- | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B10-4 | Uribe | Boring B-7 | L | 11/19/92 | -- | -- | <5 | -- | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B10-10 | Uribe | Boring B-7 | L | 11/19/92 | -- | -- | <1h | -- | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B13-1-4 | Uribe | Boring B-13 | L | 3/1/93 | -- | -- | 2 | -- | -- | 0.006 | <0.005 | 0.009 | 0.006 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B13-2-7.5 | Uribe | Boring B-13 | L | 3/1/93 | -- | -- | 81 | -- | -- | <0.005 | 0.006 | 0.008 | 0.037 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B14-1-3.5 | Uribe | Boring B-14 | L | 3/1/93 | -- | -- | <1 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B14-2-6.5 | Uribe | Boring B-14 | L | 3/1/93 | -- | -- | <10 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B14-3-9.5 | Uribe | Boring B-14 | L | 3/1/93 | -- | -- | <6 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B15-1-2.5 | Uribe | Boring B-15 | F | 3/1/93 | -- | -- | <3 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B15-2-5 | Uribe | Boring B-15 | F | 3/1/93 | -- | -- | <20 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B15-3-9.5 | Uribe | Boring B-15 | F | 3/1/93 | -- | -- | 39h | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B16-1-3.5 | Uribe | Boring B-16 | F | 3/1/93 | -- | -- | <1 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B16-2-7 | Uribe | Boring B-16 | F | 3/1/93 | -- | -- | 92 | -- | -- | <0.030 | <0.030 | <0.030 | <0.030 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B16-3-7.5 | Uribe | Boring B-16 | F | 3/1/93 | -- | -- | 260 | -- | -- | <0.030 | 0.030 | <0.030 | 0.030 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B16-4-9.5 | Uribe | Boring B-16 | F | 3/1/93 | -- | -- | 49 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B17-1-3.5 | Uribe | Boring B-17 | F | 3/2/93 | -- | -- | <1 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B17-2-7 | Uribe | Boring B-17 | F | 3/2/93 | -- | -- | 20h | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 2
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (mg/kg) | TVH as GAS (mg/kg) | TEH as DIESEL (mg/kg) | TEH as MOTOR OIL (mg/kg) | TRPH (mg/kg) | BENZENE (mg/kg) | ETHYL-BENZENE (mg/kg) | TOLUENE (mg/kg) | TOTAL XYLENES (mg/kg) | 4,4'-DDD (mg/kg) | 4,4'-DDE (mg/kg) | 4,4'-DDT (mg/kg) | OTHER HERBS/ PESTS (mg/kg) | AROCLOR 1260 (mg/kg) | OTHER PCBs (mg/kg) | Methane (mg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9AV-B17-3-9.5 | Uribe | Boring B-17 | F | 3/3/93 | -- | -- | 35h | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B18-1-6.5 | Uribe | Boring B-18 | E | 3/2/93 | -- | -- | <1 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B18-2-9.5 | Uribe | Boring B-18 | E | 3/2/93 | -- | -- | 34h | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B19-1-0.4 | Uribe | Boring B-19 | E/H | 3/2/93 | -- | -- | 350h | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B19-2-7 | Uribe | Boring B-19 | E/H | 3/2/93 | -- | -- | 19 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B19-3-9.5 | Uribe | Boring B-19 | E/H | 3/2/93 | -- | -- | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B20-1-3.5 | Uribe | Boring B-20 | L | 3/1/93 | -- | -- | 28h | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B20-2-6.5 | Uribe | Boring B-20 | L | 3/1/93 | -- | -- | 55h | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B20-3-9.5 | Uribe | Boring B-20 | L | 3/1/93 | -- | -- | 41h | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B21-1-3.5 | Uribe | Boring B-21 | O | 3/3/93 | -- | -- | <3 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B21-2-6.5 | Uribe | Boring B-21 | O | 3/3/93 | -- | -- | <20 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B21-3-9.5 | Uribe | Boring B-21 | O | 3/3/93 | -- | -- | <40 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| BH-1 at 20ft bgs | Clayton | Soil boring | M | 3/29/95 | -- | <0.3 | 24 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| BH-2 at 4ft bgs | Clayton | Soil boring | M | 3/29/95 | -- | 0.4 | 43 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 96-203-1 | Uribe | Excav NW of Clinton Basin | M | 11/9/92 | -- | -- | 1,400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X1-1 | Uribe | H-213 excavation at surface | F | 2/12/93 | -- | -- | 36,000 | -- | -- | 2.00 | 4.40 | 12.0 | 19.2 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X1-2 | Uribe | H-213 excavation at 1-1.5 | F | 2/12/93 | -- | -- | 3,800 | -- | -- | 0.780 | 1.60 | 5.70 | 14.7 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X1-3 | Uribe | H-213 excavation at 0.5 | F | 2/12/93 | -- | -- | 600 | -- | -- | 0.930 | 3.10 | 8.80 | 26.9 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X1-4 | Uribe | H-213 excavation at 1.5-2.5 | F | 2/12/93 | -- | -- | 130,000 | -- | -- | 9.80 | 30.0 | 81.0 | 129 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X1-5 | Uribe | H-213 excavation at 3.0 | F | 2/12/93 | -- | -- | 48,000 | -- | -- | 1.80 | 4.40 | 14.0 | 20.0 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X1-1 | Uribe | Trench 1 at 5.0 | L | 3/2/93 | -- | -- | 1,000h | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X1-2 | Uribe | Trench 1 at 5.0 | L | 3/2/93 | -- | -- | 890h | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X-3 | Uribe | Trench 2 at 4.0 | F | 3/3/93 | -- | -- | 7,100 | -- | -- | 0.063 | 0.300 | 0.360 | 1.24 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X-6 | Uribe | Trench 2 at 3.5 | F | 3/3/93 | -- | -- | 7,600 | -- | -- | 0.100 | 0.420 | 0.690 | 1.98 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X-7 | Uribe | Trench 2 at 3.5 | F | 3/3/93 | -- | -- | 26,000 | -- | -- | 0.330 | 1.10 | 1.60 | 4.60 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X-4 | Uribe | Trench 3 at 3.5 | F | 3/3/93 | -- | -- | 9,500 | -- | -- | 0.490 | 2.20 | 4.50 | 9.60 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X-5 | Uribe | Trench 3 at 4.0 | F | 3/3/93 | -- | -- | 3,800 | -- | -- | 0.150 | 0.450 | 0.660 | 1.70 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X-8 | Uribe | Trench 3 at 3.5 | F | 3/5/93 | -- | -- | 100,000 | -- | -- | 4.80 | 16.0 | 42.0 | 68.0 | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 2
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (mg/kg) | TVH as GAS (mg/kg) | TEH as DIESEL (mg/kg) | TEH as MOTOR OIL (mg/kg) | TRPH (mg/kg) | BENZENE (mg/kg) | ETHYL-BENZENE (mg/kg) | TOLUENE (mg/kg) | TOTAL XYLENES (mg/kg) | 4,4'-DDD (mg/kg) | 4,4'-DDE (mg/kg) | 4,4'-DDT (mg/kg) | OTHER HERBS/ PESTS (mg/kg) | AROCLOR 1260 (mg/kg) | OTHER PCBs (mg/kg) | Methane (mg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9AV-X-9 | Uribe | Trench 4 at 2.5 | L | 3/5/93 | -- | -- | 18 | -- | -- | <0.005 | <0.005 | 0.007 | 0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X-10 | Uribe | Trench 5A at 6.0 | L | 3/5/93 | -- | -- | <90 | -- | -- | 0.033 | <0.005 | 0.010 | 0.007 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X5-1 | Uribe | Trench 5B at 7.0 | L | 3/11/93 | -- | -- | 1,800 | -- | -- | 0.006 | 0.007 | <0.005 | 0.018 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X5-2 | Uribe | Trench 5B at 8.0 | L | 3/11/93 | -- | -- | 280 | -- | -- | 0.018 | <0.005 | 0.006 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X5-6 | Uribe | Trench 5B at 9.0 | L | 3/12/93 | -- | -- | 440 | -- | -- | 0.010 | <0.005 | 0.006 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X6-1 | Uribe | Trench 6 at 2.0 | F | 3/12/93 | -- | -- | 50,000 | -- | -- | 0.002 | 0.004 | 0.010 | 0.013 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X6-3 | Uribe | Trench 6 at 3.0 | F | 3/12/93 | -- | -- | 22,000 | -- | -- | 0.0004 | 0.0008 | 0.0015 | 0.0022 | -- | -- | -- | -- | -- | -- | -- | -- |
| TE-1 | ERM-West | H-107 tank excavation at 7.0 | M | 10/12/94 | -- | 21 | 160 | -- | -- | <0.005 | 0.140 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| TE-2 | ERM-West | H-107 tank excavation at 7.0 | M | 10/12/94 | -- | 25 | 120 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| TE-3 | ERM-West | H-107 tank excavation | M | 10/15/94 | -- | 550 | 44,000 | -- | -- | 0.320 | <0.060 | <0.060 | <0.080 | -- | -- | -- | -- | -- | -- | -- | -- |
| TE-4 | ERM-West | H-107 tank excavation | M | 10/15/94 | -- | 43 | 550 | -- | -- | <0.040 | <0.030 | <0.030 | <0.040 | -- | -- | -- | -- | -- | -- | -- | -- |
| TE-5 | ERM-West | H-107 tank excavation | M | 10/15/94 | -- | 110 | 6,900 | -- | -- | <0.080 | <0.060 | <0.060 | <0.080 | -- | -- | -- | -- | -- | -- | -- | -- |
| TE-6 | ERM-West | H-107 tank excavation | M | 10/17/94 | -- | 5,600h | 320 | -- | -- | <0.010 | 0.010 | <0.010 | 0.020 | -- | -- | -- | -- | -- | -- | -- | -- |
| SP-1 | ERM-West | H-107 tank excavation stockpile | M | 10/12/94 | -- | 590 | -- | -- | 6,700 | <0.005 | 4.60 | <0.005 | 8.60 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-5 at 5ft bgs | Clayton | Soil boring | F | 3/30/95 | -- | 6 | 180 | -- | -- | 0.020 | 0.020 | 0.006 | 0.065 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-6 at 5ft bgs | Clayton | Soil boring | F | 3/30/95 | -- | 240 | 1,600 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 at 5ft bgs | Clayton | Soil boring | M | 3/29/95 | -- | <0.3 | 41 | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-1@4.5 | SCI | Soil boring | E/H | 5/14/96 | 56 | <1 | 19yh | 51y | -- | <0.005 | <0.005 | 0.014 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-2@4.5 | SCI | Soil boring | N | 5/14/96 | 680 | 19y | 40yh | 160yh | -- | <0.005 | <0.005 | <0.005 | 0.860 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-3@4.5 | SCI | Soil boring | I/J | 5/14/96 | 64 | -- | 3.4yh | 8.0yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | <0.020 | ND | -- | -- |
| SCIMW-7@6 | SCI | Soil boring | P/Q | 8/20/96 | 840 | -- | 2,900yh | 1,400yl | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-9@6 | SCI | Soil boring | I | 8/21/96 | 140 | -- | 11yh | 110 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-10@3 | SCI | Soil boring | J | 8/21/96 | <50 | <1 | 100yh | 810 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | <0.020 | ND | -- | -- |
| SCIMW-13@4.5 | SCI | Soil boring | J | 8/22/96 | 76 | -- | 2.9yh | 11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-21@2 | SCI | Soil boring | D | 4/28/97 | <50 | <1 | 6.6yh | 150yh | -- | 0.024 | 0.014 | 0.0073 | 0.0068 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | 7.4 |
| SCIMW-22@3.5 | SCI | Soil boring | P | 4/28/97 | 76 | <1 | 4.2ylh | 50yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | 8.2 |
| SCIMW-23@5.5 | SCI | Soil boring | B | 4/28/97 | 210 | -- | 9yh | 72ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | 7.2 |
| SCIMW-24@3 | SCI | Soil boring | N | 4/29/97 | <50 | 440 | 20ylh | 140 | -- | 1.6 | 11 | 0.31J | 6.4 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |

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| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (mg/kg) | TVH as GAS (mg/kg) | TEH as DIESEL (mg/kg) | TEH as MOTOR OIL (mg/kg) | TRPH (mg/kg) | BENZENE (mg/kg) | ETHYL-BENZENE (mg/kg) | TOLUENE (mg/kg) | TOTAL XYLENES (mg/kg) | 4,4'-DDD (mg/kg) | 4,4'-DDE (mg/kg) | 4,4'-DDT (mg/kg) | OTHER HERBS/ PESTS (mg/kg) | AROCLOR 1260 (mg/kg) | OTHER PCBs (mg/kg) | Methane (mg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCIMW-24@6 | SCI | Soil boring | N | 4/29/97 | -- | 910 | 140 lh | 200 | -- | 0.63 | 2.4 | <0.5 | 3.9 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-25@10.5 | SCI | Soil boring | H | 4/29/97 | 1,000 | <1 | 21y | 87ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.12 | <0.12 | <0.12 | ND | <0.24 | ND | -- | -- |
| SCIMW-26@3.5 | SCI | Soil boring | H | 4/30/97 | <50 | <1 | <1 | 7.5yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-27@3.5 | SCI | Soil boring | E/H | 4/30/97 | 210 | <1 | 11yh | 190yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-28@3.5 | SCI | Soil boring | Q | 4/30/97 | <50 | <1 | 6.9yh | 47ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCIMW-29@4.6 | SCI | Soil boring | H | 5/14/97 | 170 | <1 | 2.6yh | 23yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | 9.2 |
| SCI-1@3 | SCI | Enviro-Core | J | 5/21/96 | 5,900 | -- | 720yh | 2,300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-1@6 | SCI | Enviro-Core | J | 5/21/96 | 17,000 | -- | 5,500yh | 17,000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-2@3.5 | SCI | Enviro-Core | I/J | 5/21/96 | 4,000 | -- | 170yh | 5,400yh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-2@6 | SCI | Enviro-Core | I/J | 5/21/96 | 6,000 | -- | 45yh | 750h | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-3@6 | SCI | Enviro-Core | I | 5/21/96 | 570 | -- | 1,300yhl | 4,900 lh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-4@4 | SCI | Enviro-Core | I | 5/21/96 | 84 | -- | 7.4yh | 37y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-5@3.5 | SCI | Enviro-Core | A/K | 5/21/96 | <50 | <1 | 47yh | 71y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-6@3.5 | SCI | Enviro-Core | J | 5/21/96 | -- | 9.2y | 2,000h | 1,100 l | -- | <0.005 | 0.022 | <0.005 | 0.020 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-7@6 | SCI | Enviro-Core | L | 5/22/96 | -- | -- | 15yh | 100yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-8@5.5 | SCI | Enviro-Core | L | 5/22/96 | -- | -- | 7.4yh | 120yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-9@5.5 | SCI | Enviro-Core | L | 5/22/96 | -- | -- | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-10@5 | SCI | Enviro-Core | L | 5/22/96 | -- | -- | 28yh | 370yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-11@3.5 | SCI | Enviro-Core | O | 5/22/96 | -- | -- | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-12@6.5 | SCI | Enviro-Core | N | 5/22/96 | -- | 800 | 330ylh | 940yh | -- | 12.0 | 13.0 | 34.0 | 48.1 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-13@4.5 | SCI | Enviro-Core | E/H | 5/23/96 | 630 | <1 | 97yh | 2,100yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-14@3.5 | SCI | Enviro-Core | M | 5/23/96 | 920 | <1 | 3,800h | 10,000ylh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-14@6 | SCI | Enviro-Core | M | 5/23/96 | 3,100 | <1 | 32yh | 510yh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-15@3 | SCI | Enviro-Core | M | 5/23/96 | 400 | <1 | 10yh | 540yh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-16@2.5 | SCI | Enviro-Core | L | 5/23/96 | 570 | <1 | 40yh | 1,700yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-17@3.5 | SCI | Enviro-Core | M | 5/24/96 | 72 | <1 | 610yhz | 3,900yh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-18@3.5 | SCI | Enviro-Core | M | 5/24/96 | 1,400 | <1 | 780yh | 37,000yh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-19@3.5 | SCI | Enviro-Core | D | 5/24/96 | <50 | <1 | 5,600 | <200 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-20@3.5 | SCI | Enviro-Core | E | 5/24/96 | <50 | -- | <1 | <5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.020 | ND | -- | -- |
| SCI-20@6.5 | SCI | Enviro-Core | E | 5/24/96 | 52 | -- | 240yh | 210yh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-22@3.5 | SCI | Enviro-Core | F | 5/31/96 | -- | <1 | 1,000h | 810yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-23@6.5 | SCI | Enviro-Core | F | 5/31/96 | -- | <1 | 790yh | 4,800yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-24@4.5 | SCI | Enviro-Core | F | 5/31/96 | -- | <1 | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-25@6 | SCI | Enviro-Core | F | 5/31/96 | -- | 24yh | 2,400 | <150 | -- | <0.005 | 0.027 | <0.005 | 0.062J | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-26@3.5 | SCI | Enviro-Core | L | 5/31/96 | 120 | <1 | 1,300 | 84yhl | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-27@3.5 | SCI | Enviro-Core | C | 6/3/96 | 480 | † | 1,900yh | 4,600y | -- | † | † | † | † | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-28@3.5 | SCI | Enviro-Core | L | 6/3/96 | -- | -- | 3.1yh | 22yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-29@5.5 | SCI | Enviro-Core | L | 6/3/96 | 52 | -- | 10yh | 78yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-31@4 | SCI | Enviro-Core | D | 6/3/96 | 2,800 | <1 | 2,500yh | 3,100y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | <0.020 | ND | -- | -- |
| SCI-32@5 | SCI | Enviro-Core | Q | 8/29/96 | <50 | <1 | <1 | <5 | -- | <0.005 | <0.005 | 0.0028J | <0.005 | -- | -- | -- | -- | <0.020 | ND | -- | -- |
| SCI-34@3.5 | SCI | Enviro-Core | Q | 8/29/96 | -- | <1 | 840yh | 2,500 | -- | <0.005 | <0.005 | 0.0063 | <0.005 | -- | -- | -- | -- | 0.38 | ND | -- | -- |
| SCI-35@3 | SCI | Enviro-Core | G | 8/29/96 | -- | 2.6y | 6,700y | 5,200yl | -- | <0.005 | 0.038 | <0.005 | 0.42 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-35@8 | SCI | Enviro-Core | G | 8/29/96 | -- | 5.2y | 17y | 34y | -- | <0.005 | 0.17 | <0.005 | 1.46 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-36@3.5 | SCI | Enviro-Core | E | 8/30/96 | 120 | -- | 12yh | 100 | -- | <0.005 | <0.005 | 0.0068 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-37@2.5 | SCI | Enviro-Core | E | 8/30/96 | <50 | -- | 10yh | 46 | -- | <0.005 | <0.005 | 0.0066 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-38@3 | SCI | Enviro-Core | I/J | 8/30/96 | 1,200 | <1 | 220ylh | 2,300 | -- | <0.005 | <0.005 | 0.0041J | <0.005 | -- | -- | -- | -- | 0.046 | ND | -- | -- |
| SCI-40@4.5 | SCI | Enviro-Core | C | 1/22/97 | -- | -- | 790yh | 670ylh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-40@7 | SCI | Enviro-Core | C | 1/22/97 | -- | -- | 23yh | 45yl | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-40@10.5 | SCI | Enviro-Core | C | 1/22/97 | -- | -- | 2,100yh | 930yl | -- | -- | -- | -- | -- | <0.090 | <0.090 | <0.090 | ND | <0.18 | ND | -- | -- |
| SCI-41@11 | SCI | Enviro-Core | N | 1/22/97 | -- | -- | <1 | <5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-42@4.5 | SCI | Enviro-Core | C | 1/23/97 | -- | <1 | 14yh | 130h | -- | <0.005 | <0.005 | 0.006 | <0.005 | <0.12 | <0.12 | <0.12 | ND | <0.24 | ND | -- | -- |
| SCI-42@10 | SCI | Enviro-Core | C | 1/23/97 | -- | -- | <1 | <5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-43@4.5 | SCI | Enviro-Core | N | 1/23/97 | -- | 310yh | 9,200 1 | 1,600yl | -- | <0.25 | <0.25 | <0.25 | <0.25 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-44@2 | SCI | Enviro-Core | N | 1/23/97 | -- | -- | 1,300h | 3,200h | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-44@4.5 | SCI | Enviro-Core | N | 1/23/97 | -- | -- | 6,600 | 1,400yl | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-45@5 | SCI | Enviro-Core | N | 1/23/97 | -- | 380yh | 23,000 | 2,600yl | -- | <0.25 | <0.25 | <0.25 | <0.25 | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 2
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (mg/kg) | TVH as GAS (mg/kg) | TEH as DIESEL (mg/kg) | TEH as MOTOR OIL (mg/kg) | TRPH (mg/kg) | BENZENE (mg/kg) | ETHYL-BENZENE (mg/kg) | TOLUENE (mg/kg) | TOTAL XYLENES (mg/kg) | 4,4'-DDD (mg/kg) | 4,4'-DDE (mg/kg) | 4,4'-DDT (mg/kg) | OTHER HERBS/ PESTS (mg/kg) | AROCLOR 1260 (mg/kg) | OTHER PCBs (mg/kg) | Methane (mg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-45@8.5 | SCI | Enviro-Core | N | 1/23/97 | -- | -- | 95 | 56yh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-46@2 | SCI | Enviro-Core | B | 1/23/97 | -- | -- | 13yh | 95h | -- | -- | -- | -- | -- | <0.006 | <0.006 | 0.035 | ND | <0.012 | ND | -- | -- |
| SCI-46@3 | SCI | Enviro-Core | B | 1/23/97 | -- | -- | <1 | 20h | -- | -- | -- | -- | -- | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCI-46@5 | SCI | Enviro-Core | B | 1/23/97 | -- | -- | 5.7yh | 29h | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-47@1 | SCI | Enviro-Core | G/P | 1/24/97 | -- | <1 | 170yh | 1,300yh | -- | <0.005 | <0.005 | <0.005 | 0.0093J | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-47@4.5 | SCI | Enviro-Core | G/P | 1/24/97 | -- | <1 | 53yh | 100y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-48@5.5 | SCI | Enviro-Core | G/P | 1/24/97 | -- | <1 | 48yh | 110y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-48@8 | SCI | Enviro-Core | G/P | 1/24/97 | -- | <1 | 4.4yz | 30yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-49@0.5 | SCI | Enviro-Core | Q | 1/24/97 | 27,000 | <1 | 1,500yh | 7,200y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-49@3.5 | SCI | Enviro-Core | Q | 1/24/97 | -- | <1 | 15yh | 57y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-49@6 | SCI | Enviro-Core | Q | 1/24/97 | -- | <1 | 7yh | 14y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-49@9.5 | SCI | Enviro-Core | Q | 1/24/97 | -- | <1 | 41yh | 86y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-50@2 | SCI | Enviro-Core | Q | 1/24/97 | <50 | <1 | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCI-50@8 | SCI | Enviro-Core | Q | 1/24/97 | -- | <1 | 14yh | 33y | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCI-51@1 | SCI | Enviro-Core | P | 1/30/97 | -- | <1 | 80yh | 930y | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.018 | 0.035 | 0.19 | ND | <0.036 | ND | -- | -- |
| SCI-51@5 | SCI | Enviro-Core | P | 1/30/97 | -- | <1 | 11yh | 110y | -- | <0.005 | <0.005 | 0.0067 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-51@11 | SCI | Enviro-Core | P | 1/30/97 | -- | -- | 19yh | 54y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-51@20 | SCI | Enviro-Core | P | 1/30/97 | -- | -- | 4.4yh | 28y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-53@2 | SCI | Enviro-Core | H | 1/30/97 | -- | -- | 17yh | 66y | -- | <0.005 | <0.005 | 0.0032J | <0.005 | -- | -- | -- | -- | -- | -- | -- | 7.7 |
| SCI-53@6 | SCI | Enviro-Core | H | 1/30/97 | -- | -- | 11yh | 48y | -- | <0.005 | <0.005 | 0.0059 | 0.0028J | -- | -- | -- | -- | -- | -- | -- | 7.6 |
| SCI-54@6.5 | SCI | Enviro-Core | P/Q | 1/30/97 | -- | -- | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-54@15 | SCI | Enviro-Core | P/Q | 1/30/97 | -- | -- | 8yh | 36y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-55@4.5 | SCI | Enviro-Core | P | 1/30/97 | -- | -- | 5,600ylh | 3,400y | -- | <5.0 | <5.0 | 32 | 14.8 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-55@7.5 | SCI | Enviro-Core | P | 1/30/97 | -- | -- | 1,100ylh | 970y | -- | <10 | <10 | 7.9J | <10 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-56@1 | SCI | Enviro-Core | R | 2/3/97 | -- | <1 | 25yh | 250h | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCI-56@3 | SCI | Enviro-Core | R | 2/3/97 | -- | -- | 5.2yh | 48yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-56@11 | SCI | Enviro-Core | R | 2/3/97 | -- | -- | 20yh | 91h | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-57@4 | SCI | Enviro-Core | P | 2/3/97 | -- | <1 | 110yh | 2,200yh | -- | <0.025 | <0.025 | <0.025 | <0.025 | -- | -- | -- | -- | -- | -- | -- | -- |

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| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (mg/kg) | TVH as GAS (mg/kg) | TEH as DIESEL (mg/kg) | TEH as MOTOR OIL (mg/kg) | TRPH (mg/kg) | BENZENE (mg/kg) | ETHYL-BENZENE (mg/kg) | TOLUENE (mg/kg) | TOTAL XYLENES (mg/kg) | 4,4'-DDD (mg/kg) | 4,4'-DDE (mg/kg) | 4,4'-DDT (mg/kg) | OTHER HERBS/ PESTS (mg/kg) | AROCLOR 1260 (mg/kg) | OTHER PCBs (mg/kg) | Methane (mg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-57@7 | SCI | Enviro-Core | P | 2/3/97 | -- | 3.4yz | 87yh | 330h | -- | 0.095J | <0.13 | 0.44 | 0.089J | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-57@10 | SCI | Enviro-Core | P | 2/3/97 | -- | <1 | 9.5yh | 150ylh | -- | <0.25 | <0.25 | <0.25 | <0.25 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-57@13 | SCI | Enviro-Core | P | 2/3/97 | -- | <1 | 21yh | 66yh | -- | <0.017 | <0.017 | <0.017 | <0.017 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-57@22 | SCI | Enviro-Core | P | 2/3/97 | -- | <1 | 5.1yh | 64yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-58@surface | SCI | Enviro-Core | R | 1/31/97 | -- | -- | 12yh | 39h | -- | -- | -- | -- | -- | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCI-59@6 | SCI | Enviro-Core | P | 2/3/97 | -- | 330yh | 61ylh | 93yih | -- | <1.0 | <1.0 | 14 | 0.61J | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-59@10 | SCI | Enviro-Core | P | 2/3/97 | -- | <1 | 4.5y | 57yh | -- | <0.13 | <0.13 | 0.10J | <0.13 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-59@19 | SCI | Enviro-Core | P | 2/3/97 | -- | <1 | 8.8yh | 71yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-60@2 | SCI | Enviro-Core | P | 2/3/97 | -- | <1 | 1.6yh | 37yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-60@4 | SCI | Enviro-Core | P | 2/3/97 | -- | <1 | 3.2yh | 28yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-60@7 | SCI | Enviro-Core | P | 2/3/97 | -- | <1 | <1 | 14yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-60@10 | SCI | Enviro-Core | P | 2/3/97 | -- | <1 | 11yh | 590yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-60@19 | SCI | Enviro-Core | P | 2/3/97 | -- | <1 | 10yh | 76yh | -- | <0.005 | <0.005 | 0.0037J | 0.004J | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-61@4.5 | SCI | Enviro-Core | R | 2/3/97 | -- | <1 | 54yh | 200 lh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-62@5 | SCI | Enviro-Core | H | 2/9/97 | -- | -- | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | 7.8 |
| SCI-62@8 | SCI | Enviro-Core | H | 2/9/97 | -- | -- | 13yh | 560yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | 7.9 |
| SCI-63@4.5 | SCI | Enviro-Core | H | 2/9/97 | -- | -- | 2.4yh | 90yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | 8.9 |
| SCI-63@7 | SCI | Enviro-Core | H | 2/9/97 | -- | -- | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | 9.0 |
| SCI-64@5 | SCI | Enviro-Core | H | 2/9/97 | -- | -- | 1.6yh | 17yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | 8.3 |
| SCI-64@7 | SCI | Enviro-Core | H | 2/9/97 | -- | -- | 17 | 140 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8.8 |
| SCI-65@4.5 | SCI | Enviro-Core | H | 2/9/97 | -- | -- | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | 8.9 |
| SCI-65@7 | SCI | Enviro-Core | H | 2/9/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.3 |
| SCI-66@1 | SCI | Enviro-Core | Q | 4/23/97 | 130 | <1 | <1 | 9.8yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCI-66@5 | SCI | Enviro-Core | Q | 4/23/97 | <50 | <1 | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-67@1.5 | SCI | Enviro-Core | Q | 4/23/97 | 290 | <1 | 4.3yh | 170yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-67@9.5 | SCI | Enviro-Core | Q | 4/23/97 | 170 | <1 | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCI-68@1.5 | SCI | Enviro-Core | Q | 4/23/97 | 230 | <1 | 9.3yh | 69yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-68@4.5 | SCI | Enviro-Core | Q | 4/23/97 | 180 | 19y | 19 | 12ylh | -- | <0.010 | 1.1 | 0.019 | 4.0 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-69@1.5 | SCI | Enviro-Core | Q | 4/23/97 | 86 | <1 | 14yh | 89ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | 0.02 | ND | 0.024 | ND | -- | -- |
| SCI-69@5.5 | SCI | Enviro-Core | Q | 4/23/97 | -- | <1 | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-70@2 | SCI | Enviro-Core | F/E/H | 4/23/97 | <50 | <1 | 10yh | 56ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-70@4.5 | SCI | Enviro-Core | F/E/H | 4/23/97 | <50 | <1 | 19yh | 64ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCI-71@2 | SCI | Enviro-Core | F/E/H | 4/23/97 | <50 | <1 | 15yh | 55ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-71@5.5 | SCI | Enviro-Core | F/E/H | 4/23/97 | <50 | <1 | 12yh | 70ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-72@1.5 | SCI | Enviro-Core | F/E/H | 4/24/97 | -- | <1 | <1 | 6.2yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.024 | <0.024 | 0.28 | ND | <0.048 | ND | -- | -- |
| SCI-72@5.5 | SCI | Enviro-Core | F/E/H | 4/24/97 | -- | <1 | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-73@5 | SCI | Enviro-Core | D | 4/24/97 | -- | <1 | 68yh | 21yhl | -- | <0.005 | <0.005 | 0.014 | 0.0042J | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-74@2 | SCI | Enviro-Core | D | 4/24/97 | 680 | <1 | 870 | 180ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.018 | <0.018 | <0.018 | ND | <0.036 | ND | -- | 11.1 |
| SCI-74@4.5 | SCI | Enviro-Core | D | 4/24/97 | <50 | <1 | 23yh | 7.9yhl | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| PH-1@3.5 | SCI | Pot Hole | E | 1/20/97 | 1,300 | -- | 1,300yh | 2,800y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| PH-2@4 | SCI | Pot Hole | E | 1/20/97 | 1,500 | -- | 1,800yh | 2,100y | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.24 | <0.24 | <0.24 | ND | <0.48 | ND | -- | -- |
| PH-4@4 | SCI | Pot Hole | R | 1/20/97 | -- | -- | <1 | 6.4yh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| PH-6@6 | SCI | Pot Hole | R | 1/20/97 | -- | -- | 1.3yh | <5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-1@4 | SCI | Test Pit | I | 1/27/97 | -- | <1 | 15yh | 380y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-1@5 | SCI | Test Pit | I | 1/27/97 | -- | <1 | 1.2yh | 22yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-2@6 | SCI | Test Pit | C | 1/27/97 | -- | <1 | 390h | 450yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-2@10 | SCI | Test Pit | C | 1/27/97 | -- | 19yh | 3,200h | 1,400y | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-3@2.5-3 | SCI | Test Pit | N | 1/27/97 | -- | 43h | 6,700 | 680yl | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-3@3.5-4 | SCI | Test Pit | N | 1/27/97 | -- | 640yh | 4,900 l | 210yl | -- | <0.50 | <0.50 | <0.50 | 0.66 | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-4@5sidewall | SCI | Test Pit | N | 1/28/97 | -- | 300yh | 5,000 l | 400yl | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-4@5 | SCI | Test Pit | N | 1/28/97 | -- | 260yh | 3,600 l | 1,800ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-5@1.5 | SCI | Test Pit | E | 1/28/97 | -- | <1 | 2,800yh | 14,000 lh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-5@4 | SCI | Test Pit | E | 1/28/97 | -- | <1 | 5.7yh | 59yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-6@3 | SCI | Test Pit | B | 1/28/97 | 4,400 | 29h | 12,000yh | 7,700 l | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCI TP-7@3 Fill | SCI | Test Pit | D | 1/29/97 | -- | <1 | 390yh | 7,000ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-8@4.5 | SCI | Test Pit | A/K | 2/3/97 | -- | <1 | 10yh | 120h | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 2
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (mg/kg) | TVH as GAS (mg/kg) | TEH as DIESEL (mg/kg) | TEH as MOTOR OIL (mg/kg) | TRPH (mg/kg) | BENZENE (mg/kg) | ETHYL-BENZENE (mg/kg) | TOLUENE (mg/kg) | TOTAL XYLENES (mg/kg) | 4,4'-DDD (mg/kg) | 4,4'-DDE (mg/kg) | 4,4'-DDT (mg/kg) | OTHER HERBS/ PESTS (mg/kg) | AROCLOR 1260 (mg/kg) | OTHER PCBs (mg/kg) | Methane (mg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCITP-8@6 | SCI | Test Pit | A/K | 2/3/97 | -- | <1 | 32yh | 340 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-9@3.5 | SCI | Test Pit | I | 2/3/97 | -- | 220yh | 1,300yh | 10,000h | -- | <0.025 | <0.025 | <0.025 | 0.060 | <0.12 | <0.12 | <0.12 | ND | 0.37 | ND | -- | -- |
| SCITP-9@6 | SCI | Test Pit | I | 2/3/97 | -- | <1 | <1 | 16h | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCITP-11@1.5 | SCI | Test Pit | J | 2/4/97 | -- | 6.6yh | 1,500yh | 4,500 l | -- | <0.005 | 0.0074 | <0.005 | 0.0068J | <0.24 | <0.24 | <0.24 | ND | 4.3 | ND | -- | -- |
| SCITP-11@4.5 | SCI | Test Pit | J | 2/4/97 | -- | 95yh | 1,700 | 830 | -- | <0.010 | <0.010 | <0.010 | <0.010 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCITP-12@4 | SCI | Test Pit | I/J | 2/4/97 | -- | 280yh | 21,000 | 33,000h | -- | <0.13 | <0.13 | <0.13 | 0.15 | <3.0 | <3.0 | <3.0 | ND | <6.0 | ND | -- | -- |
| SCITP-12@5 | SCI | Test Pit | I/J | 2/4/97 | -- | 140yh | 14,000 | 9,500h | -- | <0.025 | <0.025 | <0.025 | 0.020J | <0.24 | <0.24 | <0.24 | ND | 0.55 | ND | -- | -- |
| SCITP-13@4.2 | SCI | Test Pit | I/J | 2/5/97 | -- | 23yh | 9,400h | 8,600yh | -- | <0.31 | 0.38 | <0.31 | 2.1 | 5.7J | 5.4J | <6.0 | ND | <12 | ND | -- | -- |
| SCITP-13@5.7 | SCI | Test Pit | I/J | 2/5/97 | -- | 800yh | 8,000h | 2,500yh | -- | <0.83 | 16 | <0.83 | 56.1 | 71 | 14 | <4.8 | ND | <9.6 | ND | -- | -- |
| SCITP-13@10 | SCI | Test Pit | I/J | 2/5/97 | -- | <1 | 74yh | 110ylh | -- | <0.005 | <0.005 | <0.005 | 0.0061 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-14@4 | SCI | Test Pit | N | 2/5/97 | -- | 270 | 99ylh | 420 | -- | <0.13 | <0.13 | <0.13 | 5.2 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-15@2 | SCI | Test Pit | I | 4/23/97 | 22,000 | <1 | 840yh | 13,000yh | -- | 0.0098 | <0.005 | <0.005 | <0.005 | <2.4 | <2.4 | <2.4 | ND | <4.8 | ND | -- | -- |
| SCITP-16@1 | SCI | Test Pit | I | 4/23/97 | 21,000 | <1 | 810yh | 20,000yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <2.4 | <2.4 | <2.4 | ND | <4.8 | ND | -- | -- |
| SCITP-17@0.8 | SCI | Test Pit | J | 4/24/97 | -- | 27h | 1,600yh | 9,500h | -- | 0.013C | 0.11 | 0.011 | 0.41c | <0.12 | <0.12 | <0.12 | ND | <0.24 | ND | -- | -- |
| SCITP-17@1.5 | SCI | Test Pit | J | 4/24/97 | 21,000 | 370h | 1,600yh | 10,000h | -- | <0.17 | 2.7 | <0.17 | 3.17c | <0.72 | <0.72 | <0.72 | ND | <1.4 | ND | -- | -- |
| SCITP-18@3.5 | SCI | Test Pit | O | 4/23/97 | 16,000 | 1,100yh | 10,000 lh | 11,000ylh | -- | <0.025 | <0.025 | <0.025 | <0.025 | <1.2 | <1.2 | <1.2 | ND | <2.4 | ND | -- | -- |
| SCITP-18@6.5 | SCI | Test Pit | O | 4/23/97 | 250 | <1 | 66yh | 390yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-19@2.5 | SCI | Test Pit | N | 4/24/97 | -- | -- | 38,000yh | 32,000ylh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-19@6 | SCI | Test Pit | N | 4/24/97 | 98 | 25yh | 33yh | 18ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.03 | <0.03 | <0.03 | ND | <0.06 | ND | -- | -- |
| SCITP-20@3 | SCI | Test Pit | L | 4/24/97 | 130 | <1 | 2yh | 13ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCITP-21@2 | SCI | Test Pit | I | 4/25/97 | 3,500 | <1 | 30yh | 230ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.06 | <0.06 | <0.06 | ND | <0.12 | ND | -- | -- |
| SCITP-21@7 | SCI | Test Pit | I | 4/25/97 | 62 | <1 | 12yh | 82ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCITP-22@1 | SCI | Test Pit | I | 4/25/97 | -- | <1 | 440yh | 13,000yh | -- | <0.005 | <0.005 | <0.005 | 0.0071C | <3.6 | <3.6 | <3.6 | ND | <7.2 | ND | -- | -- |
| SCITP-22@1.5 | SCI | Test Pit | I | 4/25/97 | 64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.3 |
| SCITP-23A@4 | SCI | Test Pit | L | 4/26/97 | -- | -- | 3.7yh | 41yh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-23A@6 | SCI | Test Pit | L | 4/26/97 | 12,000 | 320yh | 180,000 | 10,000yl | -- | <0.25 | <0.25 | <0.25 | <0.25 | 2.1 | 0.25J | <0.3 | ND | <0.6 | ND | -- | -- |
| SCITP-23B@3 | SCI | Test Pit | L | 4/26/97 | -- | -- | 430yh | 2,400 l | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-23B@6 | SCI | Test Pit | L | 4/26/97 | <50 | <1 | 1.7yh | 5.7 l | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |

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| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (mg/kg) | TVH as GAS (mg/kg) | TEH as DIESEL (mg/kg) | TEH as MOTOR OIL (mg/kg) | TRPH (mg/kg) | BENZENE (mg/kg) | ETHYL-BENZENE (mg/kg) | TOLUENE (mg/kg) | TOTAL XYLENES (mg/kg) | 4,4'-DDD (mg/kg) | 4,4'-DDE (mg/kg) | 4,4'-DDT (mg/kg) | OTHER HERBS/ PESTS (mg/kg) | AROCLOR 1260 (mg/kg) | OTHER PCBs (mg/kg) | Methane (mg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCITP-24 CANNERYLINE | SCI | Test Pit | L | 4/26/97 | 26,000 | 97yh | 4,100 | 2,100 | -- | <0.01 | <0.01 | 0.019 | 0.013J | 1.6 | 0.15 | <0.12 | ND | <0.24 | ND | -- | -- |
| SCITP-24A@1.5 | SCI | Test Pit | G/L | 4/26/97 | 2,500 | -- | 1,100yh | 3,700 l | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-25@1.5 | SCI | Test Pit | B | 4/28/97 | 11,000 | -- | 9,000h | 13,000 | -- | -- | -- | -- | -- | 2.6 | <0.24 | <0.24 | ND | <0.48 | ND | 0.004 | -- |
| SCITP-25@3.5 | SCI | Test Pit | B | 4/28/97 | -- | -- | 190yh | 1,000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-25@6 | SCI | Test Pit | B | 4/28/97 | -- | -- | 14yh | 62ylh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.37 | -- |
| SCITP-26@3 | SCI | Test Pit | N | 4/28/97 | 470 | 71yh | 200ylh | 610 l | -- | <0.25 | <0.25 | <0.25 | <0.25 | <0.03 | <0.03 | <0.03 | ND | <0.06 | ND | -- | -- |
| SCITP-26@5 | SCI | Test Pit | N | 4/28/97 | -- | -- | 2.2yh | 17yh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.20 | -- |
| SCITP-27@3 | SCI | Test Pit | N | 4/28/97 | <50 | <1 | 14yh | 79h | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | <0.012 | 0.002 | -- |
| SCITP-28@1.5 | SCI | Test Pit | C | 4/29/97 | 710 | -- | 1,100h | 1,100yh | -- | -- | -- | -- | -- | <0.03 | <0.03 | <0.03 | ND | <0.06 | ND | -- | 5.2 |
| SCITP-29@5 | SCI | Test Pit | D | 4/29/97 | 72 | <1 | 11yh | 100y | -- | <0.005 | <0.005 | 0.0086 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCITP-30@3 | SCI | Test Pit | D | 4/29/97 | 940 | <1 | 38yh | 430 | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCITP-31@1.2 | SCI | Test Pit | I/P | 4/30/97 | 230 | <1 | 170yh | 1,300 | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.03 | 0.053 | 0.32 | ND | <0.06 | ND | -- | -- |
| SCITP-32@2.5 | SCI | Test Pit | I/P | 4/30/97 | <50 | <1 | 30yh | 130 lh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCITP-33@4 | SCI | Test Pit (SCITP-33A@4) | R | 4/30/97 | 2,200 | 140yl | 1,100ylh | 5,900 l | -- | <0.13 | 5.3 | 1.8 | 3.87 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-33B@6.5 | SCI | Test Pit | R | 5/2/97 | 430 | 1,900y | 330ylh | 1,100 l | -- | <0.13 | 1.1 | <0.13 | <0.13 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCITP-33C@4.5 | SCI | Test Pit | R | 5/1/97 | 450 | 1,900 | 200 lh | 200 l | -- | <0.5 | 24 | 8.1 | 56 | <0.006 | <0.006 | <0.006 | ND | 0.10 | ND | -- | -- |
| SCITP-33D@4 | SCI | Test Pit | R | 5/2/97 | 64 | <1 | 7.7yh | 50 lh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCI-33E@5 | SCI | Test Pit (SCITP-33E@5) | R | 5/2/97 | 970 | 760 | 530ylh | 1,200 lh | -- | <0.25 | 7.6 | 2.6 | 10.1 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-34@6 | SCI | Test Pit | Q | 5/1/97 | 74 | <1 | 100yh | 310 lh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| SCITP-34@9 | SCI | Test Pit | Q | 5/1/97 | <50 | <1 | <1 | <5 | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-35@5 | SCI | Test Pit | G | 5/3/97 | 120 | <1 | 15yh | 48 lh | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | -- | -- | -- | -- | -- | 9.1 |
| SCITP-36@4 | SCI | Test Pit | G | 5/3/97 | 510 | <1 | 83yh | 780 | -- | <0.005 | <0.005 | 0.014 | 0.0072 | -- | -- | -- | -- | -- | -- | -- | 7.9 |
| SCITP-37@7 | SCI | Test Pit | F/G/L | 5/3/97 | 2,800 | <1 | 8.1yh | 51ylh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.018 | <0.018 | <0.018 | ND | <0.036 | ND | -- | 7.9 |
| RMA-1@5.5-6 | RMA | Strata-probe | P | 11/18/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-2@5.5-6 | RMA | Strata-probe | P | 11/18/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-2@7.5-8 | RMA | Strata-probe | P | 11/18/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-3@5-5.5 | RMA | Strata-probe | D | 11/18/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-3@7.5-8 | RMA | Strata-probe | D | 11/18/96 | -- | <10 | 1,865y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RMA-3@9-9.5 | RMA | Strata-probe | D | 11/18/96 | -- | <10 | 45y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-4@3-3.5 | RMA | Strata-probe | F | 11/18/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-4@3-3.5-dup | RMA | Strata-probe | F | 11/18/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-5@6.5-7 | RMA | Strata-probe | F | 11/18/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-6@7.5-8 | RMA | Strata-probe | E | 11/19/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-7@3.5-4 | RMA | Strata-probe | E | 11/19/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-8@3.5-4 | RMA | Strata-probe | E | 11/19/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-8@7.5-8 | RMA | Strata-probe | E | 11/19/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-10@3.5-4 | RMA | Strata-probe | P | 11/19/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-10@7.5-8 | RMA | Strata-probe | P | 11/19/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-12@6.5-7 | RMA | Strata-probe | A/K | 11/20/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-15@5.5-6 | RMA | Strata-probe | J | 11/20/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-16@2.5-3 | RMA | Strata-probe | J | 11/20/96 | -- | <10 | 223y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-16@3-3.5 | RMA | Strata-probe | J | 11/20/96 | -- | <10 | 209y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-17@3.5-4 | RMA | Strata-probe | J | 11/20/96 | -- | <10 | 734y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-17@6.5-7 | RMA | Strata-probe | J | 11/20/96 | -- | <10 | 441y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.2* | -- | -- |
| RMA-18@10.5 | SCI | Strata-probe | I/J | 11/20/96 | -- | -- | 920yh | 9,500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-18@10.5 | RMA | Strata-probe | I/J | 11/20/96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.8* | -- | -- |
| RMA-20@2.5-3 | RMA | Strata-probe | J | 11/21/96 | -- | 348y | 1,089y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-20@7-7.5 | RMA | Strata-probe | J | 11/21/96 | -- | <10 | 21y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-21@6-6.5 | RMA | Strata-probe | I | 11/21/96 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.8* | -- | -- |
| RMA-22@6.5-7 | RMA | Strata-probe | P | 11/22/96 | -- | 493y | 4,871y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-22@7 | SCI | Strata-probe | P | 11/22/96 | -- | -- | 1,900yl | 450y | -- | 0.076 | 0.19 | 0.022J | 0.31 | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-24@6.5-7 | RMA | Strata-probe | N | 11/22/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-25@5.5-6 | RMA | Strata-probe | N | 11/22/96 | -- | 1,349y | 2,685y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-26@6-6.5 | RMA | Strata-probe | N | 11/22/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-26@9.5-10 | RMA | Strata-probe | N | 11/22/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-26@9.5-10-dup | RMA | Strata-probe | N | 11/22/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RMA-27@5.5 | SCI | Strata-probe | B | 11/22/96 | -- | -- | 15yh | 96yh | -- | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.006 | <0.006 | ND | <0.012 | ND | -- | -- |
| RMA-27@6.5-7 | RMA | Strata-probe | B | 11/22/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-28@3.5 | SCI | Strata-probe | B | 11/22/96 | -- | -- | 250yh | 1,100 | -- | <0.005 | <0.005 | <0.005 | <0.005 | 0.17 | <0.060 | <0.060 | ND | <0.12 | ND | -- | -- |
| RMA-28@5-5.5 | RMA | Strata-probe | B | 11/22/96 | -- | <10 | <10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B0-4 | Uribe | Field Blank | | 11/19/92 | -- | -- | <40 | -- | 256 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B00-1 | Uribe | Field Blank | | 3/3/93 | -- | -- | <80 | -- | -- | <0.010 | <0.010 | <0.010 | <0.010 | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B00-2 | Uribe | Field Blank | | 3/3/93 | -- | -- | <100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B00-3 | Uribe | Field Blank | | 3/3/93 | -- | -- | <100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

TVH = Total Volatile Hydrocarbons
TEH = Total Extractable Hydrocarbons
TRPH = Total Recoverable Petroleum Hydrocarbons
DDD = Dichlorodiphenyldichloroethane
DDT = Dichlorodiphenyltrichloroethene

PCBs = Polychlorinated Biphenyls
mg/kg = milligrams per kilogram or parts per million
<1 = Compound not detected at or above stated reporting limit
-- = Not tested

ND = Not detected
y = Sample exhibits fuel pattern which does not resemble standard
l = lighter hydrocarbons than indicated standard
h = Heavier hydrocarbons than indicated standard
z = Sample exhibits unknown single peak or peaks

J = estimated value
† = Results not reported due to lab error in sample preparation
* = specifically tested for Aroclor 1242/1254
c = Compound confirmed by a 2nd column; however, the concentrations differed by more than a factor of two.

TABLE 3
VOLATILE, SEMI-VOLATILE, TOTAL PNA AND ION CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (mg/kg) | MEK or 2-BUTANONE (mg/kg) | CARBON DISULFIDE (mg/kg) | CHLORO-BENZENE (mg/kg) | 1,1-DI-CHLORO-ETHANE (mg/kg) | 1,1-DI-CHLORO-ETHENE (mg/kg) | cis-1,2-DI-CHLORO-ETHENE (mg/kg) | trans-1,2-DI-CHLORO-ETHENE (mg/kg) | METHYL-ENE CHLORIDE (mg/kg) | STYRENE (mg/kg) | 1,1,1-TRI-CHLORO-ETHANE (mg/kg) | TRI-CHLORO-ETHENE (mg/kg) | OTHER 8240s EXCL. BTEX* (mg/kg) | TOTAL PNAs (mg/kg) | OTHER 8270s (mg/kg) | TOTAL ASBESTOS (%) | CHLORIDE (mg/kg) | CYANIDE (mg/kg) | NITRATE/ NITRITE-N (mg/kg) | TOTAL PHOS-PHORUS (mg/kg) | SULFATE (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9AV-B6-7 | Uribe | Boring B-6 | L | 11/20/92 | **0.030** | <0.020 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| 9AV-B10-10 | Uribe | Boring B-7 | L | 11/19/92 | **0.040** | <0.020 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SP-1 | ERM-West | H-107 tank excavation stockpile | M | 10/12/94 | <10 | <10 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <2.0 | <5.0 | <2.0 | <2.0 | <2.0 | ND | **12** | ND | – | – | – | – | – | – |
| SCIMW-3@4.5 | SCI | Soil boring | I/J | 5/14/96 | **0.028** | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCIMW-10@3 | SCI | Soil boring | J | 8/21/96 | **0.021** | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | **30** | ND | – | – | – | – | – | – |
| SCIMW-21@2 | SCI | Soil boring | D | 4/28/97 | **0.046** | **0.0094J** | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | – | – | – | <1 | **16** | – |
| SCIMW-22@3.5 | SCI | Soil boring | P | 4/28/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | – | – | <1.0 | <1 | **4.0** | – |
| SCIMW-23@5.5 | SCI | Soil boring | B | 4/28/97 | **0.021** | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | <1 | **100** | – |
| SCIMW-24@3 | SCI | Soil boring | N | 4/29/97 | <2.0 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <2.0 | <0.5 | <0.5 | <0.5 | ND | – | – | – | – | – | – | – | – |
| SCIMW-24@6 | SCI | Soil boring | N | 4/29/97 | <2.0 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <2.0 | <0.5 | <0.5 | <0.5 | ND | – | – | – | – | – | – | – | – |
| SCIMW-25@10.5 | SCI | Soil boring | H | 4/29/97 | **0.023** | **0.0053J** | **0.010** | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | – | – | <1.0 | – | – | – |
| SCIMW-26@3.5 | SCI | Soil boring | H | 4/30/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | <1.0 | – | – | – |
| SCIMW-27@3.5 | SCI | Soil boring | E/H | 4/30/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | <1.0 | – | – | – |
| SCIMW-28@3.5 | SCI | Soil boring | Q | 4/30/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | <1.0 | – | – | – |
| SCIMW-29@4.6 | SCI | Soil boring | H | 5/14/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | – | – | <1.0 | – | – | – |
| SCI-32@5 | SCI | Enviro-Core | Q | 8/29/96 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | <1.0 | – | – | – |
| SCI-34@3.5 | SCI | Enviro-Core | Q | 8/29/96 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | – | – | – | – | – | – |
| SCI-38@3 | SCI | Enviro-Core | I/J | 8/30/96 | **0.023** | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | **4.0** | ND | – | – | – | – | – | – |
| SCI-40@4.5 | SCI | Enviro-Core | C | 1/22/97 | – | – | – | – | – | – | – | – | – | – | – | – | – | ND | ND | – | – | – | – | – | – |
| SCI-40@10.5 | SCI | Enviro-Core | C | 1/22/97 | – | – | – | – | – | – | – | – | – | – | – | – | – | ND | ND | – | – | – | – | – | – |
| SCI-42@4.5 | SCI | Enviro-Core | C | 1/23/97 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| SCI-44@2 | SCI | Enviro-Core | N | 1/23/97 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| SCI-46@2 | SCI | Enviro-Core | B | 1/23/97 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | ND | – | – | – | – | – |
| SCI-46@3 | SCI | Enviro-Core | B | 1/23/97 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | **4.4** | **16** | – |
| SCI-47@1 | SCI | Enviro-Core | G/P | 1/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | **0.0076** | <0.005 | <0.005 | ND | – | – | ND | – | – | **10** | **1.1** | – |
| SCI-47@4.5 | SCI | Enviro-Core | G/P | 1/24/97 | **0.035** | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | ND | – | – | **0.31** | **15** | – |
| SCI-48@5.5 | SCI | Enviro-Core | G/P | 1/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-49@0.5 | SCI | Enviro-Core | Q | 1/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-49@3.5 | SCI | Enviro-Core | Q | 1/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.030** | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-49@6 | SCI | Enviro-Core | Q | 1/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |

TABLE 3
VOLATILE, SEMI-VOLATILE, TOTAL PNA AND ION CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (mg/kg) | MEK or 2-BUTANONE (mg/kg) | CARBON DISULFIDE (mg/kg) | CHLORO-BENZENE (mg/kg) | 1,1-DI-CHLORO-ETHANE (mg/kg) | 1,1-DI-CHLORO-ETHENE (mg/kg) | cis-1,2-DI-CHLORO-ETHENE (mg/kg) | trans-1,2-DI-CHLORO-ETHENE (mg/kg) | METHYL-ENE CHLORIDE (mg/kg) | STYRENE (mg/kg) | 1,1,1-TRI-CHLORO-ETHANE (mg/kg) | TRI-CHLORO-ETHENE (mg/kg) | OTHER E240s EXCL. BTEX* (mg/kg) | TOTAL PNAs (mg/kg) | OTHER 8270s (mg/kg) | TOTAL ASBESTOS (%) | CHLORIDE (mg/kg) | CYANIDE (mg/kg) | NITRATE/ NITRITE-N (mg/kg) | TOTAL PHOS-PHORUS (mg/kg) | SULFATE (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-48@9.5 | SCI | Enviro-Core | Q? | 1/24/97 | <0.030 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-50@2 | SCI | Enviro-Core | Q | 1/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | – | – | – | 0.47 | <0.50 | – |
| SCI-50@8 | SCI | Enviro-Core | Q | 1/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | 0.31 | ND | – | – | – | – | – | – |
| SCI-51@1 | SCI | Enviro-Core | P | 1/30/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | 1.9 | 0.8 | – |
| SCI-51@5 | SCI | Enviro-Core | P | 1/30/97 | 0.039 | 0.0079J | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | – | – | – | – | – | – |
| SCI-51@11 | SCI | Enviro-Core | P | 1/30/97 | <0.020 | <0.010 | 0.0053 | <0.005 | 0.0065 | <0.005 | 0.017 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-51@20 | SCI | Enviro-Core | P | 1/30/97 | <0.020 | <0.010 | 0.0037 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-53@2 | SCI | Enviro-Core | H | 1/30/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.034 | <0.005 | <0.005 | <0.005 | ND | – | – | – | 100 | <1.0 | – | – | 73 |
| SCI-53@6 | SCI | Enviro-Core | H | 1/30/97 | 0.034 | 0.0068J | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.027 | <0.005 | <0.005 | <0.005 | ND | – | – | – | 420 | <1.0 | – | – | 100 |
| SCI-54@6.5 | SCI | Enviro-Core | P/Q | 1/30/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-54@15 | SCI | Enviro-Core | P/Q | 1/30/97 | <0.020 | <0.010 | 0.0027J | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-55@4.5 | SCI | Enviro-Core | P | 1/30/97 | <20 | <10 | <5 | <5 | 35 | <5 | 120 | <5 | <20 | <5 | 5.2 | 50 | ND | – | – | – | – | – | – | – | – |
| SCI-55@7.5 | SCI | Enviro-Core | P | 1/30/97 | <40 | <20 | <10 | <10 | 7.4J | <10 | 28 | <10 | <40 | <10 | <10 | 250 | ND | – | – | – | – | – | – | – | – |
| SCI-56@1 | SCI | Enviro-Core | R | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-56@5 | SCI | Enviro-Core | R | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-56@11 | SCI | Enviro-Core | R | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-57@4 | SCI | Enviro-Core | P | 2/3/97 | <0.10 | <0.050 | <0.025 | <0.025 | 0.42 | 0.013J | 2.6 | <0.025 | <0.10 | <0.025 | 0.58 | 2.3 | ND | – | – | – | – | – | – | – | – |
| SCI-57@7 | SCI | Enviro-Core | P | 2/3/97 | <0.50 | <0.25 | <0.13 | <0.13 | 0.31 | 0.007J | 4.1 | 0.062J | <0.50 | <0.13 | <0.13 | <0.13 | ND | – | – | – | – | – | – | – | – |
| SCI-57@10 | SCI | Enviro-Core | P | 2/3/97 | <1.0 | <0.50 | <0.25 | <0.25 | 0.28 | <0.25 | 5.4 | 0.19J | <1.0 | <0.25 | <0.25 | <0.25 | ND | – | – | – | – | – | – | – | – |
| SCI-57@13 | SCI | Enviro-Core | P | 2/3/97 | <0.067 | <0.033 | 0.018 | <0.017 | 0.061 | <0.017 | 0.62 | 0.044 | <0.067 | <0.017 | <0.017 | <0.017 | ND | – | – | – | – | – | – | – | – |
| SCI-57@22 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | 0.011 | <0.005 | <0.005 | <0.005 | 0.0035J | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-59@6 | SCI | Enviro-Core | P | 2/3/97 | <4.0 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | 24 | <1.0 | <4.0 | <1.0 | <1.0 | 39 | ND | – | – | – | – | – | – | – | – |
| SCI-59@10 | SCI | Enviro-Core | P | 2/3/97 | <0.50 | <0.25 | <0.13 | <0.13 | 0.065J | <0.13 | 4.3 | <0.13 | <0.50 | <0.13 | <0.13 | 0.27 | ND | – | – | – | – | – | – | – | – |
| SCI-59@19 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | 0.0047 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-60@2 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | 0.011 | <0.005 | 0.015 | <0.005 | <0.020 | <0.005 | <0.005 | 0.027 | ND | – | – | ND | – | – | 3.0 | 3.1 | – |
| SCI-60@4 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | 0.0071 | <0.005 | 0.0093 | <0.005 | <0.020 | <0.005 | <0.005 | 0.0038J | ND | – | – | – | – | – | – | – | – |
| SCI-60@7 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | 0.071 | <0.005 | 0.027 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-60@10 | SCI | Enviro-Core | P | 2/3/97 | 0.040 | 0.008J | <0.005 | <0.005 | 0.012 | <0.005 | 0.0028J | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-60@19 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | 0.011 | <0.005 | <0.005 | <0.005 | 0.0029J | <0.005 | <0.020 | <0.005 | <0.005 | 0.0032J | ND | – | – | – | – | – | – | – | – |
| SCI-62@5 | SCI | Enviro-Core | H | 2/9/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | 1,200 | 3.5 | – | – | 270 |

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**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (mg/kg) | MEK or 2-BUTANONE (mg/kg) | CARBON DISULFIDE (mg/kg) | CHLORO-BENZENE (mg/kg) | 1,1-DI-CHLORO-ETHANE (mg/kg) | 1,1-DI-CHLORO-ETHENE (mg/kg) | cis-1,2-DI-CHLORO-ETHENE (mg/kg) | trans-1,2-DI-CHLORO-ETHENE (mg/kg) | METHYL-ENE CHLORIDE (mg/kg) | STYRENE (mg/kg) | 1,1,1-TRI-CHLORO-ETHANE (mg/kg) | TRI-CHLORO-ETHENE (mg/kg) | OTHER 8240s EXCL. BTEX* (mg/kg) | TOTAL PNAs (mg/kg) | OTHER 8270s (mg/kg) | TOTAL ASBESTOS (%) | CHLORIDE (mg/kg) | CYANIDE (mg/kg) | NITRATE/ NITRITE-N (mg/kg) | TOTAL PHOS-PHORUS (mg/kg) | SULFATE (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-49@9.5 | SCI | Enviro-Core | Q | 1/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-50@2 | SCI | Enviro-Core | Q | 1/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | – | – | – | 0.47 | 0.50 | – |
| SCI-50@8 | SCI | Enviro-Core | Q | 1/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | 0.31 | ND | – | – | – | – | – | – |
| SCI-51@1 | SCI | Enviro-Core | P | 1/30/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | 1.9 | 0.8 | – |
| SCI-51@5 | SCI | Enviro-Core | P | 1/30/97 | 0.039 | 0.0079J | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | – | – | – | – | – | – |
| SCI-51@11 | SCI | Enviro-Core | P | 1/30/97 | <0.020 | <0.010 | 0.0052 | <0.005 | 0.0085 | <0.005 | 0.017 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-51@20 | SCI | Enviro-Core | P | 1/30/97 | <0.020 | <0.010 | 0.0057 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-53@2 | SCI | Enviro-Core | H | 1/30/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.034 | <0.005 | <0.005 | <0.005 | ND | – | – | – | 100 | <1.0 | – | – | 73 |
| SCI-53@6 | SCI | Enviro-Core | H | 1/30/97 | 0.034 | 0.0068J | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.027 | <0.005 | <0.005 | <0.005 | ND | – | – | – | 420 | <1.0 | – | – | 100 |
| SCI-54@6.5 | SCI | Enviro-Core | P/Q | 1/30/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-54@15 | SCI | Enviro-Core | P/Q | 1/30/97 | <0.020 | <0.010 | 0.0027J | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-55@4.5 | SCI | Enviro-Core | P | 1/30/97 | <20 | <10 | <5 | <5 | 15 | <5 | 120 | <5 | <20 | <5 | 5.2 | 30 | ND | – | – | – | – | – | – | – | – |
| SCI-55@7.5 | SCI | Enviro-Core | P | 1/30/97 | <40 | <20 | <10 | <10 | 7.4J | <10 | 26 | <10 | <40 | <10 | <10 | 250 | ND | – | – | – | – | – | – | – | – |
| SCI-56@1 | SCI | Enviro-Core | R | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-56@3 | SCI | Enviro-Core | R | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-56@11 | SCI | Enviro-Core | R | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-57@4 | SCI | Enviro-Core | P | 2/3/97 | <0.10 | <0.050 | <0.025 | <0.025 | 0.42 | 0.019J | 2.6 | <0.025 | <0.10 | <0.025 | 0.50 | 2.2 | ND | – | – | – | – | – | – | – | – |
| SCI-57@7 | SCI | Enviro-Core | P | 2/3/97 | <0.50 | <0.25 | <0.13 | <0.13 | 0.31 | 0.067J | 4.1 | 0.082J | <0.50 | <0.13 | <0.13 | <0.13 | ND | – | – | – | – | – | – | – | – |
| SCI-57@10 | SCI | Enviro-Core | P | 2/3/97 | <1.0 | <0.50 | <0.25 | <0.25 | 0.28 | <0.25 | 5.4 | 0.19J | <1.0 | <0.25 | <0.25 | <0.25 | ND | – | – | – | – | – | – | – | – |
| SCI-57@13 | SCI | Enviro-Core | P | 2/3/97 | <0.067 | <0.033 | 0.018 | <0.017 | 0.061 | <0.017 | 0.62 | 0.044 | <0.067 | <0.017 | <0.017 | <0.017 | ND | – | – | – | – | – | – | – | – |
| SCI-57@22 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | 0.011 | <0.005 | <0.005 | <0.005 | 0.0035J | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-59@6 | SCI | Enviro-Core | P | 2/3/97 | <4.0 | <2.0 | <1.0 | <1.0 | <1.0 | <1.0 | 24 | <1.0 | <4.0 | <1.0 | <1.0 | 39 | ND | – | – | – | – | – | – | – | – |
| SCI-59@10 | SCI | Enviro-Core | P | 2/3/97 | <0.50 | <0.25 | <0.13 | <0.13 | 0.065J | <0.13 | 4.3 | <0.13 | <0.50 | <0.13 | <0.13 | 0.27 | ND | – | – | – | – | – | – | – | – |
| SCI-59@19 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | 0.0067 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-60@2 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | 0.011 | <0.005 | 0.015 | <0.005 | <0.020 | <0.005 | <0.005 | 0.027 | ND | – | – | ND | – | – | 3.0 | 3.1 | – |
| SCI-60@4 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | 0.0071 | <0.005 | 0.0093 | <0.005 | <0.020 | <0.005 | <0.005 | 0.0038J | ND | – | – | – | – | – | – | – | – |
| SCI-60@7 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | 0.071 | <0.005 | 0.027 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-60@10 | SCI | Enviro-Core | P | 2/3/97 | 0.040 | 0.008J | <0.005 | <0.005 | 0.012 | <0.005 | 0.0028J | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | – | – | – | – | – |
| SCI-60@19 | SCI | Enviro-Core | P | 2/3/97 | <0.020 | <0.010 | 0.011 | <0.005 | <0.005 | <0.005 | 0.0029J | <0.005 | <0.020 | <0.005 | <0.005 | 0.0032J | ND | – | – | – | – | – | – | – | – |
| SCI-62@5 | SCI | Enviro-Core | H | 2/9/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | – | – | – | 1,200 | 3.5 | – | – | 270 |

TABLE 3
VOLATILE, SEMI-VOLATILE, TOTAL PNA AND ION CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (mg/kg) | MEK or 2-BUTANONE (mg/kg) | CARBON DISULFIDE (mg/kg) | CHLORO-BENZENE (mg/kg) | 1,1-DI-CHLORO-ETHANE (mg/kg) | 1,1-DI-CHLORO-ETHENE (mg/kg) | cis-1,2-DI-CHLORO-ETHENE (mg/kg) | trans-1,2-DI-CHLORO-ETHENE (mg/kg) | METHYL-ENE CHLORIDE (mg/kg) | STYRENE (mg/kg) | 1,1,1-TRI-CHLORO-ETHANE (mg/kg) | TRI-CHLORO-ETHENE (mg/kg) | OTHER 8240s EXCL. BTEX* (mg/kg) | TOTAL PNAs (mg/kg) | OTHER 8270s (mg/kg) | TOTAL ASBESTOS (%) | CHLORIDE (mg/kg) | CYANIDE (mg/kg) | NITRATE/ NITRITE-N (mg/kg) | TOTAL PHOS-PHORUS (mg/kg) | SULFATE (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-62@8 | SCI | Enviro-Core | H | 2/9/97 | <0.020 | <0.010 | <0.005 | <0.005 | 0.0048J | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | 0.016 | <0.005 | ND | -- | -- | -- | 520 | <1.0 | -- | -- | 230 |
| SCI-63@4.5 | SCI | Enviro-Core | H | 2/9/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | 940 | <1.0 | -- | -- | 640 |
| SCI-63@7 | SCI | Enviro-Core | H | 2/9/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | 850 | <1.0 | -- | -- | 530 |
| SCI-64@5 | SCI | Enviro-Core | H | 2/9/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | 130 | 1.3 | -- | -- | 160 |
| SCI-64@7 | SCI | Enviro-Core | H | 2/9/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | <1.0 | -- | -- | 200 |
| SCI-65@4.5 | SCI | Enviro-Core | H | 2/9/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | 68 | <1.0 | -- | -- | <25 |
| SCI-65@7 | SCI | Enviro-Core | H | 2/9/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 17 | 11 | -- | -- | <25 |
| SCI-67@9.5 | SCI | Enviro-Core | Q | 4/23/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-68@4.5 | SCI | Enviro-Core | Q | 4/23/97 | <0.050 | <0.025 | <0.013 | <0.013 | <0.013 | <0.013 | <0.013 | <0.013 | <0.050 | <0.013 | <0.013 | <0.013 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCI-72@1.5 | SCI | Enviro-Core | F/E/H | 4/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | 0.0066 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND** | ND | ND | -- | -- | <1.0 | -- | -- | -- |
| SCI-72@5.5 | SCI | Enviro-Core | F/E/H | 4/24/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <1.0 | -- | -- | -- |
| SCI-73@5 | SCI | Enviro-Core | D | 4/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-74@2 | SCI | Enviro-Core | D | 4/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | -- | 9.9 | <1.0 | -- |
| PH-2@4 | SCI | Pot Hole | E | 1/20/97 | 0.25 | 0.051 | 0.0026J | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-6@3 | SCI | Test Pit | B | 1/28/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.095 | <0.005 | <0.005 | <0.005 | ND | ND | ND | ND | -- | -- | 0.30 | <0.3 | -- |
| SCITP-9@3.5 | SCI | Test Pit | I | 2/3/97 | <0.10 | <0.050 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.10 | <0.025 | <0.025 | <0.025 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCITP-9@6 | SCI | Test Pit | I | 2/3/97 | 0.038 | 0.0061J | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCITP-11@1.5 | SCI | Test Pit | J | 2/4/97 | 0.028 | 0.0051J | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCITP-11@4.5 | SCI | Test Pit | J | 2/4/97 | 0.062 | <0.020 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.010 | <0.040 | <0.010 | <0.010 | <0.010 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCITP-12@4 | SCI | Test Pit | I/J | 2/4/97 | <0.50 | <0.25 | <0.13 | <0.13 | <0.13 | <0.13 | <0.13 | <0.13 | <0.50 | <0.13 | <0.13 | <0.13 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCITP-12@5 | SCI | Test Pit | I/J | 2/4/97 | <0.10 | <0.050 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.10 | <0.025 | <0.025 | <0.025 | ND | 5.2 | ND | -- | -- | -- | -- | -- | -- |
| SCITP-13@4.2 | SCI | Test Pit | I/J | 2/5/97 | <1.3 | <0.63 | <0.31 | 7.3 | <0.31 | <0.31 | <0.31 | <0.31 | <1.3 | <0.31 | <0.31 | <0.31 | ND | 22J | ND | -- | -- | -- | -- | -- | -- |
| SCITP-13@5.7 | SCI | Test Pit | I/J | 2/5/97 | <3.3 | <1.7 | <0.83 | 4.9 | <0.83 | <0.83 | <0.83 | <0.83 | <3.3 | <0.83 | <0.83 | <0.83 | ND | 72.2 | *** | -- | -- | -- | -- | -- | -- |
| SCITP-13@10 | SCI | Test Pit | I/J | 2/5/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | 0.24J | **** | -- | -- | -- | -- | -- | -- |
| SCITP-15@2 | SCI | Test Pit | I | 4/23/97 | 0.031 | 0.009J | 0.0025J | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCITP-16@1 | SCI | Test Pit | I | 4/23/97 | 0.024 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | -- | <0.5 | 48 | -- |
| SCITP-17@0.8 | SCI | Test Pit | J | 4/24/97 | 0.041 | 0.008J | <0.005 | 0.0038J | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCITP-17@1.5 | SCI | Test Pit | J | 4/24/97 | <0.67 | <0.33 | <0.17 | 0.099J | <0.17 | <0.17 | <0.17 | <0.17 | <0.67 | <0.17 | <0.17 | <0.17 | ND | ND | ND | -- | -- | <1.0 | -- | -- | -- |
| SCITP-18@3.5 | SCI | Test Pit | O | 4/23/97 | <0.10 | <0.050 | <0.025 | 0.087 | <0.025 | <0.025 | <0.025 | <0.025 | <0.10 | <0.025 | <0.025 | <0.025 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCITP-18@6.5 | SCI | Test Pit | O | 4/23/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | -- | <1.0 | <0.5 | 140 | -- |

TABLE 3
VOLATILE, SEMI-VOLATILE, TOTAL PNA AND ION CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (mg/kg) | MEK or 2-BUTANONE (mg/kg) | CARBON DISULFIDE (mg/kg) | CHLORO-BENZENE (mg/kg) | 1,1-DI-CHLORO-ETHANE (mg/kg) | 1,1-DI-CHLORO-ETHENE (mg/kg) | cis-1,2-DI-CHLORO-ETHENE (mg/kg) | trans-1,2-DI-CHLORO-ETHENE (mg/kg) | METHYL-ENE CHLORIDE (mg/kg) | STYRENE (mg/kg) | 1,1,1-TRI-CHLORO-ETHANE (mg/kg) | TRI-CHLORO-ETHENE (mg/kg) | OTHER 8240s EXCL. BTEX* (mg/kg) | TOTAL PNAs (mg/kg) | OTHER 8270s (mg/kg) | TOTAL ASBESTOS (%) | CHLORIDE (mg/kg) | CYANIDE (mg/kg) | NITRATE/ NITRITE-N (mg/kg) | TOTAL PHOS-PHORUS (mg/kg) | SULFATE (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCITP-19@2.5 | SCI | Test Pit | N | 4/24/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 23,180 | ND | -- | -- | -- | -- | -- | -- |
| SCITP-19@6 | SCI | Test Pit | N | 4/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | -- | <1.0 | -- | -- | -- |
| SCITP-20@3 | SCI | Test Pit | L | 4/24/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | -- | <1.0 | -- | -- | -- |
| SCITP-21@2 | SCI | Test Pit | I | 4/25/97 | **0.026** | **0.0051J** | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | 2.54 | ND | -- | -- | -- | -- | -- | -- |
| SCITP-21@7 | SCI | Test Pit | I | 4/25/97 | **0.04** | **0.014** | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | 3.24 | ND | -- | -- | -- | -- | -- | -- |
| SCITP-22@1 | SCI | Test Pit | I | 4/25/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | **0.037** | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | <1.0 | <1 | 3.2 | -- |
| SCITP-23A@6 | SCI | Test Pit | L | 4/26/97 | <1.0 | <0.5 | <0.25 | <0.25 | <0.25 | <0.25 | <0.25 | <0.25 | <1.0 | <0.25 | <0.25 | <0.25 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCITP-23B@6 | SCI | Test Pit | L | 4/26/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-24 CANNERYLINE | SCI | Test Pit | L | 4/26/97 | <0.1 | <0.05 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.1 | <0.025 | <0.025 | <0.025 | ND | 1.8J | ND | -- | -- | -- | -- | -- | -- |
| SCITP-25@1.5 | SCI | Test Pit | B | 4/28/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | 54 | -- |
| SCITP-25@3.5 | SCI | Test Pit | B | 4/28/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 25-30 | -- | -- | -- | -- | -- |
| SCITP-26@3 | SCI | Test Pit | N | 4/28/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <0.5 | 75 | -- |
| SCITP-28@1.5 | SCI | Test Pit | C | 4/29/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <1 | 57 | -- |
| SCITP-29@5 | SCI | Test Pit | D | 4/29/97 | **0.27** | **0.062** | <0.013 | <0.013 | <0.013 | <0.013 | <0.013 | <0.013 | <0.05 | <0.013 | <0.013 | <0.013 | ND | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-31@1.2 | SCI | Test Pit | I/P | 4/30/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-32@2.5 | SCI | Test Pit | I/P | 4/30/97 | **0.038** | **0.0051J** | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCITP-33@4 | SCI | Test Pit (SCITP-33A@4) | R | 4/30/97 | <0.5 | <0.25 | <0.13 | <0.13 | <0.13 | <0.13 | <0.13 | <0.13 | <0.5 | <0.13 | <0.13 | <0.13 | ND | 37.9 | ND | -- | -- | -- | -- | -- | -- |
| SCITP-33B@6.5 | SCI | Test Pit | R | 5/2/97 | <0.5 | <0.25 | <0.13 | <0.13 | <0.13 | <0.13 | <0.13 | <0.13 | <0.5 | <0.13 | <0.13 | <0.13 | ND | 15.6 | ND | -- | -- | -- | -- | -- | -- |
| SCITP-33C@4.5 | SCI | Test Pit | R | 5/1/97 | <2.0 | <1.0 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | <2.0 | <0.5 | <0.5 | <0.5 | ND | 19.1 | ND | -- | -- | -- | -- | -- | -- |
| SCITP-33D@4 | SCI | Test Pit | R | 5/2/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | -- | -- | -- | -- |
| SCI-33E@5 | SCI | Test Pit (SCITP-33E@5) | R | 5/2/97 | <1.0 | <0.5 | <0.25 | <0.25 | <0.25 | <0.25 | <0.25 | <0.25 | <1.0 | <0.25 | <0.25 | <0.25 | ND | 20.4 | ND | -- | -- | -- | -- | -- | -- |
| SCITP-34@6 | SCI | Test Pit | Q | 5/1/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11.1 | ND | -- | -- | -- | -- | -- | -- |
| SCITP-35@5 | SCI | Test Pit | G | 5/3/97 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | -- | -- | -- | -- | -- | <1 | 81 | -- |
| SCITP-36@4 | SCI | Test Pit | G | 5/3/97 | **0.18** | **0.043** | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | 0.87J | ND | ND | -- | -- | <1 | 62 | -- |
| SCITP-37@7 | SCI | Test Pit | F/G/L | 5/3/97 | **0.034** | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | <1.0 | <1 | 72 | -- |
| RMA-1@5.5-6 | RMA | Strata-probe | P | 11/18/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-2@5.5-6 | RMA | Strata-probe | P | 11/18/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-2@7.5-8 | RMA | Strata-probe | P | 11/18/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-3@5-5.5 | RMA | Strata-probe | D | 11/18/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-3@7.5-8 | RMA | Strata-probe | D | 11/18/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 3
VOLATILE, SEMI-VOLATILE, TOTAL PNA AND ION CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (mg/kg) | MEK or 2-BUTANONE (mg/kg) | CARBON DISULFIDE (mg/kg) | CHLORO-BENZENE (mg/kg) | 1,1-DI-CHLORO-ETHANE (mg/kg) | 1,1-DI-CHLORO-ETHENE (mg/kg) | cis-1,2-DI-CHLORO-ETHENE (mg/kg) | trans-1,2-DI-CHLORO-ETHENE (mg/kg) | METHYL-ENE CHLORIDE (mg/kg) | STYRENE (mg/kg) | 1,1,1-TRI-CHLORO-ETHANE (mg/kg) | TRI-CHLORO-ETHENE (mg/kg) | OTHER 8240s EXCL. BTEX* (mg/kg) | TOTAL PNAs (mg/kg) | OTHER 8270s (mg/kg) | TOTAL ASBESTOS (%) | CHLORIDE (mg/kg) | CYANIDE (mg/kg) | NITRATE/ NITRITE-N (mg/kg) | TOTAL PHOS-PHORUS (mg/kg) | SULFATE (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RMA-3@9-9.5 | RMA | Strata-probe | D | 11/18/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-4@3-3.5 | RMA | Strata-probe | F | 11/18/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-4@3-3.5-dup | RMA | Strata-probe | F | 11/18/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-5@6.5-7 | RMA | Strata-probe | F | 11/18/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-6@7.5-8 | RMA | Strata-probe | E | 11/19/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-7@3.5-4 | RMA | Strata-probe | E | 11/19/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-8@3.5-4 | RMA | Strata-probe | E | 11/19/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-8@7.5-8 | RMA | Strata-probe | E | 11/19/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-10@3.5-4 | RMA | Strata-probe | P | 11/19/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-10@7.5-8 | RMA | Strata-probe | P | 11/19/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-12@6.5-7 | RMA | Strata-probe | A/K | 11/20/96 | -- | -- | -- | -- | <0.005 | <0.005 | <0.005 | <0.005 | -- | -- | <0.005 | <0.005 | ND- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-22@7 | SCI | Strata-probe | P | 11/22/96 | <0.10 | <0.050 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.10 | <0.025 | <0.025 | <0.025 | ND | 138 | ND | -- | -- | -- | -- | -- | -- |
| RMA-27@5.5 | SCI | Strata-probe | B | 11/22/96 | <0.020 | <0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | -- | -- | <1.2 | -- |
| RMA-28@3.5 | SCI | Strata-probe | B | 11/22/96 | **0.042** | **0.013** | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.020 | <0.005 | <0.005 | <0.005 | ND | ND | ND | -- | -- | -- | -- | <1.2 | -- |

MEK = Methylethylketone
PNAs = Polynuclear Aromatics
mg/kg = milligrams per kilogram or parts per million

-- = Not tested
<0.020 = Not detected above the stated reporting limit
ND = Not detected

- = Only EPA 8010 compounds not detected
* = BTEX presented in Table 2
** = Also detected 0.006 mg/kg tetrachloroethene

*** = Also detected 13 mg/kg 1,2-Dichlorobenzene
**** = Also detected 2.9 mg/kg bis(2-Ethylhexyl)phthalate

TABLE 4
HEAVY METAL CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ANTIMONY (mg/kg) | ARSENIC (mg/kg) | BARIUM (mg/kg) | BERYLLIUM (mg/kg) | CADMIUM (mg/kg) | TOTAL CHROMIUM (mg/kg) | CHROMIUM VI (mg/kg) | COBALT (mg/kg) | COPPER (mg/kg) | LEAD (mg/kg) | MERCURY (mg/kg) | MOLYB-DENUM (mg/kg) | NICKEL (mg/kg) | POTAS-SIUM (mg/kg) | SELENIUM (mg/kg) | SILVER (mg/kg) | THALLIUM (mg/kg) | VANADIUM (mg/kg) | ZINC (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9AV-B1-4 | Uribe | Boring B-1 | O | 11/20/92 | -- | 1.8 | 91 | -- | 0.1 | 44 | -- | -- | -- | 3 | <0.1 | -- | -- | -- | <0.4 | <0.5 | -- | -- | -- |
| 9AV-B1-7 | Uribe | Boring B-1 | O | 11/20/92 | -- | 1.9 | 170 | -- | <0.1 | 46 | -- | -- | -- | 4 | 0.1 | -- | -- | -- | <0.4 | <0.5 | -- | -- | -- |
| 9AV-B2-4 | Uribe | Boring B-2 | L | 11/19/92 | -- | 1.8 | 53 | -- | 0.1 | 26 | -- | -- | -- | 11 | 0.1 | -- | -- | -- | 1.0 | <0.5 | -- | -- | -- |
| 9AV-B2-7 | Uribe | Boring B-2 | L | 11/19/92 | -- | 1.0 | 20 | -- | 0.2 | 49 | -- | -- | -- | 5 | <0.1 | -- | -- | -- | <0.4 | <0.5 | -- | -- | -- |
| 9AV-B3-5 | Uribe | Boring B-3 | L | 11/19/92 | -- | 1.0 | 58 | -- | 0.2 | 58 | -- | -- | -- | 17 | 0.2 | -- | -- | -- | 1.1 | <0.5 | -- | -- | -- |
| 9AV-B3-7 | Uribe | Boring B-3 | L | 11/19/92 | -- | 1.1 | 80 | -- | 0.3 | 49 | -- | -- | -- | 13 | <0.1 | -- | -- | -- | <0.4 | <0.5 | -- | -- | -- |
| 9AV-B4-4 | Uribe | Boring B-4 | L | 11/19/92 | -- | 1.0 | 160 | -- | 0.3 | 35 | -- | -- | -- | 18 | 0.2 | -- | -- | -- | 1.2 | <0.5 | -- | -- | -- |
| 9AV-B4-7 | Uribe | Boring B-4 | L | 11/19/92 | -- | 4.0 | 21 | -- | 0.2 | 42 | -- | -- | -- | 4 | <0.1 | -- | -- | -- | 2.1 | <0.5 | -- | -- | -- |
| 9AV-B5-4 | Uribe | Boring B-5 | L | 11/20/92 | -- | 3.4 | 64 | -- | 0.2 | 27 | -- | -- | -- | 26 | 0.1 | -- | -- | -- | <0.4 | <0.5 | -- | -- | -- |
| 9AV-B5-7 | Uribe | Boring B-5 | L | 11/20/92 | -- | 1.9 | 22 | -- | 0.3 | 43 | -- | -- | -- | 5 | <0.1 | -- | -- | -- | 0.6 | <0.5 | -- | -- | -- |
| 9AV-B6-4 | Uribe | Boring B-6 | L | 11/20/92 | -- | 1.9 | 29 | -- | 0.2 | 47 | -- | -- | -- | 16 | 0.2 | -- | -- | -- | <0.4 | <0.5 | -- | -- | -- |
| 9AV-B6-7 | Uribe | Boring B-6 | L | 11/20/92 | -- | 3.3 | 26 | -- | 0.2 | 47 | -- | -- | -- | 9 | 0.1 | -- | -- | -- | <0.4 | <0.5 | -- | -- | -- |
| 9AV-B10-4 | Uribe | Boring B-7 | L | 11/19/92 | -- | 1.9 | 62 | -- | 0.2 | 30 | -- | -- | -- | 67 | 0.1 | -- | -- | -- | <0.4 | <0.5 | -- | -- | -- |
| 9AV-B10-10 | Uribe | Boring B-7 | L | 11/19/92 | -- | 3.8 | 22 | -- | 0.4 | 36 | -- | -- | -- | 12 | <0.1 | -- | -- | -- | <0.4 | <0.5 | -- | -- | -- |
| SCIMW-10@3 | SCI | Soil Boring | J | 8/21/96 | 8.4 | 2.0 | 28 | 0.28 | <0.1 | 2.4 | -- | 4.0 | 12 | 5.9 | <0.1 | <1.0 | 3.7 | -- | 1.4 | <0.5 | <0.25 | 10 | 69 |
| SCIMW-21@2 | SCI | Soil Boring | D | 4/28/97 | <2.9 | 2.9 | 160 | 0.37 | <0.096 | 32 | -- | 7.6 | 28 | 36 | 0.10 | <0.96 | 24 | 1,200 | 1.2 | <0.48 | 0.59 | 31 | 69 |
| SCIMW-22@3.5 | SCI | Soil Boring | P | 4/28/97 | -- | -- | -- | -- | -- | -- | <0.05 | -- | -- | -- | -- | -- | -- | 910 | -- | -- | -- | -- | -- |
| SCIMW-23@5.5 | SCI | Soil Boring | B | 4/28/97 | <2.9 | 3.3 | 53 | 0.27 | <0.24 | 33 | -- | 3.6 | 110 | 22 | 2.9 | <0.96 | 22 | 1,600 | 0.50 | <0.48 | <0.24 | 29 | 85 |
| SCIMW-24@3 | SCI | Soil Boring | N | 4/29/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 18 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-25 @10.5 | SCI | Soil Boring | H | 4/29/97 | <2.9 | 2.8 | 22 | 0.40 | 1.4 | 46 | <0.05 | 7.0 | 66 | 4.4 | <0.091 | 2.1 | 42 | -- | <0.24 | <0.48 | <0.24 | 37 | 56 |
| SCIMW-26@3.5 | SCI | Soil Boring | H | 4/30/97 | -- | -- | -- | -- | -- | -- | <0.05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-27@3.5 | SCI | Soil Boring | E/H | 4/30/97 | -- | -- | -- | -- | -- | -- | <0.05 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-28@3.5 | SCI | Soil Boring | Q | 4/30/97 | -- | -- | -- | -- | -- | -- | <0.05 | -- | -- | 0.14 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-29@4.6 | SCI | Soil Boring | H | 5/14/97 | <2.9 | 2.7 | 77 | 0.45 | 0.16 | 27 | <0.05 | 12 | 8.8 | 8.7 | 0.15 | <0.96 | 31 | -- | 0.85 | <0.48 | <0.24 | 24 | 39 |
| SCI-32@5 | SCI | Enviro-Core | Q | 8/29/96 | <2.8 | 2.2 | 200 | 0.36 | <0.095 | 31 | -- | 14 | 11 | 5.1 | <0.10 | <0.95 | 52 | -- | 0.83 | <0.47 | <0.24 | 22 | 31 |
| SCI-34@3 | SCI | Enviro-Core | Q | 8/29/96 | 11 | 46 | 100 | 0.18 | 2.6 | 35 | -- | 7.1 | 470 | 3,800 | 1.7 | 2.9 | 44 | -- | 1.3 | 0.71 | 0.91 | 25 | 280 |
| SCI-38@3 | SCI | Enviro-Core | I/J | 8/30/96 | <2.9 | 3.6 | 260 | 0.36 | 0.33 | 7.9 | -- | 8.4 | 7.7 | 18 | <0.095 | <0.96 | 9.0 | -- | 2.8 | <0.48 | <0.24 | 47 | 100 |
| SCI-40@4.5 | SCI | Enviro-Core | C | 1/22/97 | <2.9 | 5.8 | 69 | 0.22 | 0.63 | 37 | -- | 8.5 | 28 | 40 | 0.11 | <0.97 | 43 | 890 | 1.3 | <0.49 | 0.50 | 24 | 60 |

TABLE 4
HEAVY METAL CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ANTIMONY (mg/kg) | ARSENIC (mg/kg) | BARIUM (mg/kg) | BERYLLIUM (mg/kg) | CADMIUM (mg/kg) | TOTAL CHROMIUM (mg/kg) | CHROMIUM VI (mg/kg) | COBALT (mg/kg) | COPPER (mg/kg) | LEAD (mg/kg) | MERCURY (mg/kg) | MOLYB-DENUM (mg/kg) | NICKEL (mg/kg) | POTAS-SIUM (mg/kg) | SELENIUM (mg/kg) | SILVER (mg/kg) | THALLIUM (mg/kg) | VANADIUM (mg/kg) | ZINC (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-42@4.5 | SCI | Enviro-Core | C | 1/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1,300 | -- | -- | -- | -- | -- |
| SCI-46@2 | SCI | Enviro-Core | B | 1/23/97 | <2.9 | 2.2 | 180 | 0.24 | 0.58 | 20 | -- | 6.2 | 21 | 18 | 0.12 | <0.98 | 27 | 780 | 0.98 | <0.49 | 0.89 | 25 | 58 |
| SCI-46@3 | SCI | Enviro-Core | B | 1/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1,100 | -- | -- | -- | -- | -- |
| SCI-47@1 | SCI | Enviro-Core | G/P | 1/24/97 | <2.9 | 4.7 | 66 | 0.26 | 0.63 | 51 | -- | 11 | 11 | 12 | <0.091 | <0.98 | 75 | 700 | 1.0 | <0.49 | 0.91 | 31 | 31 |
| SCI-49@0.5 | SCI | Enviro-Core | Q | 1/24/97 | <2.9 | 5.2 | 35 | 0.38 | 0.93 | 32 | -- | 11 | 66 | 70 | 0.25 | <0.98 | 59 | -- | 1.1 | <0.49 | 0.84 | 25 | 120 |
| SCI-49@3.5 | SCI | Enviro-Core | Q | 1/24/97 | <2.9 | 3.7 | 73 | 0.40 | 0.72 | 33 | -- | 9.2 | 15 | 12 | <0.091 | <0.98 | 54 | -- | 1.2 | <0.49 | 0.54 | 26 | 41 |
| SCI-50@2 | SCI | Enviro-Core | Q | 1/24/97 | <2.9 | 2.4 | 290 | 0.38 | 1.9 | 0.80 | -- | 8.5 | 35 | 0.32 | 0.12 | <0.98 | 6.9 | 1,000 | 1.7 | <0.49 | <0.24 | 19 | 60 |
| SCI-50@8 | SCI | Enviro-Core | Q | 1/24/97 | <2.9 | 2.9 | 41 | 0.24 | 0.49 | 21 | -- | 5.5 | 5.8 | 6.5 | <0.095 | <0.95 | 25 | -- | 0.77 | <0.48 | 0.67 | 18 | 19 |
| SCI-51@1 | SCI | Enviro-Core | P | 1/30/97 | <2.9 | 8.8 | 200 | 0.58 | 0.83 | 55 | -- | 14 | 2.5 | 3.7 | <0.091 | <0.98 | 55 | 1,500 | 1.7 | <0.49 | 0.51 | 28 | 130 |
| SCI-53@2 | SCI | Enviro-Core | H | 1/30/97 | <2.9 | 3.7 | 48 | 0.39 | 0.63 | 44 | 0.08 | 6.2 | 17 | 13 | 0.23 | <0.96 | 44 | -- | 1.3 | <0.48 | 0.57 | 34 | 39 |
| SCI-53@6 | SCI | Enviro-Core | H | 1/30/97 | <3.0 | 2.0 | 33 | 0.33 | 0.70 | 49 | 0.08 | 5.4 | 13 | 5.0 | 0.11 | <0.99 | 33 | -- | 1.7 | <0.50 | 0.35 | 37 | 33 |
| SCI-55@4.5 | SCI | Enviro-Core | P | 1/30/97 | <2.9 | 3.9 | 23 | 0.27 | 0.28 | 24 | -- | 4.2 | 9.5 | 26 | <0.10 | <0.96 | 21 | -- | 0.79 | <0.48 | <0.24 | 19 | 29 |
| SCI-56@1 | SCI | Enviro-Core | R | 2/3/97 | <3.0 | 1.5 | 270 | 0.17 | 0.84 | 1.1 | -- | 5.0 | 16 | 0.87 | <0.095 | <1.0 | 2.2 | -- | 1.1 | <0.50 | 2.5 | 9.8 | 50 |
| SCI-60@2 | SCI | Enviro-Core | P | 2/3/97 | <3.0 | 2.5 | 100 | 0.31 | 0.40 | 24 | -- | 5.6 | 7.1 | 5.3 | <0.10 | <1.0 | 23 | 840 | 0.99 | <0.50 | 0.47 | 18 | 23 |
| SCI-61@4.5 | SCI | Enviro-Core | R | 2/3/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.6 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-62@5 | SCI | Enviro-Core | H | 2/9/97 | <3.0 | 2.1 | 110 | 0.50 | 0.56 | 48 | <0.05 | 13 | 16 | 6.9 | <0.095 | <1.0 | 58 | -- | 1.4 | <0.50 | 0.28 | 25 | 44 |
| SCI-62@8 | SCI | Enviro-Core | H | 2/9/97 | <3.0 | 4.1 | 130 | 0.44 | 0.57 | 47 | <0.05 | 12 | 16 | 8.6 | 0.099 | <1.0 | 59 | -- | 1.2 | <0.50 | 0.78 | 35 | 44 |
| SCI-63@4.5 | SCI | Enviro-Core | H | 2/9/97 | <2.9 | 2.2 | 91 | 0.32 | 0.49 | 46 | 0.05 | 8.3 | 10 | 4.9 | <0.10 | <0.98 | 44 | -- | 0.79 | <0.49 | 0.62 | 28 | 30 |
| SCI-63@7 | SCI | Enviro-Core | H | 2/9/97 | <2.8 | 2.8 | 130 | 0.41 | 0.51 | 51 | <0.05 | 14 | 10 | 5.0 | 0.10 | <0.94 | 63 | -- | 1.4 | <0.47 | 0.32 | 29 | 34 |
| SCI-64@5 | SCI | Enviro-Core | H | 2/9/97 | <2.9 | 2.8 | 97 | 0.51 | 0.47 | 24 | 0.29 | 10 | 11 | 9.3 | <0.095 | <0.98 | 30 | -- | 1.1 | <0.49 | 1.2 | 24 | 35 |
| SCI-65@4.5 | SCI | Enviro-Core | H | 2/9/97 | <2.8 | 1.7 | 170 | 0.44 | 0.46 | 41 | 0.10 | 9.3 | 16 | 5.2 | <0.095 | <0.94 | 52 | -- | 1.1 | <0.47 | <0.24 | 17 | 38 |
| SCI-66@1 | SCI | Enviro-Core | Q | 4/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-66@5 | SCI | Enviro-Core | Q | 4/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3.5 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-67@1.5 | SCI | Enviro-Core | Q | 4/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1.4 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-67@9.5 | SCI | Enviro-Core | Q | 4/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 5.1 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-68@1.5 | SCI | Enviro-Core | Q | 4/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 150 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-68@4.5 | SCI | Enviro-Core | Q | 4/23/97 | <3.0 | 2.0 | 400 | 0.52 | 0.14 | 39 | -- | 10 | 10 | 5.8 | <0.10 | <0.99 | 60 | -- | 1.3 | <0.50 | 0.70 | 31 | 37 |
| SCI-69@1.5 | SCI | Enviro-Core | Q | 4/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 4
HEAVY METAL CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ANTIMONY (mg/kg) | ARSENIC (mg/kg) | BARIUM (mg/kg) | BERYLLIUM (mg/kg) | CADMIUM (mg/kg) | TOTAL CHROMIUM (mg/kg) | CHROMIUM VI (mg/kg) | COBALT (mg/kg) | COPPER (mg/kg) | LEAD (mg/kg) | MERCURY (mg/kg) | MOLYB-DENUM (mg/kg) | NICKEL (mg/kg) | POTAS-SIUM (mg/kg) | SELENIUM (mg/kg) | SILVER (mg/kg) | THALLIUM (mg/kg) | VANADIUM (mg/kg) | ZINC (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-70@4.5 | SCI | Enviro-Core | F/E/H | 4/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-72@1.5 | SCI | Enviro-Core | F/E/H | 4/24/97 | -- | -- | -- | -- | -- | -- | <0.01 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-72@5.5 | SCI | Enviro-Core | F/E/H | 4/24/97 | <2.9 | 3.9 | 81 | 0.39 | 0.32 | 43 | <0.01 | 10 | 7.8 | 6.6 | <0.095 | <0.98 | 43 | -- | 1.5 | <0.49 | <0.25 | 34 | 26 |
| SCI-73@5 | SCI | Enviro-Core | D | 4/24/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-74@2 | SCI | Enviro-Core | D | 4/24/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 510 | -- | -- | -- | -- | -- |
| SCI-74@4.5 | SCI | Enviro-Core | D | 4/24/97 | <2.9 | 7.5 | 18 | 0.30 | 0.83 | 37 | -- | 10 | 8.8 | 5.9 | <0.091 | 1.0 | 50 | -- | 1.2 | <0.49 | <0.24 | 30 | 50 |
| TP-6@3 | SCI | Test Pit | B | 1/28/97 | <3.0 | 1.3 | 34 | 0.21 | 1.2 | 27 | -- | 2.6 | 33 | 25 | <0.095 | <1.0 | 7.5 | 110 | <0.25 | <0.50 | <0.25 | 4.5 | 750 |
| TP-7@3 Fill | SCI | Test Pit | D | 1/29/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 120 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-8@4.5 | SCI | Test Pit | A/K | 2/3/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 12 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-8@6 | SCI | Test Pit | A/K | 2/3/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 22 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-13@5.7 | SCI | Test Pit | I/J | 2/5/97 | <2.9 | 4.8 | 30 | 0.23 | 0.47 | 29 | -- | 6.1 | 21 | 56 | 0.18 | <0.98 | 31 | -- | 1.3 | <0.49 | 0.65 | 23 | 45 |
| SCITP-14@4 | SCI | Test Pit | N | 2/5/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 57 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-15@2 | SCI | Test Pit | I | 4/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-16@1 | SCI | Test Pit | I | 4/23/97 | <3.0 | 3.7 | 170 | 0.25 | <0.10 | 10 | -- | 7.3 | 63 | 200 | 0.17 | <1.0 | 24 | 530 | 1.9 | <0.50 | <0.25 | 30 | 110 |
| SCITP-17@1.5 | SCI | Test Pit | J | 4/24/97 | -- | -- | -- | -- | -- | -- | <0.01 | -- | -- | 89 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-18@3.5 | SCI | Test Pit | O | 4/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-18@6.5 | SCI | Test Pit | O | 4/23/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 44 | -- | -- | -- | 1,000 | -- | -- | -- | -- | -- |
| SCITP-19@6 | SCI | Test Pit | N | 4/24/97 | -- | -- | -- | -- | -- | -- | 0.02 | -- | -- | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-20@3 | SCI | Test Pit | L | 4/24/97 | -- | -- | -- | -- | -- | -- | <0.01 | -- | -- | 6.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-21@2 | SCI | Test Pit | I | 4/25/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-21@7 | SCI | Test Pit | I | 4/25/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 360 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-22@1 | SCI | Test Pit | I | 4/25/97 | <3.0 | 3.5 | 53 | 0.23 | 0.28 | 15 | 0.02 | 6.9 | 13 | 23 | <0.10 | <1.0 | 45 | 570 | 0.29 | <0.50 | 1.3 | 21 | 32 |
| SCITP-23A@6 | SCI | Test Pit | L | 4/26/97 | <2.9 | 2.9 | 31 | 0.16 | 0.24 | 18 | <0.05 | 6.9 | 30 | 28 | 0.099 | <0.98 | 35 | -- | 0.51 | <0.49 | <0.25 | 21 | 49 |
| SCITP-23B@6 | SCI | Test Pit | L | 4/26/97 | -- | -- | -- | -- | -- | -- | <0.05 | -- | -- | 3.2 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-24 CANNERYLINE | SCI | Test Pit | L | 4/26/97 | <3.0 | 11 | 70 | <0.10 | 3.2 | 37 | <0.05 | 5.6 | 75 | 400 | 0.23 | 1.7 | 28 | -- | 1.4 | <0.50 | <0.25 | 22 | 10,000 |
| SCITP-25@1.5 | SCI | Test Pit | B | 4/28/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 210 | -- | -- | -- | 810 | -- | -- | -- | -- | -- |
| SCITP-26@3 | SCI | Test Pit | N | 4/28/97 | -- | -- | -- | -- | -- | -- | <0.05 | -- | -- | 150 | -- | -- | -- | 800 | -- | -- | -- | -- | -- |
| SCITP-27@3 | SCI | Test Pit | N | 4/28/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 4
HEAVY METAL CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ANTIMONY (mg/kg) | ARSENIC (mg/kg) | BARIUM (mg/kg) | BERYLLIUM (mg/kg) | CADMIUM (mg/kg) | TOTAL CHROMIUM (mg/kg) | CHROMIUM VI (mg/kg) | COBALT (mg/kg) | COPPER (mg/kg) | LEAD (mg/kg) | MERCURY (mg/kg) | MOLYB-DENUM (mg/kg) | NICKEL (mg/kg) | POTAS-SIUM (mg/kg) | SELENIUM (mg/kg) | SILVER (mg/kg) | THALLIUM (mg/kg) | VANADIUM (mg/kg) | ZINC (mg/kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCITP-28@1.5 | SCI | Test Pit | C | 4/29/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 83 | -- | -- | -- | 770 | -- | -- | -- | -- | -- |
| SCITP-29@5 | SCI | Test Pit | D | 4/29/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 12 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-30@3 | SCI | Test Pit | D | 4/29/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 17 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-32@2.5 | SCI | Test Pit | I/P | 4/30/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8.2 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-33@4 | SCI | Test Pit (SCITP-33A@4) | R | 4/30/97 | <2.9 | 26 | 82 | 0.34 | 1.9 | 89 | -- | 8.6 | 90 | 170 | 0.15 | 1.2 | 45 | -- | <0.24 | <0.48 | <0.24 | 82 | 240 |
| SCITP-33B@6.5 | SCI | Test Pit | R | 5/2/97 | <2.9 | 2.6 | 8.0 | <0.096 | 0.36 | 20 | -- | 4.3 | 89 | 6.4 | 0.097 | <0.96 | 19 | -- | 0.78 | <0.48 | <0.24 | 16 | 53 |
| SCITP-33C@4.5 | SCI | Test Pit | R | 5/1/97 | <2.9 | 4.0 | 100 | 0.18 | 0.63 | 34 | -- | 6.0 | 49 | 180 | 0.19 | <0.98 | 39 | -- | 0.79 | <0.49 | <0.25 | 28 | 96 |
| SCITP-33D@4 | SCI | Test Pit | R | 5/2/97 | <2.9 | 7.1 | 130 | 0.22 | 1.1 | 46 | -- | 7.1 | 55 | 190 | 0.83 | <0.97 | 37 | -- | 0.93 | 0.84 | <0.24 | 31 | 300 |
| SCI-33E@5 | SCI | Test Pit (SCITP-33E@5) | R | 5/2/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 74 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-34@6 | SCI | Test Pit | Q | 5/1/97 | <3.0 | 4.7 | 52 | 0.45 | 1.1 | 47 | -- | 9.3 | 39 | 28 | 0.39 | <1.0 | 53 | -- | 1.6 | <0.50 | <0.25 | 37 | 75 |
| SCITP-34@9 | SCI | Test Pit | Q | 5/1/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2.8 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-35@5 | SCI | Test Pit | G | 5/3/97 | -- | -- | -- | -- | -- | -- | <0.05 | -- | -- | 4.4 | -- | -- | -- | 400 | -- | -- | -- | -- | -- |
| SCITP-36@4 | SCI | Test Pit | G | 5/3/97 | -- | -- | -- | -- | -- | -- | <0.05 | -- | -- | 88 | -- | -- | -- | 1,300 | -- | -- | -- | -- | -- |
| SCITP-37@7 | SCI | Test Pit | F/G/L | 5/3/97 | -- | -- | -- | -- | -- | -- | <0.05 | -- | -- | 4.2 | -- | -- | -- | 1,500 | -- | -- | -- | -- | -- |
| RMA-27@5.5 | SCI | Soil boring | B | 11/22/96 | <2.9 | 4.9 | 91 | 0.38 | 0.73 | 45 | -- | 12 | 20 | 12 | 0.55 | <0.97 | 61 | 2,400 | 1.4 | <0.48 | 0.50 | 32 | 55 |
| RMA-28@3.5 | SCI | Soil boring | B | 11/22/96 | <2.9 | 3.8 | 66 | 0.25 | 0.81 | 42 | -- | 5.5 | 34 | 52 | <0.10 | 1.0 | 29 | 1,200 | 1.1 | <0.48 | <0.24 | 26 | 120 |

mg/kg = milligrams per kilogram or parts per million
-- = Not tested
<0.1 = Compound not detected at or above stated reporting limit

TABLE 5
SOLUBLE THRESHOLD LIMIT CONCENTRATIONS IN SOIL
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | LEAD (µg/L) | ZINC (µg/L) |
|---|---|---|---|---|---|---|
| SCI-68@1.5 | SCI | Envirocore | Q | 4/23/97 | **26,000** | -- |
| SCI-69@1.5 | SCI | Envirocore | Q | 4/23/97 | **92,000** | -- |
| SCITP-16@1 | SCI | Test Pit | I | 4/23/97 | 760 | -- |
| SCITP-18@6.5 | SCI | Test Pit | O | 4/23/97 | **5,200** | -- |
| SCITP-21@6.5 | SCI | Test Pit | I | 4/25/97 | **1,500** | -- |
| SCITP-24 CANNERY LINE | SCI | Test Pit | G | 4/26/97 | **2,600** | **96,000** |
| SCITP-25@1.5 | SCI | Test Pit | B | 4/28/97 | **15,000** | -- |
| SCITP-26@3 | SCI | Test Pit | N | 4/28/97 | **16,000** | -- |
| SCITP-33@4 | SCI | Test Pit (SCITP-33A@4) | R | 4/30/97 | **11,000** | -- |
| SCITP-33C@4.5 | SCI | Test Pit | R | 5/1/97 | **17,000** | -- |
| SCITP-33D@4 | SCI | Test Pit | R | 5/2/97 | **18,000** | -- |

TABLE 6
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (µg/L) | TVH as GAS (µg/L) | TEH as DIESEL (µg/L) | TEH as MOTOR OIL (µg/L) | BENZENE (µg/L) | ETHYL-BENZENE (µg/L) | TOLUENE (µg/L) | TOTAL XYLENES (µg/L) | 4,4'-DDD (µg/L) | 4,4'-DDE (µg/L) | 4,4'-DDT (µg/L) | OTHER HERBS/ PESTS (µg/L) | AROCLOR-1260 (µg/L) | OTHER PCBs (µg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9AV-UST-2 | Uribe | H-213 UST Free Product | F | 2/12/93 | -- | -- | 1,000,000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-W-1 | Uribe | Grab (Trench 1) | L | 3/3/93 | -- | -- | 2,200 | -- | 1.2 | 1.1 | 2.8 | 4.9 | -- | -- | -- | -- | -- | -- | -- |
| 9AV-W-2 | Uribe | Grab (Trench 1) | L | 3/4/93 | -- | -- | -- | -- | 1.8 | 1.7 | 2.5 | 8.8 | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X5-3 | Uribe | Grab (Trench 5B) | L | 3/12/93 | -- | -- | -- | -- | <40 | <30 | <30 | <40 | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X5-4 | Uribe | Grab (Trench 5B) | L | 3/12/93 | -- | -- | -- | -- | <40 | <30 | <30 | <40 | -- | -- | -- | -- | -- | -- | -- |
| 9AV-X5-5 | Uribe | Grab (Trench 5B) | L | 3/12/93 | -- | -- | 57,000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| GW-1 | ERM-West | Grab (H-107 Excavation Water) | M | 10/15/94 | -- | 1,600 | -- | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B1-W1 | Uribe | Grab (Boring B-1) | O | 11/20/92 | -- | -- | <1,000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B3-W1 | Uribe | Grab (Boring B-3) | L | 11/20/92 | -- | -- | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B5-W1 | Uribe | Grab (Boring B-5) | L | 11/20/92 | -- | -- | <100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B10-W1 | Uribe | Grab (Boring B-7) | L | 11/21/92 | -- | -- | <800 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B13-W1,W2 | Uribe | Grab (Boring B-13) | L | 3/1/93 | -- | -- | 2,000,000 | -- | 300 | <200 | 400 | 400 | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B14-W1,W2 | Uribe | Grab (Boring B-14) | L | 3/1/93 | -- | -- | 940 | -- | <0.4 | <0.3 | 0.4 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B15-W1,W2 | Uribe | Grab (Boring B-15) | F | 3/1/93 | -- | -- | 2,900 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B16-W1,W2 | Uribe | Grab (Boring B-16) | F | 3/2/93 | -- | -- | 310,000 | -- | <40 | <30 | <30 | <40 | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B17-W1,W2 | Uribe | Grab (Boring B-17) | F | 3/2/93 | -- | -- | 59,000 | -- | 2 | <2 | <2 | <2 | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B18-W1,W2 | Uribe | Grab (Boring B-18) | E/H | 3/2/93 | -- | -- | 590h | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| BH-1 | Clayton | Grab (Soil Boring) | M | 3/29/95 | -- | <50 | <50 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| BH-2 | Clayton | Grab (Soil Boring) | M | 3/29/95 | -- | 110,000 | 300,000 | -- | <20 | <20 | <20 | 50 | -- | -- | -- | -- | -- | -- | -- |
| Manhole-Oil Layer* | SCI | Oil Filled Manhole | I/J | 5/13/96 | -- | † | † | † | <10mg/kg | 15mg/kg | <10mg/kg | 62mg/kg | -- | -- | -- | -- | 30mg/kg | ND | -- |
| Manhole-$H_2O$ Layer | SCI | Oil Filled Manhole | I/J | 5/13/96 | -- | 4,500yh | 720,000 | 34,000yl | <25 | <25 | <25 | 40J | -- | -- | -- | -- | <1.0 | ND | -- |
| Manhole @ Start* | SCI | Oil Filled Manhole | I/J | 10/16/96 | -- | -- | †† | †† | <25mg/kg | <25mg/kg | <25mg/kg | <25mg/kg | -- | -- | -- | -- | 22mg/kg | ND | -- |
| Manhole @ 2000 gal | SCI | Oil Filled Manhole | I/J | 10/16/96 | -- | -- | 910,000 | 100,000yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | 40 | ND | -- |
| Manhole @ 8700 gal | SCI | Oil Filled Manhole | I/J | 10/16/96 | -- | -- | 5,300 | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| MW-1 | Uribe | Monitoring Well | F | 4/4/94 | -- | <50 | 510 | -- | <0.50 | <0.50 | <0.50 | <0.50 | -- | -- | -- | -- | -- | -- | -- |
| 203-MW-1 | Uribe | Monitoring Well | F | 10/3/94 | -- | -- | 390y | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | Clayton | Monitoring Well | F | 4/10/95 | -- | <50 | 330 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | Clayton | Monitoring Well | F | 7/24/95 | -- | <50 | 230 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |

TABLE 6
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (µg/L) | TVH as GAS (µg/L) | TEH as DIESEL (µg/L) | TEH as MOTOR OIL (µg/L) | BENZENE (µg/L) | ETHYL-BENZENE (µg/L) | TOLUENE (µg/L) | TOTAL XYLENES (µg/L) | 4,4'-DDD (µg/L) | 4,4'-DDE (µg/L) | 4,4'-DDT (µg/L) | OTHER HERBS/ PESTS (µg/L) | AROCLOR-1260 (µg/L) | OTHER PCBs (µg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | Clayton | Monitoring Well | F | 11/10/95 | -- | <50 | 430 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | Clayton/SCI | Monitoring Well | F | 2/20/96 | -- | <50 | 590yh | -- | <0.5 | <0.5 | <0.5 | <1 | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | SCI | Monitoring Well | F | 5/24/96 | -- | <50 | 870yh | 630y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | SCI | Monitoring Well | F | 9/6/96 | -- | <50 | 850yh | 490yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-1 | SCI | Monitoring Well | F | 12/5/96 | -- | <50 | 4,500ylh | 2,100yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | Uribe | Monitoring Well | F | 4/4/94 | -- | <50 | 1,800 | -- | <0.50 | <0.50 | <0.50 | <0.50 | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | Uribe | Monitoring Well | F | 10/5/94 | -- | -- | 1,200y | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | Clayton | Monitoring Well | F | 4/10/95 | -- | <50 | 550 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | Clayton | Monitoring Well | F | 7/24/95 | -- | 70 | 960 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | Clayton | Monitoring Well | F | 11/10/95 | -- | <50 | 920 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | Clayton/SCI | Monitoring Well | F | 2/20/96 | -- | <50 | 1,700h | -- | <0.5 | <0.5 | <0.5 | <1 | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | SCI | Monitoring Well | F | 5/24/96 | -- | <50 | 2,800yh | 1,200y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | SCI | Monitoring Well | F | 9/5/96 | -- | 58z | 2,900 | 760yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-2 | SCI | Monitoring Well | F | 12/4/96 | -- | <50 | 1,600y | 1,000yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | Uribe | Monitoring Well | F | 4/4/94 | -- | <50 | 690 | -- | <0.50 | <0.50 | <0.50 | <0.50 | -- | -- | -- | -- | -- | -- | -- |
| 203-MW-3 | Uribe | Monitoring Well | F | 10/4/94 | -- | -- | 480y | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | Clayton | Monitoring Well | F | 4/10/95 | -- | <50 | 830 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | Clayton | Monitoring Well | F | 7/24/95 | -- | <50 | 460 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | Clayton | Monitoring Well | F | 11/10/95 | -- | <50 | 2,100 | -- | <0.4 | <0.3 | 0.7 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | Clayton/SCI | Monitoring Well | F | 2/20/96 | -- | <50 | 620h | -- | <0.5 | <0.5 | <0.5 | <1 | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | SCI | Monitoring Well | F | 5/24/96 | -- | <50 | 1,100yh | 550y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | SCI | Monitoring Well | F | 9/18/96 | -- | <50 | 1,500 | 890yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | SCI | Monitoring Well | F | 12/13/96 | -- | <50 | 580 | <250 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | Uribe | Monitoring Well | F | 4/4/94 | -- | 6,200 | 410,000 | -- | 140 | 47 | 20 | 310 | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | Clayton | Monitoring Well | F | 7/24/95 | -- | 2,400 | 21,000 | -- | 140 | 34 | 74 | 40 | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | SCI | Monitoring Well | F | 5/24/96 | -- | 690y | 37,000 | 2,800yl | 44 | 18 | <2.5 | 7.7 | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | SCI | Monitoring Well | F | 9/4/96 | -- | 1,000h | 240,000 | 26,000yl | 100 | 5.2 | <0.5 | 7.2 | -- | -- | -- | -- | -- | -- | -- |
| MW-4 | SCI | Monitoring Well | F | 12/3/96 | -- | 1,500yh | 13,000 | 2,000yl | 120 | 33 | 0.9 | 22 | -- | -- | -- | -- | -- | -- | -- |

TABLE 6
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (µg/L) | TVH as GAS (µg/L) | TEH as DIESEL (µg/L) | TEH as MOTOR OIL (µg/L) | BENZENE (µg/L) | ETHYL-BENZENE (µg/L) | TOLUENE (µg/L) | TOTAL XYLENES (µg/L) | 4,4'-DDD (µg/L) | 4,4'-DDE (µg/L) | 4,4'-DDT (µg/L) | OTHER HERBS/ PESTS (µg/L) | AROCLOR-1260 (µg/L) | OTHER PCBs (µg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MW-5 | Clayton | Monitoring Well | F | 4/10/95 | -- | 1,100 | 6,200 | -- | 3.1 | 2.9 | <0.3 | 11.3 | -- | -- | -- | -- | -- | -- | -- |
| MW-5 | Clayton | Monitoring Well | F | 7/24/95 | -- | 720 | 4,800 | -- | 3.1 | 0.6 | 0.7 | 0.7 | -- | -- | -- | -- | -- | -- | -- |
| MW-5 | Clayton | Monitoring Well | F | 11/10/95 | -- | 260 | 3,700 | -- | 0.8 | 0.6 | 0.5 | 1.9 | -- | -- | -- | -- | -- | -- | -- |
| MW-5 | Clayton/SCI | Monitoring Well | F | 2/20/96 | -- | 150y | 440h | -- | 0.5 | <0.5 | <0.5 | <1 | -- | -- | -- | -- | -- | -- | -- |
| MW-5 | SCI | Monitoring Well | F | 5/24/96 | -- | 82y | 4,600yh | 1,900y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-5 | SCI | Monitoring Well | F | 9/4/96 | -- | <50 | 7,700yh | 1,900yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-5 | SCI | Monitoring Well | F | 12/3/96 | -- | 140yh | 13,000 | 1,900yl | 1.5 | <0.5 | <0.5 | 2.6 | -- | -- | -- | -- | -- | -- | -- |
| MW-5 | SCI | Monitoring Well | F | 1/20/97 | -- | <50 | 9,400 | 1,500yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-5 | SCI | Monitoring Well | F/H | 5/6/97 | <5,000 | <50 | 8,800 | 2,500yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-6 | Clayton | Monitoring Well | F | 4/10/95 | -- | 1,300 | 10,000 | -- | 4.4 | 0.7 | <0.3 | 0.8 | -- | -- | -- | -- | -- | -- | -- |
| MW-6(FP) | SCI | Monitoring Well Free Product | F | 5/24/96 | -- | 900,000yh | 470,000 | 13,000yl | <250 | <250 | <250 | <250 | -- | -- | -- | -- | <2.0 | ND | -- |
| MW-6 | SCI | Monitoring Well | F | 5/24/96 | -- | 280,000yh | 240,000 | 5,500yl | <250 | <250 | <250 | <250 | -- | -- | -- | -- | -- | -- | -- |
| MW-6 | SCI | Monitoring Well | F | 9/5/96 | 89,000 | 200h | 50,000 | 3,200yl | 5.3 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| MW-6 | SCI | Monitoring Well | F | 12/4/96 | -- | 4,700yh | 140,000 | 7,300yl | 19 | <10 | 11 | <10 | -- | -- | -- | -- | -- | -- | -- |
| MW-6 | SCI | Monitoring Well | F/H | 5/6/97 | 330,000 | 440yh | 620,000 | 24,000yl | 2.4 | <0.5 | 0.51 | 0.61 | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | Clayton | Monitoring Well | M | 4/10/95 | -- | <50 | 370 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | Clayton | Monitoring Well | M | 7/24/95 | -- | <50 | 260 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | Clayton | Monitoring Well | M | 11/10/95 | -- | <50 | 270 | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | Clayton/SCI | Monitoring Well | M | 2/20/96 | -- | <50 | 6,100 | -- | <0.5 | <0.5 | <0.5 | <1 | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | SCI | Monitoring Well | M | 5/24/96 | -- | <50 | 750yh | 750y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | SCI | Monitoring Well | M | 9/5/96 | <5,000 | <50 | 480yh | 310yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| MW-7 | SCI | Monitoring Well | M | 12/4/96 | -- | <50 | 340y | <240 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | SCI | Monitoring Well | M | 1/17/97 | -- | <50 | 200 | <250 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-1 | SCI | Monitoring Well | E/H | 5/24/96 | <5,000 | <50 | 560yh | 280y | <5.0 | <5.0 | <5.0 | <5.0 | <0.09 | <0.09 | <0.09 | ND | <0.5 | ND | -- |
| SCIMW-1 | SCI | Monitoring Well | E/H | 9/6/96 | <5,000 | <50 | 870yh | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-1 | SCI | Monitoring Well | E/H | 1/22/97 | -- | <50 | 520yh | <250 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-2 | SCI | Monitoring Well | N | 5/23/96 | 5,600 | -- | 2,600 l | 360yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-2 | SCI | Monitoring Well | N | 9/4/96 | 8,000 | <50 | 5,100 | 770yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |

TABLE 6
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (µg/L) | TVH as GAS (µg/L) | TEH as DIESEL (µg/L) | TEH as MOTOR OIL (µg/L) | BENZENE (µg/L) | ETHYL-BENZENE (µg/L) | TOLUENE (µg/L) | TOTAL XYLENES (µg/L) | 4,4'-DDD (µg/L) | 4,4'-DDE (µg/L) | 4,4'-DDT (µg/L) | OTHER HERBS/ PESTS (µg/L) | AROCLOR-1260 (µg/L) | OTHER PCBs (µg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCIMW-2 | SCI | Monitoring Well | N | 1/17/97 | -- | 95y | 13,000 l | 2,400yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-3 | SCI | Monitoring Well | I/J | 5/23/96 | <5,000 | -- | 8,000yh | 7,400y | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-3 | SCI | Monitoring Well | I/J | 9/5/96 | <5,000 | <50 | 8,800yh | 4,400yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| XB | SCI | Monitoring Well Dupl. of SCIMW-3 | I/J | 9/5/96 | -- | -- | -- | -- | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-3 | SCI | Monitoring Well | I/J | 1/20/97 | -- | <50 | 7,500yh | 5,200y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-4 | SCI | Monitoring Well | L | 8/26/96 | <5,000 | <50 | 630yh | 670yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-4 | SCI | Monitoring Well | L | 1/22/97 | -- | <50 | 530yh | 990yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-5 | SCI | Monitoring Well | M | 9/3/96 | <5,000 | <50 | <50 | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-5 | SCI | Monitoring Well | M | 1/20/97 | -- | <50 | <50 | <250 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-6 | SCI | Monitoring Well | C | 8/28/96 | <5,000 | <50 | 150yh | 260yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-6 | SCI | Monitoring Well | C | 1/22/97 | -- | <50 | <50 | <250 | <0.5 | <0.5 | <0.5 | <0.5 | <0.09 | <0.09 | <0.09 | ND | <0.5 | ND | -- |
| SCIMW-7 | SCI | Monitoring Well | P/Q | 9/6/96 | <5,000 | 540 | 6,100y | 1,900yl | 5,300 | <1,300 | <1,300 | <1,300 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-7 | SCI | Monitoring Well | P/Q | 1/20/97 | -- | 6,900z | 11,000y | 7,500yl | 8,600 | <25 | 7,200 | 103 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-8 | SCI | Monitoring Well | I | 8/26/96 | <5,000 | <50 | 1,200yh | 1,400yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-8 | SCI | Monitoring Well | I | 1/21/97 | -- | <50 | 860yh | 830yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-9 | SCI | Monitoring Well | I | 8/29/96 | 5,000 | <50 | 1,800yh | 1,100yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-9 | SCI | Monitoring Well | I | 1/23/97 | -- | <50 | 1,900yh | 2,300 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-10 | SCI | Monitoring Well | J | 8/26/96 | <5,000 | <50 | 1,100yh | 1,200yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-10 | SCI | Monitoring Well | J | 1/23/97 | -- | <50 | 1,400yh | 2,500 | <0.5 | <0.5 | <0.5 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-11 | SCI | Monitoring Well | N | 8/28/96 | <5,000 | <50 | 400ylh | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-11 | SCI | Monitoring Well | N | 1/17/97 | -- | <50 | 180 | <250 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-12 | SCI | Monitoring Well | O | 8/29/96 | <5,000 | <50 | <50 | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-12 | SCI | Monitoring Well | O | 1/17/97 | -- | <50 | <50 | <250 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-13 | SCI | Monitoring Well | J | 8/29/96 | <5,000 | <50 | 5,400yh | 2,100yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-13 | SCI | Monitoring Well | J | 1/23/97 | -- | <50 | 3,400yh | 3,900 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-14 | SCI | Monitoring Well | I/J | 8/29/96 | 6,000 | <50 | 2,200yh | 1,400yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-14 | SCI | Monitoring Well | I/J | 1/21/97 | -- | <50 | 570yh | 420yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-15 | SCI | Monitoring Well | I/J | 8/29/96 | <5,000 | <50 | 2,100yh | 1,600yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |

TABLE 6
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (µg/L) | TVH as GAS (µg/L) | TEH as DIESEL (µg/L) | TEH as MOTOR OIL (µg/L) | BENZENE (µg/L) | ETHYL-BENZENE (µg/L) | TOLUENE (µg/L) | TOTAL XYLENES (µg/L) | 4,4'-DDD (µg/L) | 4,4'-DDE (µg/L) | 4,4'-DDT (µg/L) | OTHER HERBS/ PESTS (µg/L) | AROCLOR-1260 (µg/L) | OTHER PCBs (µg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCIMW-15 | SCI | Monitoring Well | I/J | 1/17/97 | -- | <50 | 2,500h | 1,600yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-16 | SCI | Monitoring Well | R | 8/30/96 | <5,000 | <50 | 180 | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| XA | SCI | Monitoring Well Dupl. of SCIMW-16 | R | 8/30/96 | -- | -- | -- | -- | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-16 | SCI | Monitoring Well | R | 1/22/97 | -- | <50 | 290yh | <250 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-17 | SCI | Monitoring Well | R | 8/29/96 | <5,000 | <50 | 190yh | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-17 | SCI | Monitoring Well | R | 1/22/97 | -- | <50 | 330yh | 500yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-18 | SCI | Monitoring Well | L | 9/6/96 | <5,000 | <50 | 2,200yh | 1,600yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-18 | SCI | Monitoring Well | L | 1/20/97 | -- | <50 | 1,900yh | 1,900y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-19 | SCI | Monitoring Well | R | 8/30/96 | <5,000 | <50 | 180 | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-19 | SCI | Monitoring Well | R | 1/21/97 | -- | <50 | 150yh | <250 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-20 | SCI | Monitoring Well | H/Q | 9/3/96 | <5,000 | <50 | 330y | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCIMW-20 | SCI | Monitoring Well | H/Q | 1/20/97 | -- | <50 | 340yh | 290y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-21 | SCI | Monitoring Well | D | 5/6/97 | <5,000 | <50 | 670h | 860ylh | <0.5 | <0.5 | <0.5 | <0.5 | <0.094 | <0.094 | <0.094 | ND | <0.47 | ND | 6.9 |
| SCIMW-22 | SCI | Monitoring Well | P | 5/6/97 | <5,000 | <50 | 1,400yh | 2,300 lh | <0.5 | <0.5 | <0.5 | <0.5 | 0.12 | <0.094 | <0.094 | ND | <0.47 | ND | 6.8 |
| SCIMW-23 | SCI | Monitoring Well | B | 5/6/97 | 10,000 | -- | 1,400 | 1,200yl | -- | -- | -- | -- | <0.094 | <0.094 | <0.094 | * | <0.47 | ND | 6.8 |
| SCIMW-24 | SCI | Monitoring Well | N | 5/6/97 | <5,000 | 5,000 | 2,700 l | 2,100 l | 720 | 220 | 37 | 120 | <0.094 | <0.094 | <0.094 | ND | <0.47 | ND | -- |
| SCIMW-25 | SCI | Monitoring Well | H | 5/7/97 | <5,000 | <50 | 100 | <300 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-26 | SCI | Monitoring Well | H | 5/6/97 | <5,000 | <50 | 140 | <300 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-27 | SCI | Monitoring Well | E/H | 5/6/97 | <5,000 | <50 | 3,400 | 1,800yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-28 | SCI | Monitoring Well | Q | 5/7/97 | <5,000 | <50 | 180 | <300 | <0.5 | <0.5 | <0.5 | <0.5 | <0.094 | <0.094 | <0.094 | ND | <0.47 | ND | -- |
| SCIMW-29 | SCI | Monitoring Well | H | 5/20/97 | <5,000 | <50 | 150 | <300 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-1 | SCI | Temp. Well Point | J | 5/21/96 | -- | -- | 25,000yh | 15,000yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCI-2(FP) | SCI | Temp. Well Point Free Product | I/J | 5/22/96 | -- | -- | 8,600,000ylh | 5,300,000yl | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-2 | SCI | Temp. Well Point | I/J | 5/22/96 | 81,000 | -- | 250,000ylh | 160,000yl | <13 | <13 | <13 | <13 | -- | -- | -- | -- | 45 | ND | -- |
| SCI-3 | SCI | Temp. Well Point | I | 5/21/96 | 210,000 | -- | 100,000yh | 190,000yh | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | 43 | ND | -- |
| SCI-4 | SCI | Temp. Well Point | I | 5/22/96 | -- | -- | 1,300yh | 510yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCI-5 | SCI | Temp. Well Point | A/K | 5/22/96 | 28,000 | 250y | 35,000ylh | 42,000yl | <25 | <25 | <25 | <25 | -- | -- | -- | -- | -- | -- | -- |
| SCI-6 | SCI | Temp. Well Point | J | 5/22/96 | 140,000 | 14,000yh | 240,000h | 46,000yl | <50 | <50 | <50 | <50 | -- | -- | -- | -- | -- | -- | -- |

TABLE 6
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (µg/L) | TVH as GAS (µg/L) | TEH as DIESEL (µg/L) | TEH as MOTOR OIL (µg/L) | BENZENE (µg/L) | ETHYL-BENZENE (µg/L) | TOLUENE (µg/L) | TOTAL XYLENES (µg/L) | 4,4'-DDD (µg/L) | 4,4'-DDE (µg/L) | 4,4'-DDT (µg/L) | OTHER HERBS/ PESTS (µg/L) | AROCLOR-1260 (µg/L) | OTHER PCBs (µg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-7 | SCI | Temp. Well Point | L | 5/23/96 | -- | -- | 3,000yh | 3,600 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-8 | SCI | Temp. Well Point | L | 5/22/96 | -- | -- | 2,100yh | 1,400y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-9 | SCI | Temp. Well Point | L | 5/23/96 | -- | -- | 2,500yh | 2,300 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-10 | SCI | Temp. Well Point | L | 5/22/96 | -- | -- | 840yh | 1,200y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-11 | SCI | Temp. Well Point | O | 5/23/96 | <5,000 | -- | 340y | <250 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-12 | SCI | Temp. Well Point | N | 5/22/96 | -- | 18,000 | 2,400ylh | 14,000y | 810 | 680 | 2,200 | 3,900 | -- | -- | -- | -- | -- | -- | -- |
| SCI-13 | SCI | Temp. Well Point | E/H | 5/24/96 | <5,000 | <50 | 930yh | 1,500y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-14 | SCI | Temp. Well Point | M | 5/23/96 | <5,000 | <50 | 540yh | 860y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-15 | SCI | Temp. Well Point | M | 5/23/96 | <5,000 | <50 | 430yh | 3,900y | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| SCI-16 | SCI | Temp. Well Point | L | 5/24/96 | <5,000 | <50 | 960yh | 1,100y | <25 | <25 | <25 | <25 | -- | -- | -- | -- | -- | -- | -- |
| SCI-17 | SCI | Temp. Well Point | M | 5/28/96 | <5,000 | 92y | 190yz | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCI-18 | SCI | Temp. Well Point | M | 5/24/96 | <5,000 | <50 | 1,100yh | 11,000y | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-19 | SCI | Temp. Well Point | D | 5/24/96 | <5,000 | 93yh | 25,000 | 710yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCI-20 | SCI | Temp. Well Point | E | 5/24/96 | <5,000 | -- | 16,000yh | 9,800y | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCI-21 | SCI | Temp. Well Point | G | 5/31/96 | -- | <50 | 440yh | 2,200y | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| SCI-22 | SCI | Temp. Well Point | F | 5/31/96 | 14,000 | 170z | 13,000ylh | 9,100yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| SCI-23 | SCI | Temp. Well Point | F | 5/31/96 | -- | 1,600yh | 350,000 | 8,300yl | <13 | <13 | <13 | <13 | -- | -- | -- | -- | -- | -- | -- |
| SCI-24 | SCI | Temp. Well Point | F | 5/31/96 | -- | <50 | 1,100ylh | 750yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-25 | SCI | Temp. Well Point | F | 5/31/96 | -- | 2,700yh | 210,000 | 6,200yl | 12J | <13 | <13 | <13 | -- | -- | -- | -- | -- | -- | -- |
| SCI-26 | SCI | Temp. Well Point | L | 5/31/96 | -- | -- | 520yh | <250 | <5.0 | 7.9 | <5.0 | 51 | -- | -- | -- | -- | -- | -- | -- |
| SCI-27 | SCI | Temp. Well Point | C | 6/3/96 | <5,000 | <50 | 240z | <250 | <5.0 | <5.0 | <5.0 | <5.0 | <0.09 | <0.09 | <0.09 | ND | <0.5 | ND | -- |
| SCI-28 | SCI | Temp. Well Point | L | 6/4/96 | -- | <50 | -- | -- | <0.5 | <0.5 | <0.5 | 3.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-29 | SCI | Temp. Well Point | L | 6/3/96 | <5,000 | <50 | 2,000yhz | 1,600 | <0.5 | <0.5 | <.05 | 13.7 | -- | -- | -- | -- | -- | -- | -- |
| SCI-30 | SCI | Temp. Well Point | L | 6/3/96 | <5,000 | <50 | 1,500yh | 3,300 | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-31 | SCI | Temp. Well Point | D | 6/3/96 | -- | 110y | 2,300yhz | 2,400 | <5.0 | 2.9J | <5.0 | 2.7J | -- | -- | -- | -- | <1.0 | ND | -- |
| SCI-32 | SCI | Temp. Well Point | Q | 8/29/96 | <5,000 | <50 | 340y | 440y | <8.3 | <8.3 | <8.3 | <8.3 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCI-33 | SCI | Temp. Well Point | Q | 8/29/96 | <5,000 | <50 | 190y | 460y | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCI-34 | SCI | Temp. Well Point | Q | 8/30/96 | <5,000 | <50 | 1,900yl | 1,500yh | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |

TABLE 6
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (µg/L) | TVH as GAS (µg/L) | TEH as DIESEL (µg/L) | TEH as MOTOR OIL (µg/L) | BENZENE (µg/L) | ETHYL-BENZENE (µg/L) | TOLUENE (µg/L) | TOTAL XYLENES (µg/L) | 4,4'-DDD (µg/L) | 4,4'-DDE (µg/L) | 4,4'-DDT (µg/L) | OTHER HERBS/ PESTS (µg/L) | AROCLOR-1260 (µg/L) | OTHER PCBs (µg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-35 | SCI | Temp. Well Point | G | 8/30/96 | 240,000 | 16,000y | 220,000y | 230,000y | <5 | 120 | <5 | 1,900 | -- | -- | -- | -- | -- | -- | -- |
| SCI-36 | SCI | Temp. Well Point | E | 8/30/96 | <5,000 | -- | 3,800y | 3,000yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-37 | SCI | Temp. Well Point | E | 8/30/96 | <5,000 | -- | 1,300yh | 650yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-38 | SCI | Temp. Well Point | I/J | 8/30/96 | <5,000 | <50 | 990y | 640yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCI-39 | SCI | Temp. Well Point | P/J | 8/30/96 | <5,000 | <50 | 1,000y | 730y | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | <1.0 | ND | -- |
| SCI-40 | SCI | Temp. Well Point | C | 1/22/97 | -- | 270yz | 38,000h | 9,900 l | <0.5 | 1 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-41 | SCI | Temp. Well Point | N | 1/22/97 | -- | <50 | 690yh | 1,300yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-42 | SCI | Temp. Well Point | C | 1/23/97 | -- | <50 | 400yh | 1,100yl | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-43 | SCI | Temp. Well Point | N | 1/23/97 | -- | 13,000yh | 190,000 | 12,000yl | <2.5 | <2.5 | <2.5 | <2.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-45 | SCI | Temp. Well Point | N | 1/23/97 | -- | 25,000yh | 490,000 | 29,000yl | <0.5 | <0.5 | 2.9 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-46 | SCI | Temp. Well Point | B | 1/24/97 | -- | -- | 1,200yh | 2,000ylh | -- | -- | -- | -- | <1.9 | <1.9 | 15 | ND | <9.4 | ND | -- |
| SCI-47 | SCI | Temp. Well Point | G/P | 1/24/97 | -- | <50 | 120y | <250 | <0.5 | <0.5 | 17 | 0.91 | -- | -- | -- | -- | -- | -- | -- |
| SCI-48 | SCI | Temp. Well Point | G/P | 1/24/97 | -- | <50 | 970yh | 2,200ylh | <0.5 | <0.5 | 1.8 | 0.64 | -- | -- | -- | -- | -- | -- | -- |
| SCI-49 | SCI | Temp. Well Point | Q | 1/24/97 | -- | <50 | 1,500yh | 2,600ylh | <0.5 | <0.5 | 0.6 | <0.5 | <0.09 | <0.09 | <0.09 | ND | <0.5 | ND | -- |
| SCI-50 | SCI | Temp. Well Point | Q | 1/24/97 | -- | <50 | 1,000yh | 2,300ylh | <0.5 | <0.5 | 0.7 | 0.53 | <0.09 | <0.09 | <0.09 | ND | 1.1 | ND | -- |
| SCI-51 | SCI | Temp. Well Point | P | 1/31/97 | -- | <50 | 960yh | 1,100ylh | 1.5 | 0.6 | 9.8 | 3.9J | <1.9 | 3.3 | 28 | ND | <9.4 | ND | -- |
| SCI-52 | SCI | Temp. Well Point | P/Q | 1/30/97 | -- | <50 | 150yh | 660h | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-53 | SCI | Temp. Well Point | H | 1/30/97 | -- | <50 | 230yh | 370ylh | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | 7.8 |
| SCI-54 | SCI | Temp. Well Point | P/Q | 1/31/97 | -- | <50 | 550yh | 590ylh | <0.5 | <0.5 | 7.8 | 3.0J | <3.8 | <3.8 | 31 | ND | <19 | ND | -- |
| SCI-55 | SCI | Temp. Well Point | P | 1/31/97 | -- | 29,000 | 28,000yl | 3,300ylh | 1,100 | 190 | 5,400 | 1,460J | -- | -- | -- | -- | -- | -- | -- |
| SCI-56 | SCI | Temp. Well Point | R | 1/31/97 | -- | <50 | 660 lh | 450yh | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-57 | SCI | Temp. Well Point | P | 2/4/97 | -- | 180y | 1,800 | 1,300yl | <31 | <31 | <31 | <31 | -- | -- | -- | -- | -- | -- | -- |
| SCI-59 | SCI | Temp. Well Point | P | 2/4/97 | -- | 10,000yz | 34,000yl | 10,000yl | <8,300 | <8,300 | 17,000 | <8,300 | -- | -- | -- | -- | -- | -- | -- |
| SCI-60 | SCI | Temp. Well Point | P | 2/4/97 | -- | <50 | 1,200yh | 1,200yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| SCI-61 | SCI | Temp. Well Point | R | 2/4/97 | -- | <50 | 180 | <250 | <0.5 | <0.5 | 1.3 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCI-62 | SCI | Temp. Well Point | H | 2/9/97 | -- | -- | 160y | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | 6.8 |
| SCI-63 | SCI | Temp. Well Point | H | 2/9/97 | -- | -- | <76 | <380 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | 7.8 |
| SCI-64 | SCI | Temp. Well Point | H | 2/9/97 | -- | -- | 140y | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | 6.8 |

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CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (µg/L) | TVH as GAS (µg/L) | TEH as DIESEL (µg/L) | TEH as MOTOR OIL (µg/L) | BENZENE (µg/L) | ETHYL-BENZENE (µg/L) | TOLUENE (µg/L) | TOTAL XYLENES (µg/L) | 4,4'-DDD (µg/L) | 4,4'-DDE (µg/L) | 4,4'-DDT (µg/L) | OTHER HERBS/ PESTS (µg/L) | AROCLOR-1260 (µg/L) | OTHER PCBs (µg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-65 | SCI | Temp. Well Point | H | 2/9/97 | -- | -- | 79y | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | 7.3 |
| SCI-72 | SCI | Temp. Well Point | F/E/H | 4/24/97 | -- | 130 | -- | -- | 1.1 | <0.5 | 4.9 | 6.3 | -- | -- | -- | -- | -- | -- | -- |
| SCI-74 | SCI | Temp. Well Point | D | 4/24/97 | 16,000 | 3,600yh | 84,000 | 7,400yl | <0.5 | <0.5 | <0.5 | <0.5 | <0.94 | <0.94 | <0.94 | ND | <4.7 | ND | 11.5 |
| TP-3 | SCI | Test Pit | N | 1/27/27 | 180,000 | 8,600yh | 590,000 | 35,000yl | <0.5 | <0.5 | <0.5 | 1.3 | -- | -- | -- | -- | -- | -- | -- |
| TP-6 | SCI | Test Pit | B | 1/28/97 | 590,000 | 1,800yh | 19,000,000yh | 5,900,000 l | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| TP-7 | SCI | Test Pit | D | 1/29/97 | -- | 620yh | 2,800yh | 7,900ylh | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| SCITP-9 | SCI | Test Pit | I | 2/3/97 | -- | 87y | 6,000yh | 7,800yhl | 0.95 | <0.5 | <0.5 | 2.13 | <1.9 | <1.9 | <1.9 | ND | <9.4 | ND | -- |
| SCITP-11 | SCI | Test Pit | J | 2/4/97 | -- | 8,400yh | 4,000,000h | 1,800,000 l | 1.7 | 18 | 2.4 | 10J | <3.8 | <3.8 | <3.8 | ND | 35 | ND | -- |
| SCITP-12 | SCI | Test Pit | I/J | 2/4/97 | -- | 3,000yh | 55,000h | 26,000 lh | 0.55 | 0.56 | 6.8 | 7.4J | -- | -- | -- | -- | -- | -- | -- |
| SCITP-13 | SCI | Test Pit | I/J | 2/5/97 | -- | 8,000yh | 35,000yl | 5,800yl | <25 | 410 | <25 | 1600 | 270 | 58 | <38 | ND | <190 | ND | -- |
| SCITP-14 | SCI | Test Pit | N | 2/5/97 | -- | 18,000 l | 15,000ylh | 41,000 l | 1,700 | 1,100 | 110 | 690 | -- | -- | -- | -- | -- | -- | -- |
| TP-18 | SCI | Test Pit | O | 4/24/97 | <5,000 | <50 | 1,000yh | 2,800 lh | <0.5 | <0.5 | <0.5 | <0.5 | <0.47 | <0.47 | <0.47 | ND | <2.4 | ND | 7.8 |
| TP-19 | SCI | Test Pit | N | 4/24/97 | 14,000 | 4,300y | 15,000 lh | 10,000ylh | <0.5 | <0.5 | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- |
| TP-21 | SCI | Test Pit | I | 4/25/97 | <5,000 | <50 | 660yh | 1,200 l | <0.5 | <0.5 | <0.5 | <0.5 | <0.094 | <0.094 | <0.094 | ND | <0.47 | ND | -- |
| SCITP-23A | SCI | Test Pit | L | 4/26/97 | 970,000 | 5,600yh | 8,700,000 | 470,000yl | <0.5 | <0.5 | <0.5 | 2.7C | 730 | 96J | <110 | ND | <570 | ND | -- |
| SCITP-24A | SCI | Test Pit | G/L | 4/26/97 | 2,400,000 | 2,100yh | 520,000 | 44,000yl | <0.5 | <0.5 | <0.5 | <0.5 | 1,700 | 130J | <240 | ND | <1,200 | ND | -- |
| SCITP-27 | SCI | Test Pit | N | 4/28/97 | <8,000 | <50 | <50 | <300 | <0.5 | <0.5 | <0.5 | <0.5 | <0.094 | <0.094 | <0.094 | ND | <0.47 | ND | -- |
| SCITP-28 | SCI | Test Pit | C | 4/29/97 | <5,000 | -- | <50 | <300 | -- | -- | -- | -- | <0.2 | <0.2 | <0.2 | ND | <1.0 | ND | -- |
| SCITP-28 | SCI | Test Pit (Filtrate) | C | 4/29/97 | -- | -- | <50 | <300 | -- | -- | -- | -- | <0.1 | <0.1 | <0.1 | ND | <0.5 | ND | -- |
| SCITP-30 | SCI | Test Pit | D | 4/29/97 | <5,000 | -- | 600yh | 810ylh | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-31 | SCI | Test Pit | I/P | 4/30/97 | <5,000 | <50 | 510yh | 2,200 | <0.5 | <0.5 | <0.5 | <0.5 | <0.094 | <0.094 | 0.35 | ND | <0.47 | ND | -- |
| TP-32 | SCI | Test Pit | I/P | 4/30/97 | <5,000 | <50 | 1,100 | 710yl | <0.5 | <0.5 | <0.5 | <0.5 | <0.094 | <0.094 | <0.094 | ND | <0.47 | ND | -- |
| SCITP-33B | SCI | Test Pit | R | 5/1/97 | 8,600 | 4,400 | 14,000yl | 5,100yl | <0.5 | 43 | <0.5 | 15 | <0.094 | <0.094 | <0.094 | ND | <0.47 | ND | -- |
| SCITP-35 | SCI | Test Pit | G | 5/3/97 | <5,000 | <50 | 320yh | 320yl | <0.5 | <0.5 | <0.5 | <0.5 | <0.094 | <0.094 | <0.094 | ND | <0.47 | ND | -- |
| SCITP-36 | SCI | Test Pit | G | 5/3/97 | 260,000 | 2,300yh | 18,000 | 1,800yl | <0.5 | <0.5 | <0.5 | <0.5 | <0.094 | <0.094 | <0.094 | ND | <0.47 | ND | -- |
| RMA-1 | SCI | Temp. Well Point | P | 11/18/96 | -- | -- | 110yz | <250 | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| RMA-1 | RMA | Temp. Well Point | P | 11/18/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-2 | SCI | Temp. Well Point | P | 11/18/96 | -- | -- | 1,500yh | 31,000yh | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |

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NINTH AVENUE TERMINAL STUDY AREA

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RMA-2 | RMA | Temp. Well Point | P | 11/18/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-4 | RMA | Temp. Well Point | F | 11/18/96 | -- | 584y | 29,370y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-5 | RMA | Temp. Well Point | F | 11/18/96 | -- | 331,800y | 8,668,000y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-7 | RMA | Temp. Well Point | E | 11/19/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-8 | RMA | Temp. Well Point | E | 11/19/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-9 | RMA | Temp. Well Point | E | 11/19/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-10 | SCI | Temp. Well Point | P | 11/19/96 | -- | -- | 3,100yh | 19,000yh | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| RMA-10 | RMA | Temp. Well Point | P | 11/19/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-10-dup | RMA | Temp. Well Point | P | 11/19/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-10 | RMA | Temp. Well Point Confirmation Sample | P | 11/19/96 | -- | -- | -- | -- | <1 | <1 | <1 | <1 | -- | -- | -- | -- | -- | -- | -- |
| RMA-11 | SCI | Temp. Well Point | G | 11/19/96 | -- | -- | 78,000 | 4,100yl | <8.3 | <8.3 | <8.3 | <8.3 | -- | -- | -- | -- | -- | -- | -- |
| RMA-12 | RMA | Temp. Well Point | A/K | 11/20/96 | -- | <500 | 53,900y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-13 | SCI | Temp. Well Point | J | 11/20/96 | -- | -- | 46,000 | 36,000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-14 | RMA | Temp. Well Point | J | 11/20/96 | -- | <500 | 440,100y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-15 | RMA | Temp. Well Point | J | 11/20/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-16 | RMA | Temp. Well Point | J | 11/20/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-16 | RMA | Temp. Well Point Confirmation Sample | J | 11/20/96 | -- | -- | -- | -- | <1 | <1 | <1 | <1 | -- | -- | -- | -- | -- | -- | -- |
| RMA-17 | RMA | Temp. Well Point | J | 11/20/96 | -- | <500 | 641y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-19 | RMA | Temp. Well Point | I | 11/21/96 | -- | 6,850y | 24,600y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-20 | RMA | Temp. Well Point | J | 11/21/96 | -- | 1,362y | 4,939y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-20-dup | RMA | Temp. Well Point | J | 11/21/96 | -- | 1,152y | 4,747y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-21 | RMA | Temp. Well Point | I | 11/21/96 | -- | 3,696y | 12,980y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-22 | SCI | Temp. Well Point | P | 11/22/96 | -- | -- | 230,000yl | 130,000y | <130 | <130 | <130 | <130 | -- | -- | -- | -- | -- | -- | -- |
| RMA-22 | RMA | Temp. Well Point | P | 11/22/96 | -- | 420,900y | 2,689,000y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-23 | SCI | Temp. Well Point | Q | 11/22/96 | -- | -- | 1,400yh | 17,000yh | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| RMA-23 | RMA | Temp. Well Point | Q | 11/22/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-23 | RMA | Temp. Well Point Confirmation Sample | Q | 11/22/96 | -- | <500 | <500 | -- | <5 | <5 | <5 | <5 | -- | -- | -- | -- | -- | -- | -- |
| RMA-24 | RMA | Temp. Well Point | N | 11/22/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

TABLE 6
PETROLEUM HYDROCARBON, BTEX, PESTICIDE AND PCB
CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | OIL & GREASE (µg/L) | TVH as GAS (µg/L) | TEH as DIESEL (µg/L) | TEH as MOTOR OIL (µg/L) | BENZENE (µg/L) | ETHYL-BENZENE (µg/L) | TOLUENE (µg/L) | TOTAL XYLENES (µg/L) | 4,4'-DDD (µg/L) | 4,4'-DDE (µg/L) | 4,4'-DDT (µg/L) | OTHER HERBS/ PESTS (µg/L) | AROCLOR-1260 (µg/L) | OTHER PCBs (µg/L) | pH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RMA-25 | SCI | Temp. Well Point | N | 11/22/96 | -- | 120,000yh | 47,000ylh | 40,000yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| RMA-25 | RMA | Temp. Well Point | N | 11/22/96 | -- | 528,000y | 248,500y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-26 | SCI | Temp. Well Point | N | 11/22/96 | -- | <50 | 1,300yh | 580yl | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| RMA-26 | RMA | Temp. Well Point | N | 11/22/96 | -- | <500 | 1,142y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-26-dup | RMA | Temp. Well Point | N | 11/22/96 | -- | <500 | 1,164y | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-26 | RMA | Temp. Well Point Confirmation Sample | N | 11/22/96 | -- | <500 | 2000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-27 | SCI | Temp. Well Point | B | 11/22/96 | -- | -- | 560yh | 610yl | -- | -- | -- | -- | <0.2 | <0.2 | <0.2 | ND | <1.1 | ND | -- |
| RMA-27 | RMA | Temp. Well Point | B | 11/22/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-28 | SCI | Temp. Well Point | B | 11/22/96 | -- | -- | 720yh | 490yl | -- | -- | -- | -- | <0.2 | <0.2 | <0.2 | ND | <1.1 | ND | -- |
| RMA-28 | RMA | Temp. Well Point | B | 11/22/96 | -- | <500 | <500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B0-W1 | Uribe | Field Blank | | 11/20/92 | -- | -- | <50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B00-W1 | Uribe | Field Blank/tap water | | 3/3/93 | -- | -- | <50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 9AV-B00-W2 | Uribe | Field Blank/tap water | | 3/3/93 | -- | -- | -- | -- | <0.4 | <0.3 | <0.3 | <0.4 | -- | -- | -- | -- | -- | -- | -- |
| Trip Blank #1 | SCI | Field Blank | | 8/26/96 | -- | -- | -- | -- | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| Trip Blank #2 | SCI | Field Blank | | 8/28/96 | -- | -- | -- | -- | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| Trip Blank #4 | SCI | Field Blank | | 8/29/96 | -- | -- | -- | -- | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| Trip Blank #5 | SCI | Field Blank | | 8/30/96 | -- | -- | -- | -- | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| Trip Blank #6 | SCI | Field Blank | | 9/3/96 | -- | -- | -- | -- | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| Trip Blank #7 | SCI | Field Blank | | 9/4/96 | -- | -- | -- | -- | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| Trip Blank #8 | SCI | Field Blank | | 9/5/96 | -- | -- | -- | -- | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |
| Trip Blank #9 | SCI | Field Blank | | 9/6/96 | -- | -- | -- | -- | <5.0 | <5.0 | <5.0 | <5.0 | -- | -- | -- | -- | -- | -- | -- |

* = Results with units of µg/kg and mg/kg are included for presentation purposes only.
TVH = Total Volatile Hydrocarbons
TEH = Total Extractable Hydrocarbons
DDD = Dichlorodiphenyldichloroethane
DDE = Dichlorodiphenyldichloroethene
DDT = Dichlorodiphenyltrichloroethene
PCBs = Polychlorinated Biphenyls
µg/L = micrograms per liter or parts per billion
y = Sample exhibits fuel pattern which does not resemble std
l = lighter hydrocarbons than indicated standard
h = heavier hydrocarbons than indicated standard
z = Sample exhibits unknown single peak or peaks
J = estimated value
-- = Not tested
<50 = Comp. not detected at or above stated reporting limit
ND = Not detected
* = Also detected 0.05 µg/L Heptachlor epoxide B
† = Could not be quantified - Laboratory indicated sample consisted of 98.80% oil fraction (approx. 89% within the diesel range), 1.2% sediment and <0.5% water
†† = Could not be quantified - Laboratory indicated sample consisted of 96.4% oil fraction, 3.6% water fraction, and <0.5% sediment resembling the extractable fuel standard for diesel

TABLE 7
VOLATILE ORGANIC AND ION CONCENTRATIONS
IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (µg/L) | MEK or 2-BUTAN-ONE (µg/L) | CARBON DISULFIDE (µg/L) | CHLORO-BENZENE (µg/L) | CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHANE (µg/L) | 1,2-DI-CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHENE (µg/L) | cis-1,2-DI-CHLORO-ETHENE (µg/L) | trans-1,2-DI-CHLORO-ETHENE (µg/L) | 4-METHYL-2-PENTAN-ONE (µg/L) | 1,1,1-TRI-CHLORO-ETHANE (µg/L) | TRI-CHLORO-ETHENE (µg/L) | VINYL CHLORIDE (µg/L) | OTHER 8240s EXCL. BTEX* | CHLORIDE (µg/L) | CYANIDE (µg/L) | NITRATE/ NITRITE-N (µg/L) | TOTAL PHOS-PHORUS (µg/L) | SULFATE (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| M-3** | Uribe | 8th Ave Manhole | L | 11/17/92 | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | ND | -- | -- | -- | -- | -- |
| 9AV-B5-W2 | Uribe | Grab (Soil Boring B-5) | L | 11/21/92 | <20 | <20 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <20 | <5 | <5 | <5 | ND | -- | -- | -- | -- | -- |
| 9AV-B10-W2 | Uribe | Grab (Soil Boring B-7) | L | 11/20/92 | <20 | <20 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <20 | <5 | <5 | <5 | ND | -- | -- | -- | -- | -- |
| Manhole-Oil Layer** | SCI | Oil-Filled Manhole | I/J | 5/13/96 | <40 mg/kg | <20mg/kg | <10mg/kg | <10mg/kg | <20mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <10mg/kg | <20mg/kg | <10mg/kg | <10mg/kg | <20mg/kg | ND | -- | -- | -- | -- | -- |
| Manhole-$H_2O$ Layer | SCI | Oil-Filled Manhole | I/J | 5/13/96 | <100 | <50 | <25 | <25 | <50 | **45** | <25 | <25 | **520** | <25 | <50 | **13J** | **28** | <50 | ND | -- | -- | -- | -- | -- |
| Manhole @ Start** | SCI | Oil Filled Manhole | I/J | 10/16/96 | <100 mg/kg | <50mg/kg | <25mg/kg | <25mg/kg | <50mg/kg | <25mg/kg | <25mg/kg | <25mg/kg | <25mg/kg | <25mg/kg | <50mg/kg | <25mg/kg | <25mg/kg | <50mg/kg | ND | -- | -- | -- | -- | -- |
| Manhole @ 2000 gal | SCI | Oil Filled Manhole | I/J | 10/16/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | **5.8** | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| Manhole @ 8700 gal | SCI | Oil Filled Manhole | I/J | 10/16/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | **<10** | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| MW-5 | SCI | Monitoring Well | F | 1/20/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| MW-5 | SCI | Monitoring Well | F/H | 5/6/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | <10 | -- | -- | -- |
| MW-6(FP) | SCI | Monitoring Well Free Product | F | 5/24/96 | <100,000 | <50,000 | <25,000 | <25,000 | <50,000 | <25,000 | <25,000 | <25,000 | <25,000 | <25,000 | <50,000 | <25,000 | <25,000 | <50,000 | ND | -- | -- | -- | -- | -- |
| MW-6 | SCI | Monitoring Well | F | 9/5/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| MW-6 | SCI | Monitoring Well | F/H | 5/6/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | <10 | -- | -- | -- |
| MW-7 | SCI | Monitoring Well | M | 9/5/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| MW-7 | SCI | Monitoring Well | M | 1/17/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-1 | SCI | Monitoring Well | E/H | 5/24/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | **<10** | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-1 | SCI | Monitoring Well | E/H | 9/6/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-1 | SCI | Monitoring Well | E/H | 1/22/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-2 | SCI | Monitoring Well | N | 9/4/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-2 | SCI | Monitoring Well | N | 1/17/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-3 | SCI | Monitoring Well | I/J | 5/23/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-3 | SCI | Monitoring Well | I/J | 9/5/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| XB | SCI | Monitoring Well Dup. of SCIMW-3 | I/J | 9/5/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | **<10** | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-3 | SCI | Monitoring Well | I/J | 1/20/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-4 | SCI | Monitoring Well | L | 8/26/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-4 | SCI | Monitoring Well | L | 1/22/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-5 | SCI | Monitoring Well | M | 9/3/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-5 | SCI | Monitoring Well | M | 1/20/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |

TABLE 7
VOLATILE ORGANIC AND ION CONCENTRATIONS
IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (µg/L) | MEK or 2-BUTAN-ONE (µg/L) | CARBON DISULFIDE (µg/L) | CHLORO-BENZENE (µg/L) | CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHANE (µg/L) | 1,2-DI-CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHENE (µg/L) | cis-1,2-DI-CHLORO-ETHENE (µg/L) | trans-1,2-DI-CHLORO-ETHENE (µg/L) | 4-METHYL-2-PENTAN-ONE (µg/L) | 1,1,1-TRI-CHLORO-ETHANE (µg/L) | TRI-CHLORO-ETHENE (µg/L) | VINYL CHLORIDE (µg/L) | OTHER 8240s EXCL. BTEX* | CHLORIDE (µg/L) | CYANIDE (µg/L) | NITRATE/ NITRITE-N (µg/L) | TOTAL PHOS-PHORUS (µg/L) | SULFATE (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCIMW-6 | SCI | Monitoring Well | C | 8/28/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-6 | SCI | Monitoring Well | C | 1/22/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-7 | SCI | Monitoring Well | P/Q | 9/6/96 | <5,000 | <2,500 | <1,300 | <1,300 | **2,400J** | **8,100** | <1,300 | <1,300 | **27,000** | <1,300 | <2,500 | **10,000** | **7,900** | **8,900** | ND | -- | -- | -- | -- | -- |
| SCIMW-7 | SCI | Monitoring Well | P/Q | 1/20/97 | <13,000 | <6,300 | <3,100 | <3,100 | **6,300** | **13,000** | <3,100 | <3,100 | **91,000** | <3,100 | <6,300 | **53,000** | **32,000** | **5,600J** | ND | -- | -- | -- | -- | -- |
| SCIMW-8 | SCI | Monitoring Well | I | 8/26/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-8 | SCI | Monitoring Well | I | 1/21/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-9 | SCI | Monitoring Well | I | 8/29/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-9 | SCI | Monitoring Well | I | 1/23/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-10 | SCI | Monitoring Well | J | 8/26/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-10 | SCI | Monitoring Well | J | 1/23/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-11 | SCI | Monitoring Well | N | 8/28/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-11 | SCI | Monitoring Well | N | 1/17/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-12 | SCI | Monitoring Well | O | 8/29/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-12 | SCI | Monitoring Well | O | 1/17/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-13 | SCI | Monitoring Well | J | 8/29/96 | <20 | <10 | <5.0 | <5.0 | <10 | **6.7** | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-13 | SCI | Monitoring Well | J | 1/23/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-14 | SCI | Monitoring Well | I/J | 8/29/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-14 | SCI | Monitoring Well | I/J | 1/21/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-15 | SCI | Monitoring Well | I/J | 8/29/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-15 | SCI | Monitoring Well | I/J | 1/17/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-16 | SCI | Monitoring Well | R | 8/30/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| XA | SCI | Monitoring Well Dup. of SCIMW-16 | R | 8/30/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-16 | SCI | Monitoring Well | R | 1/22/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-17 | SCI | Monitoring Well | R | 8/29/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-17 | SCI | Monitoring Well | R | 1/22/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-18 | SCI | Monitoring Well | L | 9/6/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-18 | SCI | Monitoring Well | L | 1/20/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-19 | SCI | Monitoring Well | R | 8/30/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |

TABLE 7
VOLATILE ORGANIC AND ION CONCENTRATIONS
IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (µg/L) | MEK or 2-BUTAN-ONE (µg/L) | CARBON DISULFIDE (µg/L) | CHLORO-BENZENE (µg/L) | CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHANE (µg/L) | 1,2-DI-CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHENE (µg/L) | cis-1,2-DI-CHLORO-ETHENE (µg/L) | trans-1,2-DI-CHLORO-ETHENE (µg/L) | 4-METHYL-2-PENTAN-ONE (µg/L) | 1,1,1-TRI-CHLORO-ETHANE (µg/L) | TRI-CHLORO-ETHENE (µg/L) | VINYL CHLORIDE (µg/L) | OTHER 8240s EXCL. BTEX* | CHLORIDE (µg/L) | CYANIDE (µg/L) | NITRATE/ NITRITE-N (µg/L) | TOTAL PHOS-PHORUS (µg/L) | SULFATE (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCIMW-19 | SCI | Monitoring Well | R | 1/21/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-20 | SCI | Monitoring Well | H/Q | 9/3/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-20 | SCI | Monitoring Well | H/Q | 1/20/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCIMW-21 | SCI | Monitoring Well | D | 5/6/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <50 | 1,100 | -- |
| SCIMW-22 | SCI | Monitoring Well | P | 5/6/97 | <100 | <50 | <25 | <25 | <50 | <25 | <25 | <25 | <25 | <25 | <50 | <25 | <25 | <50 | ND | -- | <10 | <50 | 4,000 | -- |
| SCIMW-23 | SCI | Monitoring Well | B | 5/6/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <10 | <50 | 9,300 | -- |
| SCIMW-24 | SCI | Monitoring Well | N | 5/6/97 | <100 | <50 | <25 | <25 | <50 | <25 | <25 | <25 | <25 | <25 | <50 | <25 | <25 | <50 | ND | -- | 20 | -- | -- | -- |
| SCIMW-25 | SCI | Monitoring Well | H | 5/7/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | 3.5J | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | <10 | -- | -- | -- |
| SCIMW-26 | SCI | Monitoring Well | H | 5/6/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | <10 | -- | -- | -- |
| SCIMW-27 | SCI | Monitoring Well | E/H | 5/6/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | <10 | -- | -- | -- |
| SCIMW-28 | SCI | Monitoring Well | Q | 5/7/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | <10 | -- | -- | -- |
| SCIMW-29 | SCI | Monitoring Well | H | 5/20/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | <10 | -- | -- | -- |
| SCI-1 | SCI | Temp. Well Point | J | 5/21/96 | <20 | <10 | <5.0 | <5.0 | <10 | 8.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-2 | SCI | Temp. Well Point | I/J | 5/22/96 | <50 | 38 | <13 | <13 | <25 | <13 | <13 | <13 | <13 | <13 |  | <13 | <13 | <25 | ND | -- | -- | -- | -- | -- |
| SCI-3 | SCI | Temp. Well Point | I | 5/21/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-4 | SCI | Temp. Well Point | I | 5/22/96 | <20 | 450 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-5 | SCI | Temp. Well Point | A/K | 5/22/96 | <100 | 210 | <25 | <25 | <50 | <25 | <25 | <25 | <25 | <25 | <50 | <25 | <25 | <50 | ND | -- | -- | -- | -- | -- |
| SCI-6 | SCI | Temp. Well Point | J | 5/22/96 | <200 | <100 | <50 | <50 | <100 | <50 | <50 | <50 | <50 | <50 | <100 | <50 | <50 | <100 | ND | -- | -- | -- | -- | -- |
| SCI-12 | SCI | Temp. Well Point | N | 5/22/96 | <400 | <200 | <100 | <100 | <200 | <100 | <100 | <100 | <100 | <100 | <200 | <100 | <100 | <200 | ND | -- | -- | -- | -- | -- |
| SCI-14 | SCI | Temp. Well Point | M | 5/23/96 | <20 | 78 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-15 | SCI | Temp. Well Point | M | 5/23/96 | <20 | 20 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-16 | SCI | Temp. Well Point | L | 5/24/96 | <100 | 640 | <25 | <25 | <50 | <25 | <25 | <25 | <25 | <25 | <50 | <25 | <25 | <50 | ND | -- | -- | -- | -- | -- |
| SCI-17 | SCI | Temp. Well Point | M | 5/28/96 | <20 | 1,200 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-19 | SCI | Temp. Well Point | D | 5/24/96 | <20 | 34 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-20 | SCI | Temp. Well Point | E | 5/24/96 | <20 | 87 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-21 | SCI | Temp. Well Point | G | 5/31/96 | <20 | 400 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-22 | SCI | Temp. Well Point | F | 5/31/96 | <20 | 88 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-23 | SCI | Temp. Well Point | F | 5/31/96 | <50 | 310 | <13 | <13 | <25 | <13 | <13 | <13 | <13 | <13 | <25 | <13 | <13 | <25 | ND | -- | -- | -- | -- | -- |

TABLE 7
VOLATILE ORGANIC AND ION CONCENTRATIONS
IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (µg/L) | MEK or 2-BUTAN-ONE (µg/L) | CARBON DISULFIDE (µg/L) | CHLORO-BENZENE (µg/L) | CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHANE (µg/L) | 1,2-DI-CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHENE (µg/L) | cis-1,2-DI-CHLORO-ETHENE (µg/L) | trans-1,2-DI-CHLORO-ETHENE (µg/L) | 4-METHYL-2-PENTAN-ONE (µg/L) | 1,1,1-TRI-CHLORO-ETHANE (µg/L) | TRI-CHLORO-ETHENE (µg/L) | VINYL CHLORIDE (µg/L) | OTHER 8240s EXCL. BTEX* | CHLORIDE (µg/L) | CYANIDE (µg/L) | NITRATE/ NITRITE-N (µg/L) | TOTAL PHOS-PHORUS (µg/L) | SULFATE (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-25 | SCI | Temp. Well Point | F | 5/31/96 | <50 | **310** | <13 | <13 | <25 | <13 | <13 | <13 | <13 | <13 | <25 | <13 | <13 | <25 | ND | -- | -- | -- | -- | -- |
| SCI-26 | SCI | Temp. Well Point | L | 5/31/96 | <20 | **36** | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-27 | SCI | Temp. Well Point | C | 6/3/96 | <20 | **80** | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-31 | SCI | Temp. Well Point | D | 6/3/96 | <20 | **33** | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-32 | SCI | Temp. Well Point | Q | 8/29/96 | <33 | **240** | <8.3 | <8.3 | <17 | <8.3 | <8.3 | <8.3 | <8.3 | <8.3 | <17 | <8.3 | <8.3 | <17 | ND | -- | -- | -- | -- | -- |
| SCI-33 | SCI | Temp. Well Point | Q | 8/29/96 | <20 | **58** | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-34 | SCI | Temp. Well Point | Q | 8/30/96 | <20 | **180** | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-38 | SCI | Temp. Well Point | I/J | 8/30/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-39 | SCI | Temp. Well Point | P/J | 8/30/96 | <20 | **13** | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-40 | SCI | Temp. Well Point | C | 1/22/97 | **73** | **12** | <5.0 | <5.0 | <10 | <5.0 | **9.7** | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-41 | SCI | Temp. Well Point | N | 1/22/97 | **26** | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-42 | SCI | Temp. Well Point | C | 1/23/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | **4.1J** | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-43 | SCI | Temp. Well Point | N | 1/23/97 | **40** | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-46 | SCI | Temp. Well Point | B | 1/24/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | **8,700** | **50** | -- |
| SCI-47 | SCI | Temp. Well Point | G/P | 1/24/97 | **410** | **32J** | <17 | <17 | <33 | <17 | <17 | <17 | <17 | <17 | <33 | <17 | <17 | <33 | ND | -- | -- | -- | -- | -- |
| SCI-48 | SCI | Temp. Well Point | G/P | 1/24/97 | **170** | **35** | <5.0 | <5.0 | <10 | <5.0 | **2.9J** | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | **80** | **150** | -- |
| SCI-49 | SCI | Temp. Well Point | Q | 1/24/97 | **49** | **8.2J** | <5.0 | <5.0 | <10 | <5.0 | **4.3J** | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-50 | SCI | Temp. Well Point | Q | 1/24/97 | **28** | **<10** | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-51 | SCI | Temp. Well Point | P | 1/31/97 | **1,900** | **290** | <5.0 | <5.0 | <10 | **14** | <5.0 | <5.0 | **18** | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-52 | SCI | Temp. Well Point | P/Q | 1/30/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-53 | SCI | Temp. Well Point | H | 1/30/97 | <20 | <10 | <5.0 | <5.0 | <10 | **12** | <5.0 | <5.0 | <5.0 | <5.0 | <10 | **12** | <5.0 | <10 | ND | **740,000** | <10 | -- | -- | **30,000** |
| SCI-54 | SCI | Temp. Well Point | P/Q | 1/31/97 | **66** | **110** | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-55 | SCI | Temp. Well Point | P | 1/31/97 | **18,000** | 14,000 | <500 | <500 | <1000 | **16,000** | 740 | 750 | **55,000** | **2,700** | **5,600** | **2,600** | 160,000 | **2,000** | ND | -- | -- | -- | -- | -- |
| SCI-56 | SCI | Temp. Well Point | R | 1/31/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCI-57 | SCI | Temp. Well Point | P | 2/4/97 | **470** | **180** | <31 | <31 | <63 | **100** | <31 | <31 | **1,100** | <31 | <63 | <31 | **27J** | <63 | ND | -- | -- | -- | -- | -- |
| SCI-59 | SCI | Temp. Well Point | P | 2/4/97 | <33,000 | <17,000 | <8,300 | <8,300 | <17,000 | <8,300 | <8,300 | <8,300 | **260,000** | <8,300 | <17,000 | <8,300 | **110,000** | **16,000J** | ND | -- | -- | -- | -- | -- |
| SCI-60 | SCI | Temp. Well Point | P | 2/4/97 | **99** | **7.5J** | <5.0 | <5.0 | <10 | **52** | <5.0 | <5.0 | **32** | <5.0 | <10 | <5.0 | **9.3** | <10 | ND | -- | -- | -- | -- | -- |
| SCI-62 | SCI | Temp. Well Point | H | 2/9/97 | **41** | **6.3J** | <5.0 | <5.0 | <10 | <5.0 | **12** | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | **9,200,000** | <10 | -- | -- | **380,000** |

TABLE 7
VOLATILE ORGANIC AND ION CONCENTRATIONS
IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (µg/L) | MEK or 2-BUTAN-ONE (µg/L) | CARBON DISULFIDE (µg/L) | CHLORO-BENZENE (µg/L) | CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHANE (µg/L) | 1,2-DI-CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHENE (µg/L) | cis-1,2-DI-CHLORO-ETHENE (µg/L) | trans-1,2-DI-CHLORO-ETHENE (µg/L) | 4-METHYL-2-PENTAN-ONE (µg/L) | 1,1,1-TRI-CHLORO-ETHANE (µg/L) | TRI-CHLORO-ETHENE (µg/L) | VINYL CHLORIDE (µg/L) | OTHER 8240s EXCL. BTEX* | CHLORIDE (µg/L) | CYANIDE (µg/L) | NITRATE/ NITRITE-N (µg/L) | TOTAL PHOS-PHORUS (µg/L) | SULFATE (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-63 | SCI | Temp. Well Point | H | 2/9/97 | 73 | 15 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | 7,300,000 | <20 | -- | -- | 470,000 |
| SCI-64 | SCI | Temp. Well Point | H | 2/9/97 | <20 | 5.2J | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | 12,000,000 | <10 | -- | -- | 320,000 |
| SCI-65 | SCI | Temp. Well Point | H | 2/9/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | 1,400,000 | 1,400 | -- | -- | 140,000 |
| SCI-74 | SCI | Temp. Well Point | D | 4/24/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | 24,200a | <30 | -- |
| TP-3 | SCI | Test Pit | N | 1/27/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| TP-6 | SCI | Test Pit | B | 1/28/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCITP-9 | SCI | Test Pit | I | 2/3/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCITP-11 | SCI | Test Pit | J | 2/4/97 | <50 | <25 | <13 | <13 | <25 | <13 | <13 | <13 | <13 | <13 | <25 | <13 | <13 | <25 | ND | -- | -- | -- | -- | -- |
| SCITP-12 | SCI | Test Pit | I/J | 2/4/97 | 57 | <25 | 170 | <13 | <25 | <13 | 9.0J | <13 | <13 | <13 | <25 | <13 | <13 | <25 | ND | -- | -- | -- | -- | -- |
| SCITP-13 | SCI | Test Pit | I/J | 2/5/97 | <100 | <50 | <25 | 220 | <50 | <25 | <25 | <25 | <25 | <25 | <50 | <25 | <25 | <50 | ND | -- | -- | -- | -- | -- |
| TP-18 | SCI | Test Pit | O | 4/24/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | <10 | 130 | 360 | -- |
| TP-19 | SCI | Test Pit | N | 4/24/97 | <25 | <13 | 42 | <6.3 | <13 | <6.3 | <6.3 | <6.3 | <6.3 | <6.3 | <13 | <6.3 | <6.3 | <13 | ND | -- | -- | -- | -- | -- |
| TP-21 | SCI | Test Pit | I | 4/25/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | <10 | -- | -- | -- |
| SCITP-23A | SCI | Test Pit | L | 4/26/97 | <100 | <50 | <25 | <25 | <50 | <25 | <25 | <25 | <25 | <25 | <50 | <25 | <25 | <50 | ND | -- | <10 | -- | -- | -- |
| SCITP-24A | SCI | Test Pit | G/L | 4/26/97 | <200 | <100 | <50 | <50 | <100 | <50 | <50 | <50 | <50 | <50 | <100 | <50 | <50 | <100 | ND | -- | <10 | -- | -- | -- |
| SCITP-27 | SCI | Test Pit | N | 4/28/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | <10 | <50 | 2,300 | -- |
| TP-31 | SCI | Test Pit | I/P | 4/30/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | <10 | -- | -- | -- |
| TP-32 | SCI | Test Pit | I/P | 4/30/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCITP-33B | SCI | Test Pit | R | 5/1/97 | 21 | 9.6J | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| SCITP-35 | SCI | Test Pit | G | 5/3/97 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | <10 | -- | -- | -- |
| SCITP-36 | SCI | Test Pit | G | 5/3/97 | <20 | <10 | 4.1J | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | 14 | -- | -- | -- |
| RMA-1 | SCI | Temp. Well Point | P | 11/18/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| RMA-1 | RMA | Temp. Well Point | P | 11/18/96 | -- | -- | -- | -- | -- | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | -- | <0.5 | <0.5 | <0.5 | ND | -- | -- | -- | -- | -- |
| RMA-2 | SCI | Temp. Well Point | P | 11/18/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| RMA-2 | RMA | Temp. Well Point | P | 11/18/96 | -- | -- | -- | -- | -- | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | -- | <0.5 | <0.5 | <0.5 | ND | -- | -- | -- | -- | -- |
| RMA-4 | RMA | Temp. Well Point | F | 11/18/96 | -- | -- | -- | -- | -- | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | -- | <0.5 | <0.5 | <0.5 | ND | -- | -- | -- | -- | -- |
| RMA-5 | RMA | Temp. Well Point | F | 11/18/96 | -- | -- | -- | -- | -- | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | -- | <0.5 | <0.5 | <0.5 | ND | -- | -- | -- | -- | -- |
| RMA-7 | RMA | Temp. Well Point | E | 11/19/96 | -- | -- | -- | -- | -- | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | -- | <0.5 | <0.5 | <0.5 | ND | -- | -- | -- | -- | -- |

TABLE 7
VOLATILE ORGANIC AND ION CONCENTRATIONS
IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ACETONE (µg/L) | MEK or 2-BUTAN-ONE (µg/L) | CARBON DISULFIDE (µg/L) | CHLORO-BENZENE (µg/L) | CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHANE (µg/L) | 1,2-DI-CHLORO-ETHANE (µg/L) | 1,1-DI-CHLORO-ETHENE (µg/L) | cis-1,2-DI-CHLORO-ETHENE (µg/L) | trans-1,2-DI-CHLORO-ETHENE (µg/L) | 4-METHYL-2-PENTAN-ONE (µg/L) | 1,1,1-TRI-CHLORO-ETHANE (µg/L) | TRI-CHLORO-ETHENE (µg/L) | VINYL CHLORIDE (µg/L) | OTHER 8240s EXCL. BTEX* | CHLORIDE (µg/L) | CYANIDE (µg/L) | NITRATE/ NITRITE-N (µg/L) | TOTAL PHOS-PHORUS (µg/L) | SULFATE (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RMA-8 | RMA | Temp. Well Point | E | 11/19/96 | -- | -- | -- | -- | -- | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | -- | <0.5 | <0.5 | <0.5 | ND | -- | -- | -- | -- | -- |
| RMA-9 | RMA | Temp. Well Point | E | 11/19/96 | -- | -- | -- | -- | -- | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | -- | <0.5 | <0.5 | <0.5 | ND | -- | -- | -- | -- | -- |
| RMA-10 | SCI | Temp. Well Point | P | 11/19/96 | <20 | <10 | <5.0 | <5.0 | <10 | 17 | <5.0 | <5.0 | 4.7J | <5.0 | <10 | 50 | 59 | <10 | ND | -- | -- | -- | -- | -- |
| RMA-10 | RMA | Temp. Well Point | P | 11/19/96 | -- | -- | -- | -- | -- | 13.2 | <0.5 | 2.4 | 5.1 | <0.5 | -- | 48.4 | 62.9 | <0.5 | ND | -- | -- | -- | -- | -- |
| RMA-10-dup | RMA | Temp. Well Point | P | 11/19/96 | -- | -- | -- | -- | -- | 16.4 | <0.5 | 2.4 | 5.1 | <0.5 | -- | 51.2 | 62.4 | <0.5 | ND | -- | -- | -- | -- | -- |
| RMA-10 | RMA | Temp. Well Point Confirmation Sample | P | 11/19/96 | <10 | <10 | -- | <1 | <1 | 21 | <1 | 1 | 5 | <1 | <10 | 60 | 75 | <1 | ND | -- | -- | -- | -- | -- |
| RMA-11 | SCI | Temp. Well Point | G | 11/19/96 | <33 | <17 | <8.3 | <8.3 | <17 | <8.3 | <8.3 | <8.3 | <8.3 | <8.3 | <17 | <8.3 | <8.3 | <17 | ND | -- | -- | -- | -- | -- |
| RMA-12 | RMA | Temp. Well Point | A/K | 11/20/96 | -- | -- | -- | -- | -- | <0.5 | <0.5 | <0.5 | <0.5 | <0.5 | -- | <0.5 | <0.5 | <0.5 | ND | -- | -- | -- | -- | -- |
| RMA-16 | RMA | Temp. Well Point | J | 11/20/96 | -- | -- | -- | -- | -- | 5.6 | <0.5 | 0.6 | 0.9 | <0.5 | -- | <0.5 | <0.5 | 1.0 | ND | -- | -- | -- | -- | -- |
| RMA-16 | RMA | Temp. Well Point Confirmation Sample | J | 11/20/96 | 18 | <10 | -- | <1 | <1 | 6 | <1 | <1 | <1 | <1 | <10 | <1 | <1 | 2 | ND | -- | -- | -- | -- | -- |
| RMA-17 | RMA | Temp. Well Point | J | 11/20/96 | -- | -- | -- | -- | -- | 3.0 | <0.5 | <0.5 | 0.7 | <0.5 | -- | <0.5 | <0.5 | <0.5 | ND | -- | -- | -- | -- | -- |
| RMA-22 | SCI | Temp. Well Point | P | 11/22/96 | <500 | <250 | <130 | <130 | <250 | <130 | <130 | <130 | <130 | <130 | <250 | <130 | <130 | <250 | ND | -- | -- | -- | -- | -- |
| RMA-23 | SCI | Temp. Well Point | Q | 11/22/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| RMA-23 | RMA | Temp. Well Point Confirmation Sample | Q | 11/22/96 | <50 | <50 | -- | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <50 | <5 | <5 | <5 | ND | -- | -- | -- | -- | -- |
| RMA-25 | SCI | Temp. Well Point | N | 11/22/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| RMA-26 | SCI | Temp. Well Point | N | 11/22/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| TRIP BLANK | Uribe | Field Blank | | 11/20/92 | <20 | <20 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <10 | ND | -- | -- | -- | -- | -- |
| Trip Blank #1 | SCI | Field Blank | | 8/26/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| Trip Blank #2 | SCI | Field Blank | | 8/28/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| Trip Blank #4 | SCI | Field Blank | | 8/29/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| Trip Blank #5 | SCI | Field Blank | | 8/30/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| Trip Blank #6 | SCI | Field Blank | | 9/3/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| Trip Blank #7 | SCI | Field Blank | | 9/4/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| Trip Blank #8 | SCI | Field Blank | | 9/5/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |
| Trip Blank #9 | SCI | Field Blank | | 9/6/96 | <20 | <10 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <5.0 | <5.0 | <5.0 | <10 | <5.0 | <5.0 | <10 | ND | -- | -- | -- | -- | -- |

* = BTEX presented in Table 5
** = Results reported with units of mg/kg are included for presentation purposes only
MEK = Methylethylketone

µg/L = micrograms per liter or parts per billion
mg/kg = milligrams per kilogram or parts per million
<10 = Compound not detected at or above stated reporting limit

ND = Not detected
-- = Not tested
J = Estimated value
a = Sample analyzed past recommended holding time

TABLE 8
SEMI-VOLATILE ORGANIC AND TOTAL PNA CONCENTRATIONS
IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | BENZOIC ACID (µg/L) | BENZYL ALCOHOL (µg/L) | 1,2-DI-CHLORO-BENZENE (µg/L) | 1,4-DI-CHLORO-BENZENE (µg/L) | 2,4-DI-METHYL-PHENOL (µg/L) | DI-N-OCTYL-PHTHALATE (µg/L) | BIS(2-ETHYL-HEXYL) PHTHALATE (µg/L) | 2-METHYL-PHENOL (µg/L) | 4-METHYL-PHENOL (µg/L) | PENTA-CHLORO-PHENOL (µg/L) | PHENOL (µg/L) | TOTAL PNAs (µg/L) | OTHER 8270s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GW-1 | ERM-West | Grab (H-107 Excavation Water) | M | 10/15/94 | -- | -- | <0.5 | <0.5 | -- | -- | -- | -- | -- | -- | -- | ND | ND |
| Manhole-Oil Layer* | SCI | Oil-Filled Manhole | I/J | 5/13/96 | <10 g/kg | <2 g/kg | <2 g/kg | <2 g/kg | <2 g/kg | <2 g/kg | <2 g/kg | <2 g/kg | <2 g/kg | <10 g/kg | <2 g/kg | **2.2 g/kg** | ND |
| Manhole-$H_2O$ Layer | SCI | Oil-Filled Manhole | I/J | 5/13/96 | <12,000 | <2,400 | <2,400 | <2,400 | <2,400 | <2,400 | <2,400 | <2,400 | <2,400 | <12,000 | <2,400 | ND | ND |
| Manhole @ Start* | SCI | Oil Filled Manhole | I/J | 10/16/96 | <2.5 g/kg | <0.5 g/kg | <0.5 g/kg | <0.5 g/kg | <0.5 g/kg | <0.5 g/kg | <0.5 g/kg | <0.5 g/kg | <0.5 g/kg | <2.5 g/kg | <0.5 g/kg | **1.2 g/kg** | ND |
| Manhole @ 2000 gal | SCI | Oil Filled Manhole | I/J | 10/16/96 | <9,400 | <1,900 | <1,900 | <1,900 | <1,900 | <1,900 | <1,900 | <1,900 | <1,900 | <9,400 | <1,900 | **2,500** | ND |
| Manhole @ 8700 gal | SCI | Oil Filled Manhole | I/J | 10/16/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| MW-5 | SCI | Monitoring Well | F | 1/20/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| MW-6(FP) | SCI | Monitoring Well Free Product | F | 5/24/96 | <200 | <40 | <40 | <40 | <40 | <40 | <40 | <40 | <40 | <200 | <40 | **400** | ND |
| MW-6 | SCI | Monitoring Well | F | 9/5/96 | <2400 | <470 | <470 | <470 | <470 | <470 | <470 | <470 | <470 | <2400 | <470 | **410J** | ND |
| MW-7 | SCI | Monitoring Well | M | 9/5/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| MW-7 | SCI | Monitoring Well | M | 1/17/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-1 | SCI | Monitoring Well | E/H | 5/24/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-1 | SCI | Monitoring Well | E/H | 9/6/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-1 | SCI | Monitoring Well | E/H | 1/22/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-2 | SCI | Monitoring Well | N | 5/23/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-2 | SCI | Monitoring Well | N | 9/4/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | **6.0J** | ND |
| SCIMW-2 | SCI | Monitoring Well | N | 1/17/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-3 | SCI | Monitoring Well | I/J | 5/23/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-3 | SCI | Monitoring Well | I/J | 9/5/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | **5.5J** | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-3 | SCI | Monitoring Well | I/J | 1/20/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-4 | SCI | Monitoring Well | L | 8/26/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-4 | SCI | Monitoring Well | L | 1/22/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-5 | SCI | Monitoring Well | M | 9/3/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-5 | SCI | Monitoring Well | M | 1/20/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-6 | SCI | Monitoring Well | C | 8/28/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-6 | SCI | Monitoring Well | C | 1/22/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-7 | SCI | Monitoring Well | P/Q | 9/6/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | **4.7J** | <47 | <9.4 | ND | ND |
| SCIMW-7 | SCI | Monitoring Well | P/Q | 1/20/97 | 280 | **11J** | <19 | <19 | **40** | <19 | <19 | 55 | **110** | <94 | **27** | **28** | ND |

TABLE 8
SEMI-VOLATILE ORGANIC AND TOTAL PNA CONCENTRATIONS
IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | BENZOIC ACID (µg/L) | BENZYL ALCOHOL (µg/L) | 1,2-DI-CHLORO-BENZENE (µg/L) | 1,4-DI-CHLORO-BENZENE (µg/L) | 2,4-DI-METHYL-PHENOL (µg/L) | DI-N-OCTYL-PHTHALATE (µg/L) | BIS(2-ETHYL-HEXYL) PHTHALATE (µg/L) | 2-METHYL-PHENOL (µg/L) | 4-METHYL-PHENOL (µg/L) | PENTA-CHLORO-PHENOL (µg/L) | PHENOL (µg/L) | TOTAL PNAs (µg/L) | OTHER 8270s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCIMW-8 | SCI | Monitoring Well | I | 8/26/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-8 | SCI | Monitoring Well | I | 1/21/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-9 | SCI | Monitoring Well | I | 8/29/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-9 | SCI | Monitoring Well | I | 1/23/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-10 | SCI | Monitoring Well | J | 8/26/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-10 | SCI | Monitoring Well | J | 1/23/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-11 | SCI | Monitoring Well | N | 8/28/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-11 | SCI | Monitoring Well | N | 1/17/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-12 | SCI | Monitoring Well | O | 8/29/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-12 | SCI | Monitoring Well | O | 1/17/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-13 | SCI | Monitoring Well | J | 8/29/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-13 | SCI | Monitoring Well | J | 1/23/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-14 | SCI | Monitoring Well | I/J | 8/29/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-14 | SCI | Monitoring Well | I/J | 1/21/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-15 | SCI | Monitoring Well | I/J | 8/29/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-15 | SCI | Monitoring Well | I/J | 1/17/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-16 | SCI | Monitoring Well | R | 8/30/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-16 | SCI | Monitoring Well | R | 1/22/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-17 | SCI | Monitoring Well | R | 8/29/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-17 | SCI | Monitoring Well | R | 1/22/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-18 | SCI | Monitoring Well | L | 9/6/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-18 | SCI | Monitoring Well | L | 1/20/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-19 | SCI | Monitoring Well | R | 8/30/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-19 | SCI | Monitoring Well | R | 1/21/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | 11 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-20 | SCI | Monitoring Well | H/Q | 9/3/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-20 | SCI | Monitoring Well | H/Q | 1/20/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-22 | SCI | Monitoring Well | P | 5/6/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCIMW-24 | SCI | Monitoring Well | N | 5/6/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | 14 | 99.9 | ND |

TABLE 8
SEMI-VOLATILE ORGANIC AND TOTAL PNA CONCENTRATIONS
IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | BENZOIC ACID (µg/L) | BENZYL ALCOHOL (µg/L) | 1,2-DI-CHLORO-BENZENE (µg/L) | 1,4-DI-CHLORO-BENZENE (µg/L) | 2,4-DI-METHYL-PHENOL (µg/L) | DI-N-OCTYL-PHTHALATE (µg/L) | BIS(2-ETHYL-HEXYL) PHTHALATE (µg/L) | 2-METHYL-PHENOL (µg/L) | 4-METHYL-PHENOL (µg/L) | PENTA-CHLORO-PHENOL (µg/L) | PHENOL (µg/L) | TOTAL PNAs (µg/L) | OTHER 8270s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-1 | SCI | Temp. Well Point | J | 5/21/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCI-3 | SCI | Temp. Well Point | I | 5/21/96 | <240 | <47 | <47 | **36J** | <47 | <47 | <47 | <47 | <47 | <240 | <47 | ND | ND |
| SCI-4 | SCI | Temp. Well Point | I | 5/22/96 | <50 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | **70** | <10 | ND | ND |
| SCI-5 | SCI | Temp. Well Point | A/K | 5/22/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCI-6 | SCI | Temp. Well Point | J | 5/22/96 | <240 | <47 | <47 | <47 | <47 | <47 | <47 | <47 | <47 | <240 | <47 | **190** | ND |
| SCI-11 | SCI | Temp. Well Point | O | 5/23/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCI-14 | SCI | Temp. Well Point | M | 5/23/96 | <53 | <11 | <11 | <11 | <11 | <11 | <11 | <11 | <11 | <53 | <11 | ND | ND |
| SCI-15 | SCI | Temp. Well Point | M | 5/23/96 | <54 | <11 | <11 | <11 | <11 | <11 | <11 | <11 | <11 | <54 | <11 | ND | ND |
| SCI-17 | SCI | Temp. Well Point | M | 5/28/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCI-19 | SCI | Temp. Well Point | D | 5/24/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCI-20 | SCI | Temp. Well Point | E | 5/24/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCI-27 | SCI | Temp. Well Point | C | 6/3/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | **5.3J** | ND |
| SCI-32 | SCI | Temp. Well Point | Q | 8/29/96 | <50 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <50 | <10 | ND | ND |
| SCI-33 | SCI | Temp. Well Point | Q | 8/29/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCI-34 | SCI | Temp. Well Point | Q | 8/30/96 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | **13** | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCI-35 | SCI | Temp. Well Point | G | 8/30/96 | <2,400e | <470e | <470e | <470e | <470e | <470e | <470e | <470e | <470e | <2,400e | <470e | NDe | ND |
| SCI-38 | SCI | Temp. Well Point | I/J | 8/30/96 | <50 | <10 | <10 | <10 | <10 | <10 | **14** | <10 | <10 | <50 | <10 | ND | ND |
| SCI-39 | SCI | Temp. Well Point | P/J | 8/30/96 | <50 | <10 | <10 | <10 | **<10** | <10 | <10 | <10 | <10 | <50 | <10 | ND | ND |
| SCI-40 | SCI | Temp. Well Point | C | 1/22/97 | <240 | <47 | <47 | <47 | <47 | <47 | <47 | <47 | <47 | <240 | <47 | **4,685** | ND |
| SCI-41 | SCI | Temp. Well Point | N | 1/22/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | **10** | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCI-42 | SCI | Temp. Well Point | C | 1/23/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCI-43 | SCI | Temp. Well Point | N | 1/23/97 | <940 | <190 | <190 | <190 | <190 | <190 | <190 | <190 | <190 | <940 | <190 | ND | ND |
| SCI-56 | SCI | Temp. Well Point | R | 1/31/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCI-74 | SCI | Temp. Well Point | D | 4/24/97 | <260 | <53 | <53 | <53 | <53 | <53 | <53 | <53 | <53 | <260 | <53 | ND | ND |
| SCITP-9 | SCI | Test Pit | I | 2/3/97 | <50 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | **5.8J** | <50 | **8.2J** | ND | ND |
| SCITP-11 | SCI | Test Pit | J | 2/4/97 | <1,900 | <380 | <380 | <380 | <380 | <380 | <380 | <380 | <380 | <1,900 | <380 | **1,350** | ND |
| SCITP-12 | SCI | Test Pit | I/J | 2/4/97 | <500 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <100 | <500 | **<100** | **630** | ND |
| SCITP-13 | SCI | Test Pit | I/J | 2/5/97 | <240 | <47 | **280** | <47 | **160** | <47 | <47 | <47 | <47 | <240 | <47 | **580** | ND |

TABLE 8
SEMI-VOLATILE ORGANIC AND TOTAL PNA CONCENTRATIONS
IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | BENZOIC ACID (µg/L) | BENZYL ALCOHOL (µg/L) | 1,2-DI-CHLORO-BENZENE (µg/L) | 1,4-DI-CHLORO-BENZENE (µg/L) | 2,4-DI-METHYL-PHENOL (µg/L) | DI-N-OCTYL-PHTHALATE (µg/L) | BIS(2-ETHYL-HEXYL) PHTHALATE (µg/L) | 2-METHYL-PHENOL (µg/L) | 4-METHYL-PHENOL (µg/L) | PENTA-CHLORO-PHENOL (µg/L) | PHENOL (µg/L) | TOTAL PNAs (µg/L) | OTHER 8270s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TP-18 | SCI | Test Pit | O | 4/24/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | 98.3 | ND |
| TP-21 | SCI | Test Pit | I | 4/25/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCITP-23A | SCI | Test Pit | L | 4/26/97 | <12,000 | <2,400 | <2,400 | <2,400 | <2,400 | <2,400 | <2,400 | <2,400 | <2,400 | <12,000 | <2,400 | ND | ND |
| SCITP-24A | SCI | Test Pit | G/L | 4/26/97 | <24,000 | <4,700 | <4,700 | <4,700 | <4,700 | <4,700 | <4,700 | <4,700 | <4,700 | <24,000 | <4,700 | ND | ND |
| SCITP-27 | SCI | Test Pit | N | 4/28/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCITP-28 | SCI | Test Pit | C | 4/29/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCITP-28 | SCI | Test Pit (Filtrate) | C | 4/29/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| TP-31 | SCI | Test Pit | I/P | 4/30/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| TP-32 | SCI | Test Pit | I/P | 4/30/97 | <47 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <9.4 | <47 | <9.4 | ND | ND |
| SCITP-33B | SCI | Test Pit | G | 5/1/97 | <240 | <47 | <47 | <47 | <47 | <47 | <47 | <47 | <47 | <240 | <47 | 316 | ND |
| RMA-25 | SCI | Temp. Well Point | N | 11/22/96 | <530 | <110 | <110 | <110 | <110 | <110 | <110 | <110 | <110 | <530 | <110 | ND | ND |
| RMA-26 | SCI | Temp. Well Point | N | 11/22/96 | <53 | <11 | <11 | <11 | <11 | <11 | <11 | <11 | <11 | <53 | <11 | ND | ND |

* = Results reported with units of g/kg are included for presentation purposes only
PNA = Polynuclear Aromatic
µg/L = micrograms per liter or parts per billion
g/kg =grams per kilogram or parts per thousand
<25 = Compound not detected at or above stated reporting limit
ND = Not detected
-- = Not tested
J = Estimated value
e = Sample extracted 3 days after prescribed holding time

TABLE 9
TOTAL AND DISSOLVED HEAVY METAL CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ANTIMONY (µg/L) | ARSENIC (µg/L) | BARIUM (µg/L) | BERYLL-IUM (µg/L) | CADMIUM (µg/L) | TOTAL CHROMIUM (µg/L) | CHROMIUM VI (µg/L) | COBALT (µg/L) | COPPER (µg/L) | LEAD (µg/L) | MERCURY (µg/L) | MOLYB-DENUM (µg/L) | NICKEL (µg/L) | POTAS-SIUM (µg/L) | SELEN-IUM (µg/L) | SILVER (µg/L) | THALL-IUM (µg/L) | VANAD-IUM (µg/L) | ZINC (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Manhole-Oil Layer | SCI | Oil Filled Manhole (Total Conc.) | I/J | 5/13/96 | <3.0** | 0.86** | 31** | <0.10** | 0.62** | 1.5** | -- | <1.0** | 3.9** | 35** | <0.10** | <1.0** | 5.0** | -- | 0.52** | <0.50** | <0.25** | 3.7** | 9.2** |
| Manhole-$H_2O$ Layer | SCI | Oil Filled Manhole (Total Conc.) | I/J | 5/13/96 | <60 | 8.8 | 210 | <2.0 | 3.1 | <10 | -- | <20 | 43 | 38 | <0.20 | <20 | 63 | -- | 7.5 | <5.0 | <10 | <10 | 97 |
| MW-5 | SCI | Monitoring Well (Dissolved Conc.) | F | 1/20/97 | <60 | 10 | 49 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 6.5 | <5.0 | <5.0 | <10 | 26 |
| MW-5 | SCI | Monitoring Well (Dissolved Conc.) | F/H | 5/6/97 | -- | -- | -- | -- | -- | -- | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-6 (FP) | SCI | Free Product (Total Conc.) | F | 5/24/96 | <60 | <5.0 | 170 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 3.3 | 0.28 | <20 | <20 | -- | 14 | <5.0 | <5.0 | <10 | 34 |
| MW-6 (FP) | SCI | Free Product (Dissolved Conc.) | F | 5/24/96 | <60 | <5.0 | 320 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | 0.43 | <20 | <20 | -- | 13 | <5.0 | <5.0 | <10 | <20 |
| MW-6 | SCI | Monitoring Well (Dissolved Conc.) | F | 9/5/96 | <60 | 8.9 | 420 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 3.5 | <0.20 | <20 | <20 | -- | 27 | <5.0 | <5.0 | <10 | <20 |
| MW-6 | SCI | Monitoring Well (Dissolved Conc.) | F/H | 5/6/97 | -- | -- | -- | -- | -- | -- | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-7 | SCI | Monitoring Well (Dissolved Conc.) | M | 9/5/96 | <60 | 10 | 78 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 20 | <5.0 | <5.0 | <10 | <20 |
| MW-7 | SCI | Monitoring Well (Dissolved Conc.) | M | 1/17/97 | <60 | 12 | 44 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 23 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-1 | SCI | Monitoring Well (Total Conc.) | E/H | 5/24/96 | <60 | 45 | 1,000 | 2.8 | 2.3 | 63 | -- | <20 | 1,800 | 2,300 | <0.20 | <20 | 68 | -- | 7.8 | <5.0 | <5.0 | 62 | 1,000 |
| SCIMW-1 | SCI | Monitoring Well (Dissolved Conc.) | E/H | 5/24/96 | <60 | <5.0 | 170 | 2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 8.3 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-1 | SCI | Monitoring Well (Dissolved Conc.) | E/H | 9/6/96 | <60 | <5.0 | 150 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 17 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-1 | SCI | Monitoring Well (Dissolved Conc.) | E/H | 1/22/97 | <60 | <5.0 | 170 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | 33 | -- | 7.7 | <5.0 | <5.0 | <10 | 210 |
| SCIMW-2 | SCI | Monitoring Well (Total Conc.) | N | 5/23/96 | <60 | 14 | 90 | <2.0 | <2.0 | 12 | -- | <20 | <10 | 2,300 | 0.64 | <20 | <20 | -- | 14 | <5.0 | <5.0 | <10 | 38 |
| SCIMW-2 | SCI | Monitoring Well (Dissolved Conc.) | N | 5/23/96 | <60 | 11 | 490 | <2.0 | <2.0 | <10 | -- | <20 | 69 | 62 | <0.20 | <20 | <20 | -- | 22 | <5.0 | <5.0 | <10 | 110 |
| SCIMW-2 | SCI | Monitoring Well (Dissolved Conc.) | N | 9/4/96 | <60 | 15 | 320 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-2 | SCI | Monitoring Well (Dissolved Conc.) | N | 1/17/97 | <60 | 6.6 | 340 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-3 | SCI | Monitoring Well (Total Conc.) | I/J | 5/23/96 | <60 | <5.0 | <10 | <2.0 | <2.0 | <10 | -- | 58 | <10 | <3.0 | <0.20 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-3 | SCI | Monitoring Well (Dissolved Conc.) | I/J | 5/23/96 | <60 | <5.0 | 42 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 8.2 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-3 | SCI | Monitoring Well (Dissolved Conc.) | I/J | 9/5/96 | <60 | 8.5 | 170 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 4.6 | <0.20 | <20 | <20 | -- | 31 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-3 | SCI | Monitoring Well (Dissolved Conc.) | I/J | 1/20/97 | <60 | 23 | 110 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 31 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-4 | SCI | Monitoring Well (Dissolved Conc.) | L | 8/26/96 | <60 | 12 | 37 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 22 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-4 | SCI | Monitoring Well (Dissolved Conc.) | L | 1/22/97 | <60 | 6.6 | 16 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 25 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-5 | SCI | Monitoring Well (Dissolved Conc.) | M | 9/3/96 | <60 | <5.0 | 290 | 2.0 | 2.0 | <10 | -- | <20 | <10 | <3.0 | 0.23 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-5 | SCI | Monitoring Well (Dissolved Conc.) | M | 1/20/97 | <60 | <5.0 | 62 | 2.7 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | 25 |
| SCIMW-6 | SCI | Monitoring Well (Dissolved Conc.) | C | 8/28/96 | <60 | <5.0 | 100 | 2.1 | <2.0 | <10 | -- | <20 | 59 | <3.0 | <0.20 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | 240 |
| SCIMW-6 | SCI | Monitoring Well (Dissolved Conc.) | C | 1/22/97 | <60 | <5.0 | 30 | <2.0 | <2.0 | <10 | -- | <20 | 20 | <3.0 | <0.20 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | 72 |
| SCIMW-7 | SCI | Monitoring Well (Dissolved Conc.) | P/Q | 9/6/96 | <60 | 24 | 290 | <2.0 | <2.0 | <10 | -- | <20 | 13 | <3.0 | 0.52 | <20 | 29 | -- | 18 | <5.0 | <5.0 | 12 | <20 |

TABLE 9
TOTAL AND DISSOLVED HEAVY METAL CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ANTIMONY (µg/L) | ARSENIC (µg/L) | BARIUM (µg/L) | BERYLL-IUM (µg/L) | CADMIUM (µg/L) | TOTAL CHROMIUM (µg/L) | CHROMIUM VI (µg/L) | COBALT (µg/L) | COPPER (µg/L) | LEAD (µg/L) | MERCURY (µg/L) | MOLYB-DENUM (µg/L) | NICKEL (µg/L) | POTAS-SIUM (µg/L) | SELEN-IUM (µg/L) | SILVER (µg/L) | THALL-IUM (µg/L) | VANAD-IUM (µg/L) | ZINC (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCIMW-7 | SCI | Monitoring Well (Dissolved Conc.) | P/Q | 1/20/97 | <60 | 19 | 430 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | 83 | -- | 18 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-8 | SCI | Monitoring Well (Dissolved Conc.) | I | 8/26/96 | <60 | 8.9 | 72 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | 23 | -- | 43 | <5.0 | <5.0 | <10 | 21 |
| SCIMW-8 | SCI | Monitoring Well (Dissolved Conc.) | I | 1/21/97 | <60 | 23 | 57 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 10 | <5.0 | <5.0 | <10 | 22 |
| SCIMW-9 | SCI | Monitoring Well (Dissolved Conc.) | I | 8/29/96 | <60 | 21 | 61 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 3.1 | 0.20 | <20 | <20 | -- | 37 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-9 | SCI | Monitoring Well (Dissolved Conc.) | I | 1/23/97 | <60 | 16 | 89 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | 49 | -- | 40 | <5.0 | <5.0 | <10 | 150 |
| SCIMW-10 | SCI | Monitoring Well (Dissolved Conc.) | J | 8/26/96 | <60 | 15 | 55 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 42 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-10 | SCI | Monitoring Well (Dissolved Conc.) | J | 1/23/97 | <60 | 24 | 49 | 2.3 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 48 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-11 | SCI | Monitoring Well (Dissolved Conc.) | N | 8/28/96 | <60 | <5.0 | 210 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | 0.62 | <20 | <20 | -- | 16 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-11 | SCI | Monitoring Well (Dissolved Conc.) | N | 1/17/97 | <60 | 6.2 | 300 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 6.6 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-12 | SCI | Monitoring Well (Dissolved Conc.) | O | 8/29/96 | <60 | 5.1 | 64 | 2.5 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-12 | SCI | Monitoring Well (Dissolved Conc.) | O | 1/17/97 | <60 | <5.0 | 28 | 2.7 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-13 | SCI | Monitoring Well (Dissolved Conc.) | J | 8/29/96 | <60 | 20 | 33 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 3.2 | <0.20 | <20 | <20 | -- | 43 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-13 | SCI | Monitoring Well (Dissolved Conc.) | J | 1/23/97 | <60 | 19 | 21 | <2.0 | 2.1 | <10 | -- | <20 | <10 | 3.7 | <0.20 | <20 | <20 | -- | 40 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-14 | SCI | Monitoring Well (Dissolved Conc.) | I/J | 8/29/96 | <60 | 9.7 | 130 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 5.3 | <0.20 | <20 | <20 | -- | 34 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-14 | SCI | Monitoring Well (Dissolved Conc.) | I/J | 1/21/97 | <60 | <5.0 | 15 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-15 | SCI | Monitoring Well (Dissolved Conc.) | I/J | 8/29/96 | <60 | 16 | 570 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 3.2 | <0.20 | <20 | <20 | -- | 40 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-15 | SCI | Monitoring Well (Dissolved Conc.) | I/J | 1/17/97 | <60 | 13 | 550 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 5.5 | <0.20 | <20 | <20 | -- | 33 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-16 | SCI | Monitoring Well (Dissolved Conc.) | R | 8/30/96 | <60 | 14 | 300 | 3.1 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 40 | <5.0 | <5.0 | 12 | <20 |
| SCIMW-16 | SCI | Monitoring Well (Dissolved Conc.) | R | 1/22/97 | <60 | 14 | 220 | 3.6 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 22 | <5.0 | <5.0 | 26 | <20 |
| SCIMW-17 | SCI | Monitoring Well (Dissolved Conc.) | R | 8/29/96 | <60 | 17 | 960 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 18 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-17 | SCI | Monitoring Well (Dissolved Conc.) | R | 1/22/97 | <60 | <5.0 | 270 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 15 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-18 | SCI | Monitoring Well (Dissolved Conc.) | L | 9/6/96 | <60 | 20 | 160 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | 26 | -- | 22 | <5.0 | <5.0 | 19 | <20 |
| SCIMW-18 | SCI | Monitoring Well (Dissolved Conc.) | L | 1/20/97 | <60 | 21 | 250 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 38 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-19 | SCI | Monitoring Well (Dissolved Conc.) | R | 8/30/96 | <60 | 32 | 140 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 6.2 | <0.20 | <20 | <20 | -- | 32 | <5.0 | <5.0 | 11 | <20 |
| SCIMW-19 | SCI | Monitoring Well (Dissolved Conc.) | R | 1/21/97 | <60 | 23 | 150 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | 22 | -- | 24 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-20 | SCI | Monitoring Well (Dissolved Conc.) | H/Q | 9/3/96 | <60 | 9.5 | 930 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | 0.24 | <20 | <20 | -- | 20 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-20 | SCI | Monitoring Well (Dissolved Conc.) | H/Q | 1/20/97 | <60 | 6.8 | 1,600 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 18 | <5.0 | <5.0 | <10 | 41 |
| SCIMW-21 | SCI | Monitoring Well (Dissolved Conc.) | D | 5/6/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.2 | -- | -- | -- | 110,000 | -- | -- | -- | -- | -- |
| SCIMW-22 | SCI | Monitoring Well (Dissolved Conc.) | P | 5/6/97 | -- | -- | -- | -- | -- | -- | 70 | -- | -- | -- | -- | -- | -- | 170,000 | -- | -- | -- | -- | -- |

TABLE 9
TOTAL AND DISSOLVED HEAVY METAL CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

PRIVILEGED AND CONFIDENTIAL

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ANTIMONY (µg/L) | ARSENIC (µg/L) | BARIUM (µg/L) | BERYLLIUM (µg/L) | CADMIUM (µg/L) | TOTAL CHROMIUM (µg/L) | CHROMIUM VI (µg/L) | COBALT (µg/L) | COPPER (µg/L) | LEAD (µg/L) | MERCURY (µg/L) | MOLYBDENUM (µg/L) | NICKEL (µg/L) | POTASSIUM (µg/L) | SELENIUM (µg/L) | SILVER (µg/L) | THALLIUM (µg/L) | VANADIUM (µg/L) | ZINC (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCIMW-23 | SCI | Monitoring Well (Dissolved Conc.) | B | 5/6/97 | <60 | 22 | 56 | <2.0 | <5.0 | <10 | 80 | <20 | <10 | <3.0 | <0.20 | <20 | <20 | 16,000 | 20 | <5.0 | <5.0 | <10 | 25 |
| SCIMW-24 | SCI | Monitoring Well (Dissolved Conc.) | N | 5/6/97 | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 6.3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-25 | SCI | Monitoring Well (Dissolved Conc.) | H | 5/7/97 | <60 | 9.2 | 56 | <2.0 | <5.0 | <10 | 60 | <20 | <10 | <3.0 | 0.26 | <20 | 28 | -- | 14 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-26 | SCI | Monitoring Well (Dissolved Conc.) | H | 5/6/97 | <60 | 20 | 2,900 | <2.0 | <5.0 | <10 | 140 | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 15 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-27 | SCI | Monitoring Well (Dissolved Conc.) | E/H | 5/6/97 | <60 | 10 | 480 | <2.0 | <5.0 | <10 | 60 | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 21 | <5.0 | <5.0 | <10 | <20 |
| SCIMW-28 | SCI | Monitoring Well (Dissolved Conc.) | Q | 5/7/97 | -- | -- | -- | -- | -- | -- | 90 | -- | -- | 6.9 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCIMW-29 | SCI | Monitoring Well (Dissolved Conc.) | H | 5/20/97 | <60 | <5.0 | 160 | <2.0 | <5.0 | <10 | <10 | <20 | 12 | <3.0 | <0.20 | <20 | <20 | -- | 34 | <5.0 | <5.0 | <10 | 50 |
| SCI-4 | SCI | Temp. Well Point (Total Conc.) | I | 5/22/96 | <60 | 33 | 230 | <2.0 | 2.2 | 62 | -- | <20 | <10 | 20 | <0.20 | <20 | 60 | -- | 16 | <5.0 | <5.0 | 53 | 58 |
| SCI-4 | SCI | Temp. Well Point (Dissolved Conc.) | I | 5/22/96 | <60 | <5.0 | 32 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | 1.3 | <20 | <20 | -- | 8.9 | <5.0 | <5.0 | <10 | <20 |
| SCI-5 | SCI | Temp. Well Point (Total Conc.) | A/K | 5/22/96 | <60 | 15 | 270 | <2.0 | <2.0 | 12 | -- | <20 | <10 | 11 | 0.59 | <20 | 24 | -- | 8.5 | <5.0 | <5.0 | 12 | 49 |
| SCI-5 | SCI | Temp. Well Point (Dissolved Conc.) | A/K | 5/22/96 | <60 | <5.0 | 240 | <2.0 | <2.0 | <10 | -- | <20 | 34 | <3.0 | 2.8 | <20 | 32 | -- | 6.9 | <5.0 | <5.0 | <10 | 80 |
| SCI-11 | SCI | Temp. Well Point (Total Conc.) | O | 5/23/96 | <60 | 120 | 4,000 | 18 | 14 | 1,000 | -- | 130 | 1,400 | 1,100 | 15 | <20 | 1,200 | -- | 41 | <5.0 | <5.0 | 800 | 2,100 |
| SCI-11 | SCI | Temp. Well Point (Dissolved Conc.) | O | 5/23/96 | <60 | <5.0 | 290 | 2.8 | 3.4 | <10 | -- | <20 | 73 | 4.0 | 0.25 | <20 | 180 | -- | 23 | <5.0 | <5.0 | 11 | 320 |
| SCI-14 | SCI | Temp. Well Point (Total Conc.) | M | 5/23/96 | <60 | 120 | 3,000 | 11 | 6.2 | 260 | -- | 110 | 850 | 610 | 5.4 | 35 | 380 | -- | 20 | <5.0 | <5.0 | 380 | 1,200 |
| SCI-14 | SCI | Temp. Well Point (Dissolved Conc.) | M | 5/23/96 | <60 | <5.0 | 59 | 2.6 | <2.0 | <10 | -- | <20 | <10 | <3.0 | 3.5 | 27 | 72 | -- | 12 | <5.0 | <5.0 | <10 | 270 |
| SCI-15 | SCI | Temp. Well Point (Total Conc.) | M | 5/23/96 | <60 | 110 | 2,200 | 11 | 8.7 | 570 | -- | 150 | 430 | 1,400 | 8.2 | <20 | 630 | -- | 25 | <5.0 | <5.0 | 550 | 2,200 |
| SCI-15 | SCI | Temp. Well Point (Dissolved Conc.) | M | 5/23/96 | <60 | <5.0 | 93 | 2.0 | <2.0 | <10 | -- | <20 | 12 | <3.0 | 0.32 | <20 | <20 | -- | 12 | <5.0 | <5.0 | <10 | 50 |
| SCI-16 | SCI | Temp. Well Point (Total Conc.) | L | 5/24/96 | <60 | 130 | 1,700 | 17 | 11 | 990 | -- | 250 | 390 | 230 | 3.6 | <20 | 1,100 | -- | 31 | <5.0 | <5.0 | 780 | 1,100 |
| SCI-16 | SCI | Temp. Well Point (Dissolved Conc.) | L | 5/24/96 | <60 | 5.1 | 310 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <2.0 | 30 | <20 | -- | 18 | <5.0 | <5.0 | 26 | <20 |
| SCI-17 | SCI | Temp. Well Point (Total Conc.) | M | 5/28/96 | <60 | 19 | 410 | 2.9 | <2.0 | 28 | -- | <20 | 250 | 650 | 0.60 | <20 | 41 | -- | <5.0 | <5.0 | 7.0 | 30 | 310 |
| SCI-17 | SCI | Temp. Well Point (Dissolved Conc.) | M | 5/28/96 | <60 | 10 | 270 | 2.8 | 5.5 | <10 | -- | <20 | 440 | 270 | <0.20 | <20 | 48 | -- | 13 | <5.0 | <5.0 | 14 | 2,200 |
| SCI-19 | SCI | Temp. Well Point (Total Conc.) | L | 5/24/96 | <60 | 690 | 17,000 | 80 | 130 | 1,400 | -- | 1,000 | 2,100 | 2,500 | 13 | 34 | 2,000 | -- | 200 | <5.0 | 22 | 3,200 | 17,000 |
| SCI-19 | SCI | Temp. Well Point (Dissolved Conc.) | L | 5/24/96 | <60 | 15 | 56 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 7.4 | <5.0 | <5.0 | 16 | <20 |
| SCI-20 | SCI | Temp. Well Point (Total Conc.) | E | 5/24/96 | <60 | 350 | 4,400 | 27 | 29 | 1,800 | -- | 760 | 1,100 | 1,100 | 6.5 | 25 | 3,000 | -- | 99 | <5.0 | <5.0 | 1,400 | 5,300 |
| SCI-20 | SCI | Temp. Well Point (Dissolved Conc.) | E | 5/24/96 | <60 | 6.1 | 650 | 2.2 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | 37 | -- | 18 | <5.0 | <5.0 | <10 | 26 |
| SCI-23 | SCI | Temp. Well Point (Total Conc.) | F | 5/31/96 | <60 | 210 | 4,400 | 22 | 23 | 1,400 | -- | 470 | 910 | 570 | 2.9 | <20 | 1,600 | -- | 46 | <5.0 | <5.0 | 1,100 | 1,900 |
| SCI-23 | SCI | Temp. Well Point (Dissolved Conc.) | F | 5/31/96 | <60 | 6.7 | 440 | 2.2 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 22 | <5.0 | <5.0 | <10 | <20 |
| SCI-27 | SCI | Temp. Well Point (Total Conc.) | C | 6/3/96 | <60 | 4,300 | 37,000 | 65 | 990 | 3,600 | -- | 1,000 | 100,000 | 140,000 | 350 | 29 | 2,900 | -- | 110 | <5.0 | <5.0 | 3,100 | 250,000 |
| SCI-27 | SCI | Temp. Well Point (Dissolved Conc.) | C | 6/3/96 | <60 | <5.0 | 190 | 2.3 | 130 | <10 | -- | 130 | 180 | 13 | 0.23 | 32 | 67 | -- | 19 | <5.0 | <5.0 | <10 | 2,000 |

TABLE 9
TOTAL AND DISSOLVED HEAVY METAL CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ANTIMONY (µg/L) | ARSENIC (µg/L) | BARIUM (µg/L) | BERYLL-IUM (µg/L) | CADMIUM (µg/L) | TOTAL CHROMIUM (µg/L) | CHROMIUM VI (µg/L) | COBALT (µg/L) | COPPER (µg/L) | LEAD (µg/L) | MERCURY (µg/L) | MOLYB-DENUM (µg/L) | NICKEL (µg/L) | POTAS-SIUM (µg/L) | SELEN-IUM (µg/L) | SILVER (µg/L) | THALL-IUM (µg/L) | VANAD-IUM (µg/L) | ZINC (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI-32 | SCI | Temp. Well Point (Dissolved Conc.) | Q | 8/29/96 | <60 | 11 | 210 | 3.2 | <2.0 | <10 | -- | 64 | <10 | <3.0 | <0.20 | <20 | 51 | -- | 9.9 | <5.0 | <5.0 | <10 | <20 |
| SCI-33 | SCI | Temp. Well Point (Dissolved Conc.) | Q | 8/29/96 | <60 | 29 | 390 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | 38 | 80 | -- | 16 | <5.0 | <5.0 | <10 | <20 |
| SCI-34 | SCI | Temp. Well Point (Dissolved Conc.) | Q | 8/30/96 | <60 | 15 | 1,200 | <2.0 | 2.6 | <10 | -- | <20 | 27 | 8.5 | <0.20 | <20 | 45 | -- | 19 | <5.0 | <5.0 | 17 | <20 |
| SCI-38 | SCI | Temp. Well Point (Dissolved Conc.) | I/J | 8/30/96 | <60 | 21 | 1,800 | 2.4 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 28 | <5.0 | <5.0 | 11 | <20 |
| SCI-39 | SCI | Temp. Well Point (Dissolved Conc.) | P/J | 8/30/96 | <60 | 10 | 89 | 3.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | 20 | -- | 21 | <5.0 | <5.0 | <10 | <20 |
| SCI-40 | SCI | Temp. Well Point (Dissolved Conc.) | C | 1/22/97 | <60 | <5.0 | 78 | 2.1 | <2.0 | <10 | -- | <20 | <10 | <3.0 | 0.21 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | <20 |
| SCI-41 | SCI | Temp. Well Point (Dissolved Conc.) | N | 1/22/97 | 120 | <5.0 | 140 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 15 | 0.23 | 39 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | 41 |
| SCI-42 | SCI | Temp. Well Point (Dissolved Conc.) | C | 1/23/97 | <60 | <5.0 | 41 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | 20 |
| SCI-43 | SCI | Temp. Well Point (Dissolved Conc.) | N | 1/23/97 | <60 | <5.0 | 340 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | 22 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | <20 |
| SCI-46 | SCI | Temp. Well Point (Dissolved Conc.) | B | 1/24/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 150,000 | -- | -- | -- | -- | -- |
| SCI-48 | SCI | Temp. Well Point (Dissolved Conc.) | G/P | 1/24/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 110,000 | -- | -- | -- | -- | -- |
| SCI-49 | SCI | Temp. Well Point (Dissolved Conc.) | Q | 1/24/97 | <60 | 13 | 400 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 14 | <5.0 | <5.0 | <10 | <20 |
| SCI-50 | SCI | Temp. Well Point (Dissolved Conc.) | Q | 1/24/97 | <60 | 12 | 320 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 13 | <5.0 | <5.0 | <10 | <20 |
| SCI-51 | SCI | Temp. Well Point (Dissolved Conc.) | P/Q | 1/31/97 | <60 | 11 | 32 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 3.8 | 0.24 | <20 | 20 | -- | 19 | <5.0 | <5.0 | <10 | <20 |
| SCI-52 | SCI | Temp. Well Point (Dissolved Conc.) | P/Q | 1/30/97 | <60 | <5.0 | 93 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 4.6 | <0.20 | 21 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | <20 |
| SCI-53 | SCI | Temp. Well Point (Dissolved Conc.) | H | 1/30/97 | <60 | <5.0 | 210 | <2.0 | <2.0 | <10 | <10 | <20 | <10 | <3.0 | <0.20 | 26 | <20 | -- | 8.5 | <5.0 | <5.0 | <10 | <20 |
| SCI-54 | SCI | Temp. Well Point (Dissolved Conc.) | P/Q | 1/31/97 | <60 | 11 | 1,200 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | 0.26 | <20 | <20 | -- | 32 | <5.0 | <5.0 | <10 | 29 |
| SCI-56 | SCI | Temp. Well Point (Dissolved Conc.) | R | 1/31/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | <3.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-61 | SCI | Temp. Well Point (Dissolved Conc.) | R | 2/4/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | <3.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCI-62 | SCI | Temp. Well Point (Dissolved Conc.) | H | 2/9/97 | <60 | 18 | 160 | 2.2 | 3.7 | <10 | 20 | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 28 | <5.0 | <5.0 | <10 | 24 |
| SCI-63 | SCI | Temp. Well Point (Dissolved Conc.) | H | 2/9/97 | <60 | 8.2 | 420 | 2.5 | <2.0 | <10 | <10 | <20 | <10 | <3.0 | <0.20 | 22 | 26 | -- | 15 | <5.0 | <5.0 | <10 | 40 |
| SCI-64 | SCI | Temp. Well Point (Dissolved Conc.) | H | 2/9/97 | <60 | 16 | 520 | 2.9 | <2.0 | <10 | <10 | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 35 | <5.0 | <5.0 | 14 | 22 |
| SCI-65 | SCI | Temp. Well Point (Dissolved Conc.) | H | 2/9/97 | <60 | <5.0 | 420 | <2.0 | <2.0 | <10 | <10 | 54 | <10 | <3.0 | <0.20 | <20 | 32 | -- | 12 | <5.0 | <5.0 | <10 | 160 |
| SCI-74 | SCI | Temp. Well Point (Dissolved Conc.) | D | 4/24/97 | <60 | <5.0 | 670 | <2.0 | <5.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | 23 | <20 | 130,000 | <5.0 | <5.0 | <5.0 | 12 | <20 |
| TP-3 | SCI | Test Pit (Dissolved Conc.) | N | 1/27/97 | <60 | <5.0 | 49 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 6.4 | <5.0 | <5.0 | <10 | <20 |
| TP-6 | SCI | Test Pit (Dissolved Conc.) | B | 1/28/97 | <60 | <5.0 | 260 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 3.4 | <0.20 | <20 | <20 | -- | 7.3 | <5.0 | <5.0 | <10 | <20 |
| TP-7 | SCI | Test Pit (Dissolved Conc.) | D | 1/29/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | <3.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-9 | SCI | Test Pit (Dissolved Conc.) | I | 2/3/97 | <60 | 14 | 390 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | <20 | <20 | -- | 15 | <5.0 | <5.0 | <10 | <20 |
| SCITP-11 | SCI | Test Pit (Dissolved Conc.) | J | 2/4/97 | <60 | 25 | 550 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 11 | <0.20 | <20 | <20 | -- | 68 | <5.0 | <5.0 | <10 | <20 |

TABLE 9
TOTAL AND DISSOLVED HEAVY METAL CONCENTRATIONS IN FREE PRODUCT AND GROUNDWATER
NINTH AVENUE TERMINAL STUDY AREA

**PRIVILEGED AND CONFIDENTIAL**

| SAMPLE DESIGNATION | CONSULTANT | DESCRIPTION | SITE REF AREA | DATE SAMPLED | ANTIMONY (µg/L) | ARSENIC (µg/L) | BARIUM (µg/L) | BERYLL-IUM (µg/L) | CADMIUM (µg/L) | TOTAL CHROMIUM (µg/L) | CHROMIUM VI (µg/L) | COBALT (µg/L) | COPPER (µg/L) | LEAD (µg/L) | MERCURY (µg/L) | MOLYB-DENUM (µg/L) | NICKEL (µg/L) | POTAS-SIUM (µg/L) | SELEN-IUM (µg/L) | SILVER (µg/L) | THALL-IUM (µg/L) | VANAD-IUM (µg/L) | ZINC (µg/L) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCITP-13 | SCI | Test Pit (Dissolved Conc.) | I/J | 2/5/97 | <60 | 16 | 180 | <2.0 | <2.0 | <10 | -- | <20 | <10 | 3.1 | <0.20 | <20 | <20 | -- | 18 | <5.0 | <5.0 | <10 | <20 |
| SCITP-14 | SCI | Test Pit (Dissolved Conc.) | N | 2/5/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 13 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| TP-18 | SCI | Test Pit (Dissolved Conc.) | O | 4/24/97 | <60 | 5.6 | 420 | <2.0 | <5.0 | <10 | <10 | <20 | 19 | <3.0 | <0.20 | <20 | <20 | 130,000 | <5.0 | <5.0 | <5.0 | <10 | 220 |
| TP-21 | SCI | Test Pit (Dissolved Conc.) | I | 4/25/97 | <60 | 23 | 360 | <2.0 | <5.0 | <10 | 20 | <20 | 10 | <3.0 | <0.20 | <20 | <20 | -- | 35 | <5.0 | <5.0 | <10 | <20 |
| SCITP-23A | SCI | Test Pit (Dissolved Conc.) | L | 4/26/97 | <60 | 18 | 170 | <2.0 | <5.0 | <10 | 60 | <20 | <10 | 4.1 | 0.21 | <20 | <20 | -- | 14 | <5.0 | <5.0 | <10 | <20 |
| SCITP-24A | SCI | Test Pit (Dissolved Conc.) | G/L | 4/26/97 | <60 | 8.0 | 200 | <2.0 | <5.0 | <10 | 30 | <20 | <10 | 5.9 | <0.20 | <20 | <20 | -- | 15 | <5.0 | <5.0 | <10 | <20 |
| SCITP-27 | SCI | Test Pit (Dissolved Conc.) | N | 4/28/97 | 170 | 8.8 | 140 | <2.0 | <5.0 | <10 | <10 | <20 | 61 | 63 | <0.20 | <20 | <20 | 170,000 | <5.0 | <5.0 | <5.0 | <10 | 210 |
| SCITP-30 | SCI | Test Pit (Dissolved Conc.) | D | 4/29/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | <3.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-33B | SCI | Test Pit (Dissolved Conc.) | R | 5/1/97 | <60 | <5.0 | 340 | <2.0 | <5.0 | <10 | -- | <20 | <10 | 18 | <0.20 | <20 | <20 | -- | 11 | <5.0 | <5.0 | <10 | <20 |
| SCITP-35 | SCI | Test Pit (Dissolved Conc.) | G | 5/3/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | <3.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| SCITP-36 | SCI | Test Pit (Dissolved Conc.) | G | 5/3/97 | -- | -- | -- | -- | -- | -- | -- | -- | -- | <3.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| RMA-23 | SCI | Temp. Well Point (Total Conc.) | Q | 11/22/96 | <60 | 380 | 12,000 | 31 | 54 | 2,900 | -- | 860 | 1,900 | 540 | 3.8 | 53 | 3,800 | -- | 110 | <5.0 | 58 | 2,400 | 4,200 |
| RMA-23 | SCI | Temp. Well Point (Dissolved Conc.) | Q | 11/22/96 | <60 | 6.9 | 81 | <2.0 | <2.0 | <10 | -- | <20 | <10 | <3.0 | <0.20 | 45 | <20 | -- | <5.0 | <5.0 | <5.0 | <10 | <20 |

** = Results included for presentation purposes only - units reported in mg/kg
µg/L = micrograms per liter or parts per billion

<60 = Compound not detected at or above stated reporting limit
-- = Not tested

**TABLE 10**
**SUMMARY OF GROUNDWATER ELEVATION DATA**
**NINTH AVENUE TERMINAL STUDY AREA**

| MONITORING WELL | TOP OF CASING ELEVATION* (FEET) | DATE | GROUNDWATER DEPTH (FEET) | GROUNDWATER ELEVATION* (FEET) |
|---|---|---|---|---|
| MW-1 | 9.99 | 9/20/93 | 5.20 | 4.79 |
| | | 12/1/93 | 5.15 | 4.84 |
| | | 3/31/94 | 4.09 | 5.90 |
| | | 6/2/94 | 4.82 | 5.17 |
| | | 9/30/94 | 5.63 | 4.36 |
| | | 12/22/94 | 5.00 | 4.99 |
| | | 4/10/95 | 4.94 | 5.05 |
| | | 7/24/95 | 5.02 | 4.97 |
| | | 11/10/95 | 5.52 | 4.47 |
| | | 2/20/96 | 4.49 | 5.50 |
| | | 5/24/96 | 5.04 | 4.95 |
| | | 6/28/96 | 5.13 | 4.86 |
| | | 7/29/96 | 5.21 | 4.78 |
| | | 9/3/96 | 5.37 | 4.62 |
| | | 9/9/96 | 5.65 | 4.34 |
| | | 9/18/96 | 5.35 | 4.64 |
| | | 9/23/96 | 5.36 | 4.63 |
| | | 9/30/96 | 5.39 | 4.60 |
| | | 10/28/96 | 5.09 | 4.90 |
| | | 12/2/96 | 4.80 | 5.19 |
| | | 12/30/96 | 4.25 | 5.74 |
| | | 1/16/97 | 4.37 | 5.62 |
| | | 2/28/97 | 4.00 | 5.99 |
| | | 3/26/97 | 4.80 | 5.19 |
| | | 5/5/97 | 5.02 | 4.97 |
| MW-2 | 10.32 | 9/20/93 | 4.40 | 5.92 |
| | | 12/1/93 | 4.75 | 5.57 |
| | | 3/31/94 | 5.01 | 5.31 |
| | | 6/2/94 | 4.61 | 5.71 |
| | | 9/30/94 | 4.93 | 5.39 |
| | | 12/22/94 | 4.43 | 5.89 |
| | | 4/10/95 | 4.03 | 6.29 |
| | | 7/24/95 | 4.41 | 5.91 |
| | | 11/10/95 | 4.59 | 5.73 |
| | | 2/20/96 | 3.81 | 6.51 |
| | | 5/24/96 | 4.41 | 5.91 |
| | | 6/28/96 | 3.81 | 6.51 |
| | | 7/29/96 | 3.81 | 6.51 |
| | | 9/3/96 | 3.98 | 6.34 |
| | | 9/9/96 | 4.00 | 6.32 |
| | | 9/18/96 | 4.08 | 6.24 |
| | | 9/23/96 | 4.08 | 6.24 |
| | | 9/30/96 | 4.08 | 6.24 |
| | | 10/28/96 | 4.34 | 5.98 |
| | | 12/2/96 | 4.30 | 6.02 |
| | | 12/30/96 | 3.92 | 6.40 |
| | | 1/16/97 | 3.99 | 6.33 |
| | | 2/28/97 | 3.88 | 6.44 |
| | | 3/26/97 | 3.83 | 6.49 |
| | | 5/5/97 | 3.85 | 6.47 |

* = Port of Oakland Datum
+ = Elevation probably not static

**TABLE 10**
**SUMMARY OF GROUNDWATER ELEVATION DATA**
**NINTH AVENUE TERMINAL STUDY AREA**

| MONITORING WELL | TOP OF CASING ELEVATION* (FEET) | DATE | GROUNDWATER DEPTH (FEET) | GROUNDWATER ELEVATION* (FEET) |
|---|---|---|---|---|
| MW-3 | 10.18 | 9/20/93 | 15.20 | -5.02+ |
| | | 12/1/93 | 5.70 | 4.48 |
| | | 3/31/94 | 4.23 | 5.95 |
| | | 6/2/94 | 3.86 | 6.32 |
| | | 9/30/94 | 5.44 | 4.74 |
| | | 12/22/94 | 4.87 | 5.31 |
| | | 4/10/95 | 7.64 | 2.54+ |
| | | 7/24/95 | 3.62 | 6.56 |
| | | 11/10/95 | 5.11 | 5.07 |
| | | 2/20/96 | 4.14 | 6.04 |
| | | 5/24/96 | 4.49 | 5.69 |
| | | 6/28/96 | NA | NA |
| | | 7/29/96 | 4.64 | 5.54 |
| | | 9/3/96 | 4.48 | 5.70 |
| | | 9/18/96 | 6.42 | 3.76+ |
| | | 9/23/96 | 6.06 | 4.12 |
| | | 9/30/96 | 5.18 | 5.00 |
| | | 10/28/96 | 4.83 | 5.35 |
| | | 12/2/96 | 4.84 | 5.34 |
| | | 12/30/96 | 4.84 | 5.34 |
| | | 1/16/97 | 4.73 | 5.45 |
| | | 3/5/97 | 4.69 | 5.49 |
| | | 3/26/97 | 4.76 | 5.42 |
| | | 5/5/97 | 4.69 | 5.49 |
| MW-4 | 11.98 | 9/20/93 | 5.80 | 6.18 |
| | | 12/1/93 | 4.10 | 7.88 |
| | | 3/31/94 | 4.20 | 7.78 |
| | | 6/2/94 | 3.88 | 8.10 |
| | | 9/30/94 | 5.80 | 6.18 |
| | | 12/22/94 | 3.47 | 8.51 |
| | | 4/10/95 | 3.80 | 8.18 |
| | | 5/16/95 | 3.07 | 8.91 |
| | | 7/24/95 | 3.65 | 8.33 |
| | | 11/10/95 | NA | NA |
| | | 2/20/96 | NA | NA |
| | | 5/24/96 | 2.96 | 9.02 |
| | | 6/28/96 | 3.93 | 8.05 |
| | | 7/29/96 | 5.09 | 6.89 |
| | | 9/3/96 | 4.65 | 7.33 |
| | | 9/9/96 | 5.15 | 6.83 |
| | | 9/18/96 | 5.45 | 6.53 |
| | | 9/23/96 | 4.80 | 7.18 |
| | | 9/30/96 | 4.88 | 7.10 |
| | | 10/28/96 | 5.12 | 6.86 |
| | | 12/2/96 | 3.22 | 8.76 |
| | | 12/30/96 | 2.94 | 9.04 |
| | | 1/16/97 | 3.22 | 8.76 |
| | | 2/28/97 | 3.78 | 8.20 |
| | | 3/26/97 | 3.90 | 8.08 |
| | | 5/5/97 | 3.92 | 8.06 |

* = Port of Oakland Datum
+ = Elevation probably not static

**TABLE 10**
**SUMMARY OF GROUNDWATER ELEVATION DATA**
**NINTH AVENUE TERMINAL STUDY AREA**

| MONITORING WELL | TOP OF CASING ELEVATION* (FEET) | DATE | GROUNDWATER DEPTH (FEET) | GROUNDWATER ELEVATION* (FEET) |
|---|---|---|---|---|
| MW-5 | 11.84 | 4/10/95 | 4.64 | 7.20 |
| | | 7/24/95 | 5.24 | 6.60 |
| | | 11/10/95 | 5.38 | 6.46 |
| | | 2/20/96 | 2.69 | 9.15 |
| | | 5/24/96 | 2.67 | 9.17 |
| | | 6/28/96 | 5.29 | 6.55 |
| | | 7/29/96 | 5.35 | 6.49 |
| | | 9/3/96 | 5.44 | 6.40 |
| | | 9/9/96 | 5.45 | 6.39 |
| | | 9/18/96 | 5.51 | 6.33 |
| | | 9/23/96 | 5.51 | 6.33 |
| | | 9/30/96 | 5.49 | 6.35 |
| | | 10/28/96 | 5.56 | 6.28 |
| | | 12/2/96 | 4.64 | 7.20 |
| | | 12/30/96 | 2.42 | 9.42 |
| | | 1/16/97 | 3.46 | 8.38 |
| | | 2/28/97 | 5.14 | 6.70 |
| | | 3/26/97 | 5.28 | 6.56 |
| | | 5/5/97 | 5.39 | 6.45 |
| MW-6 | 11.86 | 4/10/95 | 4.12 | 7.74 |
| | | 7/24/95 | 5.19 | 6.67 |
| | | 11/10/95 | NA | NA |
| | | 2/20/96 | NA | NA |
| | | 5/24/96 | NA | 7.71 |
| | | 6/28/96 | 4.89 | 6.97 |
| | | 7/29/96 | 5.00 | 6.86 |
| | | 9/3/96 | 5.19 | 6.67 |
| | | 9/9/96 | 5.29 | 6.57 |
| | | 9/18/96 | 5.34 | 6.52 |
| | | 9/23/96 | 5.17 | 6.69 |
| | | 9/30/96 | 5.10 | 6.76 |
| | | 10/28/96 | 5.23 | 6.63 |
| | | 12/2/96 | 3.96 | 7.90 |
| | | 12/30/96 | 4.55 | 7.31 |
| | | 1/16/97 | 4.23 | 7.63 |
| | | 2/28/97 | 4.54 | 7.32 |
| | | 3/26/97 | 4.54 | 7.32 |
| | | 5/5/97 | 4.82 | 7.04 |
| MW-7 | 10.13 | 4/10/95 | 4.41 | 5.72 |
| | | 7/24/95 | 3.72 | 6.41 |
| | | 11/10/95 | 4.78 | 5.35 |
| | | 2/20/96 | 4.13 | 6.00 |
| | | 5/24/96 | 4.69 | 5.44 |
| | | 6/28/96 | 3.81 | 6.32 |
| | | 7/29/96 | 4.32 | 5.81 |
| | | 9/3/96 | 4.65 | 5.48 |
| | | 9/9/96 | 4.79 | 5.34 |
| | | 9/18/96 | 4.45 | 5.68 |
| | | 9/23/96 | 4.28 | 5.85 |
| | | 9/30/96 | 4.18 | 5.95 |
| | | 10/28/96 | 4.48 | 5.65 |
| | | 12/2/96 | 4.88 | 5.25 |
| | | 12/30/96 | 3.62 | 6.51 |

* = Port of Oakland Datum
+ = Elevation probably not static

**TABLE 10**
**SUMMARY OF GROUNDWATER ELEVATION DATA**
**NINTH AVENUE TERMINAL STUDY AREA**

| MONITORING WELL | TOP OF CASING ELEVATION* (FEET) | DATE | GROUNDWATER DEPTH (FEET) | GROUNDWATER ELEVATION* (FEET) |
|---|---|---|---|---|
| MW-7 | 10.13 | 1/16/97 | 3.65 | 6.48 |
| | | 2/28/97 | 3.71 | 6.42 |
| | | 3/26/97 | 3.71 | 6.42 |
| | | 5/5/97 | 3.80 | 6.33 |
| SCIMW-1 | 10.37 | 5/24/96 | 5.28 | 5.09 |
| | | 6/28/96 | 5.75 | 4.62 |
| | | 7/29/96 | 5.81 | 4.56 |
| | | 9/3/96 | 5.98 | 4.39 |
| | | 9/9/96 | 6.04 | 4.33 |
| | | 9/18/96 | 6.04 | 4.33 |
| | | 9/23/96 | 6.07 | 4.30 |
| | | 9/30/96 | 6.00 | 4.37 |
| | | 10/28/96 | 6.10 | 4.27 |
| | | 12/2/96 | 5.52 | 4.85 |
| | | 12/30/96 | 4.66 | 5.71 |
| | | 1/16/97 | 5.08 | 5.29 |
| | | 2/28/97 | 5.38 | 4.99 |
| | | 3/26/97 | 5.54 | 4.83 |
| | | 5/5/97 | 5.86 | 4.51 |
| SCIMW-2 | 9.92 | 5/24/96 | 5.88 | 4.04 |
| | | 6/28/96 | 7.33 | 2.59 |
| | | 7/29/96 | 7.43 | 2.49 |
| | | 9/3/96 | 6.54 | 3.38 |
| | | 9/9/96 | 4.67 | 5.25 |
| | | 9/18/96 | 6.50 | 3.42 |
| | | 9/23/96 | 3.78 | 6.14 |
| | | 9/30/96 | 6.18 | 3.74 |
| | | 10/28/96 | 3.72 | 6.20 |
| | | 12/2/96 | 6.60 | 3.32 |
| | | 12/30/96 | 4.57 | 5.35 |
| | | 1/16/97 | 6.10 | 3.82 |
| | | 2/28/97 | 7.04 | 2.88 |
| | | 3/26/97 | 6.59 | 3.33 |
| | | 5/5/97 | 7.03 | 2.89 |
| SCIMW-3 | 11.87 | 5/24/96 | 4.65 | 7.22 |
| | | 6/28/96 | 4.86 | 7.01 |
| | | 7/29/96 | 5.03 | 6.84 |
| | | 9/3/96 | 5.20 | 6.67 |
| | | 9/9/96 | 5.28 | 6.59 |
| | | 9/18/96 | 5.24 | 6.63 |
| | | 9/23/96 | 5.26 | 6.61 |
| | | 9/30/96 | 5.31 | 6.56 |
| | | 10/17/96 | 5.43 | 6.44 |
| | | 10/28/96 | 5.58 | 6.29 |
| | | 12/2/96 | 5.78 | 6.09 |
| | | 12/30/96 | 5.49 | 6.38 |
| | | 1/16/97 | 5.41 | 6.46 |
| | | 2/28/97 | 5.27 | 6.60 |
| | | 3/26/97 | 4.98 | 6.89 |
| | | 5/5/97 | 4.93 | 6.94 |

* = Port of Oakland Datum
+ = Elevation probably not static

**TABLE 10**
**SUMMARY OF GROUNDWATER ELEVATION DATA**
**NINTH AVENUE TERMINAL STUDY AREA**

| MONITORING WELL | TOP OF CASING ELEVATION* (FEET) | DATE | GROUNDWATER DEPTH (FEET) | GROUNDWATER ELEVATION* (FEET) |
|---|---|---|---|---|
| SCIMW-4 | 10.03 | 9/9/96 | 4.53 | 5.50 |
| | | 9/18/96 | 4.54 | 5.49 |
| | | 9/23/96 | 4.32 | 5.71 |
| | | 9/30/96 | 4.37 | 5.66 |
| | | 10/28/96 | 3.75 | 6.28 |
| | | 12/2/96 | 2.09 | 7.94 |
| | | 12/30/96 | 1.00 | 9.03 |
| | | 1/16/97 | 1.60 | 8.43 |
| | | 2/28/97 | 2.16 | 7.87 |
| | | 3/26/97 | 2.68 | 7.35 |
| | | 5/5/97 | 3.21 | 6.82 |
| SCIMW-5 | 10.19 | 9/9/96 | 5.56 | 4.63 |
| | | 9/18/96 | 4.68 | 5.51 |
| | | 9/23/96 | 4.42 | 5.77 |
| | | 9/30/96 | 4.44 | 5.75 |
| | | 10/28/96 | 4.40 | 5.79 |
| | | 12/2/96 | 4.95 | 5.24 |
| | | 12/30/96 | 4.21 | 5.98 |
| | | 1/16/97 | 4.07 | 6.12 |
| | | 2/28/97 | 4.74 | 5.45 |
| | | 3/26/97 | 4.53 | 5.66 |
| | | 5/5/97 | 4.49 | 5.70 |
| SCIMW-6 | 10.55 | 9/9/96 | 5.86 | 4.69 |
| | | 9/18/96 | 6.54 | 4.01 |
| | | 9/23/96 | 5.47 | 5.08 |
| | | 9/30/96 | 6.44 | 4.11 |
| | | 10/28/96 | 5.93 | 4.62 |
| | | 12/2/96 | 7.04 | 3.51 |
| | | 12/30/96 | 5.60 | 4.95 |
| | | 1/16/97 | 5.87 | 4.68 |
| | | 2/28/97 | 7.00 | 3.55 |
| | | 3/26/97 | 6.54 | 4.01 |
| | | 5/5/97 | 6.72 | 3.83 |
| SCIMW-7 | 12.26 | 9/9/96 | 8.95 | 3.31+ |
| | | 9/18/96 | 6.87 | 5.39 |
| | | 9/23/96 | 6.95 | 5.31 |
| | | 9/30/96 | 7.04 | 5.22 |
| | | 10/28/96 | 7.40 | 4.86 |
| | | 12/2/96 | 4.95 | 7.31 |
| | | 12/30/96 | 4.73 | 7.53 |
| | | 1/16/97 | 4.94 | 7.32 |
| | | 2/28/97 | 4.85 | 7.41 |
| | | 3/26/97 | 4.94 | 7.32 |
| | | 5/5/97 | 5.13 | 7.13 |
| SCIMW-8 | 12.81 | 9/9/96 | 5.70 | 7.11 |
| | | 9/18/96 | 5.81 | 7.00 |
| | | 9/23/96 | 5.79 | 7.02 |
| | | 9/30/96 | 5.89 | 6.92 |
| | | 10/17/96 | 5.95 | 6.86 |
| | | 10/28/96 | 6.13 | 6.68 |
| | | 12/2/96 | 5.39 | 7.42 |
| | | 12/30/96 | 4.98 | 7.83 |
| | | 1/16/97 | 5.11 | 7.70 |

* = Port of Oakland Datum
+ = Elevation probably not static

**TABLE 10**
**SUMMARY OF GROUNDWATER ELEVATION DATA**
**NINTH AVENUE TERMINAL STUDY AREA**

| MONITORING WELL | TOP OF CASING ELEVATION* (FEET) | DATE | GROUNDWATER DEPTH (FEET) | GROUNDWATER ELEVATION* (FEET) |
|---|---|---|---|---|
| SCIMW-8 | 12.81 | 2/28/97 | 5.42 | 7.39 |
| | | 3/26/97 | 5.39 | 7.42 |
| | | 5/5/97 | 5.40 | 7.41 |
| SCIMW-9 | 11.32 | 9/9/96 | 4.92 | 6.40 |
| | | 9/18/96 | 4.94 | 6.38 |
| | | 9/23/96 | 4.94 | 6.38 |
| | | 9/30/96 | 4.92 | 6.40 |
| | | 10/17/96 | 4.97 | 6.35 |
| | | 10/28/96 | 5.07 | 6.25 |
| | | 12/2/96 | 4.71 | 6.61 |
| | | 12/30/96 | 4.51 | 6.81 |
| | | 1/16/97 | 4.66 | 6.66 |
| | | 3/26/97 | 4.60 | 6.72 |
| | | 5/5/97 | 4.65 | 6.67 |
| SCIMW-10 | 12.56 | 9/9/96 | 4.61 | 7.95 |
| | | 9/18/96 | 4.87 | 7.69 |
| | | 9/23/96 | 4.81 | 7.75 |
| | | 9/30/96 | 4.91 | 7.65 |
| | | 10/17/96 | 5.03 | 7.53 |
| | | 10/28/96 | 5.31 | 7.25 |
| | | 12/2/96 | 5.15 | 7.41 |
| | | 12/30/96 | 4.60 | 7.96 |
| | | 1/16/97 | 4.69 | 7.87 |
| | | 2/28/97 | 4.47 | 8.09 |
| | | 3/26/97 | 4.33 | 8.23 |
| | | 5/5/97 | 4.21 | 8.35 |
| SCIMW-11 | 9.49 | 9/9/96 | 5.66 | 3.83 |
| | | 9/18/96 | 6.39 | 3.10 |
| | | 9/23/96 | 4.12 | 5.37 |
| | | 9/30/96 | 6.24 | 3.25 |
| | | 10/28/96 | 5.46 | 4.03 |
| | | 12/2/96 | 6.03 | 3.46 |
| | | 12/30/96 | 3.56 | 5.93 |
| | | 1/16/97 | 5.17 | 4.32 |
| | | 2/28/97 | 6.60 | 2.89 |
| | | 3/26/97 | 6.85 | 2.64 |
| | | 5/5/97 | 6.94 | 2.55 |
| SCIMW-12 | 10.94 | 9/9/96 | 6.85 | 4.09 |
| | | 9/18/96 | 7.24 | 3.70 |
| | | 9/23/96 | 5.59 | 5.35 |
| | | 9/30/96 | 7.26 | 3.68 |
| | | 10/28/96 | 7.00 | 3.94 |
| | | 12/2/96 | 7.31 | 3.63 |
| | | 12/30/96 | 5.12 | 5.82 |
| | | 1/16/97 | 6.41 | 4.53 |
| | | 2/28/97 | 7.19 | 3.75 |
| | | 3/26/97 | 7.24 | 3.70 |
| | | 5/5/97 | 7.26 | 3.68 |
| SCIMW-13 | 12.56 | 9/9/96 | 5.35 | 7.21 |
| | | 9/18/96 | 5.47 | 7.09 |
| | | 9/23/96 | 5.51 | 7.05 |
| | | 9/30/96 | 4.94 | 7.62 |
| | | 10/17/96 | 5.70 | 6.86 |

* = Port of Oakland Datum
+ = Elevation probably not static

**TABLE 10**
**SUMMARY OF GROUNDWATER ELEVATION DATA**
**NINTH AVENUE TERMINAL STUDY AREA**

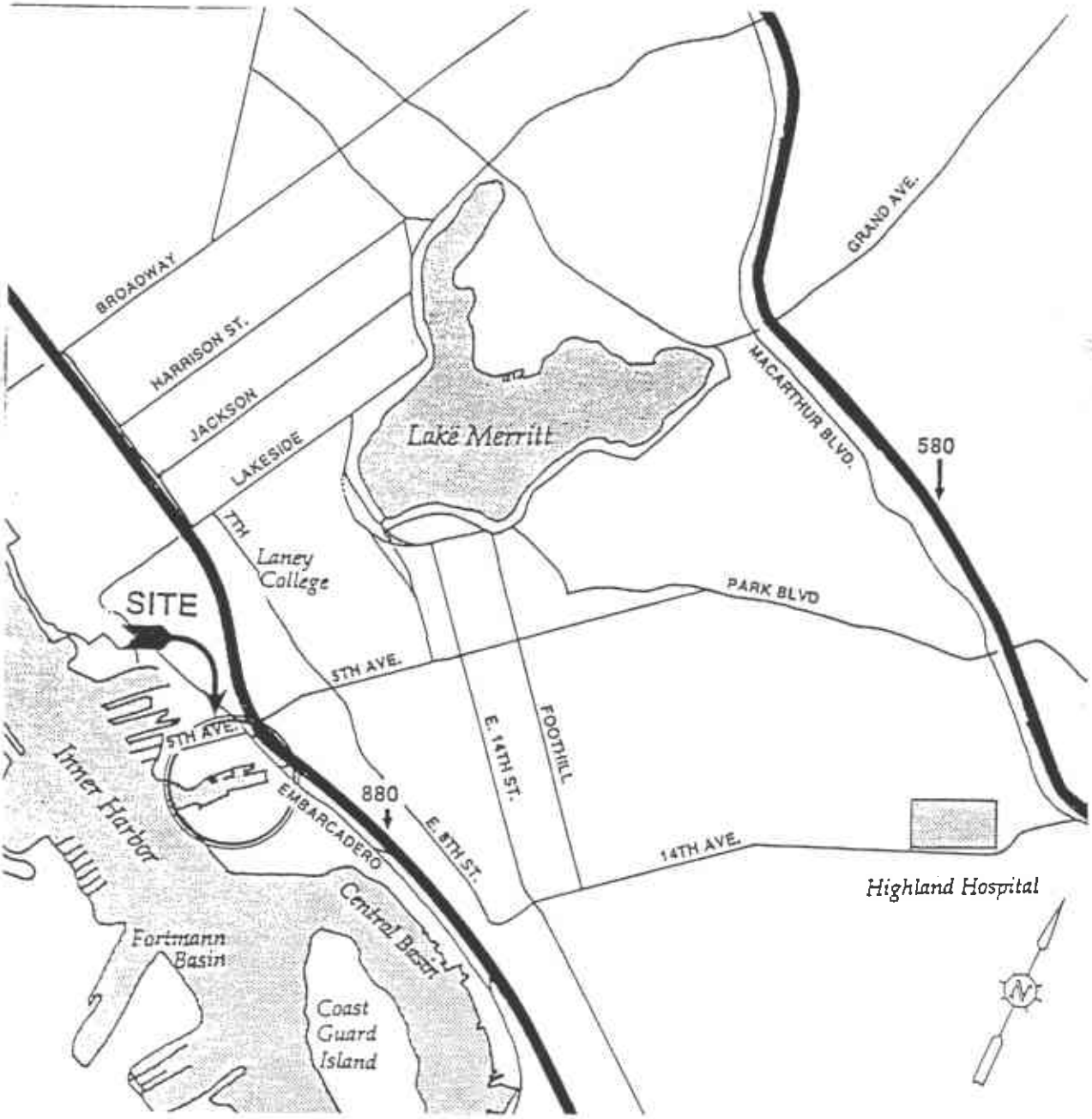
| MONITORING WELL | TOP OF CASING ELEVATION* (FEET) | DATE | GROUNDWATER DEPTH (FEET) | GROUNDWATER ELEVATION* (FEET) |
|---|---|---|---|---|
| SCIMW-13 | 12.56 | 10/28/96 | 5.86 | 6.70 |
| | | 12/2/96 | 5.91 | 6.65 |
| | | 12/30/96 | 5.70 | 6.86 |
| | | 1/16/97 | 5.63 | 6.93 |
| | | 2/28/97 | 5.31 | 7.25 |
| | | 3/26/97 | 5.14 | 7.42 |
| | | 5/5/97 | 4.99 | 7.57 |
| SCIMW-14 | 13.64 | 9/9/96 | 8.28 | 5.36 |
| | | 9/18/96 | 8.50 | 5.14 |
| | | 9/23/96 | 8.18 | 5.46 |
| | | 9/30/96 | 8.41 | 5.23 |
| | | 10/28/96 | 8.43 | 5.21 |
| | | 12/2/96 | 8.56 | 5.08 |
| | | 12/30/96 | 7.89 | 5.75 |
| | | 1/16/97 | 8.00 | 5.64 |
| | | 2/28/97 | 8.48 | 5.16 |
| | | 3/26/97 | 8.34 | 5.30 |
| | | 5/5/97 | 8.30 | 5.34 |
| SCIMW-15 | 13.45 | 9/9/96 | 8.60 | 4.85 |
| | | 9/18/96 | 8.61 | 4.84 |
| | | 9/23/96 | 8.62 | 4.83 |
| | | 9/30/96 | 8.51 | 4.94 |
| | | 10/28/96 | 8.72 | 4.73 |
| | | 12/2/96 | 8.91 | 4.54 |
| | | 12/30/96 | 8.36 | 5.09 |
| | | 1/16/97 | 8.44 | 5.01 |
| | | 2/28/97 | 8.54 | 4.91 |
| | | 3/26/97 | 8.57 | 4.88 |
| | | 5/5/97 | 8.73 | 4.72 |
| SCIMW-16 | 10.40 | 9/9/96 | 3.59 | 6.81 |
| | | 9/18/96 | 3.46 | 6.94 |
| | | 9/23/96 | 3.44 | 6.96 |
| | | 9/30/96 | 3.44 | 6.96 |
| | | 10/28/96 | 4.39 | 6.01 |
| | | 12/2/96 | 3.64 | 6.76 |
| | | 12/30/96 | 3.19 | 7.21 |
| | | 1/16/97 | 3.37 | 7.03 |
| | | 2/28/97 | 3.47 | 6.93 |
| | | 3/26/97 | 3.39 | 7.01 |
| | | 5/5/97 | 3.27 | 7.13 |
| SCIMW-17 | 10.14 | 9/9/96 | 3.59 | 6.55 |
| | | 9/18/96 | 2.83 | 7.31 |
| | | 9/23/96 | 2.96 | 7.18 |
| | | 9/30/96 | 3.00 | 7.14 |
| | | 10/28/96 | 3.04 | 7.10 |
| | | 12/2/96 | 2.86 | 7.28 |
| | | 12/30/96 | 0.18 | 9.96 |
| | | 1/16/97 | 2.47 | 7.67 |
| | | 2/28/97 | 2.63 | 7.51 |
| | | 3/26/97 | 2.51 | 7.63 |
| | | 5/5/97 | 2.63 | 7.51 |

* = Port of Oakland Datum
+ = Elevation probably not static

**TABLE 10**
**SUMMARY OF GROUNDWATER ELEVATION DATA**
**NINTH AVENUE TERMINAL STUDY AREA**

| MONITORING WELL | TOP OF CASING ELEVATION* (FEET) | DATE | GROUNDWATER DEPTH (FEET) | GROUNDWATER ELEVATION* (FEET) |
|---|---|---|---|---|
| SCIMW-18 | 10.81 | 9/9/96 | 5.59 | 5.22+ |
| | | 9/18/96 | 3.86 | 6.95 |
| | | 9/23/96 | 3.82 | 6.99 |
| | | 9/30/96 | 3.85 | 6.96 |
| | | 10/17/96 | 4.00 | 6.81 |
| | | 10/28/96 | 4.18 | 6.63 |
| | | 12/2/96 | 4.06 | 6.75 |
| | | 12/30/96 | 3.60 | 7.21 |
| | | 1/16/97 | 3.83 | 6.98 |
| | | 2/28/97 | 3.56 | 7.25 |
| | | 3/26/97 | 4.70 | 6.11 |
| | | 5/5/97 | 3.36 | 7.45 |
| SCIMW-19 | 10.46 | 9/9/96 | 4.30 | 6.16 |
| | | 9/18/96 | 4.36 | 6.10 |
| | | 9/23/96 | 4.32 | 6.14 |
| | | 9/30/96 | 4.23 | 6.23 |
| | | 10/28/96 | 4.45 | 6.01 |
| | | 12/2/96 | 3.54 | 6.92 |
| | | 12/30/96 | 2.59 | 7.87 |
| | | 1/16/97 | 3.04 | 7.42 |
| | | 2/28/97 | 3.69 | 6.77 |
| | | 3/26/97 | 3.69 | 6.77 |
| | | 5/5/97 | 3.82 | 6.64 |
| SCIMW-20 | 9.11 | 9/9/96 | 2.08 | 7.03 |
| | | 9/18/96 | 2.27 | 6.84 |
| | | 9/23/96 | 2.26 | 6.85 |
| | | 9/30/96 | 2.34 | 6.77 |
| | | 10/28/96 | 2.68 | 6.43 |
| | | 12/2/96 | 1.45 | 7.66 |
| | | 12/30/96 | 1.12 | 7.99 |
| | | 1/16/97 | 1.44 | 7.67 |
| | | 2/28/97 | 1.60 | 7.51 |
| | | 3/26/97 | 1.54 | 7.57 |
| | | 5/5/97 | 1.65 | 7.46 |
| SCIMW-21 | 9.67 | 5/5/97 | 2.23 | 7.44 |
| SCIMW-22 | 12.00 | 5/5/97 | 3.78 | 8.22 |
| SCIMW-23 | 9.74 | 5/5/97 | 4.19 | 5.55 |
| SCIMW-24 | 9.74 | 5/5/97 | 5.30 | 4.44 |
| SCIMW-25 | 8.30 | 5/5/97 | 1.00 | 7.30 |
| SCIMW-26 | 11.33 | 5/5/97 | 3.18 | 8.15 |
| SCIMW-27 | 11.43 | 5/5/97 | 4.98 | 6.45 |
| SCIMW-28 | 13.30 | 5/5/97 | 4.96 | 8.34 |
| SCIMW-29 | 13.18 | 5/15/97 | 5.70 | 7.48 |
| Oil Filled Manhole | 12.39 | 12/30/96 | 6.22 | 6.17 |
| | | 1/16/97 | 8.00 | 4.39 |
| | | 2/28/97 | 8.42 | 3.97 |
| | | 3/26/97 | 8.42 | 3.97 |
| | | 5/5/97 | 8.51 | 3.88 |

* = Port of Oakland Datum
+ = Elevation probably not static



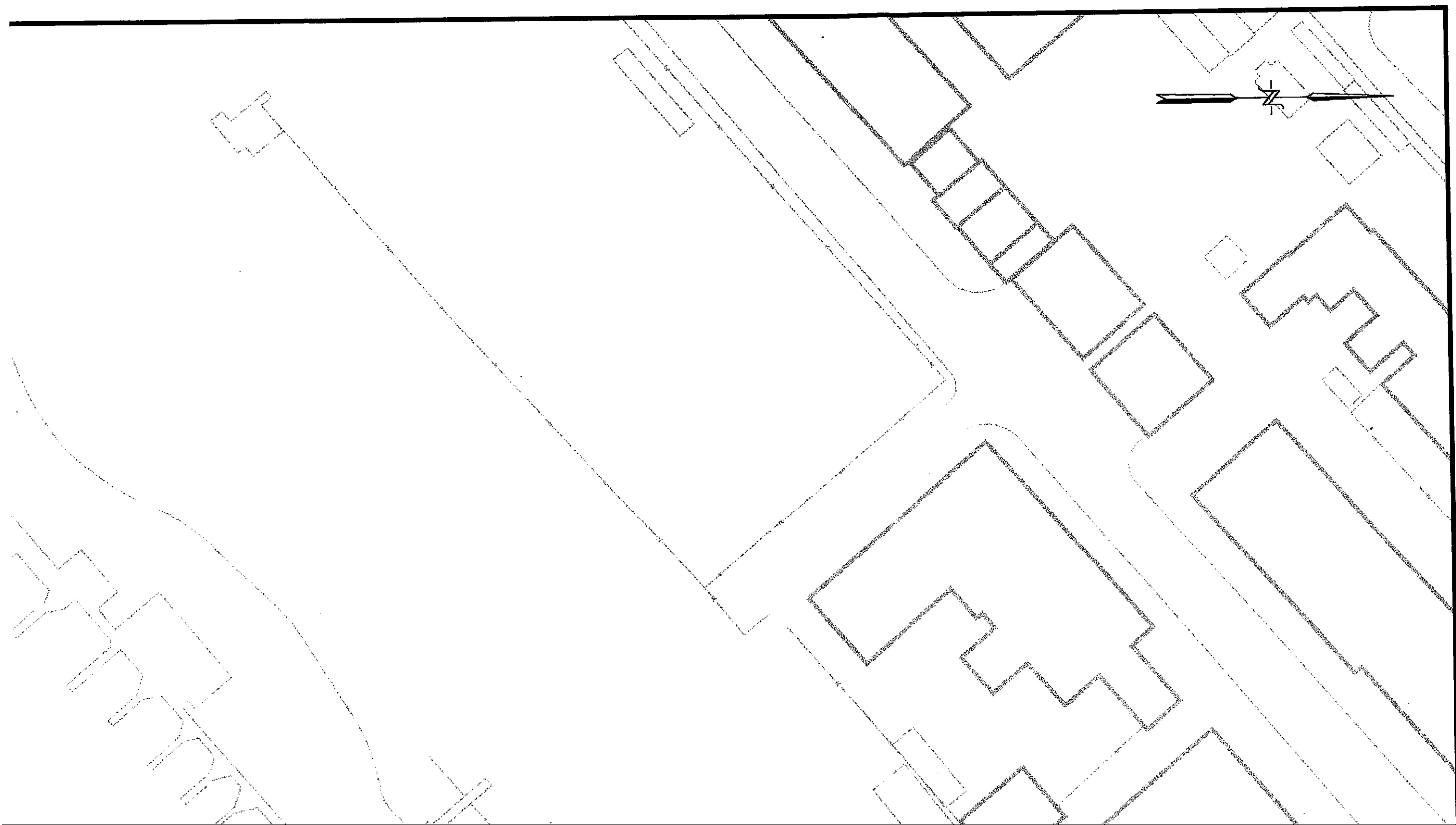

# SITE VICINITY MAP

Subsurface Consultants

8TH AVENUE STUDY AREA–OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.005 | 6/21/96 | BP |

PLATE 1



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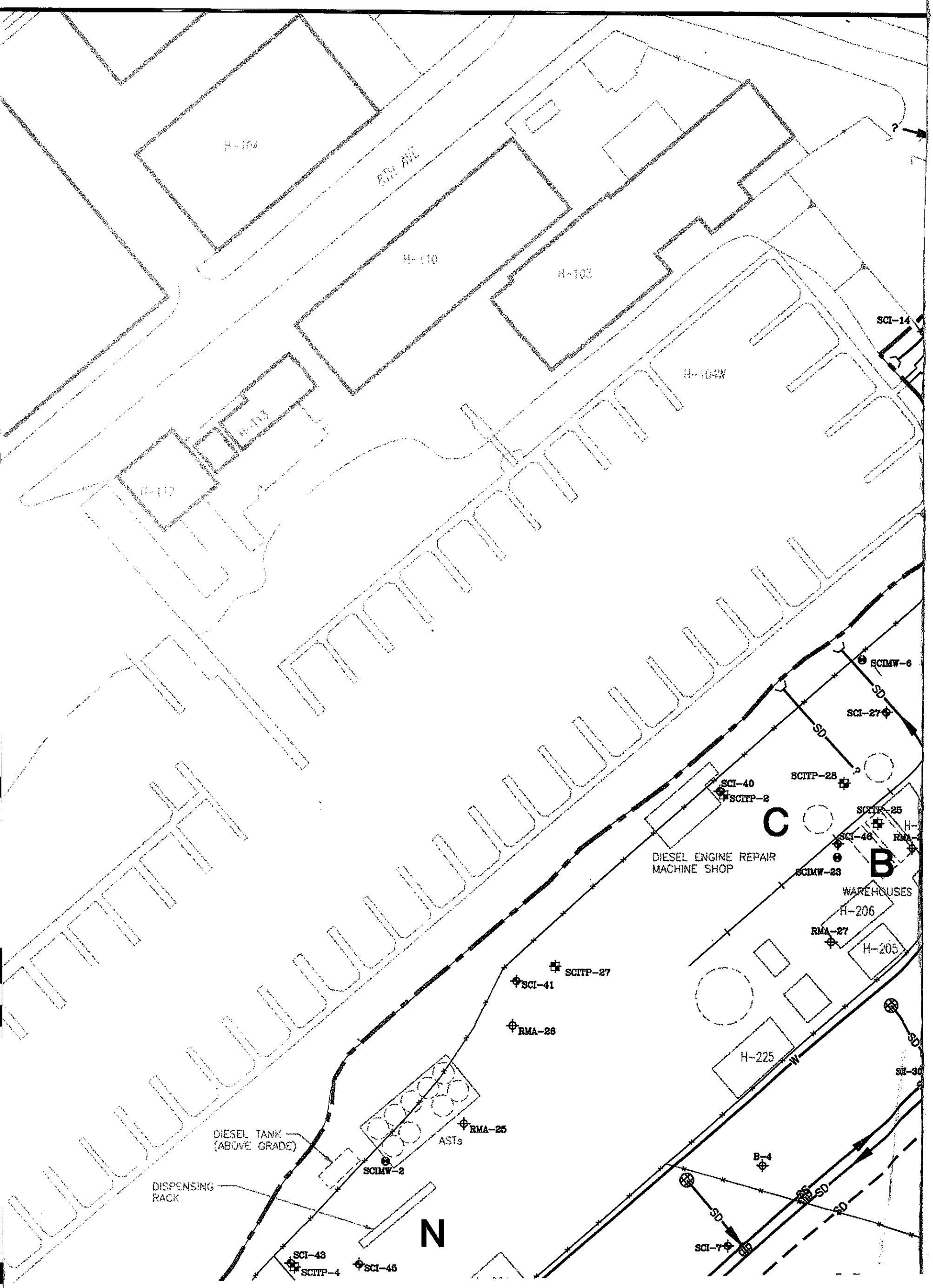
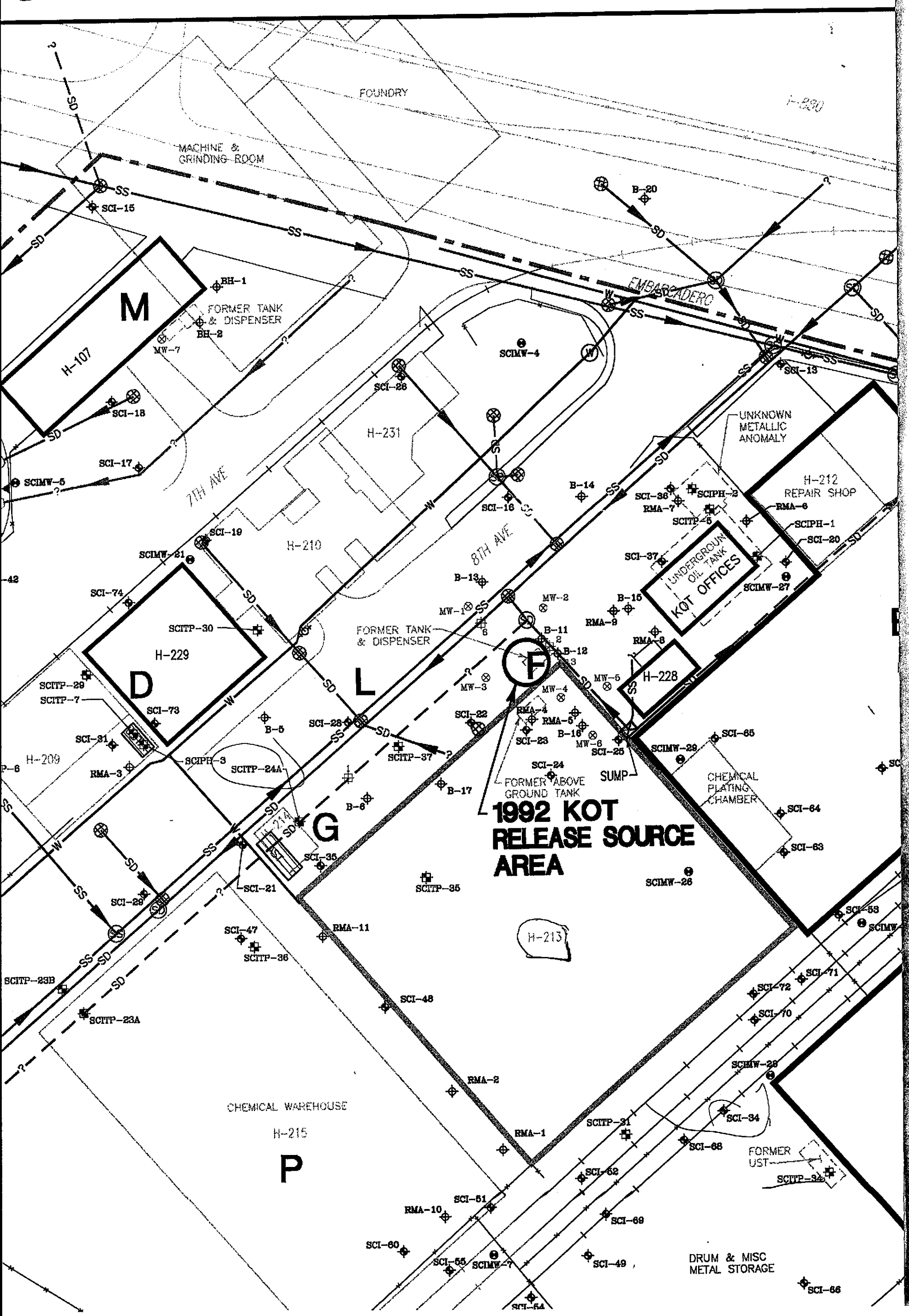
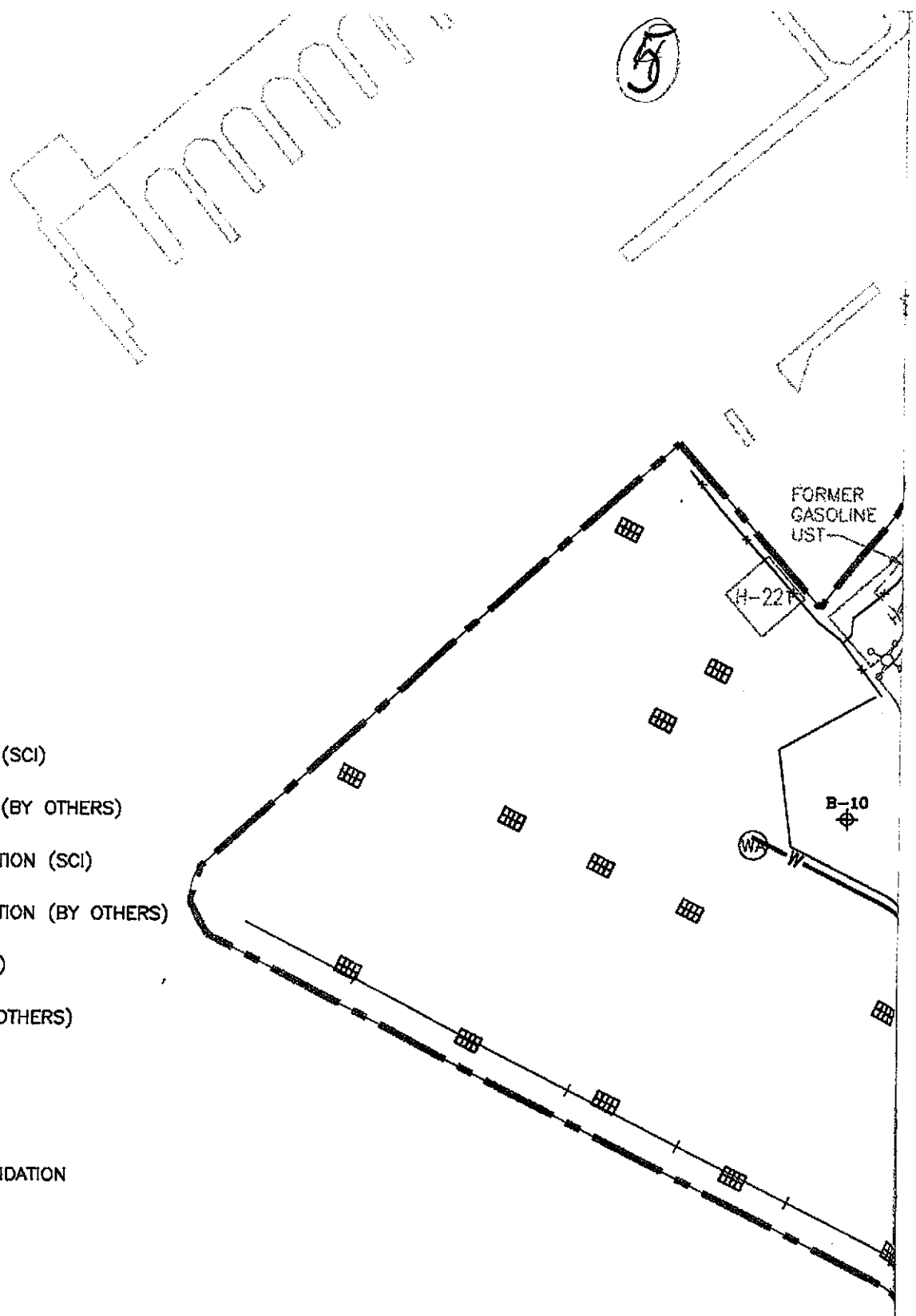

H-104
BAY AVE
H-110
H-103
H-104W
H-113
H-112
SCI-14
SCIMW-6
SD
SCI-27
SD
SCITP-28
SCI-40
SCITP-2
SCITP-25
C
SCI-46
DIESEL ENGINE REPAIR
MACHINE SHOP
SCIMW-23
B
WAREHOUSES
H-206
RMA-27
H-205
SCITP-27
SCI-41
RMA-26
H-225
SD
SCI-30
RMA-25
ASTs
DIESEL TANK
(ABOVE GRADE)
SCIMW-2
B-4
DISPENSING
RACK
SD
SD
SD
N
SCI-43
SCITP-4
SCI-45
SCI-7


FOUNDRY
MACHINE & GRINDING ROOM
EMBARCADERO
M
H-107
BH-1
FORMER TANK & DISPENSER
BH-2
MW-7
SCI-15
SCI-18
SCI-17
SCIMW-5
SCI-26
SCIMW-4
SCI-13
B-20
H-231
7TH AVE
SCI-16
SCI-19
H-210
8TH AVE
B-14
SCI-36
SCIPH-2
RMA-7
SCITP-5
RMA-6
SCIPH-1
SCI-20
H-212
REPAIR SHOP
UNKNOWN METALLIC ANOMALY
SCI-37
UNDERGROUND OIL TANK
KOT OFFICES
SCIMW-27
SCIMW-21
SCI-74
SCITP-30
H-229
D
L
F
B-13
MW-1
MW-2
B-11
B-12
FORMER TANK & DISPENSER
B-15
RMA-9
RMA-8
H-228
MW-5
MW-3
MW-4
SCI-22
RMA-4
RMA-5
SCI-23
B-16
MW-6
SCI-25
SCI-65
SCIMW-29
SCITP-29
SCITP-7
SCI-73
SCI-31
H-209
SCIPH-3
RMA-3
SCITP-24A
B-5
SCI-28
SCITP-37
SCI-24
SUMP
FORMER ABOVE GROUND TANK
B-17
B-6
CHEMICAL PLATING CHAMBER
SCI-64
SCI-63
1992 KOT RELEASE SOURCE AREA
G
SCI-35
SCITP-35
SCIMW-26
SCI-21
SCI-29
SCI-47
SCITP-36
RMA-11
H-213
SCI-53
SCIMW
SCITP-23B
SCITP-23A
SCI-48
SCI-71
SCI-72
SCI-70
SCIMW-28
RMA-2
CHEMICAL WAREHOUSE
H-215
P
RMA-1
SCITP-31
SCI-34
SCI-68
FORMER UST
SCITP-32
SCI-62
SCI-51
RMA-10
SCI-69
SCI-60
SCI-55
SCIMW-7
SCI-49
DRUM & MISC METAL STORAGE
SCI-66
SCI-64

SCIMW-1
B-18
H-211
PACIFIC LUMBER CO.
OIL HOUSE
-232
9TH AVE.
SCIMW-20
SCI-50
SCI-33
SD
W
DEFREMERY AVE
H-314
METAL RECYCLING
H-304
H-305
H-306
SCIPH-4
SCIPH-5
SCIPH-6
SCIMW-19
ACETONE
TANK
LIST




## LEGEND:

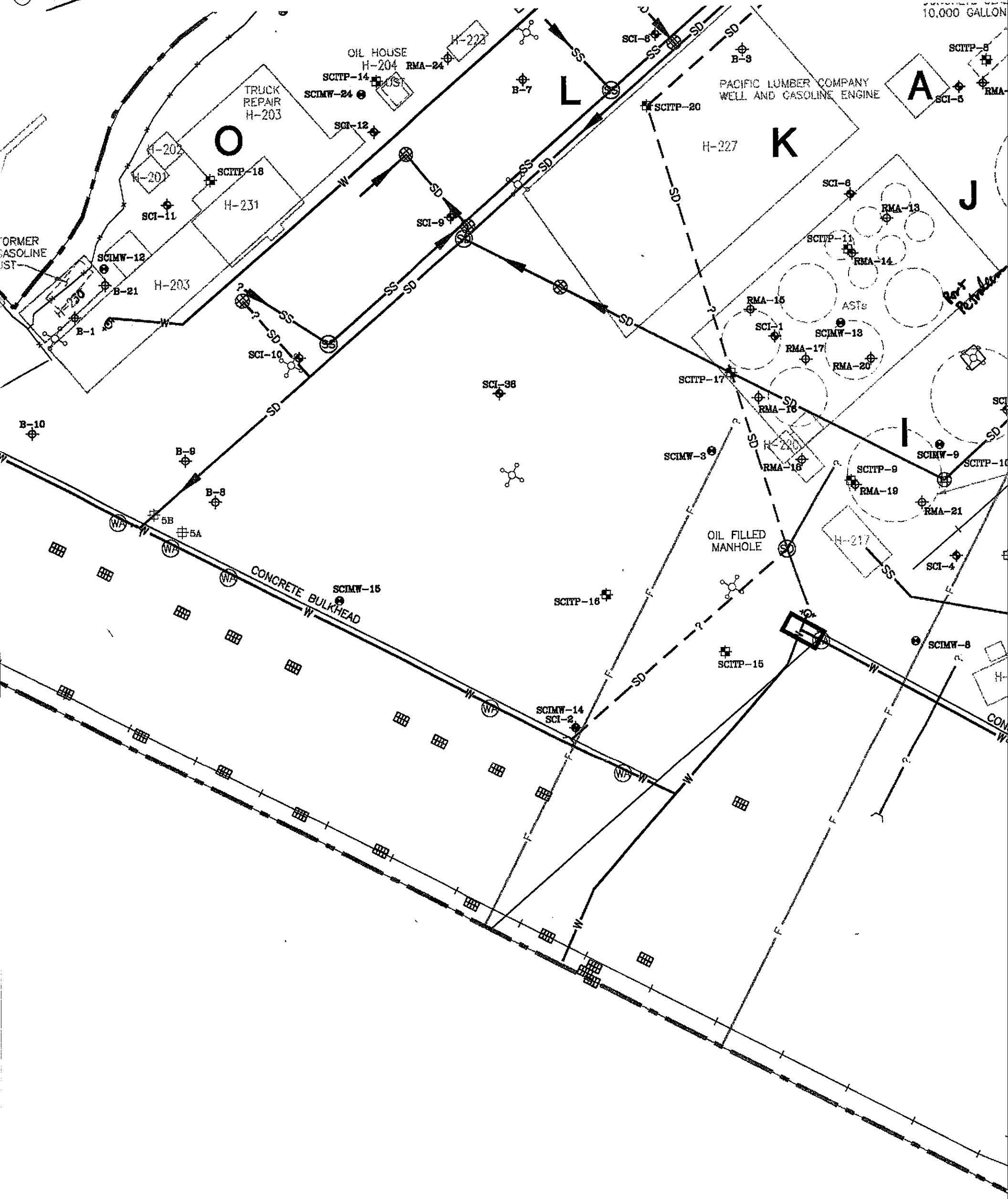
- SOIL BORING LOCATION (SCI)
- SOIL BORING LOCATION (BY OTHERS)
- MONITORING WELL LOCATION (SCI)
- MONITORING WELL LOCATION (BY OTHERS)
- TEST PIT LOCATION (SCI)
- TRENCH LOCATION (BY OTHERS)
- EXISTING BUILDING
- DEMOLISHED BUILDING
- EXISTING BUILDING FOUNDATION
- F — FUEL LINE
- W — WATER LINE
- SS — SANITARY SEWER
- SD — STORM DRAIN
- ? — UNKNOWN DRAINAGE
- OUTFALL
- FLOW DIRECTION
- DRAIN GRATE
- CATCH BASIN
- (W) (SS) (SD) MANHOLE
- (WA) WHARF ACCESS MANHOLE
- FIRE HYDRANT
- FENCE LINE
- RAILROAD
- OVERHEAD LIGHT STANDARD
- STUDY AREA BOUNDARY
- FORMER ABOVE OR UNDERGROUND STORAGE TANK
- EXISTING ABOVE OR UNDERGROUND STORAGE TANK
- A SITE REFERENCE AREA

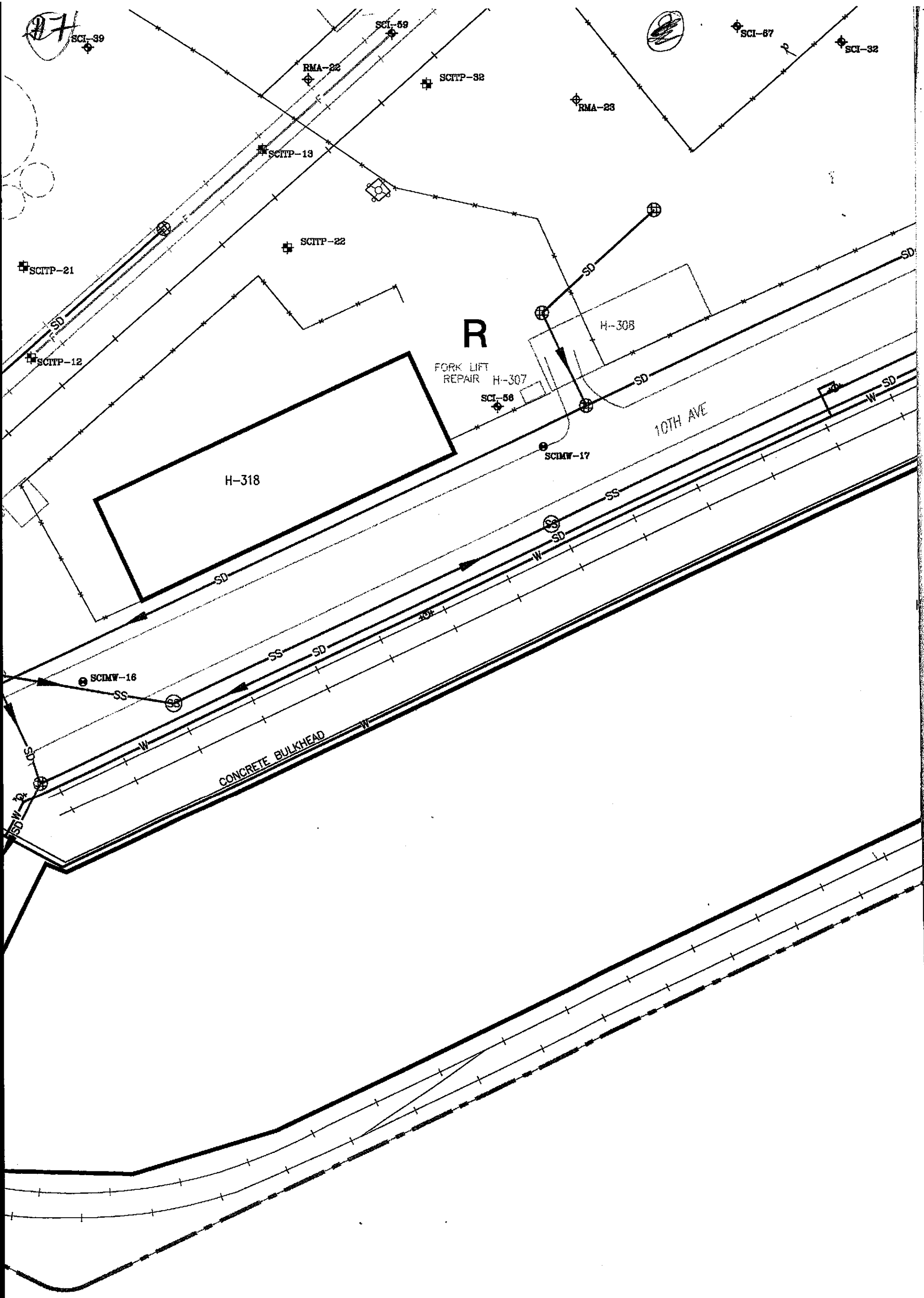
## NOTES:

1. UTILITY SURVEY WAS PREPARED BY AN WEST 5-22-96

## REFERENCE DRAWINGS

(7) 6

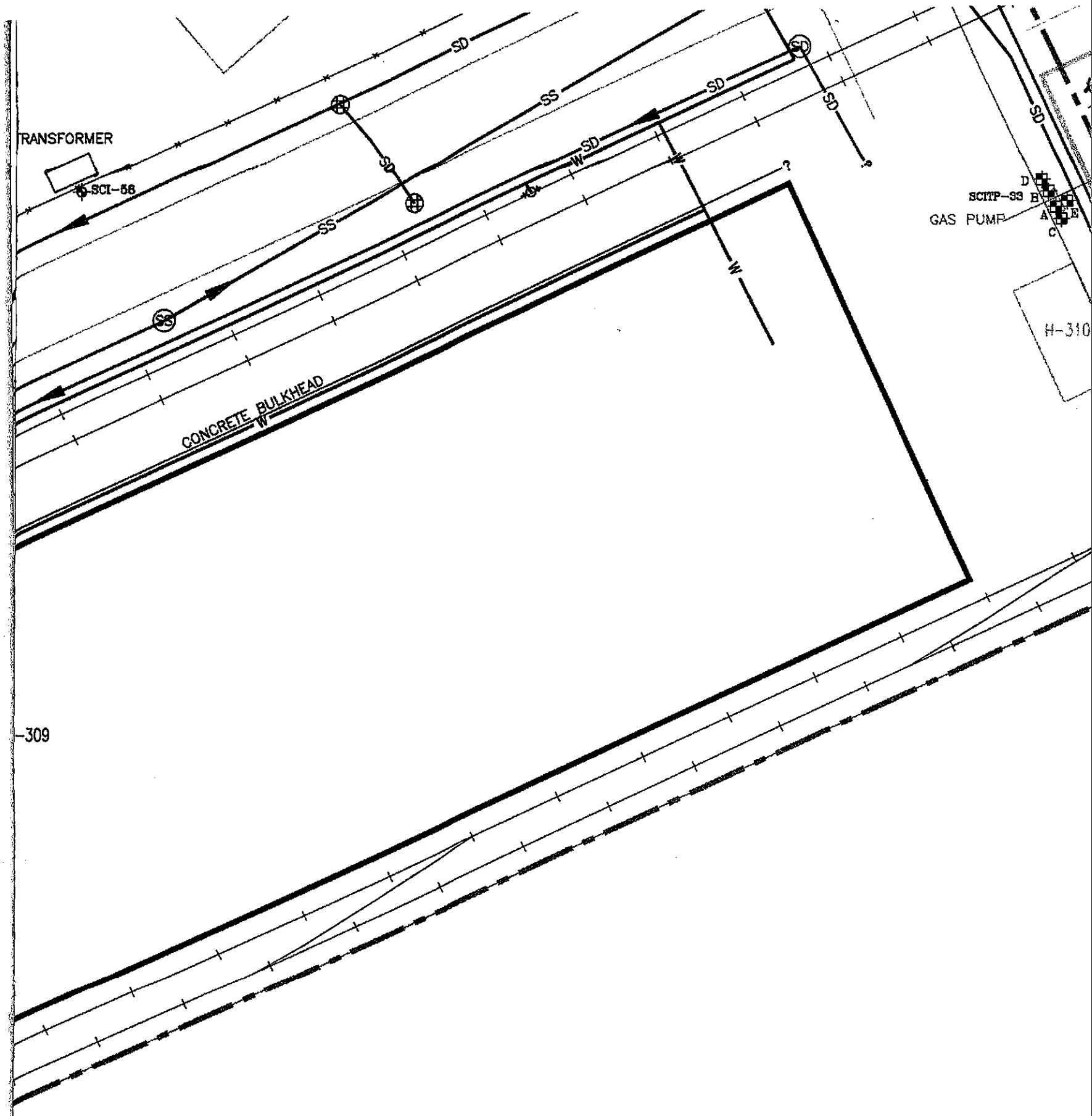

10,000 GALLON
OIL HOUSE
H-204
RMA-24
SCITP-14
SCIMW-24
TRUCK
REPAIR
H-203
SCI-12
H-223
B-7
L
SCI-8
B-3
PACIFIC LUMBER COMPANY
WELL AND GASOLINE ENGINE
SCITP-20
A
SCITP-8
SCI-5
RMA-
O
H-202
H-201
SCITP-18
SCI-11
H-231
H-227
K
SCI-9
SCI-6
RMA-13
J
SCITP-11
RMA-14
ORMER
ASOLINE
ST
SCIMW-12
B-21
H-203
H-230
B-1
RMA-15
ASTs
SCI-1
SCIMW-13
RMA-17
RMA-20
SCITP-17
SCI-10
SCI-38
RMA-16
B-10
B-9
B-8
SCIMW-3
H-220
RMA-18
SCITP-9
SCIMW-9
SCITP-10
RMA-19
RMA-21
5B
5A
OIL FILLED
MANHOLE
H-217
SCI-4
CONCRETE BULKHEAD
SCIMW-15
SCITP-16
SCITP-15
SCIMW-8
SCIMW-14
SCI-2
CON
SS
SD
W
F
WP
?




SCALE

| | |
|---|---|
| DESIGNED BY | – |
| DRAWN BY | RDP/DJP |
| CHECKED BY | JD |

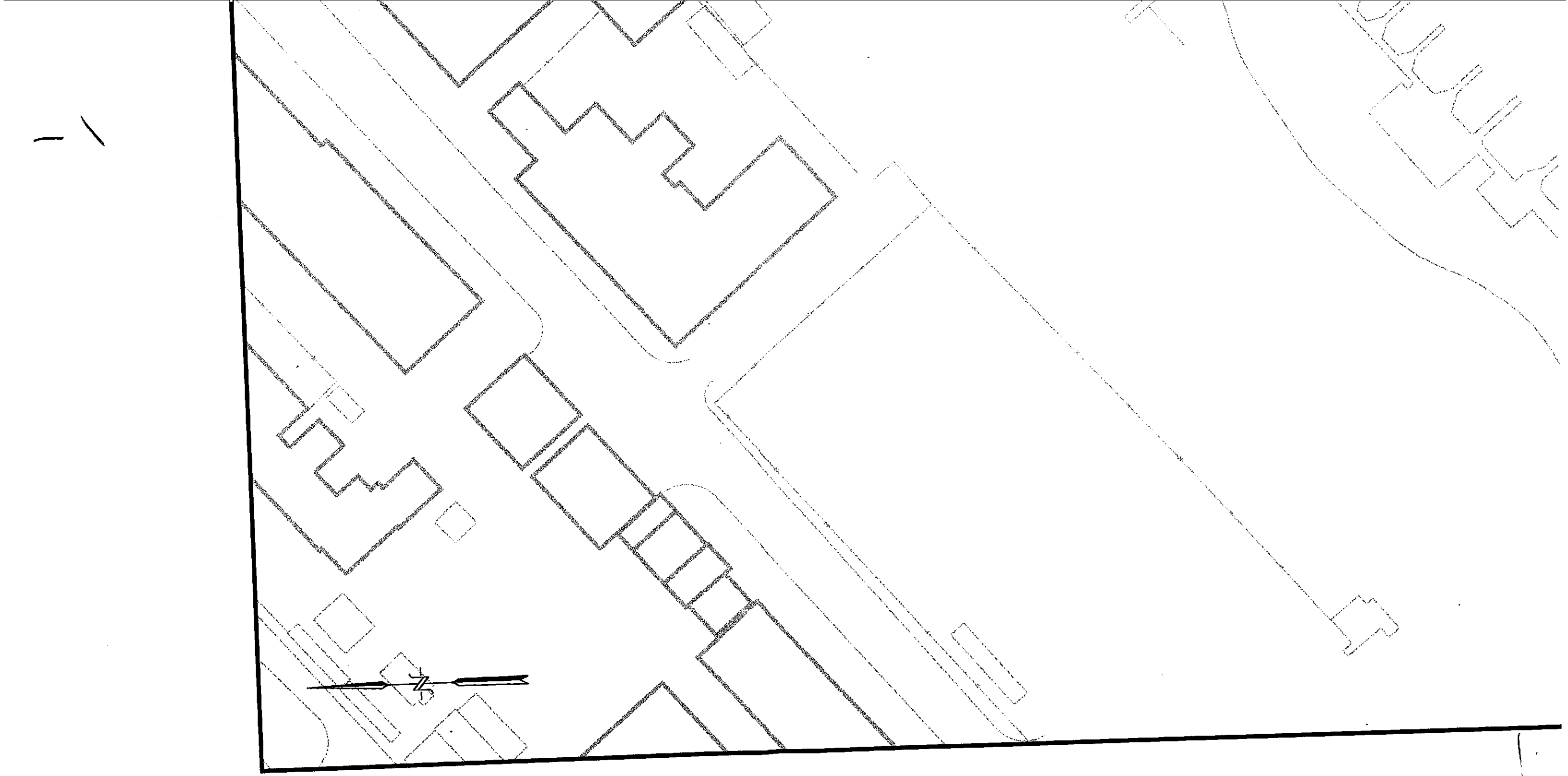
Subsurface Consultants, In
Geotechnical & Environmental Engine
171 12th Street ▪ Suite 2




PORT OF OAKLAND
530 WATER STREET OAKLAND, CALIFORNIA

# SITE AND UTILITY LOCATION PLAN

| SCALE | |
|---|---|
| AS SHOWN | |
| PROJECT NO. | |
| 133.005 | |
| SHEET NO. | OF |
| 2 | — |



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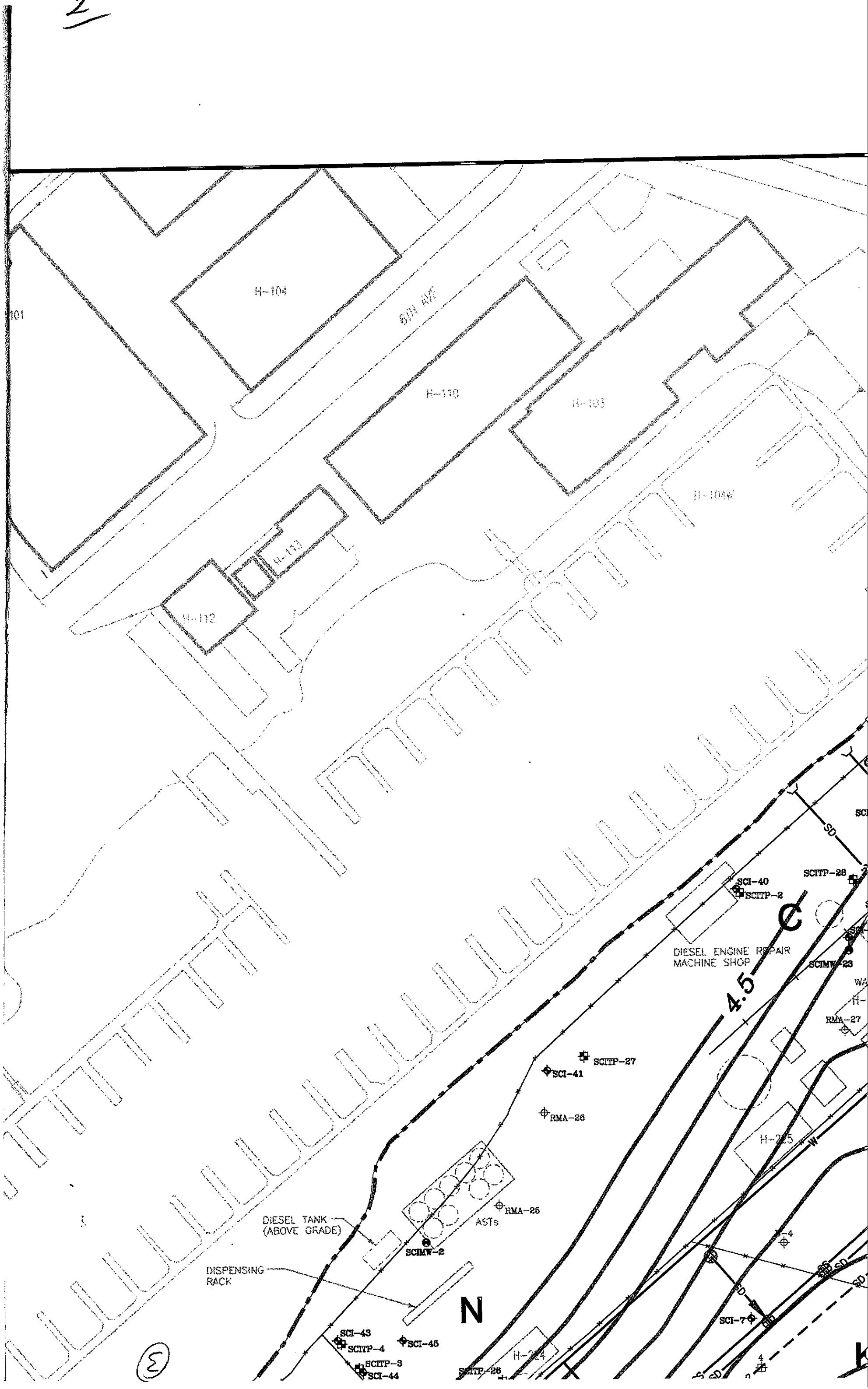

H-104
601 AVE
H-110
H-103
H-106
H-113
H-112
SCITP-28
SCI-40
SCITP-2
DIESEL ENGINE REPAIR
MACHINE SHOP
SCIMW-23
RMA-27
SCITP-27
SCI-41
RMA-26
RMA-25
ASTs
DIESEL TANK
(ABOVE GRADE)
SCIMW-2
DISPENSING
RACK
SCI-43
SCITP-4
SCI-45
SCITP-3
SCI-44
SCITP-26
SCI-7
N
E
C
4.5

2 3

FOUNDRY

MACHINE & GRINDING ROOM

FORMER TANK & DISPENSER

FORMER TANK & DISPENSER

UNDERGROUND OIL TANK

KOT OFFICES

UNKNOWN METALLIC ANOMALY

FORMER ABOVE GROUND TANK

CHEMICAL PLATING CHAMBER

SUMP

FORMER UST

CHEMICAL WAREHOUSE

H-215

H-213

H-210

H-209

H-208

H-207

H-107

H-231

H-228

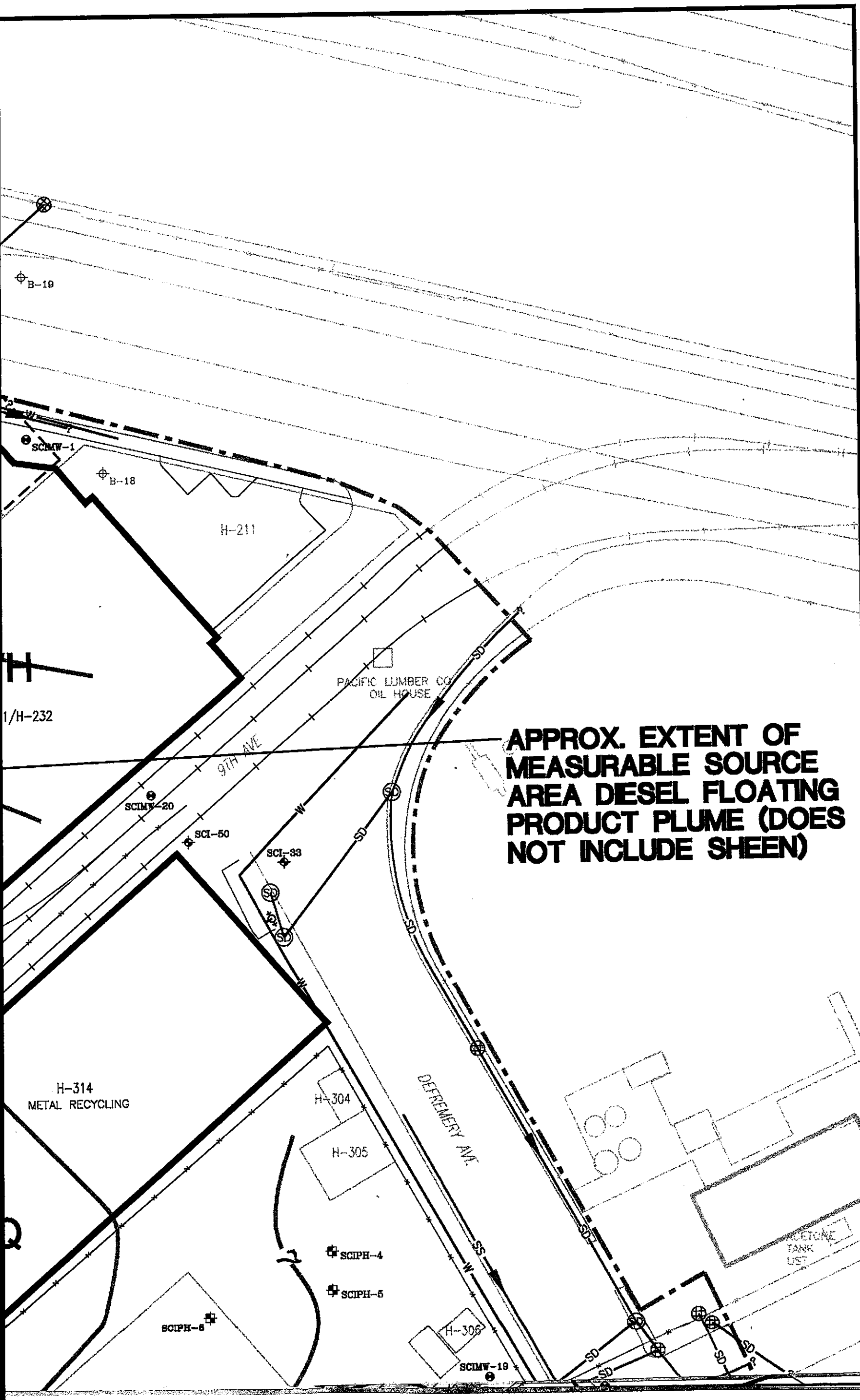
EMBARCADERO

7TH AVE.

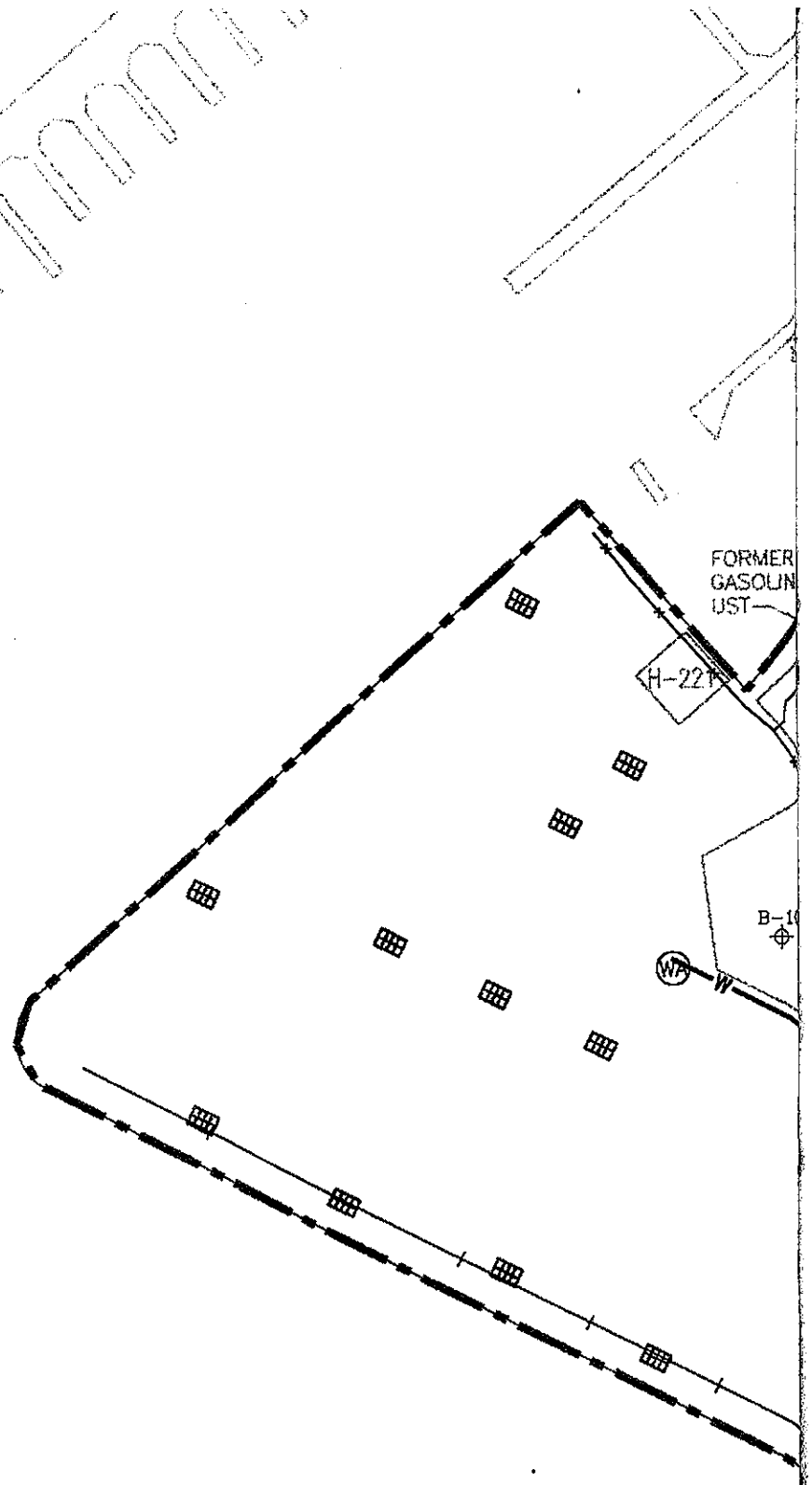
8TH AVE.

**1992 KOT RELEASE SOURCE AREA**

DRUM & MISC. METAL STORAGE


B-19
SCIMW-1
B-18
H-211
1/H-232
PACIFIC LUMBER CO.
OIL HOUSE
APPROX. EXTENT OF MEASURABLE SOURCE AREA DIESEL FLOATING PRODUCT PLUME (DOES NOT INCLUDE SHEEN)
9TH AVE
SCIMW-20
SCI-50
SCI-33
DEFREMERY AVE.
H-314
METAL RECYCLING
H-304
H-305
H-306
SCIPH-4
SCIPH-5
SCIPH-6
SCIMW-19
ACETONE
TANK
LIST
SD
SS
W
P

5




## LEGEND:

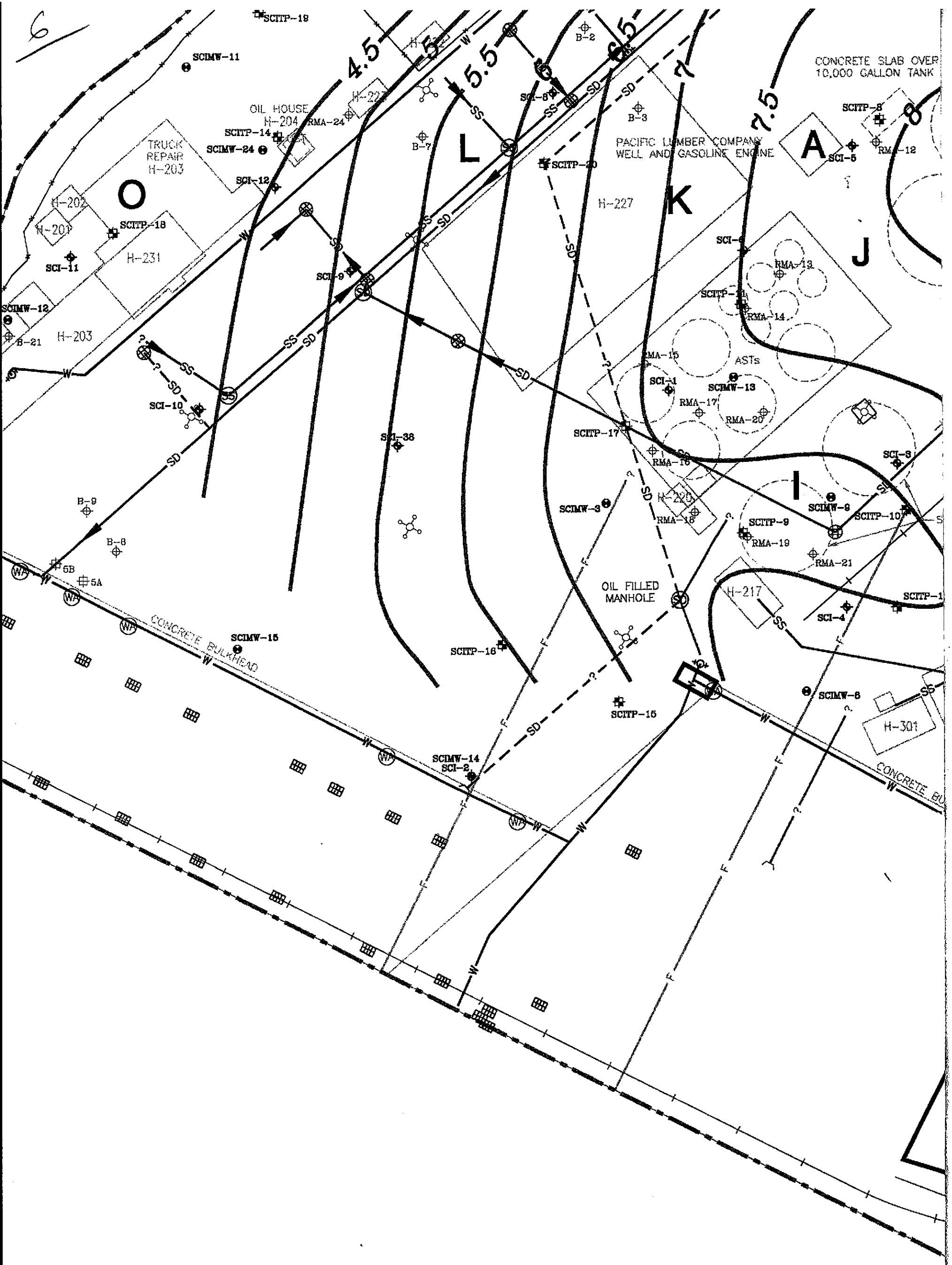
- SOIL BORING LOCATION (SCI)
- SOIL BORING LOCATION (BY OTHERS)
- MONITORING WELL LOCATION (SCI)
- MONITORING WELL LOCATION (BY OTHERS)
- TRENCH LOCATION (BY OTHERS)
- EXISTING BUILDING
- DEMOLISHED BUILDING
- EXISTING BUILDING FOUNDATION
- 6 — GROUNDWATER ELEVATION CONTOUR (FEET, PORT OF OAKLAND DATUM)
- F — FUEL LINE
- W — WATER LINE
- SS — SANITARY SEWER
- SD — STORM DRAIN
- ? — UNKNOW DRAINAGE
- OUTFALL
- FLOW DIRECTION
- DRAIN GRATE
- CATCH BASIN
- (W) (SS) (SD) MANHOLE
- (WA) WHARF ACCESS MANHOLE
- FIRE HYDRANT
- FENCE LINE
- RAILROAD
- OVERHEAD LIGHT STANDARD
- APPROXIMATE LEASE BOUNDARY
- STUDY AREA BOUNDARY
- FORMER ABOVE OR UNDERGROUND STORAGE TANK
- EXISTING ABOVE GROUND STORAGE TANK
- A SITE REFERENCE AREA

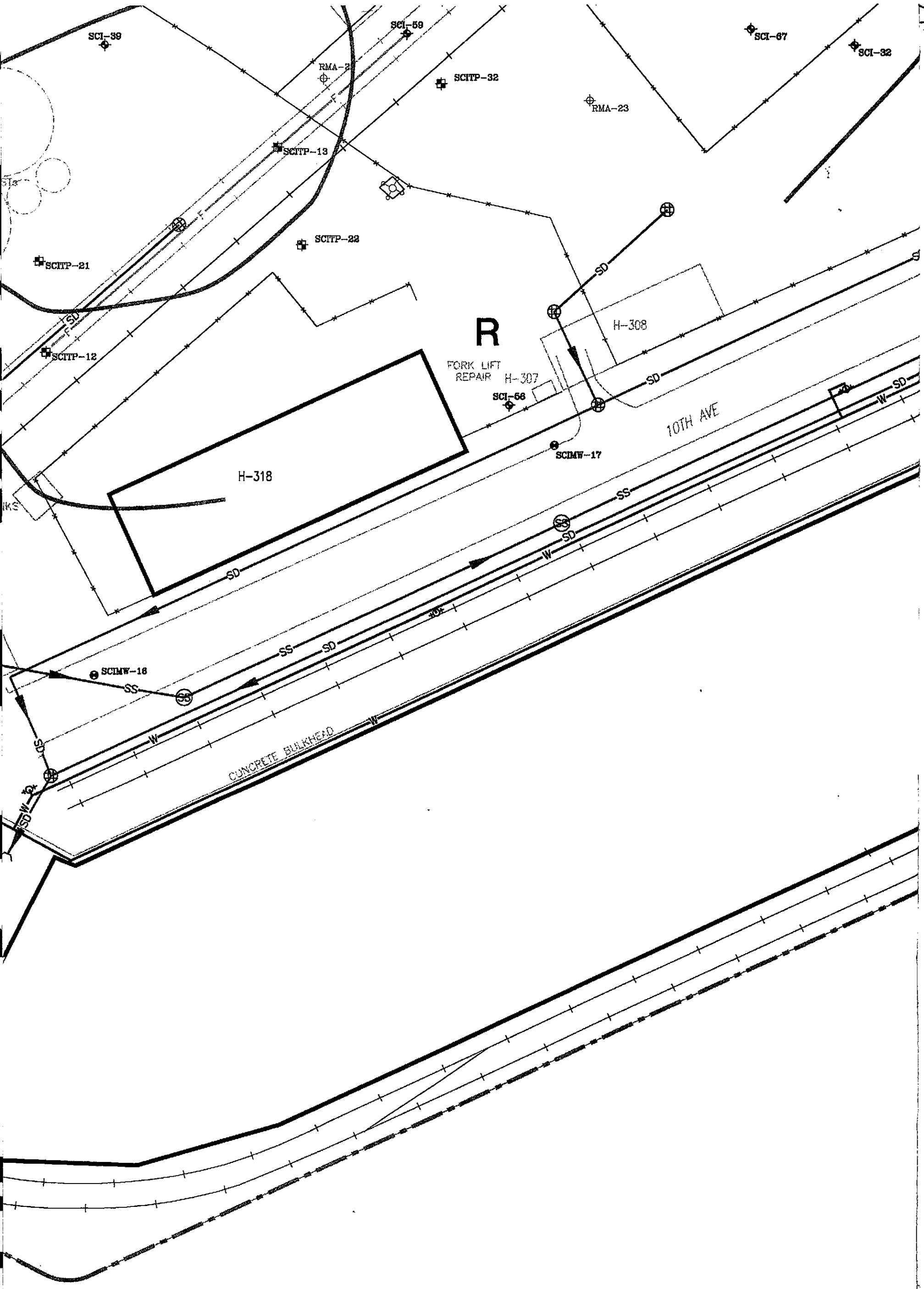
## NOTES:

1. UTILITY SURVEY WAS PREPARED BY AN WEST 5-22-96

SSGW5-5

6


SCITP-19
SCIMW-11
4.5
5
5.5
6
6.5
7
7.5
8
B-2
B-3
B-7
B-8
SCI-8
SCITP-8
SCI-5
RMA-12
CONCRETE SLAB OVER
10,000 GALLON TANK
OIL HOUSE
H-204
RMA-24
SCITP-14
SCIMW-24
H-22
TRUCK
REPAIR
H-203
SCI-12
SCITP-20
PACIFIC LUMBER COMPANY
WELL AND GASOLINE ENGINE
H-227
L
K
A
O
J
I
H-202
H-201
SCITP-18
H-231
SCI-11
SCIMW-12
B-21
H-203
SCI-9
SCI-6
RMA-13
SCITP-11
RMA-14
RMA-15
ASTs
SCI-1
SCIMW-13
RMA-17
RMA-20
SCITP-17
SCI-10
SCI-38
RMA-16
SCI-3
B-9
B-6
5B
5A
SCIMW-3
H-220
RMA-18
SCITP-9
RMA-19
SCIMW-9
SCITP-10
RMA-21
OIL FILLED
MANHOLE
H-217
SCITP-1
SCI-4
SCIMW-15
SCITP-16
SCITP-15
SCIMW-6
H-301
SCIMW-14
SCI-2
CONCRETE BULKHEAD
CONCRETE BU
W
SS
SD
F
?
WP



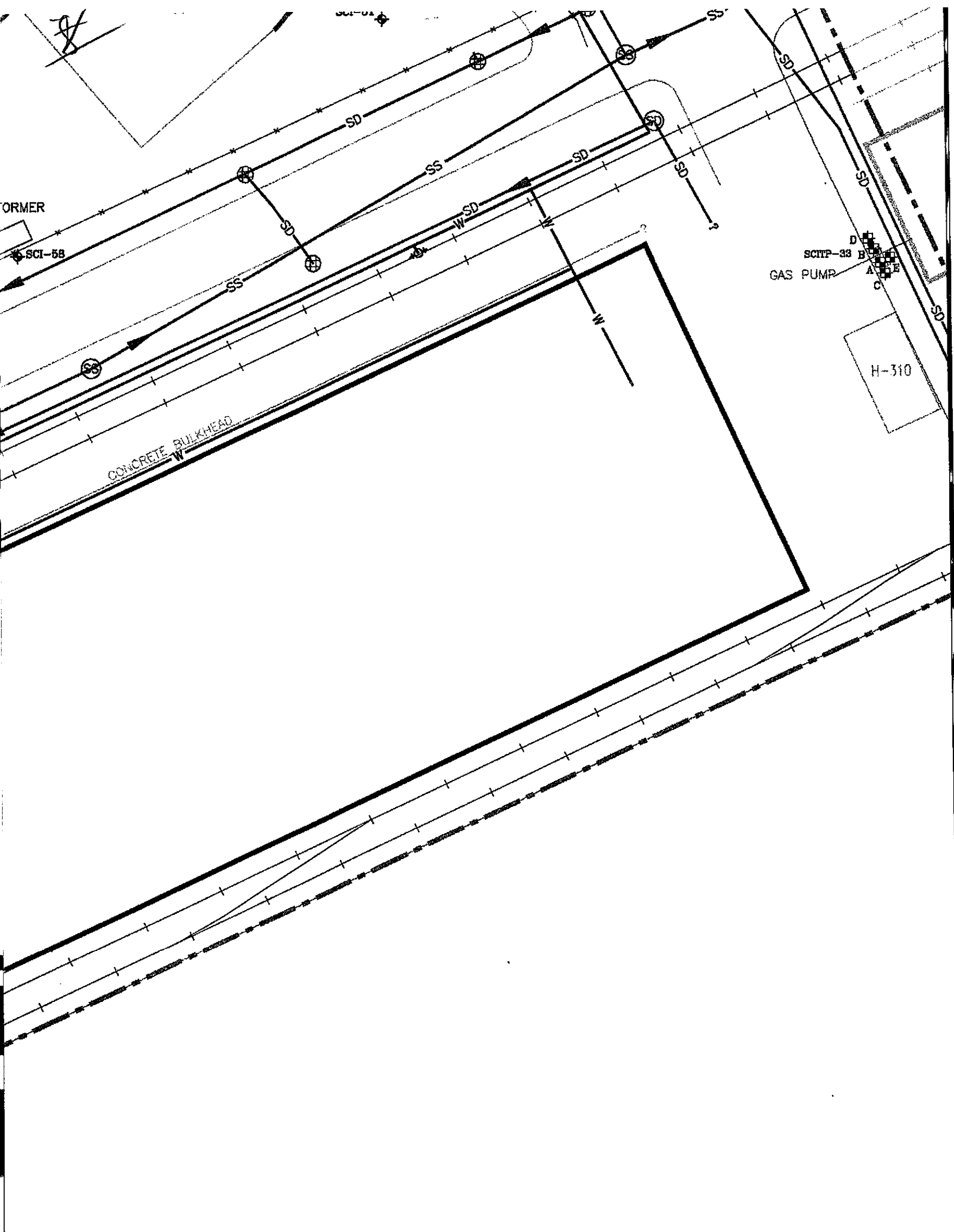

SCALE

DESIGNED BY

DRAWN BY
RDP/DJP

CHECKED BY
JD

Subsurface Consultants, In
Geotechnical & Environmental Engine



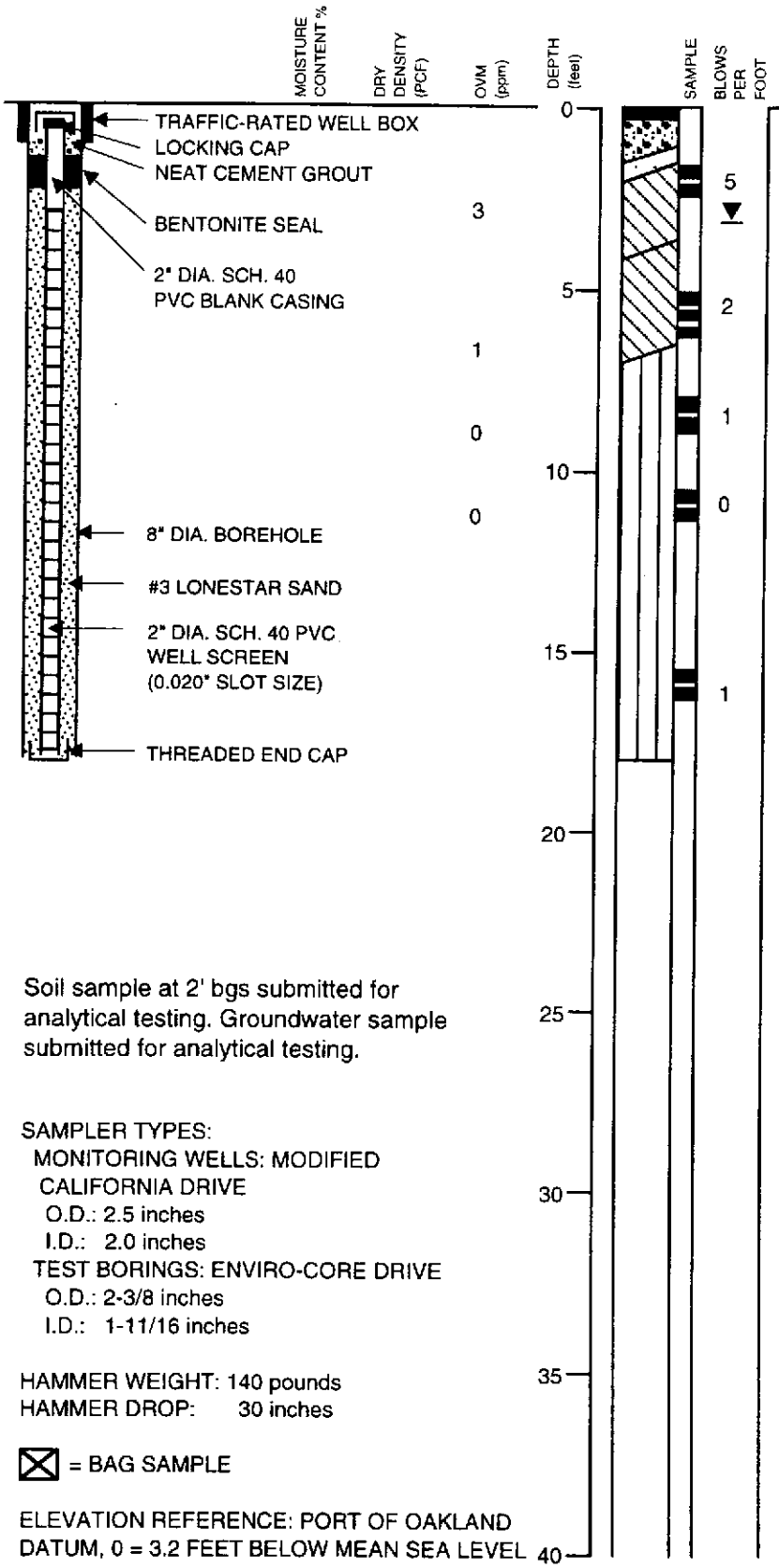

PORT OF OAKLAND
530 WATER STREET OAKLAND, CALIFORNIA

GROUNDWATER ELEVATION

| | |
|---|---|
| SCALE | AS SHOWN |
| PROJECT NO. | 133.005 |
| SHEET NO. | OF |

# LOG OF TEST BORING SCIMW-21

EQUIPMENT 8" Dia. Hollow Stem Auger
DATE DRILLED 4/28/97
ELEVATION 9.67 Feet




ASPHALTIC CONCRETE - 3-inches thick
DARK BROWN SANDY GRAVEL (GW)
loose, moist (fill)
GROUNDWATER LEVEL AFTER DRILLING
DARK GRAY SILTY SAND (SP)
loose, wet (fill)
DARK BROWN SILTY CLAY (CL)
soft to medium stiff, moist, with sand from 3 to 4 feet (fill)
GRAY SILTY CLAY (CL/CH)
soft, wet, with sand and rootlets
GRAY CLAYEY SILT (ML/MH)
soft, wet, with layers of peat from 8 to 9 feet (Bay Mud)

Soil sample at 2' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

SAMPLER TYPES:
MONITORING WELLS: MODIFIED CALIFORNIA DRIVE
O.D.: 2.5 inches
I.D.: 2.0 inches
TEST BORINGS: ENVIRO-CORE DRIVE
O.D.: 2-3/8 inches
I.D.: 1-11/16 inches

HAMMER WEIGHT: 140 pounds
HAMMER DROP: 30 inches

☒ = BAG SAMPLE

ELEVATION REFERENCE: PORT OF OAKLAND
DATUM, 0 = 3.2 FEET BELOW MEAN SEA LEVEL

SCI Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

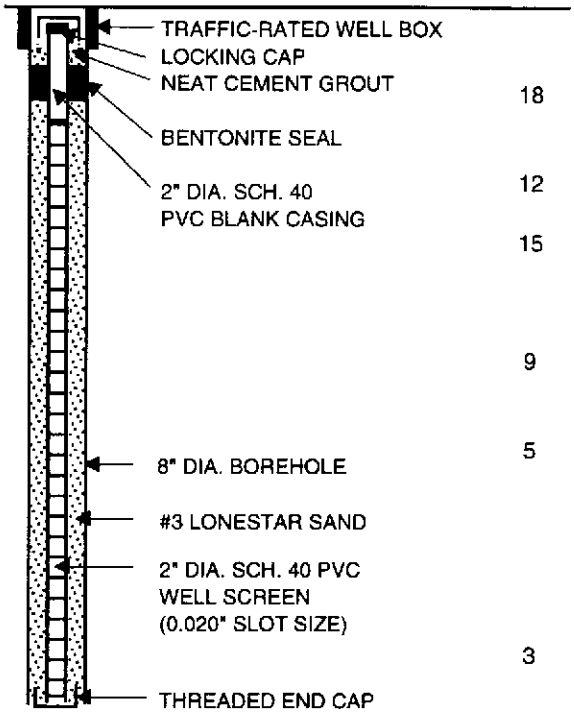
NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/14/97 | |

PLATE 5

# LOG OF TEST BORING SCIMW-22

EQUIPMENT 8" Dia. Hollow Stem Auger
DATE DRILLED 4/28/97
ELEVATION 12.00 Feet

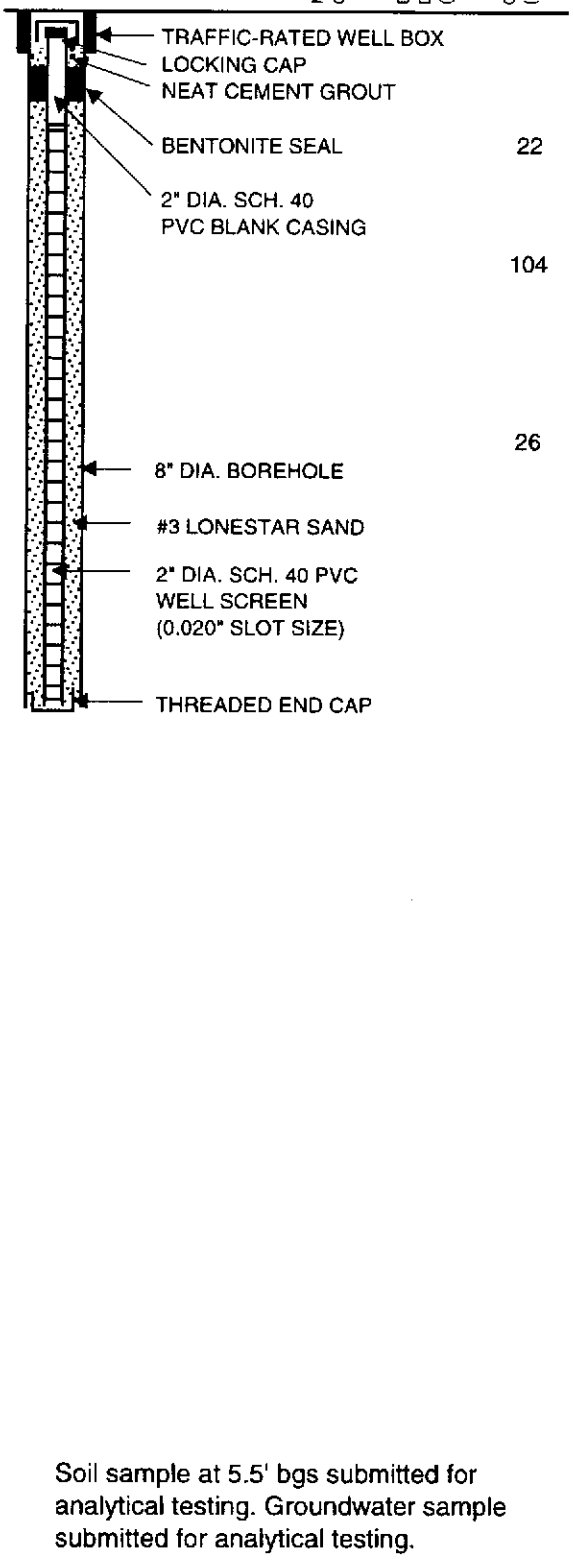



| MOISTURE CONTENT % | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (feet) | SAMPLE | BLOWS PER FOOT | |
|---|---|---|---|---|---|---|
| | | | 0 | | | ASPHALTIC CONCRETE - 6-inches thick |
| | | 18 | | | 42 | RED-BROWN SILTY SAND (SM) loose, moist (fill) |
| | | 12 | | | 6 | ORANGE-BROWN CLAYEY GRAVEL (GC) dense, moist (fill) |
| | | 15 | 5 | | 10 | GROUNDWATER LEVEL AFTER DRILLING<br>BROWN SANDY CLAY (CL/ML) soft to medium stiff, moist (fill) |
| | | 9 | | | 4 | GRAYISH GREEN SANDY CLAY (CL) medium stiff, wet, with timber (fill) |
| | | 5 | 10 | | 2 | Black mottling @ 6 feet<br>MOTTLED GREEN AND BLACK SILTY CLAY (CL) soft to medium stiff, moist, with sand |
| | | | | | 1 | DARK GRAY CLAYEY SILT (ML/MH) soft, wet (Bay Mud) |
| | | 3 | 15 | | 1 | |
| | | | | | 1 | |
| | | | 20 | | | |
| | | | 25 | | | |
| | | | 30 | | | |
| | | | 35 | | | |
| | | | 40 | | | |

Soil sample at 3.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCIMW-23

EQUIPMENT 8" Dia. Hollow Stem Auger
DATE DRILLED 4/28/97
ELEVATION 9.74 Feet




BROWN AND GRAY SANDY GRAVEL (GW)
medium dense, moist (fill)

GROUNDWATER LEVEL AFTER DRILLING

BROWN SANDY CLAY (CL/SC)
medium stiff, moist, with gravel (fill)

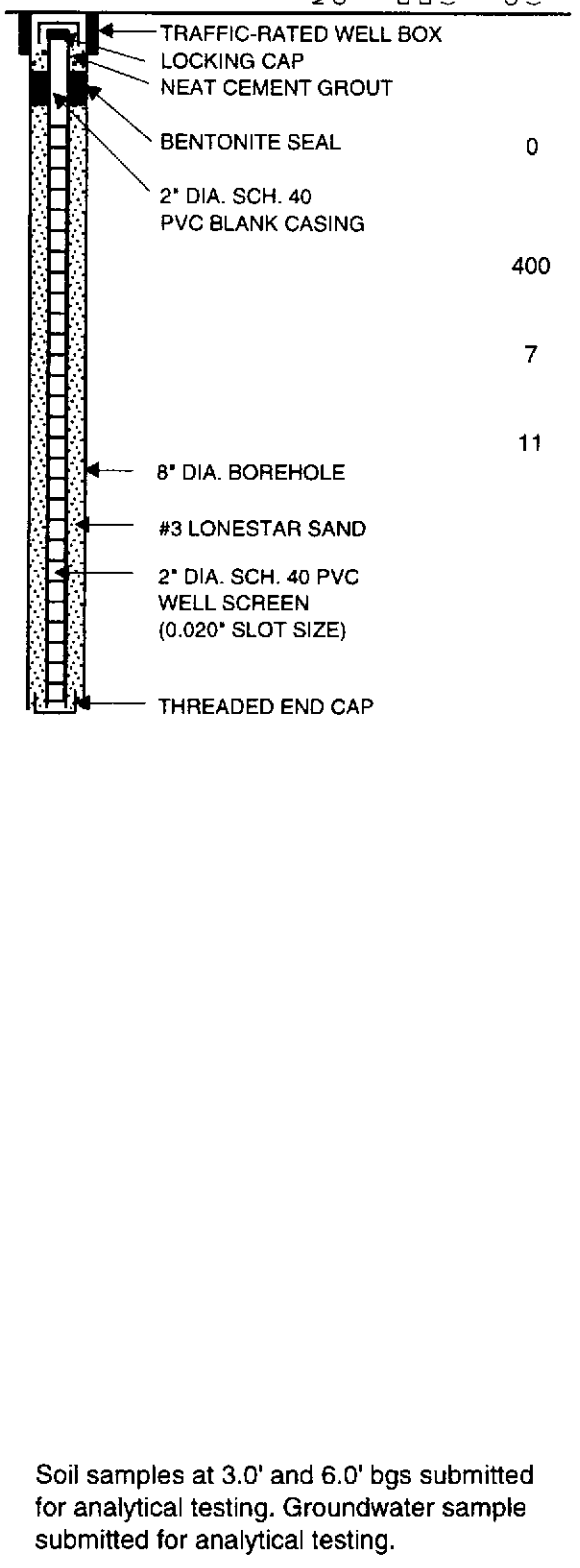
GREEN-GRAY SANDY CLAY (CL)
soft, wet

GRAY CLAYEY SILT (ML/MH)
soft, wet, with organic-rich layers (Bay Mud)

Soil sample at 5.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCIMW-24

EQUIPMENT 8" Dia. Hollow Stem Auger
DATE DRILLED 4/29/97
ELEVATION 9.74 Feet




ASPHALTIC CONCRETE - 4-inches thick
DARK BROWN SANDY GRAVEL (GW)
loose, moist (fill)

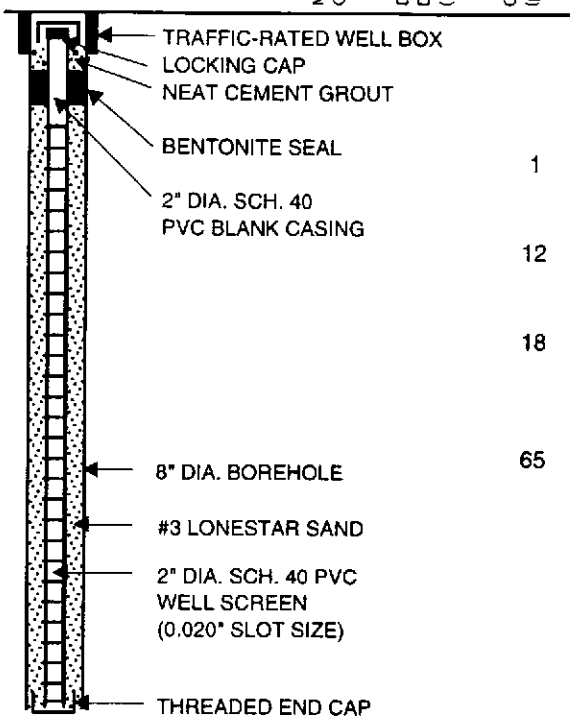
BLACK SANDY SILT (ML)
medium stiff, wet, with hydrocarbon odor (fill)
GROUNDWATER LEVEL AFTER DRILLING
DARK GRAY SAND (SP)
loose, wet, with hydrocarbon odor (fill)
GRAY CLAYEY SAND (SC)
loose, wet, with gravel, gravel content increasing with depth (fill)

GRAY CLAYEY SILT (ML/MH)
soft, wet, with rootlets (Bay Mud)

Soil samples at 3.0' and 6.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCIMW-25

EQUIPMENT 8" Dia. Hollow Stem Auger
DATE DRILLED 4/29/97
ELEVATION 8.30 Feet




| MOISTURE CONTENT % | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (feet) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|
| | | | 0 | | ▼ |
| | | 1 | | | 8 |
| | | 12 | 5 | | 1 |
| | | 18 | | | 0 |
| | | 65 | 10 | | 0 |
| | | | 15 | | 0 |
| | | | 20 | | |
| | | | 25 | | |
| | | | 30 | | |
| | | | 35 | | |
| | | | 40 | | |

LIGHT BROWN SANDY GRAVEL (GP)
loose, moist (fill)
GROUNDWATER LEVEL AFTER DRILLING
RAILROAD BALLAST - 12-inches thick
BROWN GRAVELLY CLAY (CL)
medium stiff, moist (fill)
DARK GRAY CLAYEY SILT (ML/MH)
soft, wet (Bay Mud)

Soil sample at 10.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

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Geotechnical & Environmental Engineers

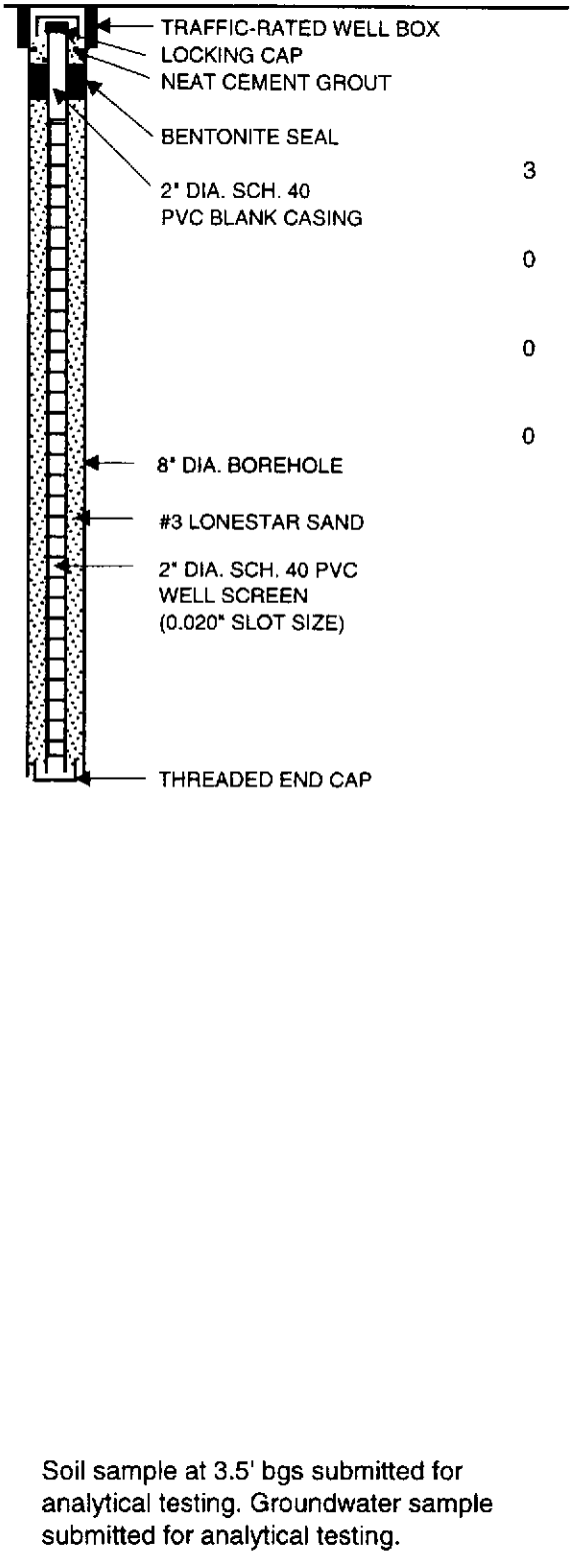
NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/14/97 | |

PLATE 9

# LOG OF TEST BORING SCIMW-26

EQUIPMENT 8" Dia. Hollow Stem Auger
DATE DRILLED 4/30/97
ELEVATION 11.33 Feet



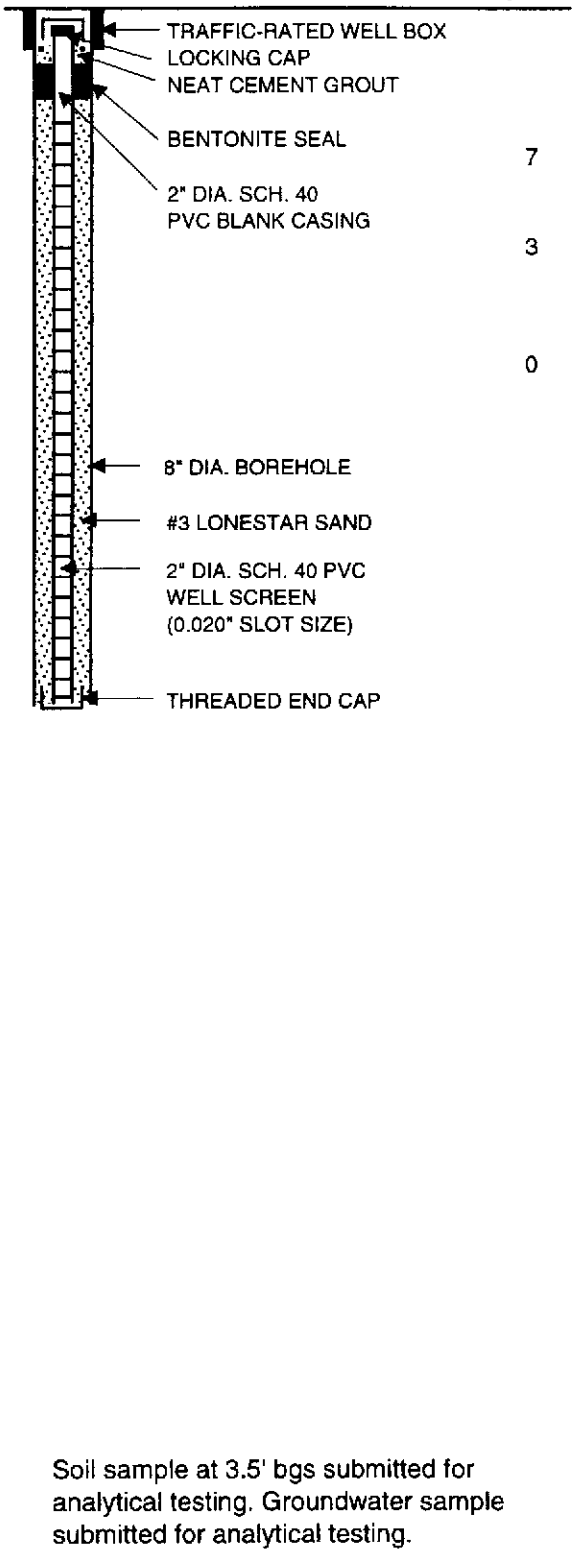

CEMENT CONCRETE - 6-inches thick
BASEROCK - 3-inches thick
CEMENT CONCRETE - 4-inches thick
GROUNDWATER LEVEL AFTER DRILLING
BASEROCK - 3-inches thick
GREEN-GRAY SANDY CLAY (CL)
soft to medium stiff, moist, with shells
GREENISH GRAY CLAYEY SAND (SP)
loose, wet, with shells
MOTTLED GRAY AND BLACK CLAYEY SILT (ML)
soft to medium stiff, moist with pockets of sand and sandy clay
DARK GRAY CLAYEY SILT (ML/MH)
medium stiff, with peat (Bay Mud)

Becomes soft @ 15 feet

Soil sample at 3.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCIMW-27

EQUIPMENT 8" Dia. Hollow Stem Auger
DATE DRILLED 4/30/97
ELEVATION 11.43 Feet




CEMENT CONCRETE - 6-inches thick
BROWN SANDY CLAY (CL)
medium stiff, moist, with gravel (fill)
BROWN SANDY CLAY (CL)
medium stiff, moist (fill)
GROUNDWATER LEVEL AFTER DRILLING
BLACK SILTY CLAY (CL)
medium stiff, moist , slight hydrocarbon odor
BLACK SILTY SAND (SM)
loose, wet
MOTTLED DARK GRAY AND BLACK SILTY CLAY (CL)
soft, moist, with pockets of sand
DARK GRAY CLAYEY SILT (ML/MH)
soft, wet, with peat (Bay Mud)

Soil sample at 3.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

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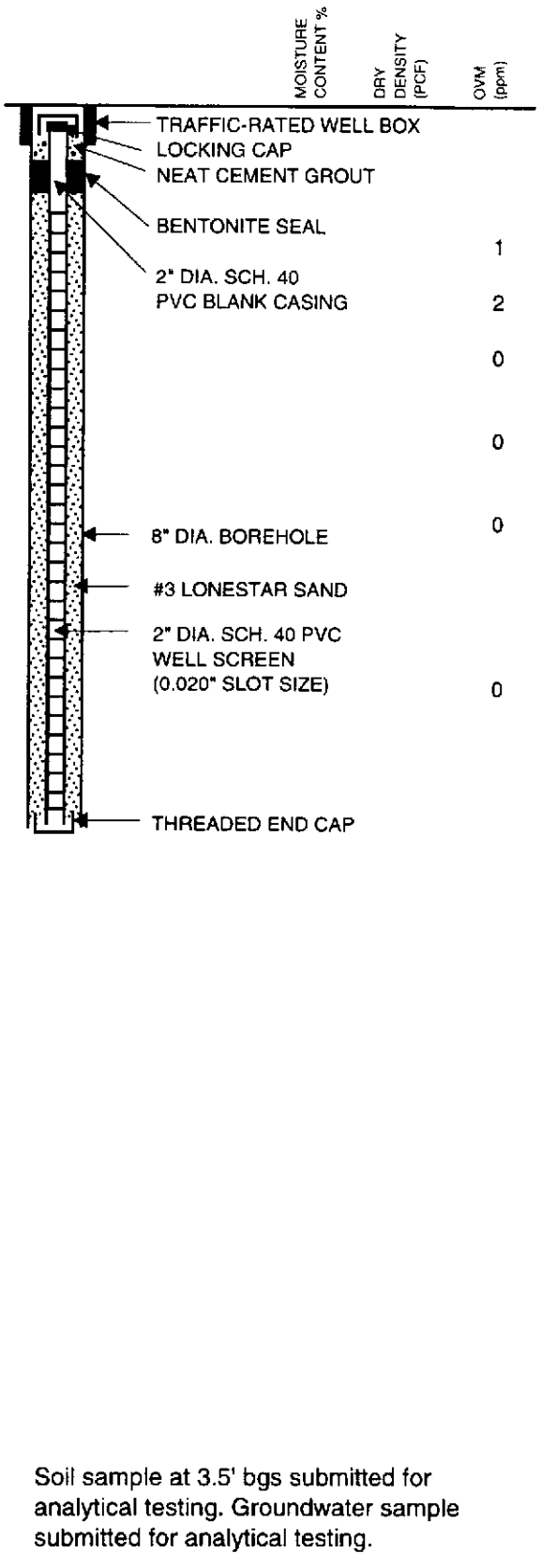
NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/14/97 | |

PLATE 11

# LOG OF TEST BORING SCIMW-28

EQUIPMENT 8" Dia. Hollow Stem Auger
DATE DRILLED 4/30/97
ELEVATION 13.30 Feet



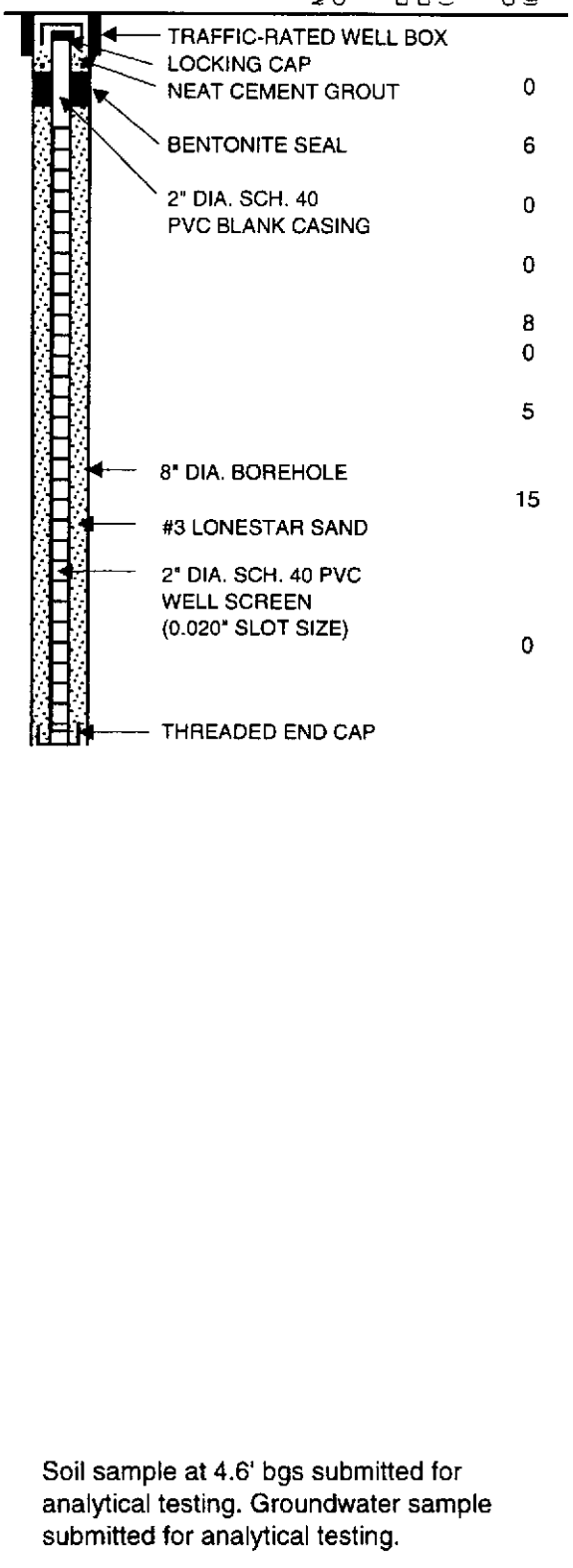

BROWN SANDY GRAVEL (GM)
medium dense, moist (fill)
LIGHT AND DARK BROWN SANDY CLAY (CL)
soft to medium stiff, moist (fill)
GROUNDWATER LEVEL AFTER DRILLING
BROWN SANDY CLAY (CL)
medium stiff, moist, with gravel (fill)
Layer of dark brown sawdust from 5.5-6.5 feet
LIGHT GRAY AND TAN SANDY CLAY (CL)
soft, wet

DARK GRAY CLAYEY SILT (ML/MH)
soft, wet (Bay Mud)

Soil sample at 3.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCIMW-29

EQUIPMENT Direct Push/8" Dia. Hollow Stem Auger
DATE DRILLED 5/13/97
ELEVATION 13.18 Feet




CONCRETE SLAB - 7-inches thick
LIGHT ORANGE-BROWN SILTY GRAVEL (GM)
dense, with sand (fill)
YELLOW- BROWN SANDY GRAVEL (GM)
loose, moist (fill)
GROUNDWATER LEVEL AFTER DRILLING
LIGHT YELLOW-BROWN CLAYEY GRAVEL (GC)
medium dense, moist (fill)
LIGHT BROWN SANDY CLAY (CL)
medium stiff, moist (fill)
GRAY SILTY SAND (SM)
loose, wet (fill)
MOTTLED LIGHT BROWN AND GRAY CLAYEY SILT (ML)
soft, wet, with sand (fill)
GRAY CLAYEY SILT (ML/MH)
soft, wet (Bay Mud)

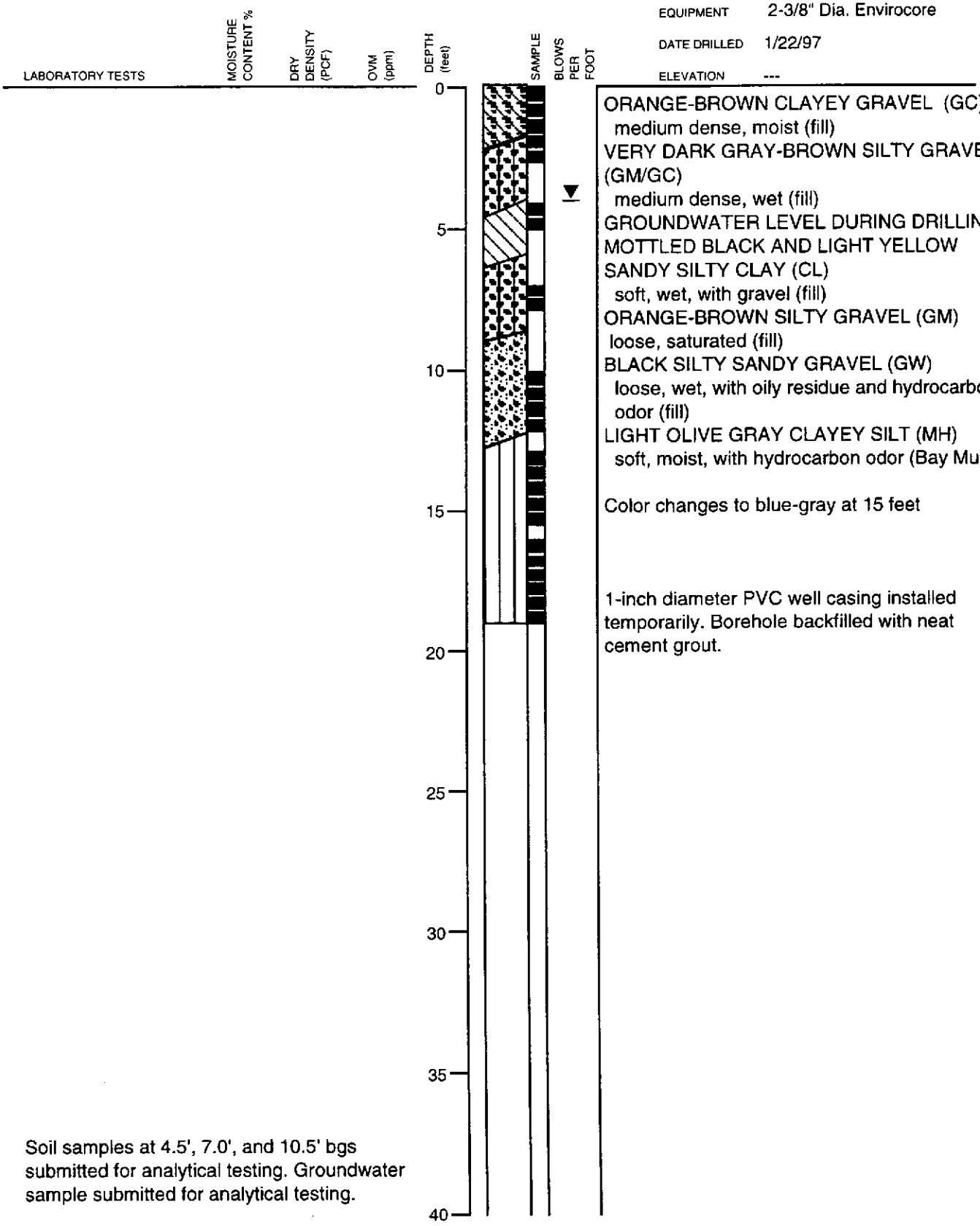
Soil sample at 4.6' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-40

EQUIPMENT 2-3/8" Dia. Envirocore

DATE DRILLED 1/22/97

ELEVATION ---




ORANGE-BROWN CLAYEY GRAVEL (GC)
medium dense, moist (fill)

VERY DARK GRAY-BROWN SILTY GRAVEL (GM/GC)
medium dense, wet (fill)

GROUNDWATER LEVEL DURING DRILLING

MOTTLED BLACK AND LIGHT YELLOW SANDY SILTY CLAY (CL)
soft, wet, with gravel (fill)

ORANGE-BROWN SILTY GRAVEL (GM)
loose, saturated (fill)

BLACK SILTY SANDY GRAVEL (GW)
loose, wet, with oily residue and hydrocarbon odor (fill)

LIGHT OLIVE GRAY CLAYEY SILT (MH)
soft, moist, with hydrocarbon odor (Bay Mud)

Color changes to blue-gray at 15 feet

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 4.5', 7.0', and 10.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

SCI Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

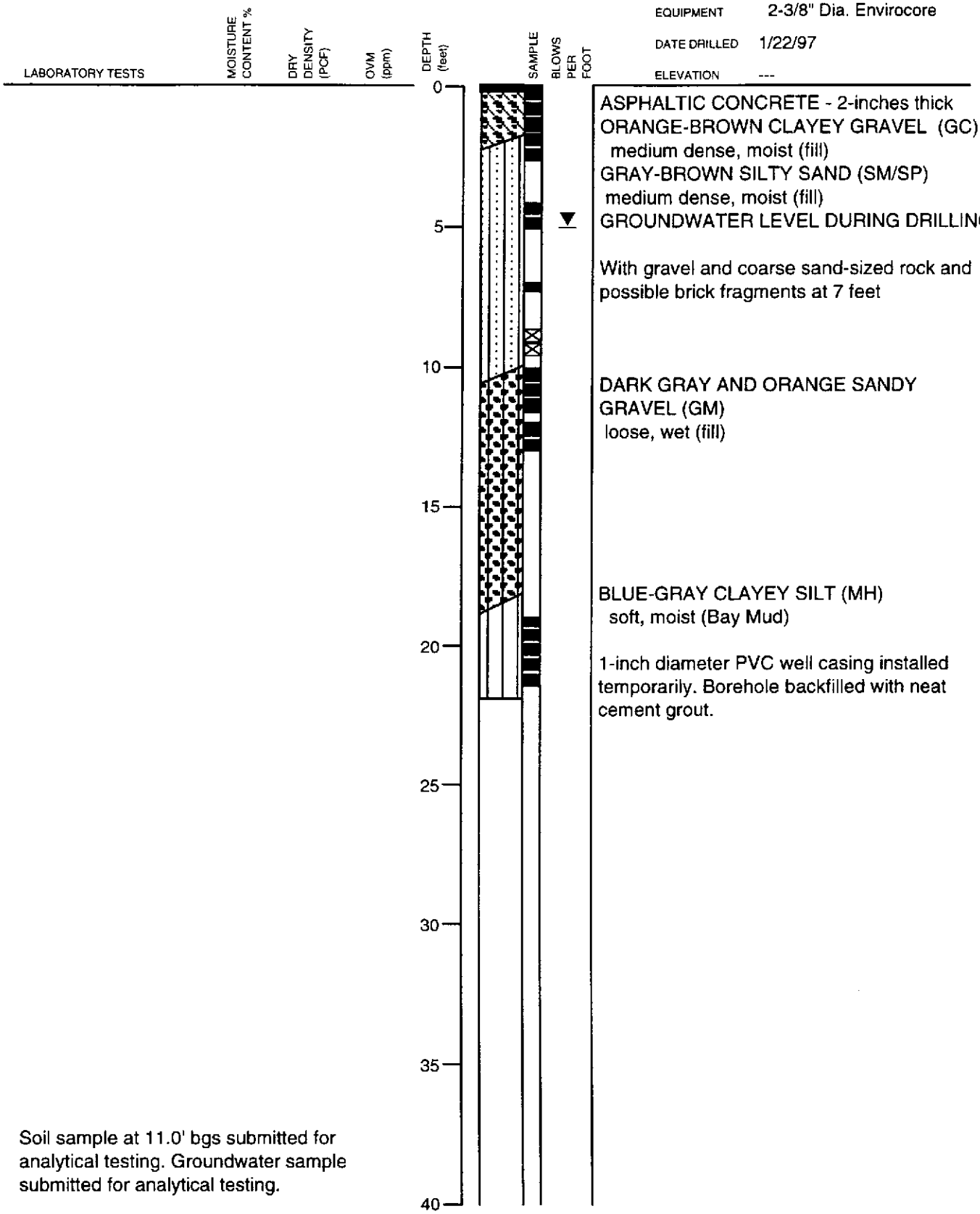
NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 2/12/97 | |

PLATE 14

# LOG OF TEST BORING SCI-41

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 1/22/97
ELEVATION ---




Soil sample at 11.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

SCI **Subsurface Consultants, Inc.**
Geotechnical & Environmental Engineers

NINTH AVENUE TERMINAL - OAKLAND, CA

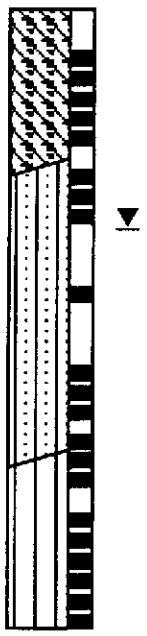
| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 2/12/97 | |

PLATE **15**

# LOG OF TEST BORING SCI-42

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 1/23/97
ELEVATION ----------

LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT




ORANGE-BROWN CLAYEY GRAVEL (GC)
medium dense, moist (fill)

BROWN SILTY SAND (SM)
loose to medium dense, moist (fill)
GROUNDWATER LEVEL DURING DRILLING
Occasional gravel to 2-inch dia.
(Possible brick fragments)

Color changes to black and brown at 9 feet

BLUE-GRAY CLAYEY SILT (MH)
soft, moist (Bay Mud)

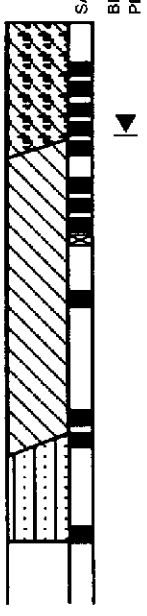
1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 4.5 and 10.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-43

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 1/23/97
ELEVATION ----------

LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT




ORANGE-BROWN CLAYEY GRAVEL (GC)
medium dense, moist (fill)
(Possible brick at 2.5 feet)
GROUNDWATER LEVEL DURING DRILLING
DARK OLIVE GRAY, BLACK AND BROWN SANDY SILTY CLAY (CL/SC)
soft, moist, with hydrocarbon odor and oily @ 3 feet (fill)

DARK GRAY AND BROWN SILTY SAND (SM/SP)
loose, wet, with occasional gravel (fill)
Color changes to black at 13 feet
1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil sample at 4.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-44

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 1/23/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT | |
|---|---|---|---|---|---|---|---|
| | | | | 0 | | | ORANGE-BROWN SANDY GRAVEL (GM/GC) medium dense, moist (fill) |
| | | | | | | | OLIVE GREEN CLAYEY GRAVEL (GC) dense, moist, with hydrocarbon odor (fill) |
| | | | | | | ▼ | GROUNDWATER LEVEL DURING DRILLING |
| | | | | 5 | | | DARK OLIVE GRAY SILTY SAND (SM) medium dense, wet, with gravel, with hydrocarbon odor |
| | | | | | | | Color changes to black at 5.5 feet |
| | | | | 10 | | | 1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout. |
| | | | | 15 | | | |

Soil samples at 2.0' and 4.5' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-45

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 1/23/97
ELEVATION ----------

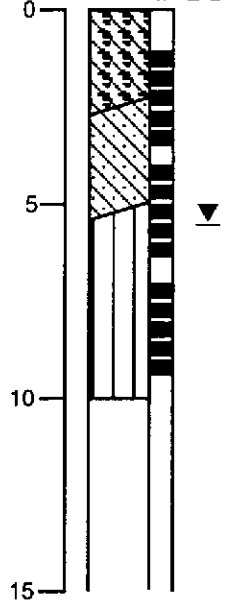
| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT | |
|---|---|---|---|---|---|---|---|
| | | | | 0 | | | ORANGE-BROWN CLAYEY GRAVEL (GC) medium dense, moist (fill) |
| | | | | | | | RED-BROWN SANDY GRAVEL (GP) dense, moist (fill) |
| | | | | | | ▼ | GROUNDWATER LEVEL DURING DRILLING |
| | | | | 5 | | | ORANGE-BROWN AND OLIVE GRAY CLAYEY GRAVEL (GC) dense, moist (fill) |
| | | | | | | | GRAY AND OLIVE GREEN SILTY CLAY (CL) medium stiff, moist, with oily pockets |
| | | | | 10 | | | DARK GRAY SAND (SP) medium dense, wet, with hydrocarbon odor |
| | | | | | | | OLIVE GRAY CLAYEY SILT (MH/CL) soft, moist, with hydrocarbon odor (Bay Mud) |
| | | | | 15 | | | 1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout. |

Soil samples at 5.0' and 8.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-46

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 1/23/97
ELEVATION ----------

LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT




ORANGE-BROWN CLAYEY GRAVEL (GC)
medium dense, moist (fill)
GRAY-BROWN CLAYEY SAND (SC)
medium dense, moist (fill)

GROUNDWATER LEVEL DURING DRILLING
GRAY CLAYEY SILT (MH)
soft, moist (Bay Mud)

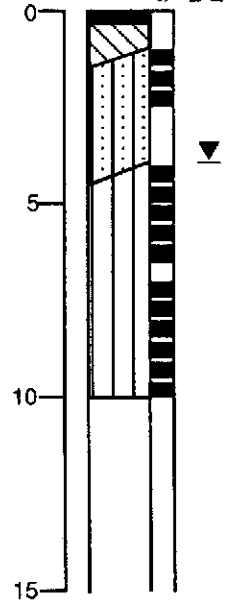
1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 2.0', 3.0', and 5.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-47

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 1/24/97
ELEVATION ----------

LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT




ASPHALTIC CONCRETE - 4-inches thick
MOTTLED LIGHT GRAY AND ORANGE-BROWN SANDY CLAY (CL)
medium stiff to stiff, moist (fill)
GROUNDWATER LEVEL DURING DRILLING
LIGHT BROWN SILTY SAND (SM/SP)
loose, moist (fill)
GRAY CLAYEY SILT (MH)
medium stiff, wet (Bay Mud)

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 1.0' and 4.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

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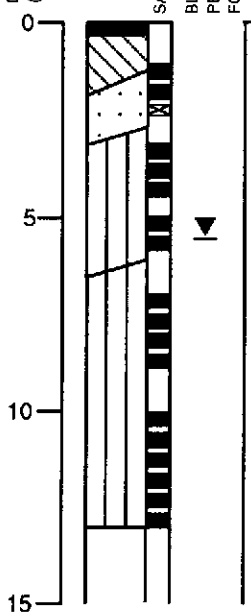
|---|---|---|
| 133.004 | 2/12/97 | |

PLATE **18**

# LOG OF TEST BORING SCI-48

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 1/24/97
ELEVATION ----------

LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT




ASPHALTIC CONCRETE - 4-inches thick
MOTTLED ORANGE-BROWN AND LIGHT GRAY-BROWN SANDY CLAY (CL)
stiff, moist (fill)
LIGHT GRAY-BROWN SAND (SP)
loose, moist, with pockets of clay (fill)
GROUNDWATER LEVEL DURING DRILLING
OLIVE GRAY CLAYEY SILT (MH)
medium stiff, moist, with fine-grained sand and occasional gravel
GRAY CLAYEY SILT (MH)
soft, moist (Bay Mud)

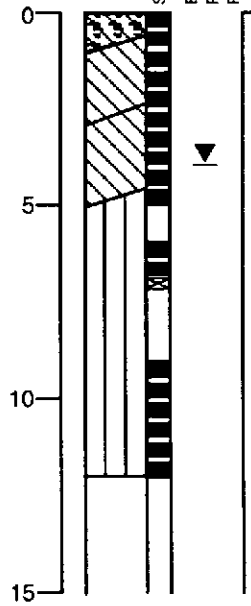
Soil samples at 5.5' and 8.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

# LOG OF TEST BORING SCI-49

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 1/24/97
ELEVATION ----------

LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT




BLACK AND DARK BROWN CLAYEY GRAVEL (GC/GM)
medium dense, wet (fill)
OLIVE GRAY GRAVELLY CLAY (CL)
stiff, moist (fill)
Color changes to orange-brown at 2.0 feet
GROUNDWATER LEVEL DURING DRILLING
GRAY SANDY CLAY (CL)
stiff, moist
GRAY CLAYEY SILT (MH)
soft, wet (Bay Mud)

Becomes medium stiff at 11 feet

Soil samples at 0.5', 3.5', 6.0', and 9.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

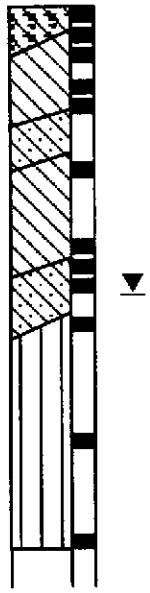
# LOG OF TEST BORING SCI-50

EQUIPMENT 2-3/8" Dia. Envirocore

DATE DRILLED 1/24/97

ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | | 0 | | |
| | | | | 5 | | |
| | | | | 10 | | |
| | | | | 15 | | |



BLACK AND DARK BROWN CLAYEY GRAVEL (GC)
medium dense, moist (fill)
MOTTLED LIGHT GRAY AND LIGHT GRAY-BROWN SILTY CLAY (CL)
medium stiff, moist (fill)
OLIVE GREEN CLAYEY SAND (SC)
loose, moist, with gravel (fill)
GROUNDWATER LEVEL DURING DRILLING
MOTTLED GRAY AND OLIVE GRAY SILTY CLAY (CL)
medium stiff, moist
LIGHT OLIVE GRAY CLAYEY SAND (SC)
loose, wet
GRAY CLAYEY SILT (MH)
soft, wet (Bay Mud)

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 2.0' and 8.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-51

EQUIPMENT 2-3/8" Dia. Envirocore

DATE DRILLED 1/30/97

ELEVATION ---

| LABORATORY TESTS | MOISTURE CONTENT % | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (feet) | SAMPLE | BLOWS PER FOOT | |
|---|---|---|---|---|---|---|---|
| | | | | 0 | | | GRAY-BROWN CLAYEY SAND (SC) loose, moist (fill) |
| | | | | 5 | | | MOTTLED ORANGE-BROWN AND GRAY SILTY CLAY (CL) medium stiff, moist (fill) |
| | | | | | | | MOTTLED BLACK AND DARK GRAY CLAYEY SILT (MH) soft, moist, with thin lenses of peat and organic material |
| | | | | 10 | | ▼ | GROUNDWATER LEVEL DURING DRILLING |
| | | | | | | | GRAY CLAYEY SILT (MH) soft to medium stiff, wet (Bay Mud) |
| | | | | 15 | | | |
| | | | | 20 | | | |
| | | | | 25 | | | BLUE-GREEN SILTY CLAY (CL) very stiff, moist (Old Bay Clay) |
| | | | | | | | 1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout. |
| | | | | 30 | | | |
| | | | | 35 | | | |
| | | | | 40 | | | |

Soil samples at 1.0', 5.0', 11.0', and 20.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

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| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 2/12/97 | |

PLATE 21

# LOG OF TEST BORING SCI-52

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 1/30/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT | |
|---|---|---|---|---|---|---|---|
| | | | | 0 | | ▼ | GROUNDWATER LEVEL DURING DRILLING |
| | | | | | | | GRAY CLAYEY SILT (MH) |
| | | | | | | | medium stiff, wet at surface |
| | | | | | | | BLUE-GRAY CLAYEY SILT (MH) |
| | | | | | | | soft, wet (Bay Mud) |
| | | | | 5 | | | |
| | | | | | | | No sample recovery |
| | | | | 10 | | | Clayey silt on shoe end of samples |
| | | | | | | | 1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout. |
| | | | | 15 | | | |

No soil samples submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-53

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 1/30/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT | |
|---|---|---|---|---|---|---|---|
| | | | | 0 | | ▼ | LIGHT BROWN CLAYEY GRAVEL (GC) |
| | | | | | | | loose, wet (fill) |
| | | | | | | | GROUNDWATER LEVEL DURING DRILLING |
| | | | | | | | BLACK AND GRAY CLAYEY SILT (MH) |
| | | | | | | | medium stiff, wet |
| | | | | | | | 4-inch lens of black peat at 4 feet |
| | | | | | | | GRAY CLAYEY SILT (MH) |
| | | | | 5 | | | soft, wet (Bay Mud) |
| | | | | 10 | | | 1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout. |
| | | | | 15 | | | |

Soil samples at 2.0' and 6.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-54

EQUIPMENT 2-3/8" Dia. Envirocore

DATE DRILLED 1/30/97

ELEVATION ---

| LABORATORY TESTS | MOISTURE CONTENT % | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (feet) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | | 0 | | |
| | | | | 5 | | |
| | | | | 10 | | |
| | | | | 15 | | |
| | | | | 20 | | |
| | | | | 25 | | |
| | | | | 30 | | |
| | | | | 35 | | |
| | | | | 40 | | |

ASPHALTIC CONCRETE - 10-inches thick

GRAY-BROWN SANDY GRAVEL (GM)
dense, dry (fill)

GROUNDWATER LEVEL DURING DRILLING

MOTTLED LIGHT GRAY-BROWN AND LIGHT GRAY SILTY CLAY (CL)
medium stiff to stiff, moist (fill)

LIGHT GRAY-BROWN SAND (SP/SM)
loose, wet, with balls of clay and mud

MOTTLED LIGHT OLIVE GRAY AND VERY LIGHT GRAY-BROWN SILTY CLAY (CL)
medium stiff, wet

GRAY CLAYEY SILT (MH)
soft to medium stiff, wet (Bay Mud)

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 6.5' and 15.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

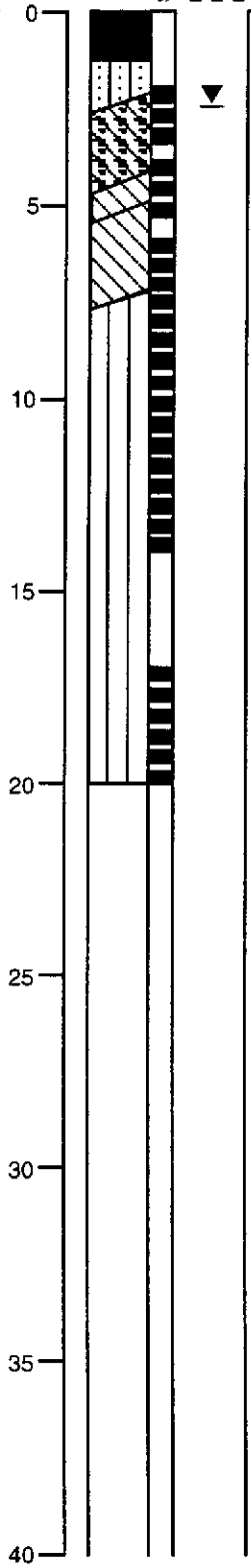
# LOG OF TEST BORING SCI-55

EQUIPMENT 2-3/8" Dia. Envirocore

DATE DRILLED 1/30/97

ELEVATION ---

| LABORATORY TESTS | MOISTURE CONTENT % | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (feet) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | | 0 | | |
| | | | | 5 | | |
| | | | | 10 | | |
| | | | | 15 | | |
| | | | | 20 | | |
| | | | | 25 | | |
| | | | | 30 | | |
| | | | | 35 | | |
| | | | | 40 | | |



ASPHALTIC CONCRETE - 14-inches thick
GRAY-BROWN SILTY SAND (SM)
loose, dry (fill)
GROUNDWATER LEVEL DURING DRILLING
BROWN CLAYEY GRAVEL (GC)
medium dense, wet (fill)
DARK GRAY AND OLIVE GRAY SANDY CLAY (CL)
medium stiff, wet, with chemical odor
BLACK AND DARK GRAY SILTY CLAY (CL/MH)
medium stiff, moist, with chemical odor
GRAY CLAYEY SILT (MH)
medium stiff, wet, with chemical odor (Bay Mud)

Chemical odor no longer present at 13 feet

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 4.5' and 7.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

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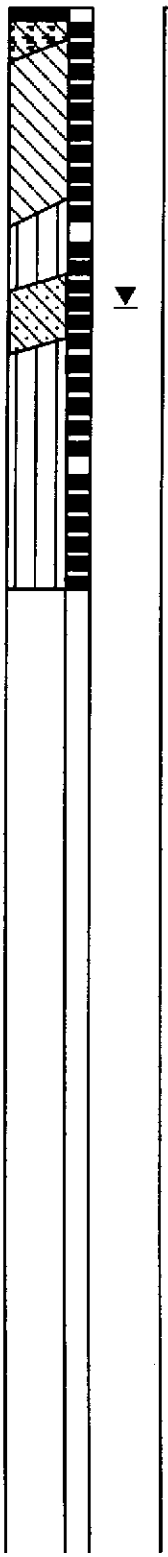
| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 2/12/97 | |

PLATE 24

# LOG OF TEST BORING SCI-56

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 2/3/97
ELEVATION ---

| LABORATORY TESTS | MOISTURE CONTENT % | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (feet) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | | 0 | | |
| | | | | 5 | | |
| | | | | 10 | | |
| | | | | 15 | | |
| | | | | 20 | | |
| | | | | 25 | | |
| | | | | 30 | | |
| | | | | 35 | | |
| | | | | 40 | | |



ASPHALTIC CONCRETE - 4-inches thick
BLACK AND DARK GRAY CLAYEY GRAVEL (GC)
medium dense, moist, with strong hydrocarbon odor (fill)
MOTTLED GRAY AND OLIVE GRAY SILTY CLAY (CL)
medium stiff to stiff, moist, with hydrocarbon odor (fill)
GRAY CLAYEY SILT (MH)
soft to medium stiff, moist
GROUNDWATER LEVEL DURING DRILLING
GRAY CLAYEY SAND (SC)
medium dense, wet
DARK GRAY CLAYEY SILT (MH)
soft, wet (Bay Mud)

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 1.0', 3.0', and 11.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

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NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 2/12/97 | |

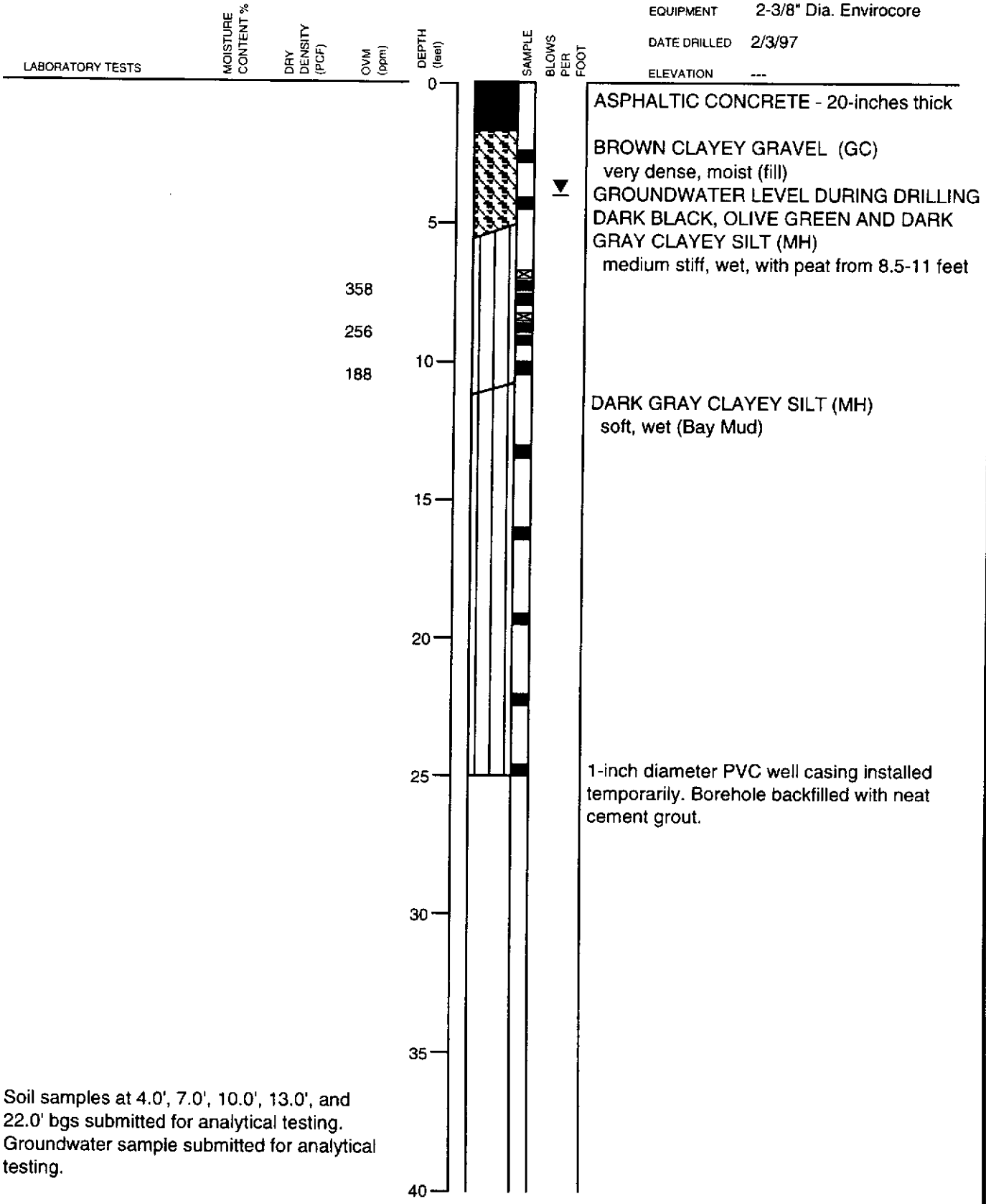
PLATE 25

# LOG OF TEST BORING SCI-57

EQUIPMENT 2-3/8" Dia. Envirocore

DATE DRILLED 2/3/97

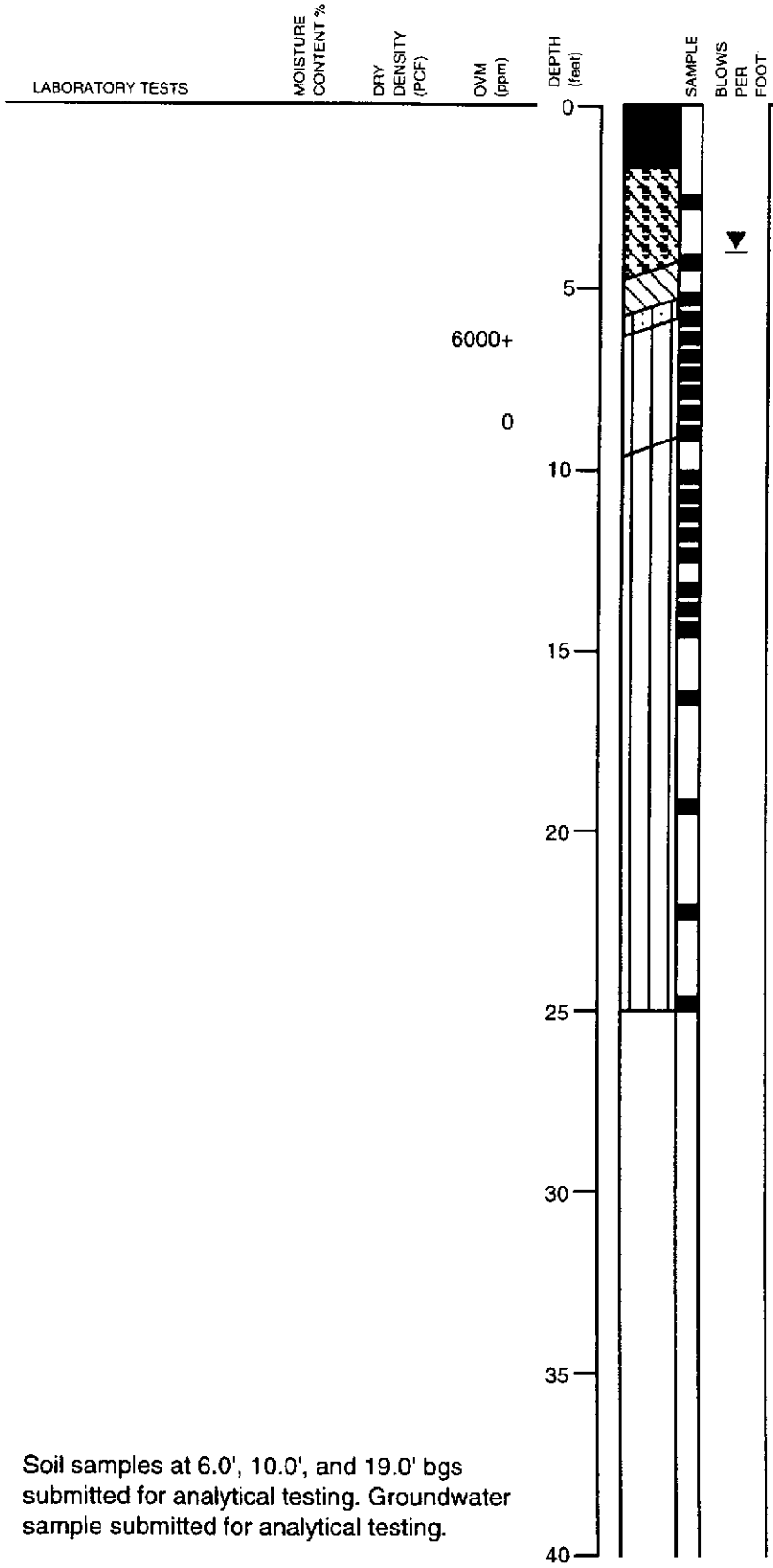
ELEVATION ---




Soil samples at 4.0', 7.0', 10.0', 13.0', and 22.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-59

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 2/3/97
ELEVATION ---




ASPHALTIC CONCRETE - 20-inches thick

BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)
GROUNDWATER LEVEL DURING DRILLING
MOTTLED BROWN AND DARK OLIVE GRAY SILTY CLAY (CL)
medium stiff, moist (fill)
OLIVE GRAY SILTY SAND (SM)
loose, wet, with chemical odor
BLACK AND DARK OLIVE GRAY CLAYEY SILT (MH/CL)
soft, moist, with strong chemical odor
GRAY CLAYEY SILT (MH)
soft, moist (Bay Mud)

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 6.0', 10.0', and 19.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-60

EQUIPMENT 2-3/8" Dia. Envirocore

DATE DRILLED 2/3/97

ELEVATION ---

| LABORATORY TESTS | MOISTURE CONTENT % | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (feet) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | | 0 | | |
| | | | | 5 | | |
| | | | | 10 | | |
| | | | | 15 | | |
| | | | | 20 | | |
| | | | | 25 | | |
| | | | | 30 | | |
| | | | | 35 | | |
| | | | | 40 | | |

▼ GROUNDWATER LEVEL DURING DRILLING

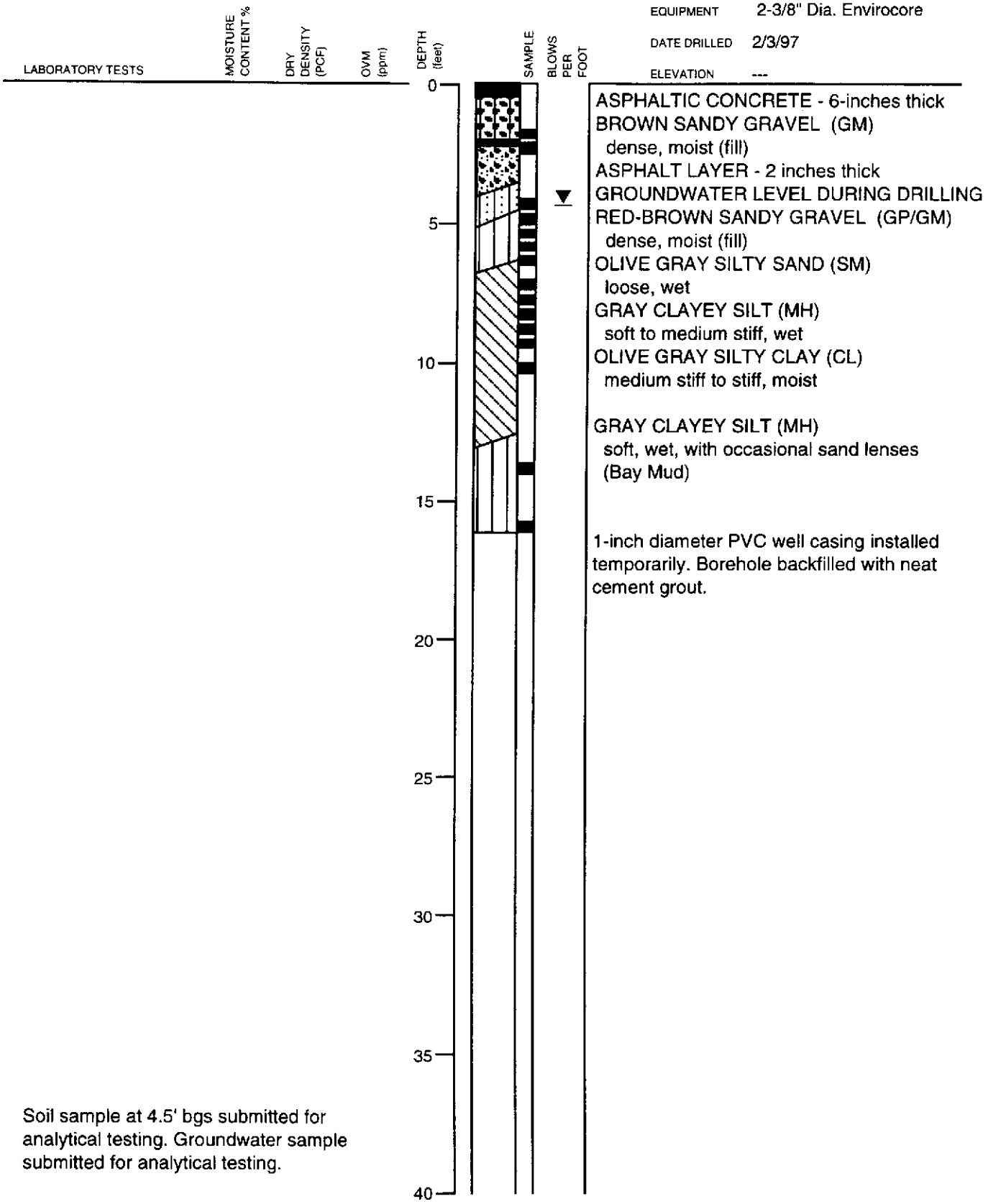
ASPHALTIC CONCRETE - 6-inches thick
RED-BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)
MOTTLED OLIVE GRAY AND DARK GRAY SILTY CLAY (CL)
medium stiff, moist, with sand (fill)
LIGHT GRAY AND OLIVE GRAY CLAYEY SAND (SC)
medium dense to loose, wet (fill)
BLUE-GRAY-GREEN SILTY CLAY (CL)
medium stiff, moist (fill)
MOTTLED GRAY AND LIGHT BROWN SILTY CLAY (CL)
medium stiff, moist (fill)
DARK GRAY CLAYEY SILT (MH)
soft, moist
GRAY CLAYEY SILT (MH)
soft, moist, with occasional organic material (Bay Mud)

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 2.0', 4.0', 7.0', 10.0', and 19.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-61

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 2/3/97
ELEVATION ---




ASPHALTIC CONCRETE - 6-inches thick
BROWN SANDY GRAVEL (GM)
dense, moist (fill)
ASPHALT LAYER - 2 inches thick
GROUNDWATER LEVEL DURING DRILLING
RED-BROWN SANDY GRAVEL (GP/GM)
dense, moist (fill)
OLIVE GRAY SILTY SAND (SM)
loose, wet
GRAY CLAYEY SILT (MH)
soft to medium stiff, wet
OLIVE GRAY SILTY CLAY (CL)
medium stiff to stiff, moist

GRAY CLAYEY SILT (MH)
soft, wet, with occasional sand lenses
(Bay Mud)

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil sample at 4.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

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| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 2/12/97 | |

PLATE 29

# LOG OF TEST BORING SCI-62

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 2/9/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT | |
|---|---|---|---|---|---|---|---|
| | | | 0 | 0 | | | CONCRETE SLAB - 6-inches thick |
| | | | 0 | | | | MOTTLED ORANGE-BROWN AND BROWN SANDY SILTY CLAY (CL) stiff to very stiff, moist, with gravel (fill) |
| | | | 0 | 5 | | | GRAY AND LIGHT BROWN SILTY CLAY (CL) medium stiff, wet (fill) |
| | | | 0 | | | ▼ | GROUNDWATER LEVEL DURING DRILLING |
| | | | 0 | 10 | | | GRAY CLAYEY SILT (MH) soft, wet (Bay Mud) |
| | | | 0 | | | | 1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout. |
| | | | 0 | 15 | | | |

Soil samples at 5.0' and 8.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-63

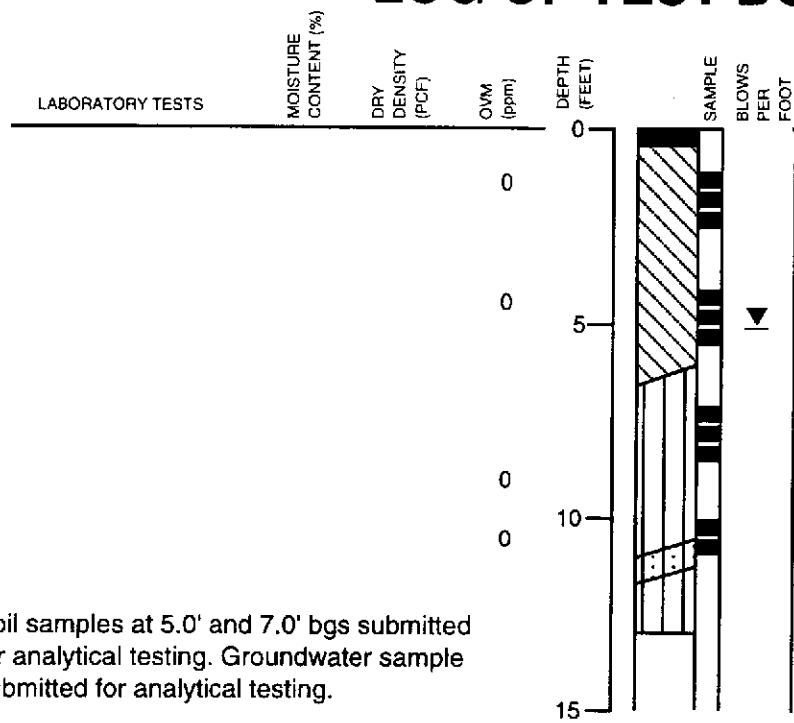
EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 2/9/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT | |
|---|---|---|---|---|---|---|---|
| | | | 0 | 0 | | | CONCRETE SLAB - 6-inches thick |
| | | | 0 | | | | MOTTLED ORANGE- BROWN AND BROWN SILTY CLAY (CL) stiff to very stiff, moist, with gravel (fill) |
| | | | 0 | 5 | | | OLIVE-GRAY SILTY CLAY (CL) stiff, moist |
| | | | 0 | | | | Becomes medium stiff, wet at 7.5 feet |
| | | | | | | ▼ | GROUNDWATER LEVEL DURING DRILLING |
| | | | 0 | 10 | | | MOTTLED LIGHT BROWN AND GRAY CLAYEY SILT (MH) medium stiff, wet |
| | | | 0 | | | | GRAY CLAYEY SILT (MH) soft, wet (Bay Mud) |
| | | | 0 | 15 | | | 1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout. |

Soil samples at 4.5' and 7.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-64

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 2/9/97
ELEVATION ----------



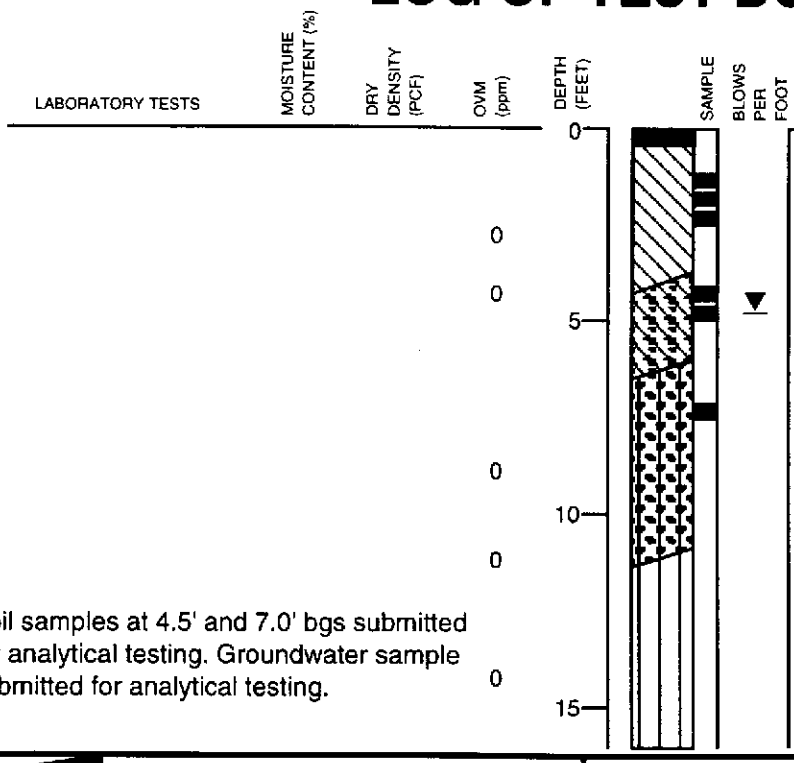

CONCRETE SLAB - 6-inches thick
MOTTLED ORANGE-BROWN AND BROWN SANDY SILTY CLAY (CL)
very stiff, moist, with gravel (fill)
Rock fragments and debris from 2-3 feet
GROUNDWATER LEVEL DURING DRILLING
OLIVE GRAY CLAYEY SILT (MH)
soft, wet, with lenses of sand and gravel

DARK GRAY SILTY SAND (SM/SP)
loose, wet
BLUE-GRAY CLAYEY SILT (MH)
soft, wet (Bay Mud)
1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 5.0' and 7.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-65

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 2/9/97
ELEVATION ----------




CONCRETE SLAB - 6-inches thick
MOTTLED ORANGE-BROWN AND BROWN SANDY SILTY CLAY (CL)
very stiff, moist, with gravel (fill)
MOTTLED GRAY AND BROWN CLAYEY GRAVEL (GC/GM)
medium dense, wet (fill)
GROUNDWATER LEVEL DURING DRILLING
GRAY SILTY GRAVEL (GM/GP)
loose, wet (fill)

GRAY CLAYEY SILT (MH)
soft to medium stiff, wet (Bay Mud)

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 4.5' and 7.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-66

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 4/23/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | | 0 | | |
| | | | 4 | 5 | | |
| | | | 5 | | | |
| | | | 0 | 10 | | |
| | | | | 15 | | |

CEMENT CONCRETE - 4-inches thick
ORANGEY BROWN SANDY GRAVEL (GW)
medium dense, moist, with clay (fill)

BROWN SANDY CLAY (CL)
medium stiff, moist (fill)
LIGHT BROWN AND GREENISH GRAY SILTY CLAY (CL)
medium stiff, moist, with shells and interbedded lenses of sandy clay
GROUNDWATER LEVEL DURING DRILLING
1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 1.0' and 5.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-67

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 4/23/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | 0 | 0 | | |
| | | | | 5 | | |
| | | | 2 | | | |
| | | | 115 | 10 | | |
| | | | | 15 | | |

CEMENT CONCRETE - 4-inches thick
ORANGE-BROWN SANDY GRAVEL (GW)
medium dense, moist (fill)

BROWN SILTY CLAY (CL)
stiff, moist, with sand

NO GROUNDWATER ENCOUNTERED DURING DRILLING

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 1.5' and 9.5' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-68

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 4/23/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | | 0 | | |
| | | | 120 | | | |
| | | | | 5 | | |
| | | | 7 | | | |
| | | | 7 | 10 | | |
| | | | | 15 | | |

BROWN GRAVELLY SAND (SW)
medium dense, moist, (fill)
GRAY SILTY SANDY CLAY (CL)
medium stiff, wet, with pockets of sand

GROUNDWATER LEVEL DURING DRILLING

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 1.5' and 4.5' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-69

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 4/23/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | 2 | 0 | | |
| | | | 10 | | | |
| | | | | 5 | | |
| | | | 5 | | | |
| | | | 2 | 10 | | |
| | | | | 15 | | |

BROWN GRAVELLY SAND (SM)
loose, moist (fill)

DARK GRAY SANDY CLAY (CL)
medium stiff, moist, with sawdust (fill)

GRAY SILTY CLAY (CL)
medium stiff, moist, with sand lenses

GROUNDWATER LEVEL DURING DRILLING

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 1.5' and 5.5' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-70

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 4/23/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | 0 | 0 | | |
| | | | 2 | 5 | | |
| | | | 26 | | | |
| | | | 5 | 10 | | |
| | | | | 15 | | |

GROUNDWATER LEVEL DURING DRILLING
RAILROAD BALLAST - 18"-thick

GRAY AND BROWN SILTY SAND (SM)
medium dense, moist
GRAY CLAYEY SILT (MH)
soft, wet (Bay Mud)

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 2.0' and 4.5' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-71

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 4/23/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | 4 | 0 | | |
| | | | 2 | 5 | | |
| | | | 0 | | | |
| | | | 6 | 10 | | |
| | | | | 15 | | |

GROUNDWATER LEVEL DURING DRILLING
RAILROAD BALLAST - 12"-thick
BROWN SANDY CLAY (CL)
medium stiff, wet (fill)
DARK GRAY CLAYEY SILT (ML/MH)
soft, wet, with sand (Bay Mud)

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 2.0' and 5.5' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-72

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 4/24/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | | 0 | | |
| | | | 4 | | | |
| | | | | 5 | | |
| | | | 4 | | | |
| | | | 5 | 10 | | |
| | | | | 15 | | |

RR BALLAST - 15"-thick

BROWN SANDY GRAVEL (GW)
dense, moist (fill)
BROWN AND GRAY-GREEN SANDY CLAY (CL)
medium stiff, moist
DARK GRAY CLAYEY SILT (ML/MH)
soft, wet, with timber fragments (Bay Mud)

NO GROUNDWATER ENCOUNTERED DURING DRILLING
1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

Soil samples at 1.5' and 5.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-73

EQUIPMENT 2-3/8" Dia. Envirocore
DATE DRILLED 4/24/97
ELEVATION ----------

| LABORATORY TESTS | MOISTURE CONTENT (%) | DRY DENSITY (PCF) | OVM (ppm) | DEPTH (FEET) | SAMPLE | BLOWS PER FOOT |
|---|---|---|---|---|---|---|
| | | | | 0 | | |
| | | | | 5 | | |
| | | | | 10 | | |
| | | | | 15 | | |

CEMENT CONCRETE - 5"-thick
BROWN GRAVELLY SAND (SM)
medium dense, wet (fill)
DARK BROWN SANDY CLAY (CL)
medium stiff, moist with gravel (fill)
GREENISH GRAY SILTY CLAY (CL)
medium stiff, wet (fill)
DARK GRAY GRAVELLY SAND (SW)
loose, saturated (fill)
DARK GRAY CLAYEY SILT (ML/MH)
soft, wet (Bay Mud)
NO GROUNDWATER ENCOUNTERED DURING DRILLING
1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.

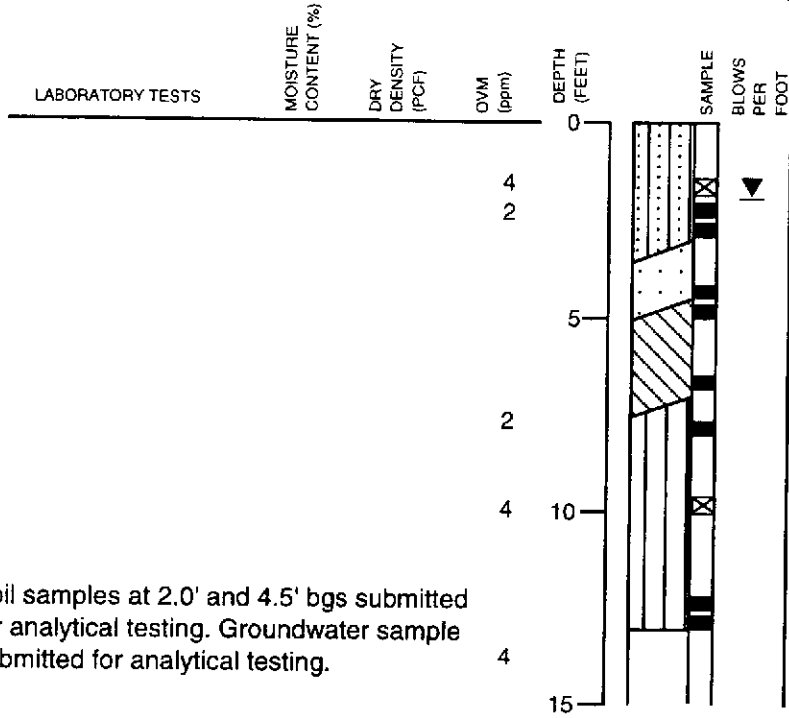
Soil sample at 5.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

# LOG OF TEST BORING SCI-74

EQUIPMENT 2-3/8" Dia. Envirocore

DATE DRILLED 4/24/97

ELEVATION ----------

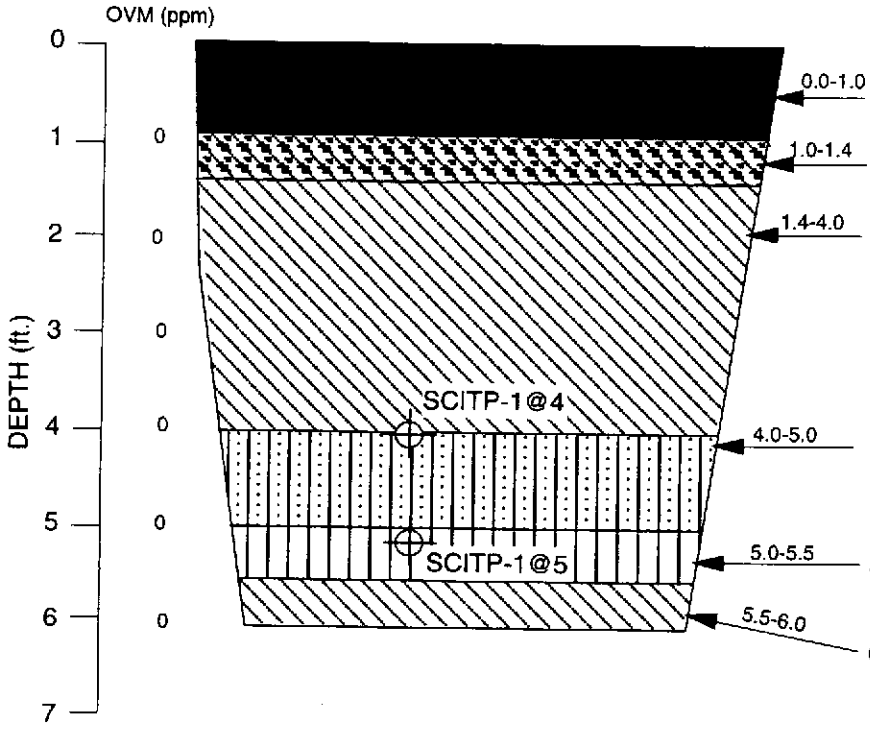



BROWN GRAVELLY SAND (SM)
loose, moist (fill)
GROUNDWATER LEVEL DURING DRILLING
GRAY SILTY SAND (SP/SM)
loose, saturated
DARK GRAY SILTY CLAY (CL)
medium stiff, moist

DARK GRAY CLAYEY SILT (ML/MH)
soft, wet (Bay Mud)

Soil samples at 2.0' and 4.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

1-inch diameter PVC well casing installed temporarily. Borehole backfilled with neat cement grout.




0.0-1.0 ASPHALTIC CONCRETE - 12-inches thick

1.0-1.4 ORANGE-BROWN CLAYEY GRAVEL (GC)
medium dense, wet, with gravel (fill)

1.4-4.0 MOTTLED OLIVE GREEN AND GRAY SILTY CLAY (CL)
medium stiff, moist, with cobbles and wood fragments (fill)

4.0-5.0 DARK OLIVE GRAY SILTY SAND (SM)
loose, wet, with wood fragments (fill)

5.0-5.5 MOTTLED BLACK AND GRAY CLAYEY SILT (ML/CL)
medium stiff, moist, with wood fragments

5.5-6.0 GRAY CLAYEY SILT (CL/ML)
medium stiff, moist, with very fine-grained sand

NO GROUNDWATER ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND SURFACED TO MATCH EXISTING CONDITIONS

VIEW OF SOUTHWEST WALL
1/27/97

Soil samples at 4.0' and 5.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ SOIL SAMPLE LOCATION

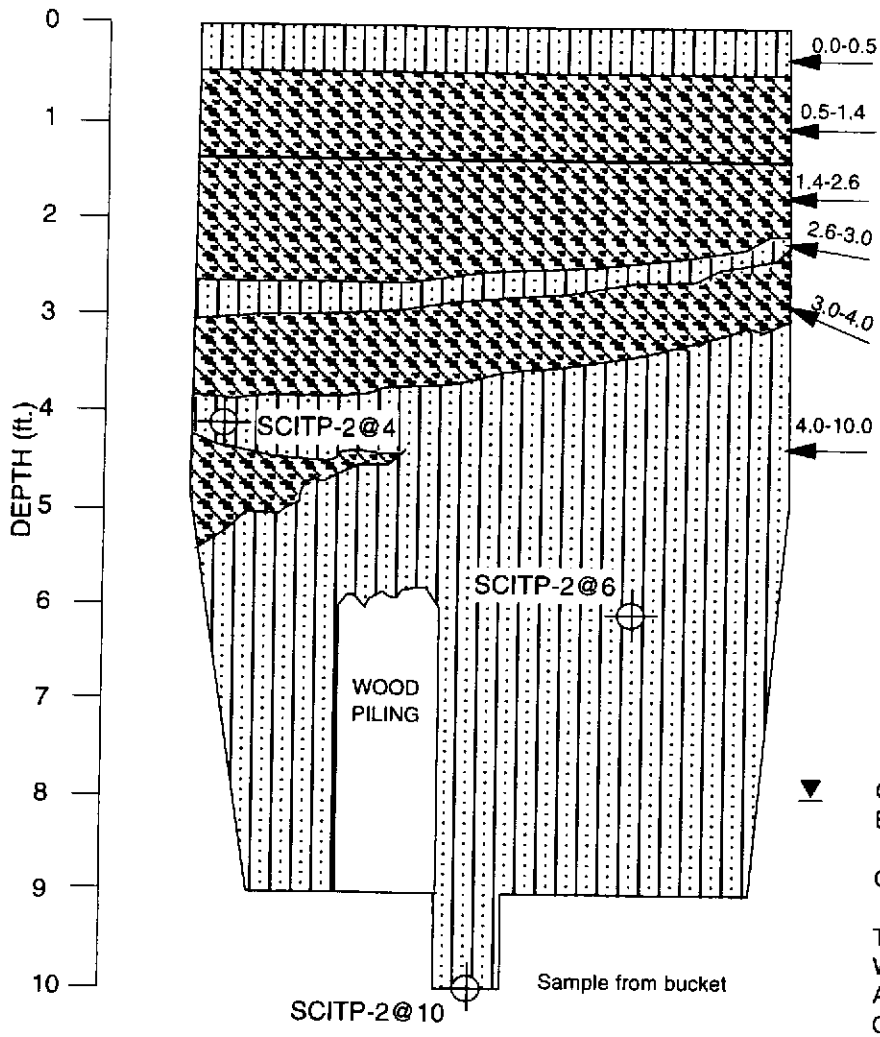
# LOG OF TEST PIT SCITP-1
# NEAR FORMER H-302

SCI Subsurface Consultants, Inc.
Geotechnical & Environmental Engineers

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 37




0.0-0.5 BLACK SILTY SAND (SM)
medium dense, moist, oily, with asphaltic concrete fragments (fill)

0.5-1.4 ORANGE-BROWN CLAYEY GRAVEL (GC)
medium dense, moist (fill)

1.4-2.6 BROWN CLAYEY GRAVEL (GC/SC)
medium dense, moist (fill)

2.6-3.0 GRAY-BROWN SILTY SAND (SM)
medium dense, moist, with gravel and rotted redwood (fill)

3.0-4.0 ORANGE-BROWN CLAYEY GRAVEL (GC)
medium dense, moist, with rock fragments to 6-inches diameter (fill)

4.0-10.0 GRAY SILTY SAND (SM)
medium dense, moist, with gravel, wood fragments, glass, broken bricks and slag (fill)

▼ GROUNDWATER LEVEL WHILE EXCAVATING

Oily from 8.0-9.0 feet

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND SURFACED TO MATCH EXISTING CONDITIONS

VIEW OF NORTHEAST WALL
1/27/97

Soil samples at 6.0' and 10.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

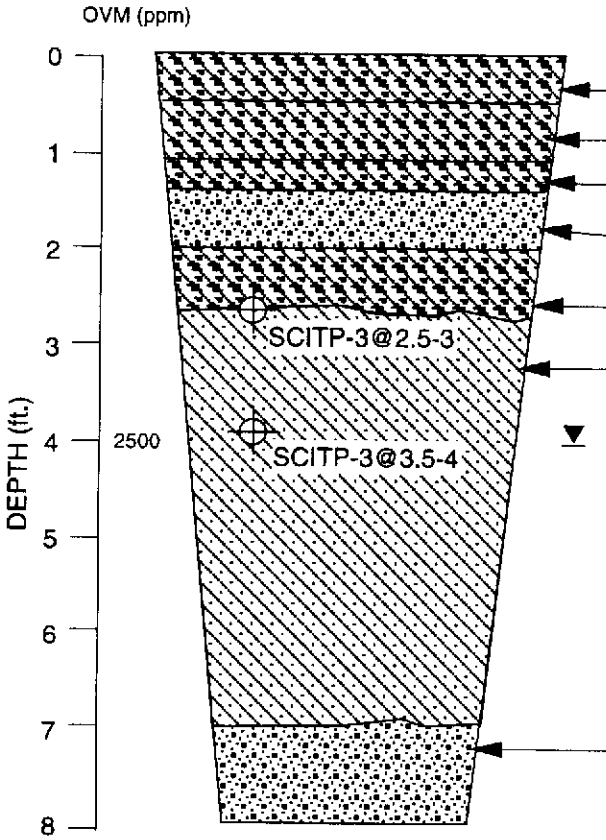
⊕ SOIL SAMPLE LOCATION

# LOG OF TEST PIT SCITP-2 ADJACENT TO CLINTON BASIN NEAR SCIMW-6

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED | PLATE |
|---|---|---|---|
| 133.004 | 3/3/97 | | 38 |




0.0-0.5 ORANGE-BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)

0.5-1.1 RED-BROWN AND GRAY CLAYEY GRAVEL (GC/SC)
dense, moist, with green discoloration (fill)

1.1-1.4 BROWN CLAYEY GRAVEL (GC)
medium dense, moist (fill)

1.4-2.0 RED-BROWN SILTY GRAVEL (GP/GM)
very dense, moist, with rock fragments (fill)

2.0-2.5 ORANGE-BROWN CLAYEY GRAVEL (GC/SC)
dense, moist (fill)

2.5-7.0 GRAY SILTY CLAYEY SAND (SC/GC)
loose to medium dense, wet, with gravel, (fill)
strong hydrocarbon and chemical odor @ 4 feet

GROUNDWATER LEVEL WHILE EXCAVATING

Cobble to boulder size chunks of concrete up to 24-inches from 5-7 feet

7.0-8.0 GRAY-BROWN SILTY SANDY GRAVEL (GM)
medium dense, wet (fill)

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND SURFACED TO MATCH EXISTING CONDITIONS

VIEW OF NORTHEAST WALL
1/27/97

Soil samples at 2.5' and 3.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

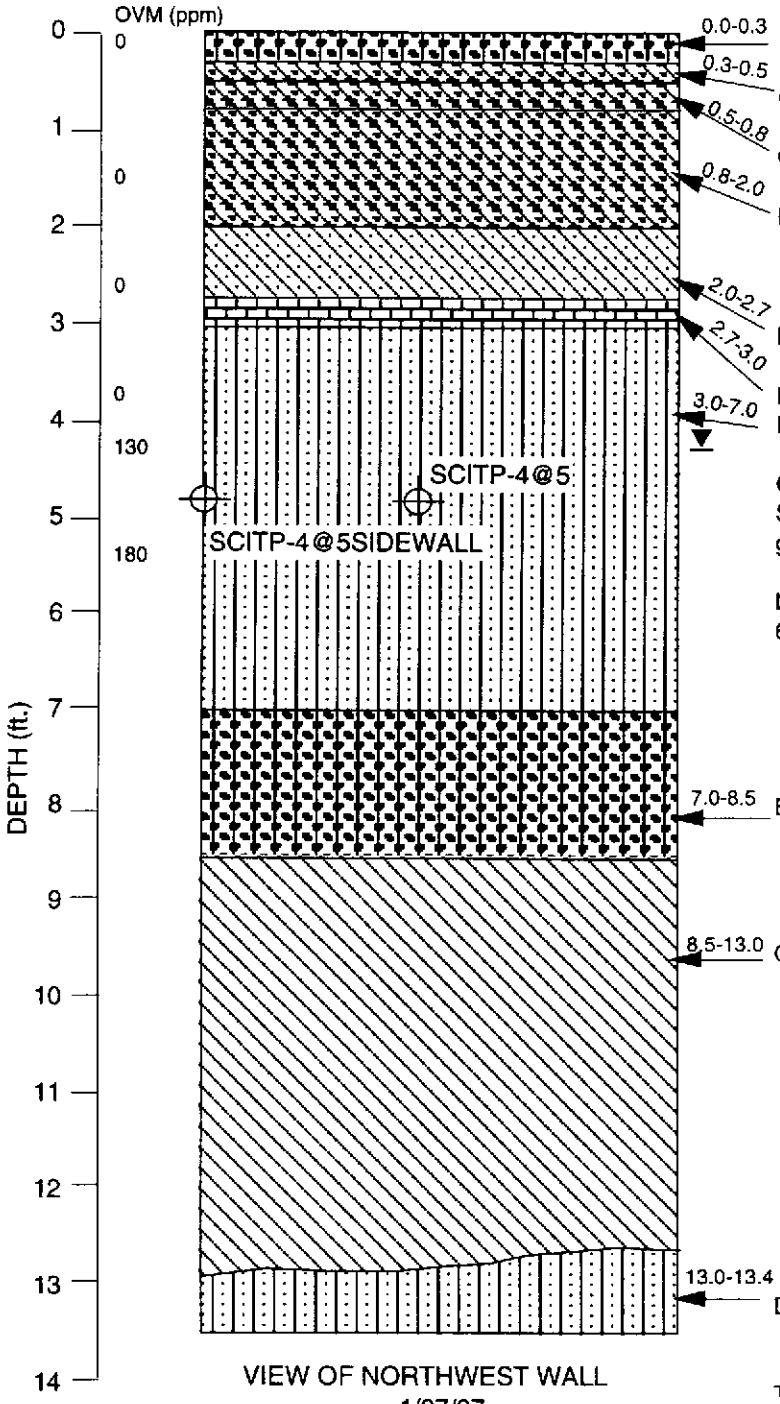
SOIL SAMPLE LOCATION

# LOG OF TEST PIT SCITP-3 ADJACENT TO CLINTON BASIN NEAR SCIMW-2

Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED | PLATE |
|---|---|---|---|
| 133.004 | 3/3/97 | | 39 |




VIEW OF NORTHWEST WALL
1/27/97

0.0-0.3 BROWN SANDY GRAVEL (GM)
dense, moist (fill)

0.3-0.5 GRAY CLAYEY GRAVEL (GC)
dense, moist, (fill)

0.5-0.8 ORANGE-BROWN CLAYEY GRAVEL (GC)
medium dense, moist (fill)

0.8-2.0 BROWN CLAYEY GRAVEL (GC)
medium dense, moist, with red-brown rock fragments to 6-inches from 1.3-2.0 feet (fill)

2.0-2.7 BROWN CLAYEY SAND (SC)
medium dense, moist, with cobbles (fill)

2.7-3.0 RED BRICK FRAGMENTS

3.0-7.0 BLACK AND DARK GRAY SILTY SAND (SM)
loose, moist, with wood fragments (fill)

GROUNDWATER LEVEL WHILE EXCAVATING
Strong hydrocarbon and chemical odor on groundwater surface

Large wood pieces and concrete fragments from 6-7 feet

7.0-8.5 BROWN SANDY GRAVEL (GM)
loose, wet (fill)

8.5-13.0 GRAY-BROWN SANDY CLAY (CL/SC)
medium stiff, moist, with gravel (fill)

13.0-13.4 DARK GRAY CLAYEY SAND (SM)
medium stiff, moist, with debris (fill)

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND SURFACED TO MATCH EXISTING CONDITIONS

Two soil samples at 5.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ SOIL SAMPLE LOCATION

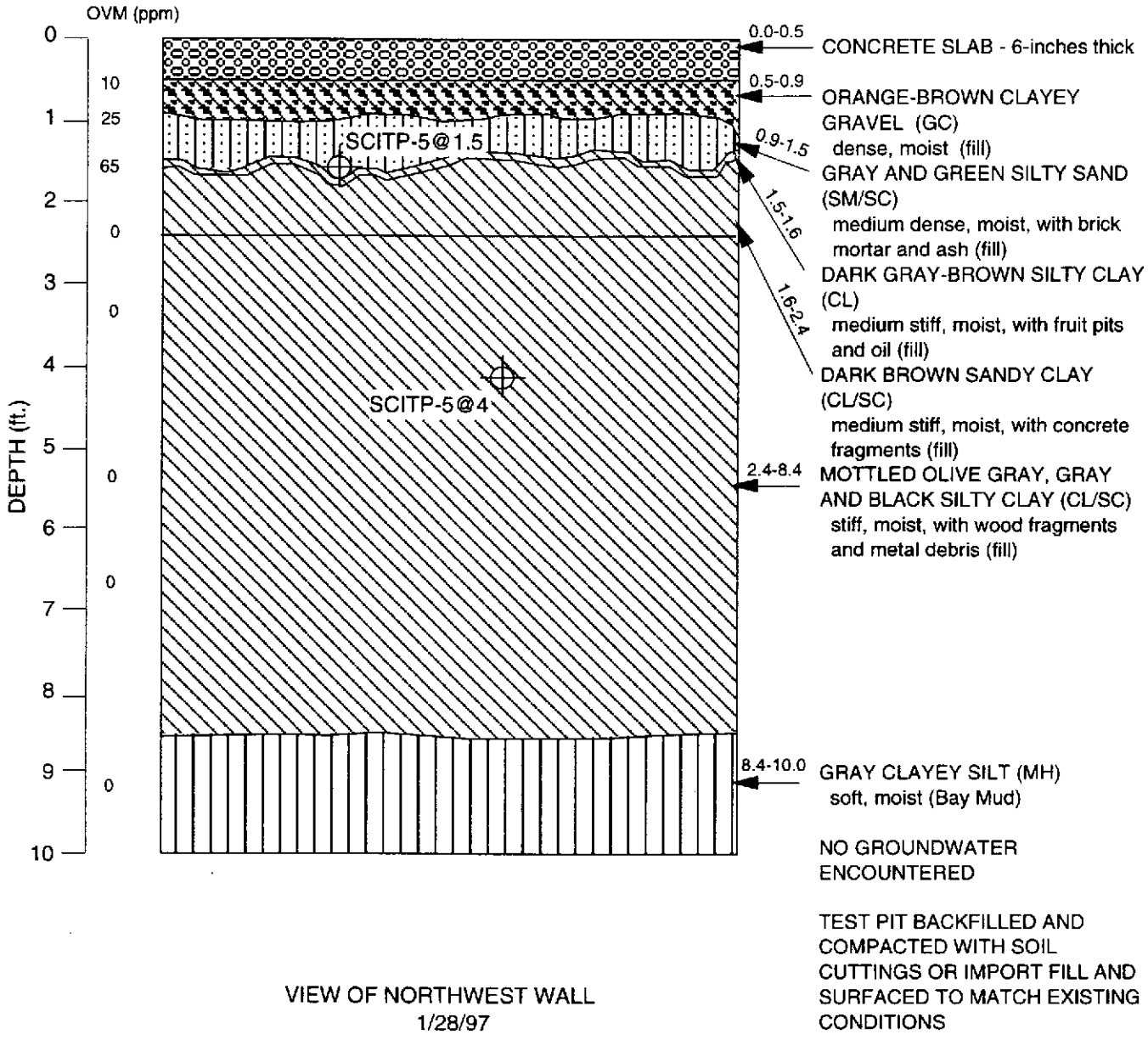
# LOG OF TEST PIT SCITP-4 ADJACENT TO CLINTON BASIN NEAR SCIMW-2

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 40




VIEW OF NORTHWEST WALL
1/28/97

Soil samples at 1.5' and 4.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ SOIL SAMPLE LOCATION

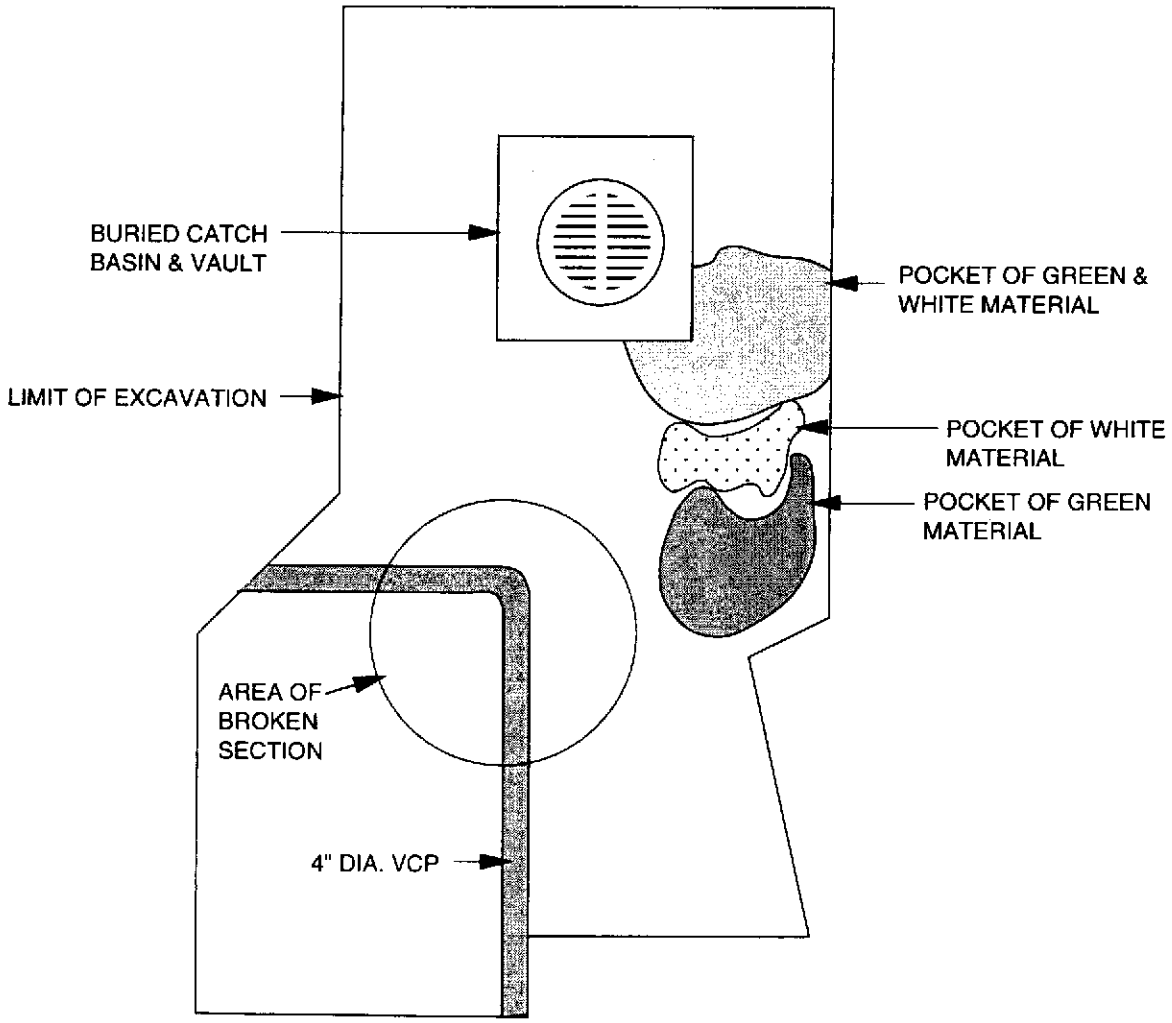
# LOG OF TEST PIT SCITP-5
# NEAR KEEP ON TRUCKING OFFICE BUILDING

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 41




PLAN VIEW
1/28/97

APPROXIMATE SCALE (feet)

0 4 8

N

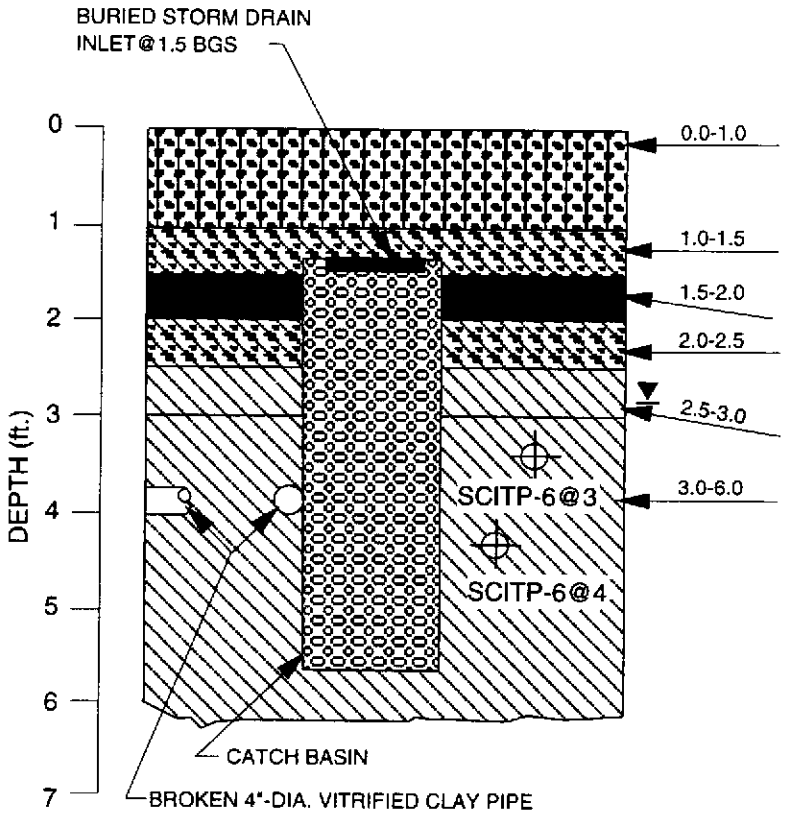
# PLAN VIEW OF TEST PIT SCITP-6 AREA NEAR FORMER BRITZ CHEMICAL CO.

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 42




VIEW OF NORTHWEST WALL
1/28/97

0.0-1.0 GRAY-BROWN SANDY GRAVEL (GM)
medium dense, moist (fill)

1.0-1.5 ORANGE-BROWN AND BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)

1.5-2.0 ASPHALTIC CONCRETE - 6-inches thick

2.0-2.5 ORANGE-BROWN CLAYEY GRAVEL (GC)
medium dense, moist (fill)

2.5-3.0 GROUNDWATER LEVEL WHILE EXCAVATING
DARK BROWN AND OLIVE GRAY SILTY CLAY (CL)
medium stiff, moist (fill)

3.0-6.0 OLIVE GRAY, BLACK AND DARK GRAY SILTY CLAY (CL)
medium stiff, moist, with sand, gravel, and wood debris, with hydrocarbon odor (fill)
Pockets of green and white material from 3-4 feet
Brick fragments from 4-5 feet
Product floating on water flowing out of vitrified clay pipe

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND SURFACED TO MATCH EXISTING CONDITIONS

Soil sample at 3.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ SOIL SAMPLE LOCATION

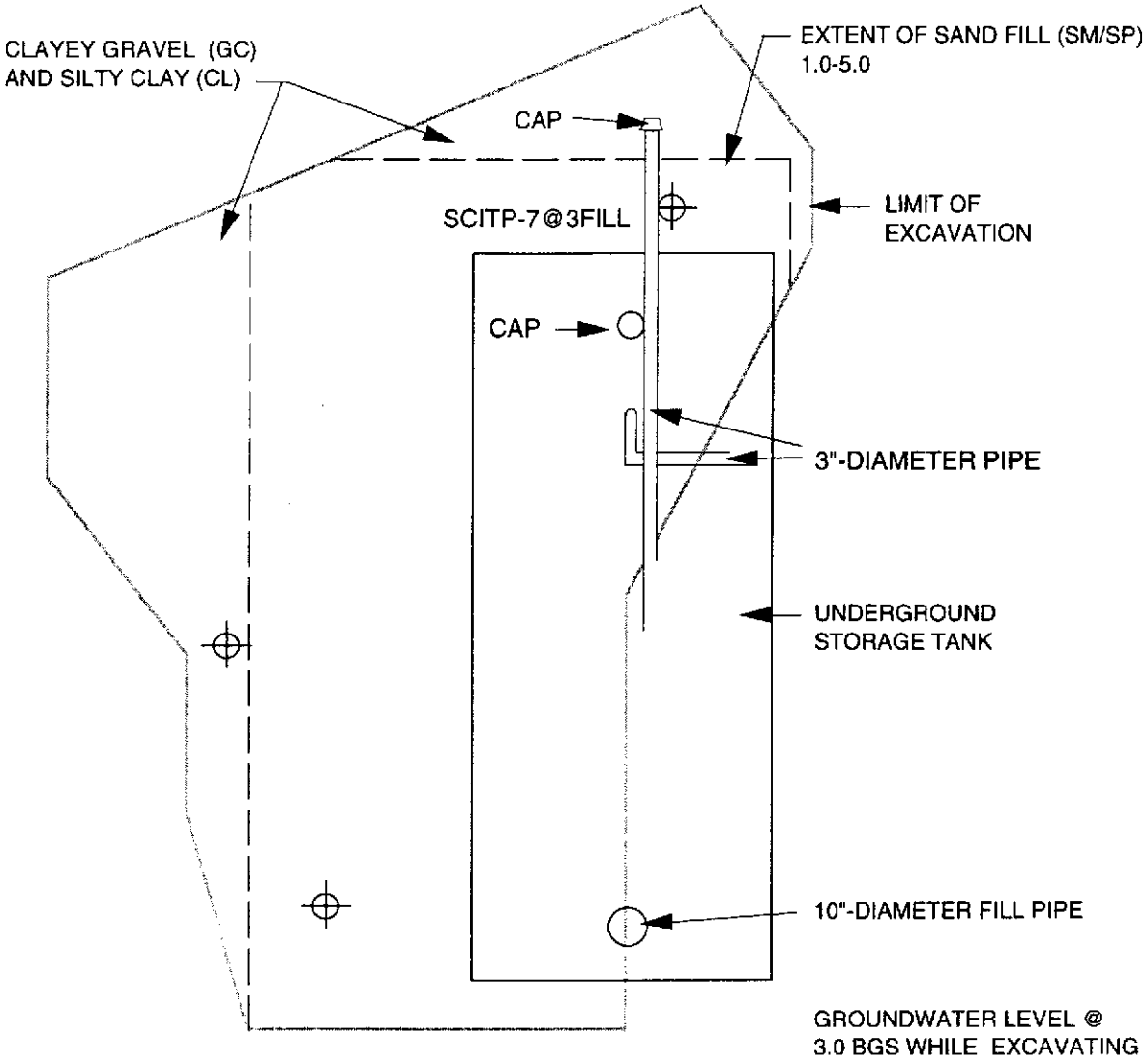
# LOG OF TEST PIT SCITP-6
# AREA NEAR FORMER
# BRITZ CHEMICAL CO.

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 43




PLAN VIEW

Soil sample at 3.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

SOIL SAMPLE LOCATION

APPROXIMATE SCALE (feet)

0 4 8

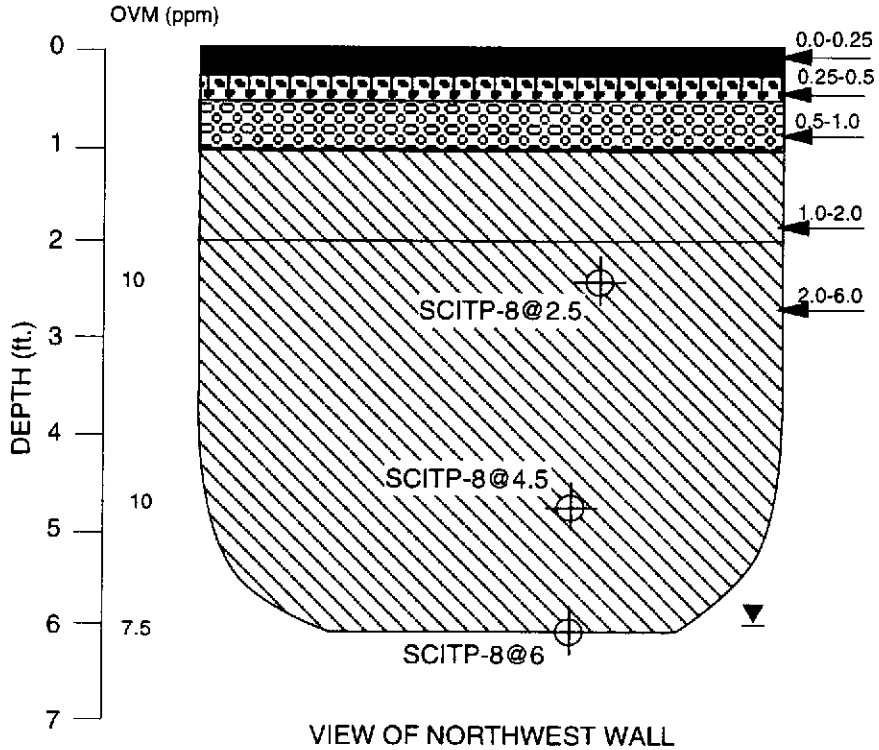
# PLAN VIEW OF TEST PIT SCITP-7
# UST INSTALLED FOR VIC ADELSON

Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 44




VIEW OF NORTHWEST WALL
2/3/97

ASPHALTIC CONCRETE - 3-inches thick
BROWN SANDY GRAVEL (GM)
dense, moist (fill)
CONCRETE SLAB - 6-inches thick

GRAY GRAVELLY SANDY CLAY (CL)
medium stiff, moist, with brick fragments and hydrocarbon odor (fill)

DARK GRAY SILTY CLAY (CH)
medium stiff, moist, with brick fragments, wood timber debris and hydrocarbon odor (fill)

Wood debris from 5.0-5.5 feet (Redwood timbers)

GROUNDWATER LEVEL WHILE EXCAVATING

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND SURFACED TO MATCH EXISTING CONDITIONS

Soil samples at 4.5' and 6.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ SOIL SAMPLE LOCATION

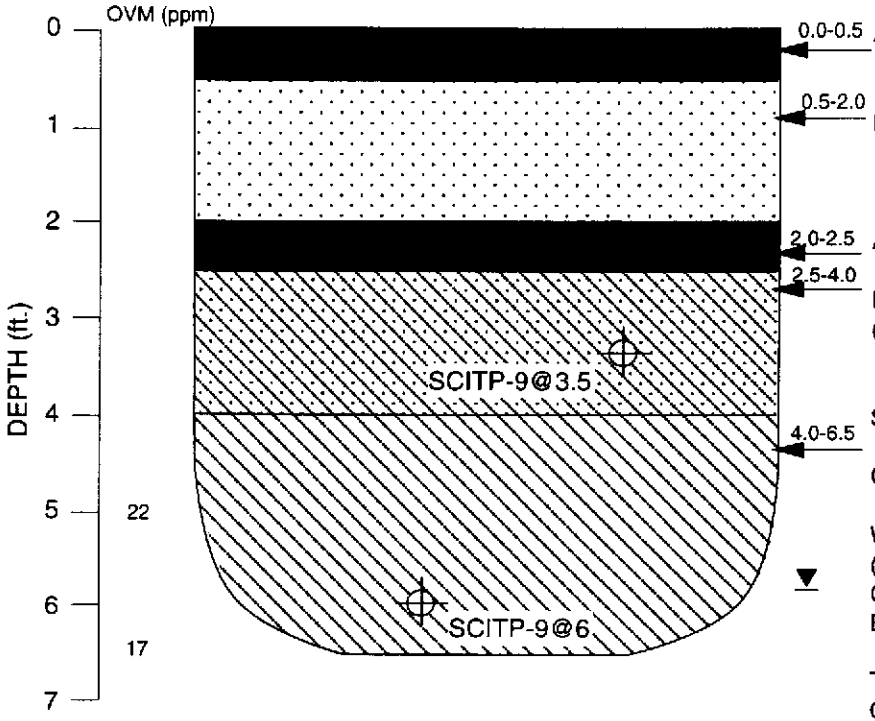
# LOG OF TEST PIT SCITP-8
# UST AREA NEAR FORMER H-227

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 45




VIEW OF NORTHWEST WALL
2/3/97

Soil samples at 3.5' and 6.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

SOIL SAMPLE LOCATION

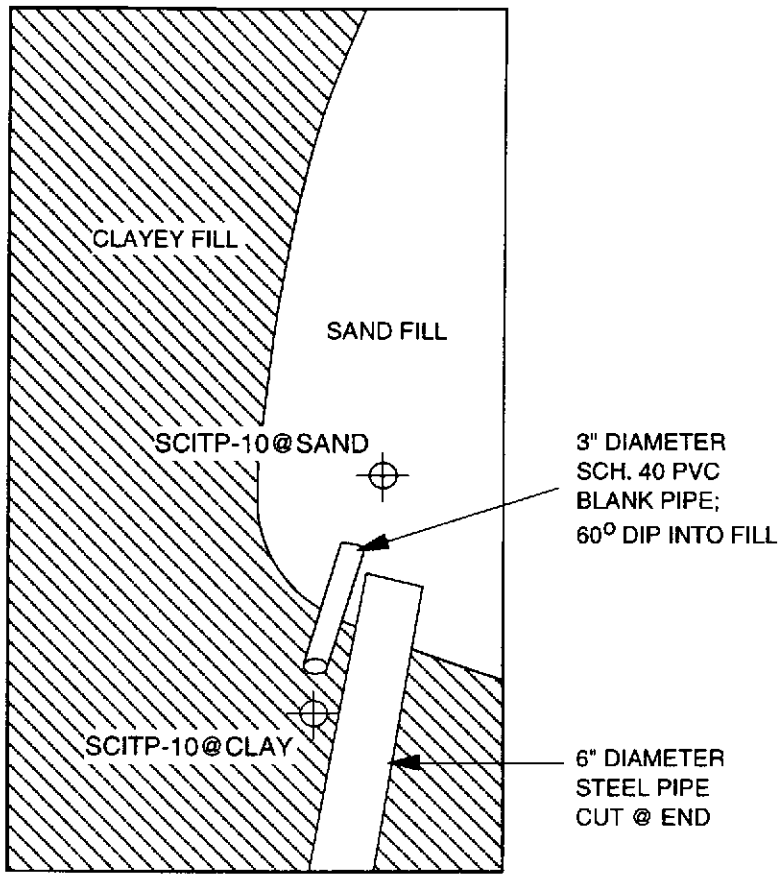
# LOG OF TEST PIT SCITP-9
# FORMER AMERICAN BITUMULS/CHEVRON AREA

Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 46




PLAN VIEW
2/3/97

APPROXIMATE SCALE (feet)

0 2 4

N

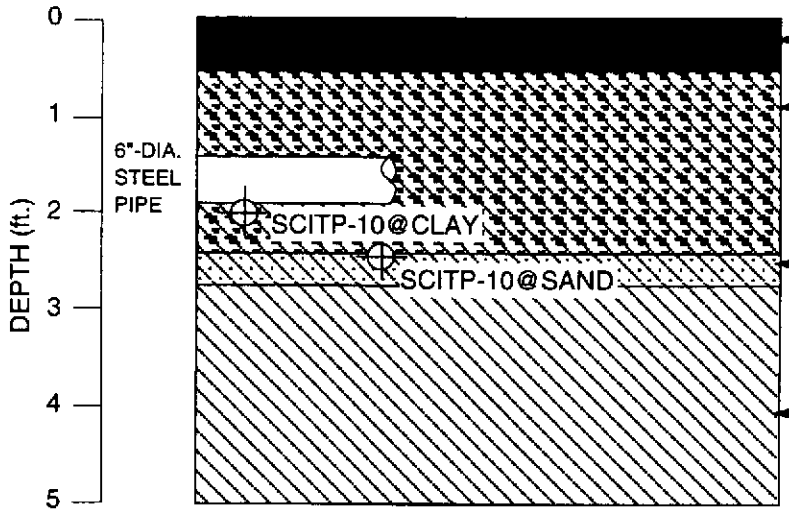
# PLAN VIEW OF TEST PIT SCITP-10 NORTH END OF SOUTHERN CHEVRON FUEL PIPE

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 47




VIEW OF WEST WALL
2/3/97

0.0-0.5 ASPHALTIC CONCRETE - 6-inches thick

0.5-2.4 ORANGE-BROWN AND OLIVE GREEN CLAYEY GRAVEL (GC)
dense, moist (fill)

2.4-2.7 OLIVE GRAY CLAYEY SAND (SC)
loose to medium dense, moist, with hydrocarbon odor

2.7-5.0 OLIVE GRAY SILTY CLAY (CL)
medium stiff, moist, with fine-grained sand and hydrocarbon odor

NO GROUNDWATER ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND SURFACED TO MATCH EXISTING CONDITIONS

No soil samples submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ SOIL SAMPLE LOCATION

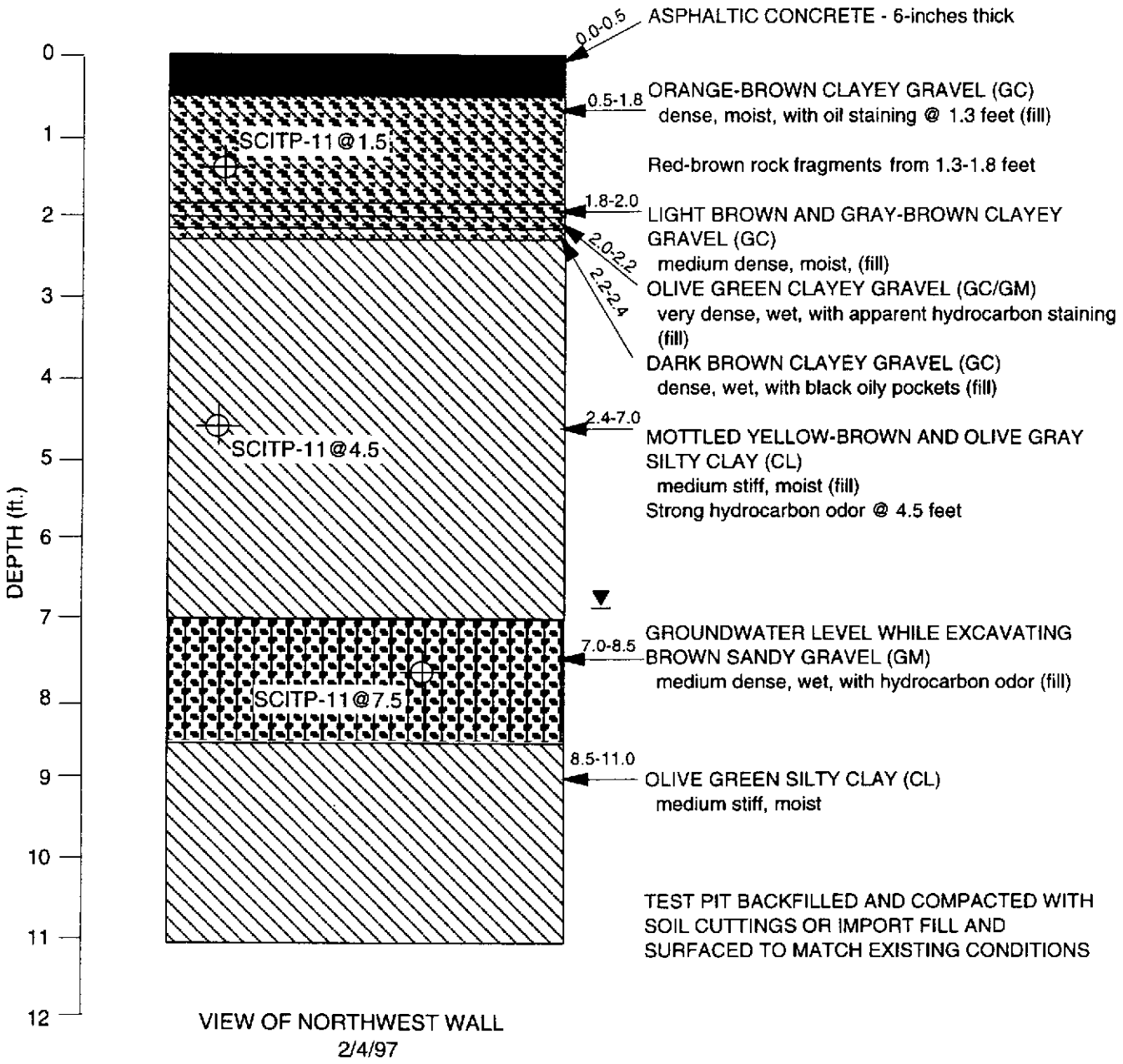
# LOG OF TEST PIT SCITP-10
# NORTH END OF SOUTHERN CHEVRON FUEL PIPE

Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 48




VIEW OF NORTHWEST WALL
2/4/97

Soil samples at 1.5' and 4.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ SOIL SAMPLE LOCATION

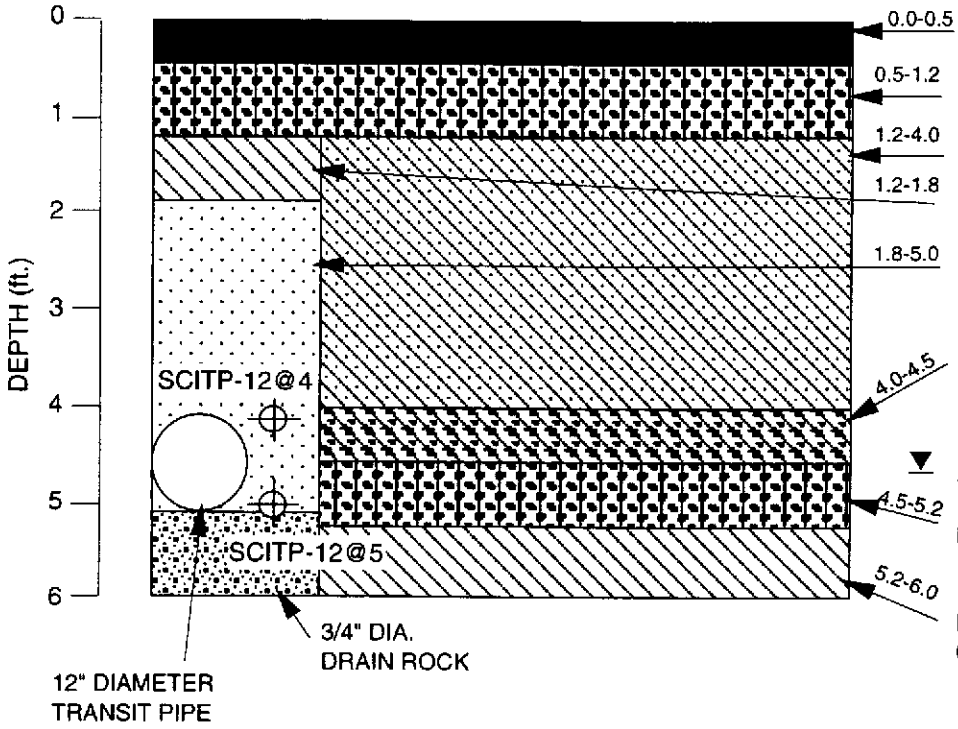
# LOG OF TEST PIT SCITP-11
# FORMER PORT PETROLEUM AREA

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 49




VIEW OF NORTHEAST WALL
2/4/97

Soil samples at 4.0' and 5.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

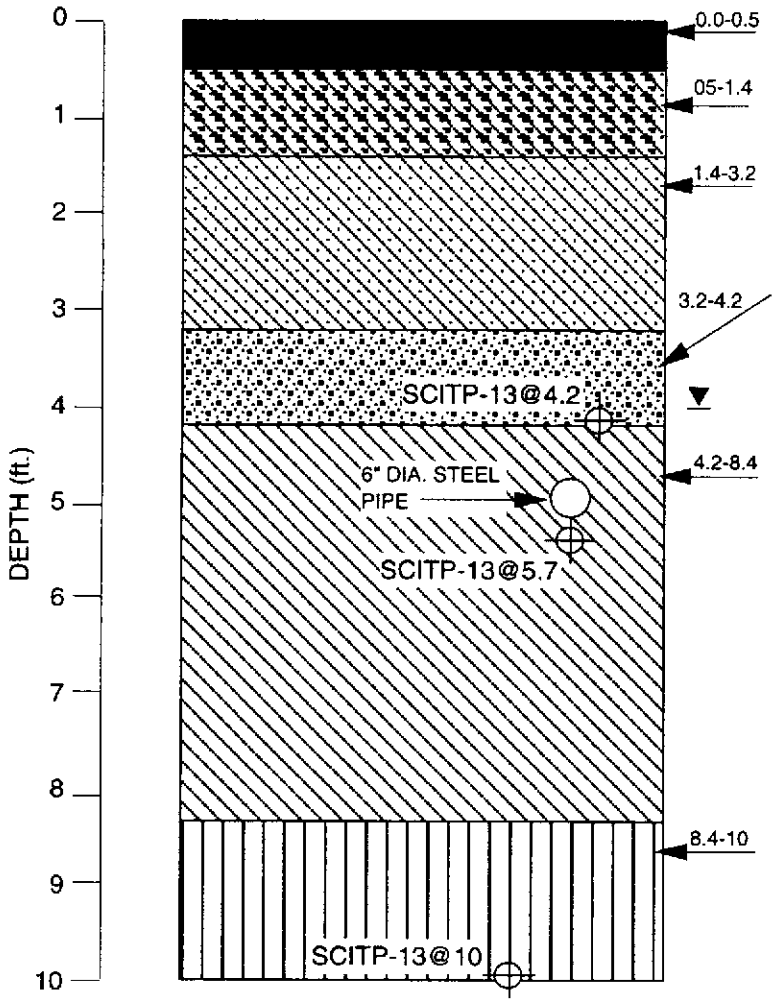
⊕ SOIL SAMPLE LOCATION

# LOG OF TEST PIT SCITP-12
# RAIL SPUR SERVING AMERICAN BITUMULS/CHEVRON

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED | PLATE |
|---|---|---|---|
| 133.004 | 3/3/97 | | 50 |




0.0-0.5 ASPHALTIC CONCRETE - 6-inches thick

05-1.4 ORANGE-BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)

1.4-3.2 GRAY-BROWN AND BROWN CLAYEY SAND (SC)
loose to medium dense, moist, with gravel (fill)

3.2-4.2 RAILROAD BALLAST GRAVEL to 4-inch diameter with sand and clay, timber fragments to 2-inches long, some sheen covering gravel/cobbles, black viscous product at interface with mud below and heavy chemical odor

GROUNDWATER LEVEL WHILE EXCAVATING

4.2-8.4 OLIVE GRAY SANDY CLAY (CL/MH)
medium stiff, moist (Bay Mud fill)

8.4-10 BLUE-GRAY CLAYEY SILT (MH)
soft, wet (Bay Mud)

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND SURFACED TO MATCH EXISTING CONDITIONS

VIEW OF NORTHEAST WALL
2/5/97

Soil samples at 4.2', 5.7', and 10.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ SOIL SAMPLE LOCATION

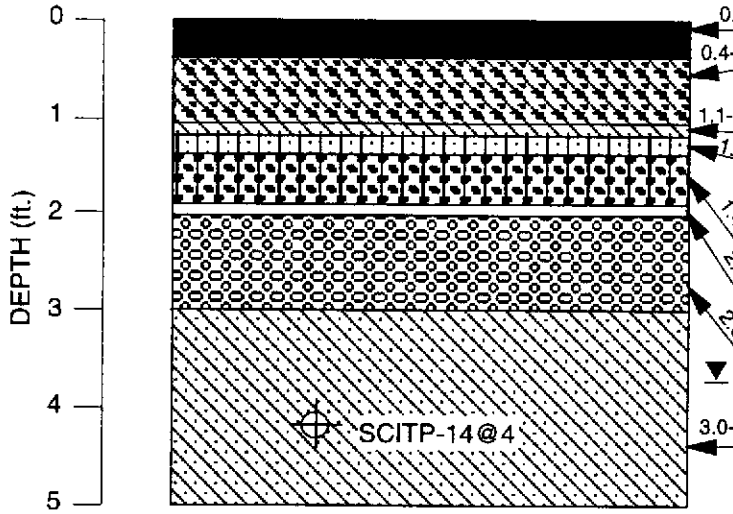
# LOG OF TEST PIT SCITP-13
# RAIL SPUR NORTH OF AMERICAN BITUMULS/CHEVRON

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 51




0.0-0.4 ASPHALTIC CONCRETE - 5-inches thick

0.4-1.1 LIGHT OLIVE BROWN SANDY GRAVEL (GM)
dense, moist (fill)

1.1-1.2 RED-BROWN CLAYEY SAND (SC)

1.2-1.4 dense, moist (fill)
DARK GRAY AND GRAY-BROWN SILTY SAND (SM)
dense, wet (perched water), with gravel (fill)

1.4-2.0 RED-BROWN SILTY GRAVEL (GM)
medium dense, moist (fill)
with crushed red rock fragments

2.0 1-inch diameter galvanized steel pipe

2.0-3.0 CONCRETE SLAB - 12-inches thick

GROUNDWATER LEVEL WHILE EXCAVATING

3.0-5.0 VERY DARK GRAY-BROWN CLAYEY AND SILTY SAND (SC/SM)
medium dense, wet, with timber and concrete fragments, with strong hydrocarbon odor (fill)

VIEW OF NORTHEAST WALL
2/5/97

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND SURFACED TO MATCH EXISTING CONDITIONS

Soil sample at 4.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

SOIL SAMPLE LOCATION

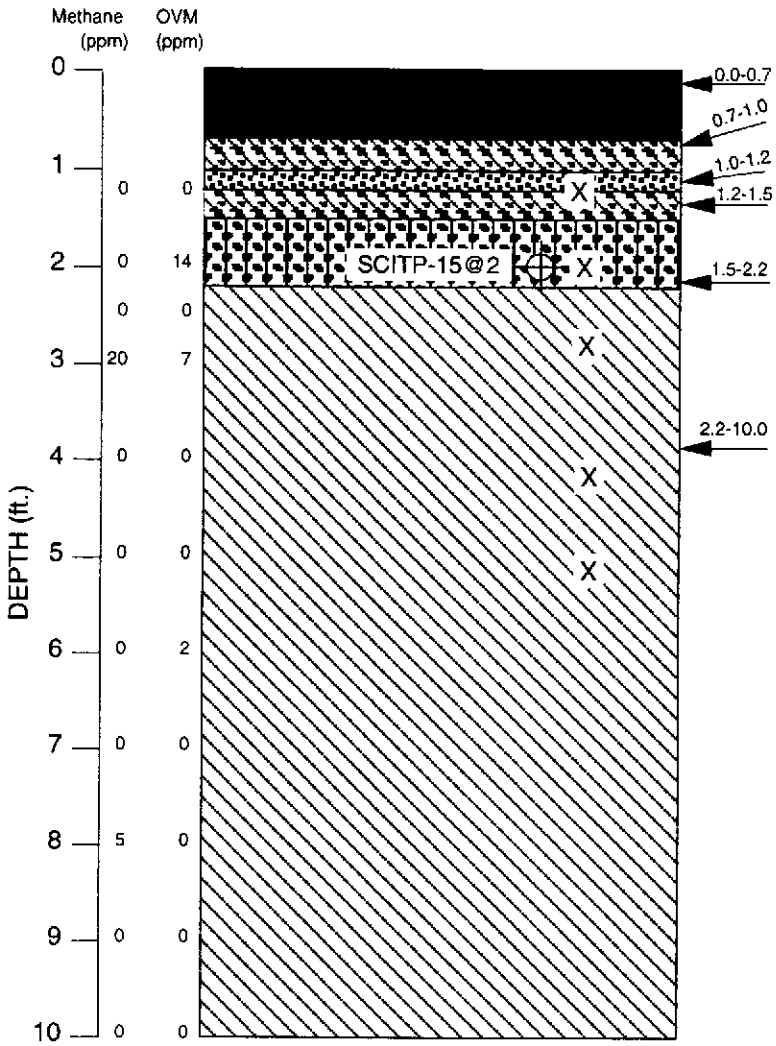
# LOG OF TEST PIT SCITP-14
# NEAR FORMER H-204

Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 3/3/97 | |

PLATE 52




ASPHALTIC CONCRETE - 8-inches thick
ORANGE CLAYEY GRAVEL (GC)
dense, moist (fill)
Broken rock fragments with tar
ORANGE-BROWN AND OLIVE GREEN CLAYEY GRAVEL (GC)
dense, moist (fill)
BLACK SANDY GRAVEL (GM)
dense, moist and gravel to 6-inch dia. with oil coating (fill)

BROWN AND OLIVE GRAY SILTY CLAY (CL/MH)
medium stiff, moist, with gravel to 1-inch dia., some sandy zones and broken shells
NO GROUNDWATER ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

4/23/97

Soil sample at 2.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

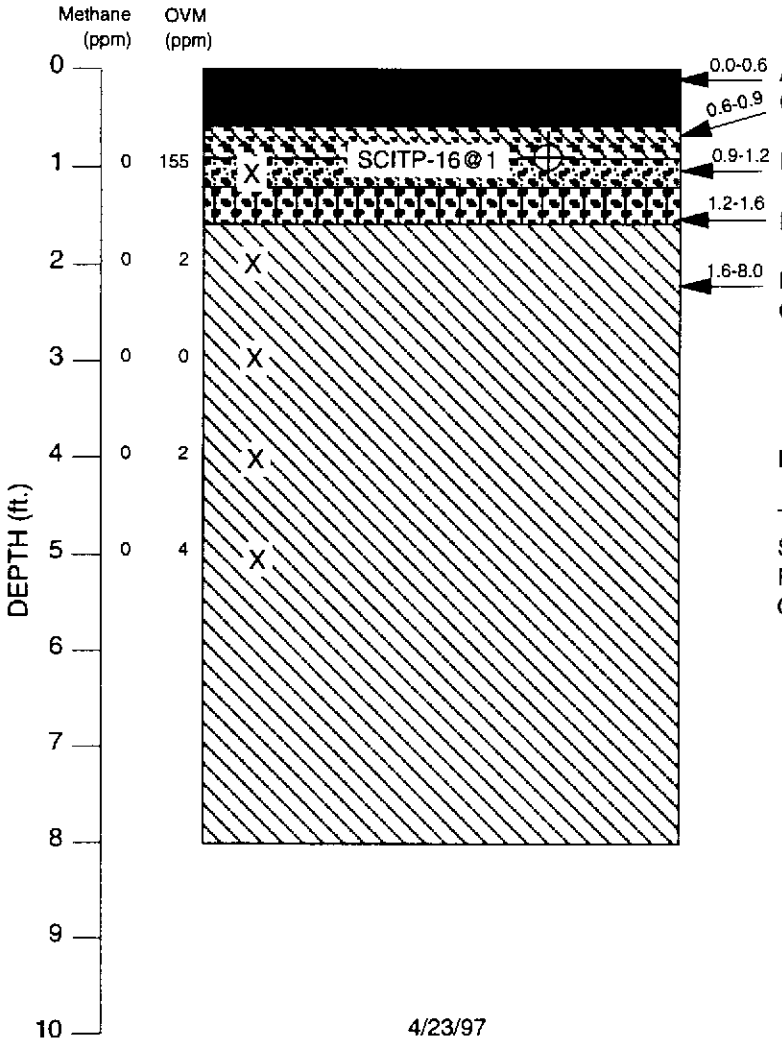
# LOG OF TEST PIT SCITP-15
# STAINED AREA
# NEAR AMERICAN BITUMULS

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 53




ASPHALTIC CONCRETE - 7-inches thick

ORANGE-BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)

RED-BROWN GRAVEL (GW)
dense, moist (fill)

BROWN AND BLACK SANDY GRAVEL (GM)
dense, moist, saturated with tar material (fill)

MOTTLED LIGHT BROWN AND GRAY SILTY CLAY (CL/ML)
medium stiff, moist, with lenses of sand, gravel and shell fragments

NO GROUNDWATER ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

4/23/97

Soil sample at 1.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

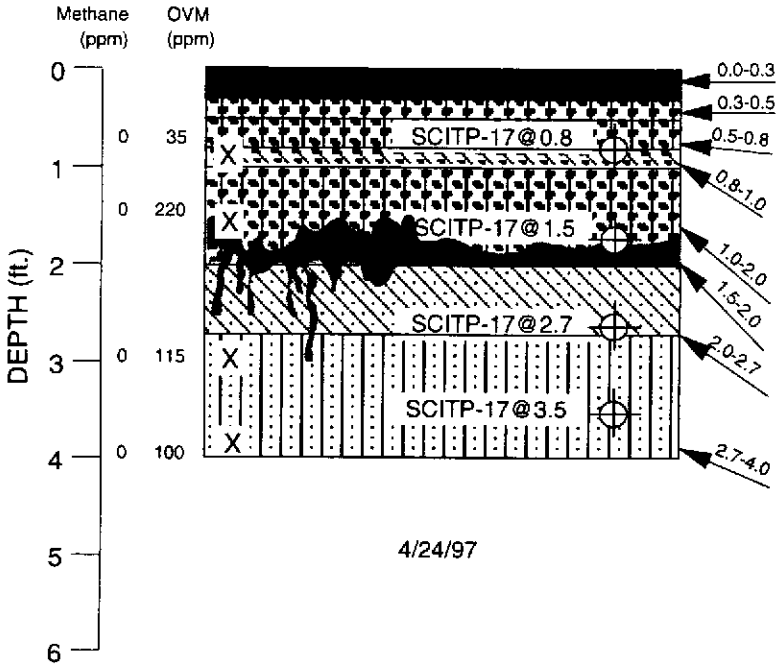
# LOG OF TEST PIT SCITP-16
# STAINED AREA
# NEAR AMERICAN BITUMULS

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 54




4/24/97

ASPHALTIC CONCRETE - 4-inches thick
YELLOW-BROWN SANDY GRAVEL (GM)
dense, moist (fill)
RED-BROWN CLAYEY GRAVEL (GM/GC)
dense, moist (fill)
DARK RED-BROWN AND DARK GRAY CLAYEY GRAVEL (GC)
dense, moist, with oil coating (fill)
RED-BROWN CLAYEY GRAVEL (GM/GC)
with rock fragments to 4-inch diameter (fill)
Oil seeping from 1.5 to 2.0 feet
OLIVE GRAY AND GRAY-BROWN CLAYEY SAND (SC)
dense, moist, with rock fragments to 3-inch dia. (fill)
GRAY-BROWN SILTY SAND (SM)
medium dense, moist, with concrete rubble to 2-inch dia., some oil seeps through cracks (fill)

NO GROUNDWATER ENCOUNTERED

CANNERY LINE NOT ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil samples at 0.8' and 1.5' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

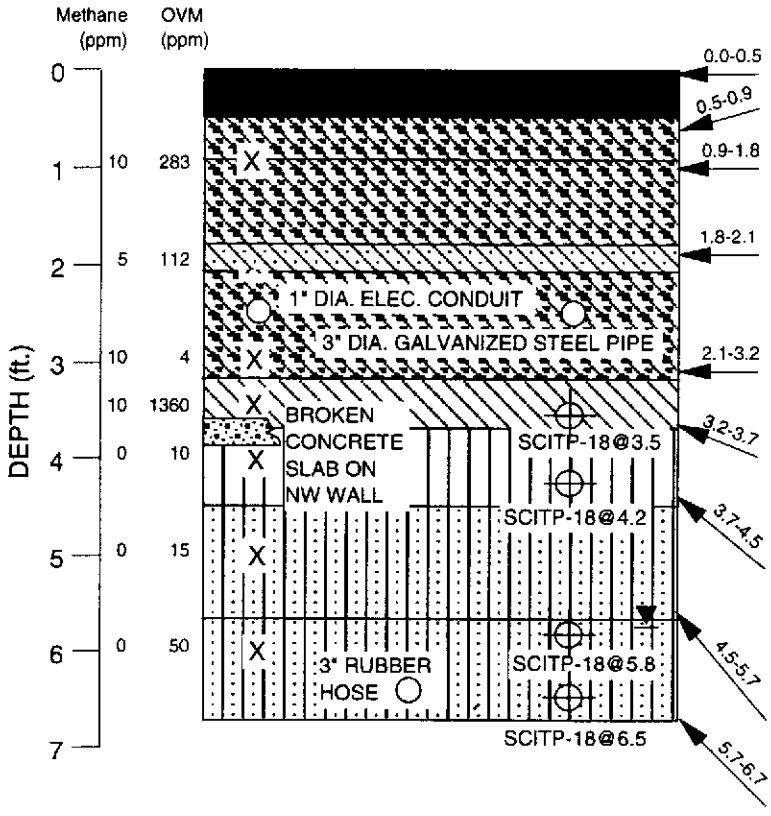
# LOG OF TEST PIT SCITP-17
# SUSPECTED CANNERY LINE LOCATION
# NEAR PORT PETROLEUM

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 55




4/23/97

ASPHALTIC CONCRETE - 6-inches thick

RED-BROWN CLAYEY GRAVEL (GC)
dense, wet (fill)

YELLOW-BROWN AND BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)

DARK OLIVE GRAY AND DARK ORANGE-BROWN CLAYEY SAND (SC)
medium dense, moist, with gravel and black wood fragments, nails, metal and glass (fill)

LIGHT BROWN AND LIGHT YELLOW-BROWN CLAYEY GRAVEL (GC/SC)
dense, moist, with cobbles to 6-inch dia.

DARK OLIVE GRAY SILTY CLAY (CL/MH)
soft, moist, with gravel to 2-inch dia., oily sand pockets, glass, metal debris and seeping petroleum product (fill)

OLIVE GRAY AND DARK GRAY-BROWN CLAYEY SILT (ML)
medium stiff, moist, with glass and brick fragments (fill)

GROUNDWATER LEVEL WHILE EXCAVATING

GRAY-BROWN SILTY SAND (SM/SP)
loose, wet, with some balls of Bay Mud to 1-inch diameter (fill)

DARK GRAY CLAYEY SILTY SAND (SM)
medium dense, moist (fill)

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil samples at 3.5' and 6.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

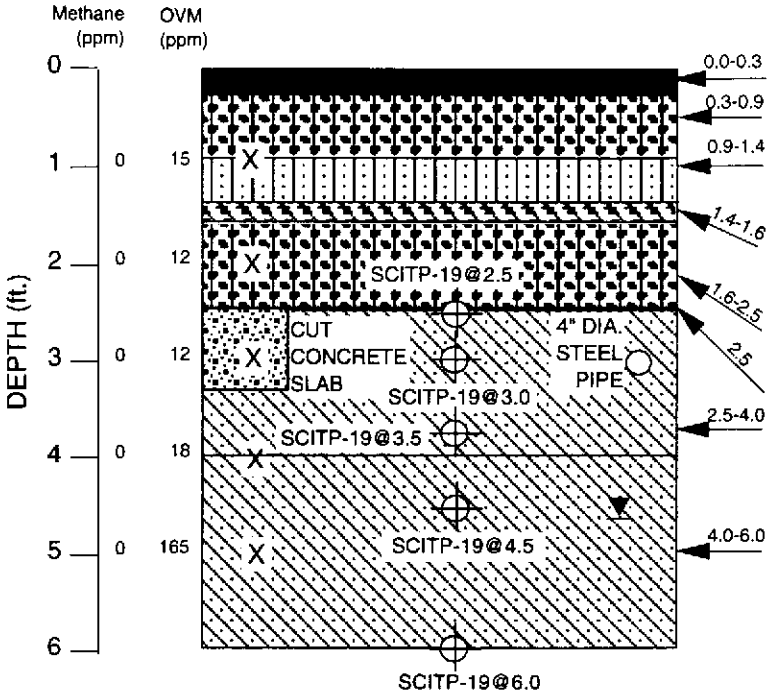
# LOG OF TEST PIT SCITP-18
# ADJACENT TO FORMER BUILDING H-203

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 56




ASPHALTIC CONCRETE - 4-inches thick

ORANGE-BROWN SANDY GRAVEL (GM)
dense, moist (fill)

GRAY-BROWN SILTY SAND (SM)
loose to medium dense, moist, with gravel and concrete fragments (fill)

YELLOW AND OLIVE GREEN CLAYEY GRAVEL (GC)
dense, moist (fill)

RED-BROWN SANDY GRAVEL (GM)
dense, moist, with chert fragments to 3-inch dia. (fill)

Crystalline oily layer @ 2.5 feet

BROWN CLAYEY SAND (SC)
loose, moist, with gravel and hydrocarbon odor (fill)

GROUNDWATER LEVEL WHILE EXCAVATING

DARK GRAY CLAYEY SAND (SC)
medium dense, wet, with concrete and brick debris, strong hydrocarbon odor and sheen and oil globs on groundwater (fill)

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

4/24/97

Soil samples at 2.5' and 6.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

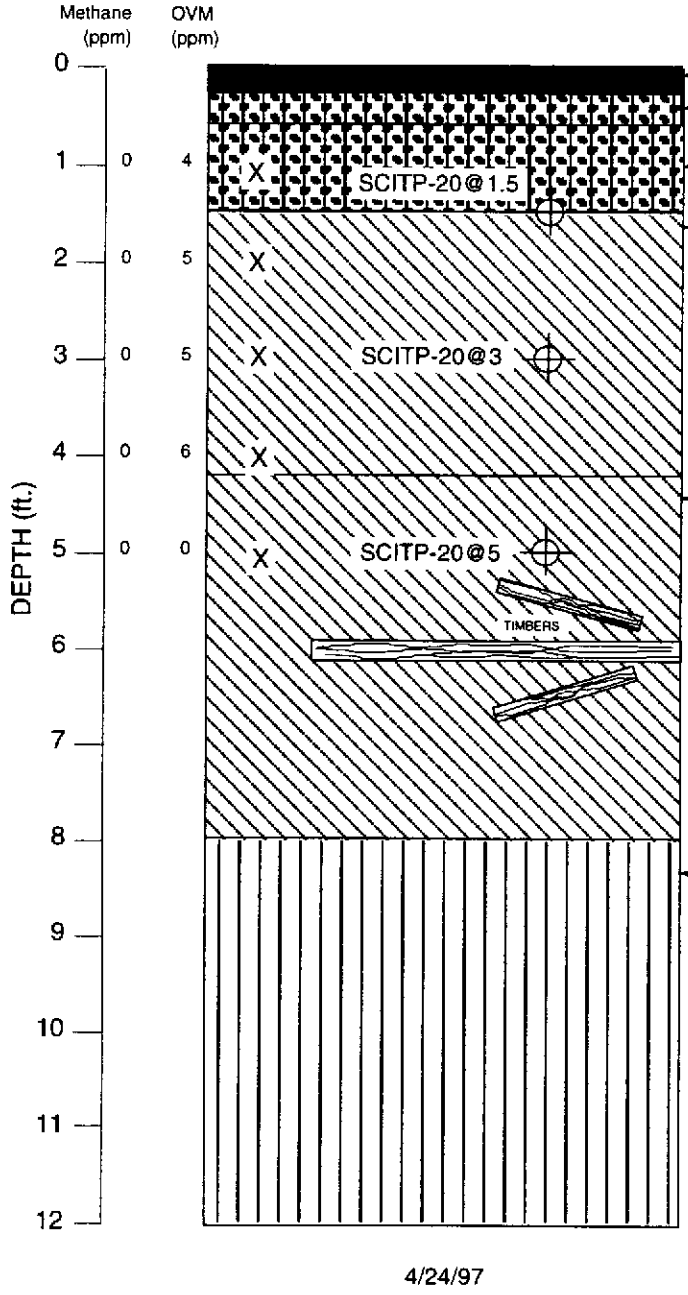
# LOG OF TEST PIT SCITP-19
# FORMER BAY CITY FUEL OIL/ EAST BAY OIL COMPANY AREA

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 57




0.0-0.3 ASPHALTIC CONCRETE - 4-inches thick

0.3-0.6 YELLOW-BROWN SANDY GRAVEL (GM)
dense, moist (fill)

0.6-1.5 RED-BROWN CLAYEY GRAVEL (GM/GC)
dense, moist (fill)

1.5-4.2 LIGHT BROWN AND OLIVE GRAY SILTY CLAY (CL)
medium stiff, moist (fill)

4.2-8.0 MOTTLED BLACK AND DARK OLIVE GRAY SILTY CLAY (CL/ML)
medium stiff, moist, with timbers below 5.5 feet (fill)

8.0-12.0 GRAY CLAYEY SILT (MH)
soft, moist (Bay Mud)

NO GROUNDWATER ENCOUNTERED
CANNERY LINE NOT ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

4/24/97

Soil sample at 3.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

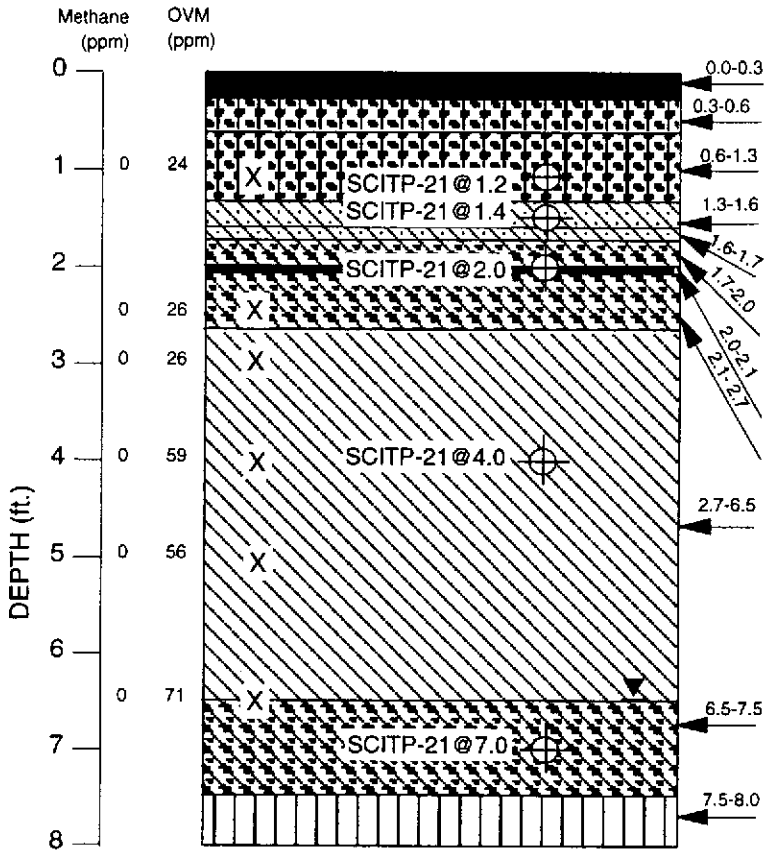
# LOG OF TEST PIT SCITP-20
# SUSPECTED CANNERY LINE LOCATION AT FORMER H-227

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE 58




4/25/97

ASPHALTIC CONCRETE - 4-inches thick
YELLOW-BROWN SILTY GRAVEL (GM)
dense, moist (fill)
RED-BROWN CLAYEY GRAVEL (GM)
very dense, moist (fill)
OLIVE GRAY CLAYEY SAND (SC/GC)
medium dense, moist (fill)
DARK GRAY CLAYEY SAND (SC)
medium dense, moist (fill)
GRAY-BROWN AND OLIVE GRAY CLAYEY GRAVEL (GC/GM)
dense, moist, with rock fragments to 3-inch dia. (fill)
Crystalline oil layer at 2.0 feet
DARK GRAY CLAYEY GRAVEL (GC)
dense, moist, with rock fragments to 3-inch dia. (fill)
LIGHT BROWN AND OLIVE GRAY SILTY CLAY (CL)
medium stiff, moist (fill)

GROUNDWATER LEVEL WHILE EXCAVATING
DARK OLIVE AND DARK GRAY CLAYEY GRAVEL (GC)
loose, wet
GRAY CLAYEY SILT (MH)
soft, moist (Bay Mud)

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil samples at 2.0' and 7.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

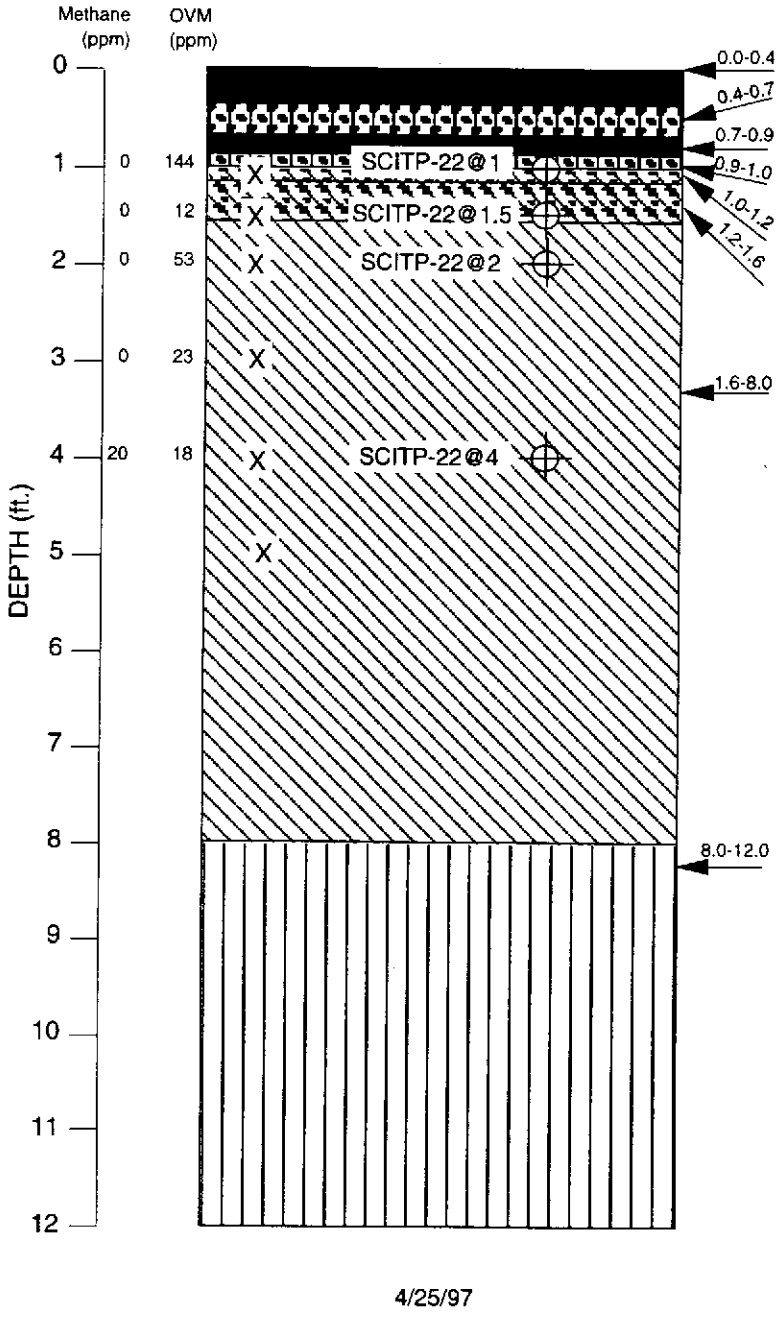
# LOG OF TEST PIT SCITP-21
# STAINED AREA
# NEAR AMERICAN BITUMULS

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE 59




0.0-0.4 ASPHALTIC CONCRETE - 5-inches thick

0.4-0.7 YELLOW-BROWN SANDY GRAVEL (GM)
dense, moist (fill)

0.7-0.9 ASPHALTIC CONCRETE - 2.5-inches thick

0.9-1.0 RED-BROWN SANDY GRAVEL (GM)
dense, moist (fill)

1.0-1.2 BLACK AND GRAY CLAYEY GRAVEL (GC)
dense, moist, with black viscous oil product (fill)

1.2-1.6 WHITE AND ORANGE-BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)

1.6-8.0 DARK GRAY AND OLIVE GRAY SILTY CLAY (CL/ML)
medium stiff, moist (fill)

8.0-12.0 GRAY CLAYEY SILT (MH)
soft, moist, with sandy lenses (Bay Mud)

NO GROUNDWATER ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

4/25/97

Soil samples at 1.0' and 1.5' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

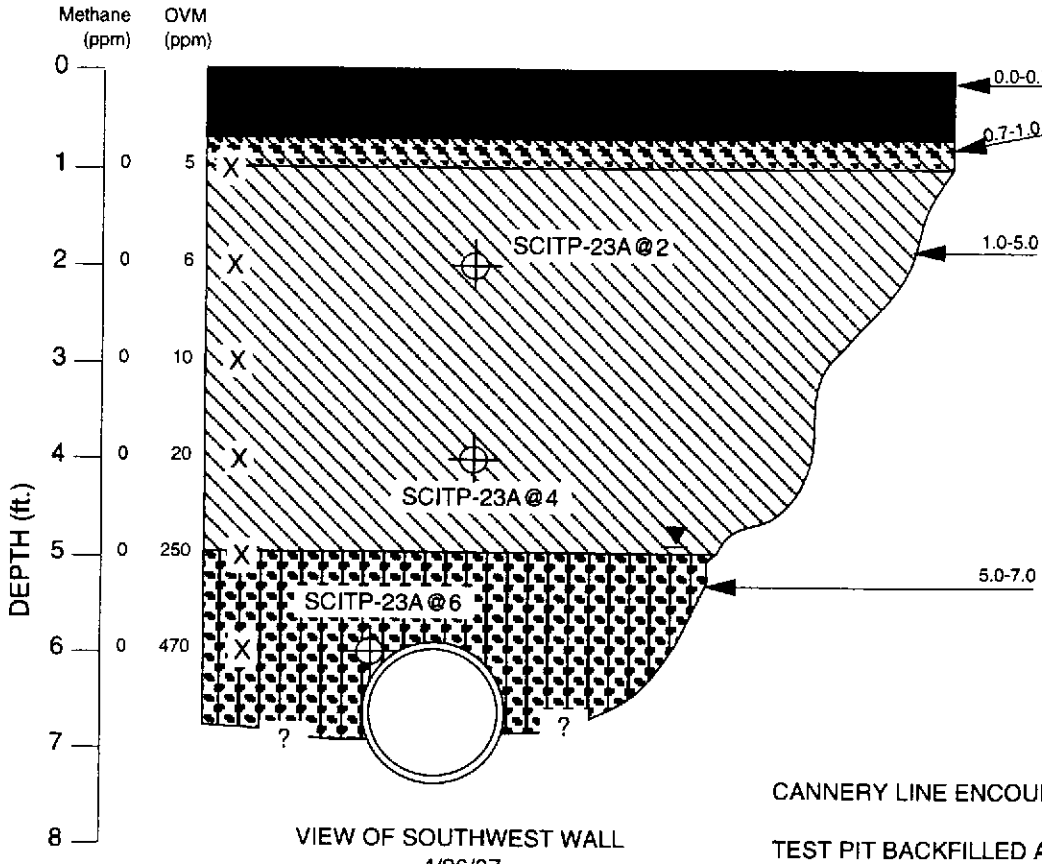
# LOG OF TEST PIT SCITP-22
# STAINED AREA
# NEAR AMERICAN BITUMULS

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE 60




VIEW OF SOUTHWEST WALL
4/26/97

CANNERY LINE ENCOUNTERED @ 6 FEET

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil samples at 4.0' and 6.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

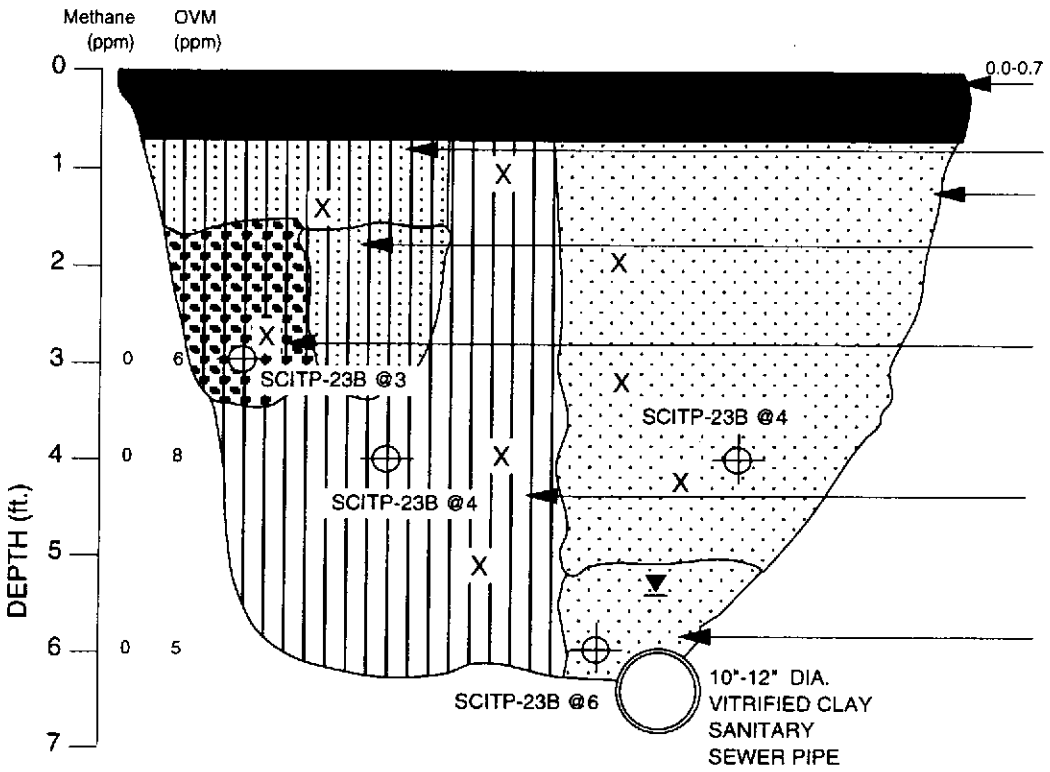
# LOG OF TEST PIT SCITP-23A
# CANNERY LINE NEAR FORMER H-215

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE 61




VIEW OF SOUTHWEST WALL
4/26/97

STORM DRAIN NOT ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil samples at 3.0' and 6.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

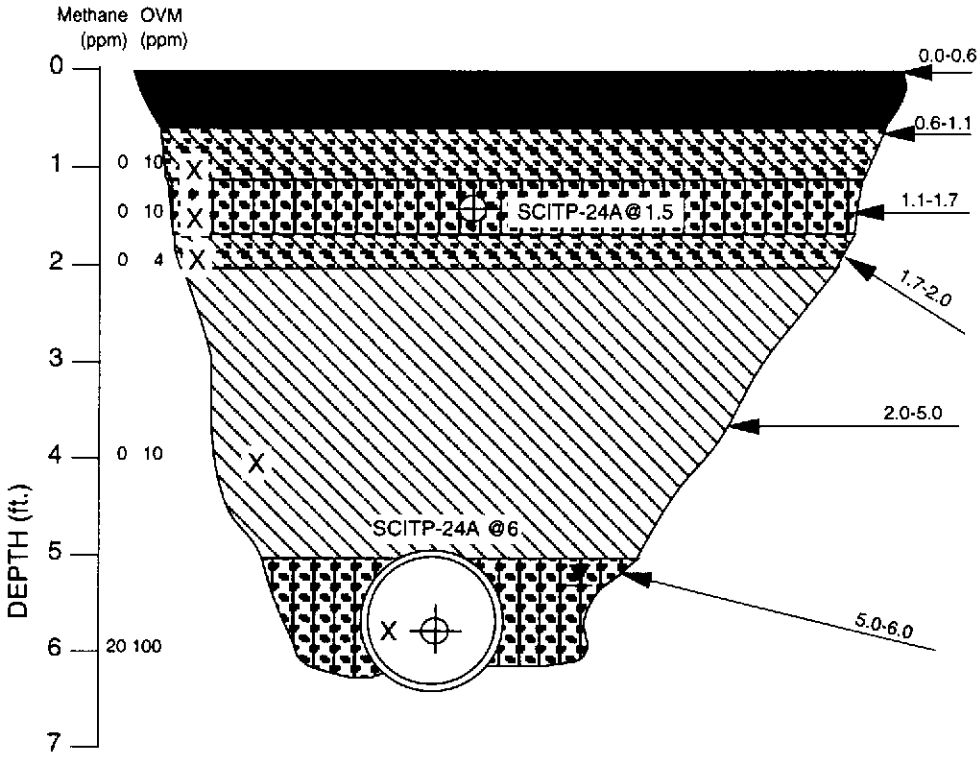
# LOG OF TEST PIT SCITP-23B
# SANITARY SEWER NEAR FORMER H-215

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 62




VIEW OF SOUTHWEST WALL
4/26/97

0.0-0.6 ASPHALTIC CONCRETE
7-inches thick

0.6-1.1 YELLOW-BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)

1.1-1.7 DARK OLIVE GRAY SILTY GRAVEL (GM)
dense, moist, with strong hydrocarbon odor (fill)

1.7-2.0 OLIVE GREEN AND ORANGE-BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)

2.0-5.0 OLIVE GRAY SILTY CLAY (CL)
with concrete fragments to 1 inch dia., some silty sand lenses wood fragments, very strong hydrocarbon odor, oil globs and sheen on water

GROUNDWATER LEVEL WHILE EXCAVATING

5.0-6.0 BLACK SILTY GRAVEL (GM)
loose, wet, with sand, strong hydrocarbon odor and floating product on water

CANNERY LINE ENCOUNTERED @ 5.0 FEET
Pipe blocked with oil, saturated clay and gravel

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil samples at 1.5' bgs and from within the Cannery Line submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

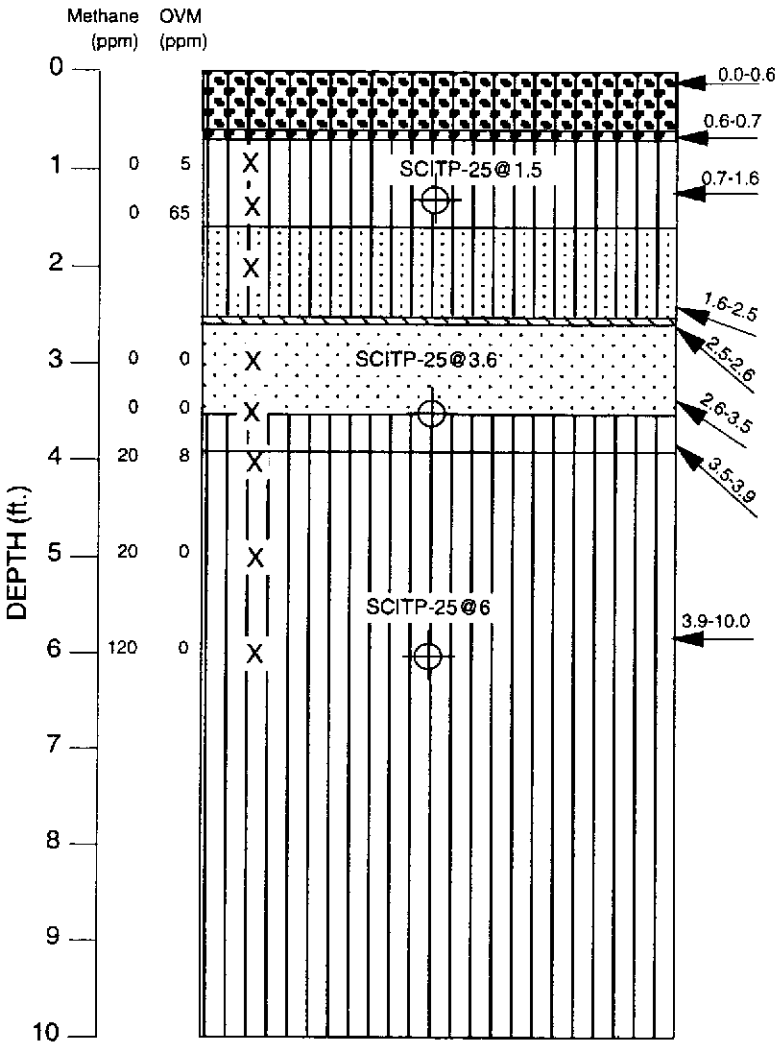
# LOG OF TEST PIT SCITP-24A
# CANNERY LINE NEAR CURRENT KOT AST

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 63




GRAY-BROWN SANDY GRAVEL (GM)
very dense, moist with gravel to 3" diameter (fill)
LIGHT ORANGE-BROWN SANDY GRAVEL (GM)
very dense, moist (fill)
DARK GRAY AND DARK BROWN GRAVELLY SILT (ML/GM)
very stiff, moist, with debris consisting of glass, tile, metal, concrete, wood and brick fragments, with hydrocarbon odor (fill)
DARK BROWN SILTY SAND (SM)
very dense, moist, with clay, gravel and cobbles (fill)
Black and very dark brown wood and clay from 2.5 to 2.6 feet
LIGHT GRAY AND LIGHT BROW N SAND (SP)
medium dense, moist, with brick fragments (fill)
WHITE AND DARK GRAY SANDY CLAYEY SILT (ML)
medium stiff, moist, with fibrous material and construction debris (fill)
OLIVE GRAY CLAYEY SILT (MH)
soft, moist (Bay Mud)

NO GROUNDWATER ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

VIEW OF SOUTHWEST WALL
4/28/97

Soil samples at 1.5', 3.5', and 6.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION
X BAG SOIL SAMPLE LOCATION

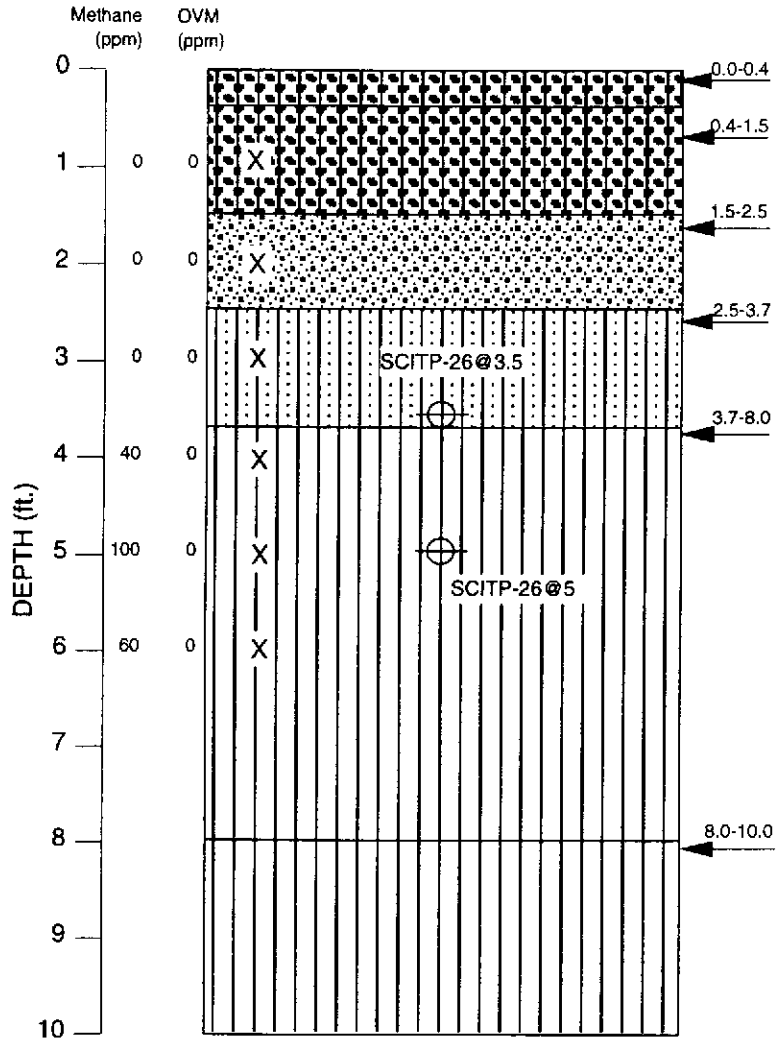
# LOG OF TEST PIT SCITP-25
# FORMER BRITZ CHEMICAL CO. AREA

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 64




0.0-0.4 YELLOW-BROWN SANDY GRAVEL (GM)
very dense, moist (fill)

0.4-1.5 RED-BROWN SANDY GRAVEL (GM)
very dense, moist (fill)

1.5-2.5 CONCRETE SLAB
(edge exposed on northwest wall only)

2.5-3.7 DARK GRAY SILTY SAND (SM)
loose to medium dense, moist, with balls of Bay Mud, glass and plastic (fill)

3.7-8.0 MOTTLED BLACK AND DARK GRAY CLAYEY SILT (MH)
soft to medium stiff, with sand lenses, wood debris and brick fragments (fill)

8.0-10.0 BLUE-GRAY CLAYEY SILT (MH)
soft, wet (Bay Mud)

NO GROUNDWATER ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

VIEW OF NORTHWEST WALL
4/28/97

Soil samples at 3.0' and 5.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

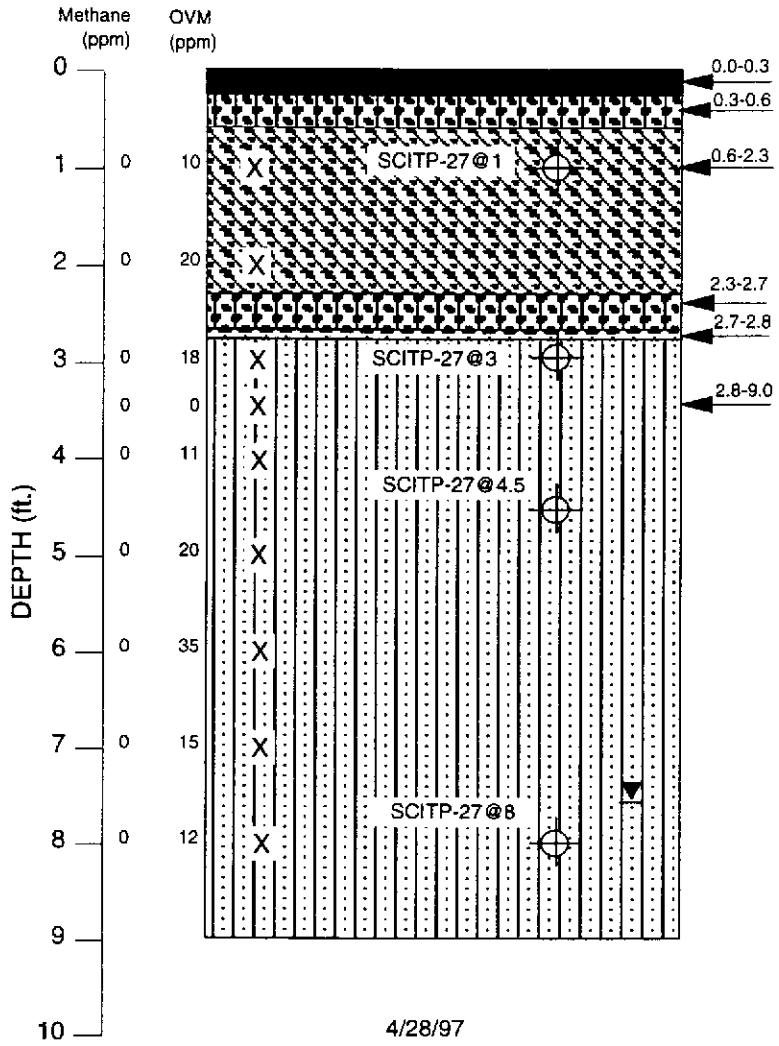
# LOG OF TEST PIT SCITP-26
# FORMER BAY CITY FUEL/EAST BAY OIL COMPANY AREA

Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE
65




Soil sample at 3.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

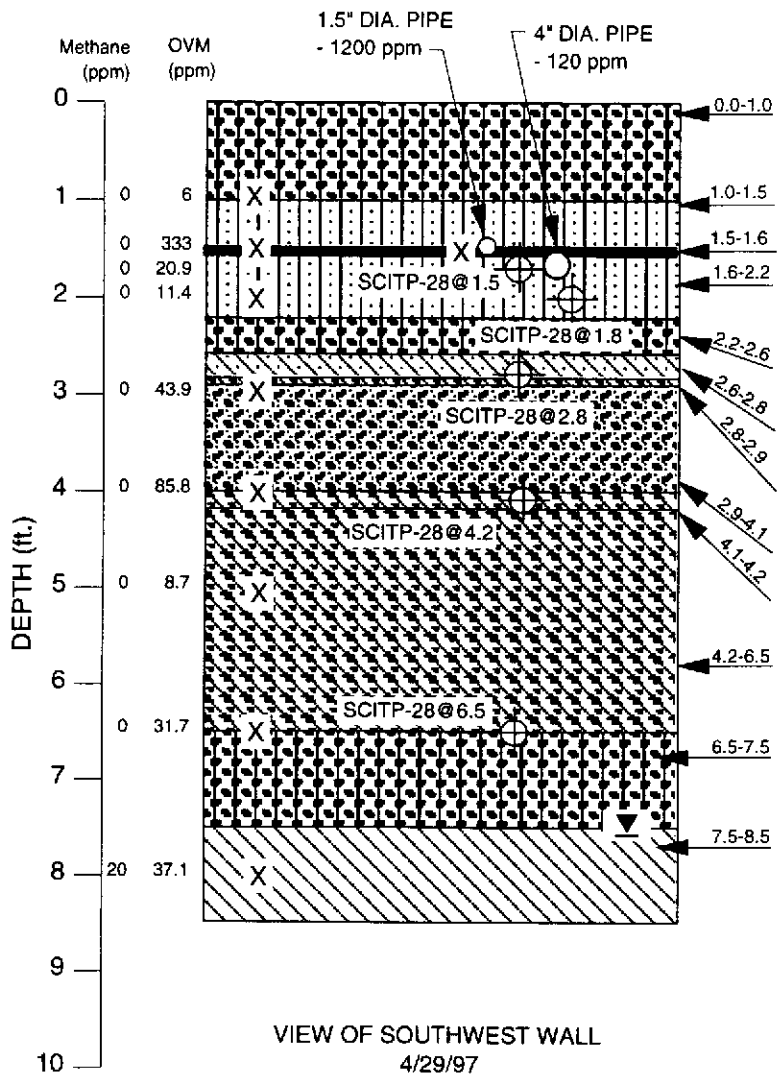
# LOG OF TEST PIT SCITP-27
# ADJACENT TO CLINTON BASIN

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE 66




VIEW OF SOUTHWEST WALL
4/29/97

BROWN SILTY GRAVEL (GM)
very dense, moist (fill)

LIGHT GRAY-BROWN SILTY SAND (SM)
very dense, moist, with gravel (fill)
ASPHALTIC CONCRETE - 1-inch thick
LIGHT GRAY-BROWN GRAVELLY SILTY SAND (SM)
dense, moist (fill)
GRAY-BROWN SANDY GRAVEL (GM)
very dense, moist (fill)
BROWN CLAYEY SAND (SC)
loose, wet (fill)
DARK GRAY-BROWN CLAYEY GRAVEL (GC)
dense, moist, with oil/bitumen pockets (fill)
BROWN SANDY GRAVEL (GP/GM)
dense, moist (fill)
DARK GRAY CLAYEY GRAVEL (GC)
dense, moist, with hydrocarbon odor (fill)
ORANGE-BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)

BLACK AND DARK GRAY SANDY GRAVEL (GM)
loose, saturated, with bricks (fill)
GROUNDWATER LEVEL WHILE EXCAVATING
LIGHT BROWN AND OLIVE-GRAY SILTY CLAY (CL)
soft, moist (fill)

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil sample at 1.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION
X BAG SOIL SAMPLE LOCATION

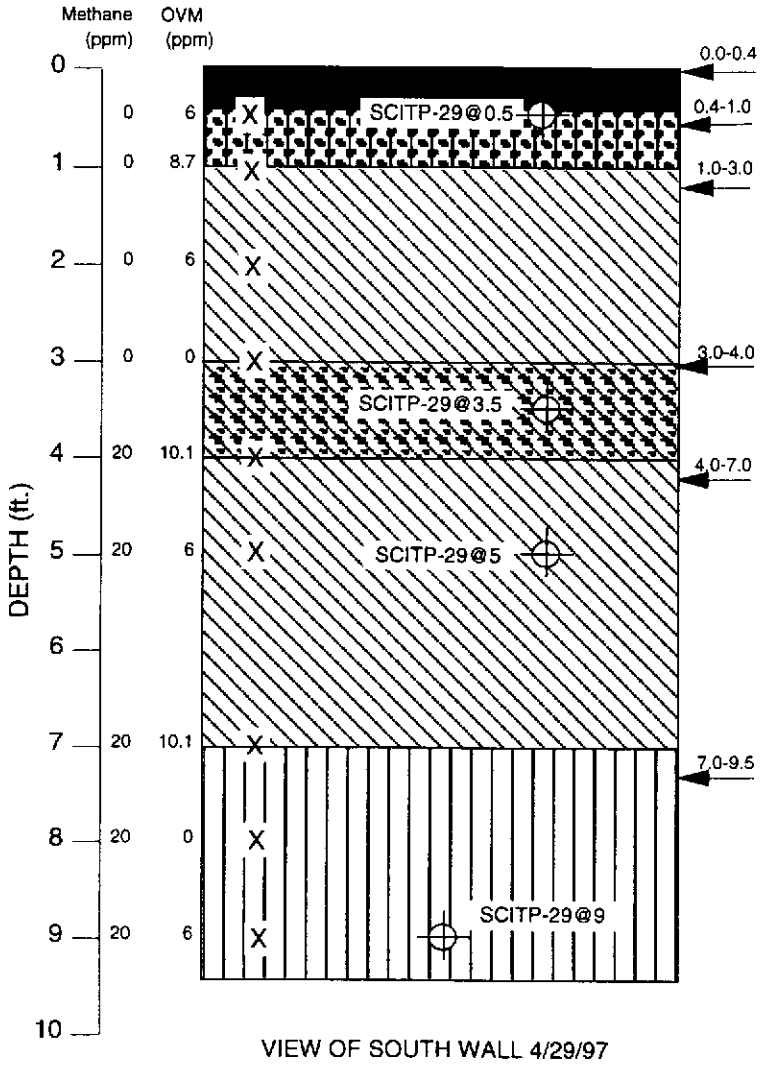
# LOG OF TEST PIT SCITP-28
# FORMER BRITZ CHEMICAL CO. AREA

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE 67




VIEW OF SOUTH WALL 4/29/97

Soil sample at 5.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

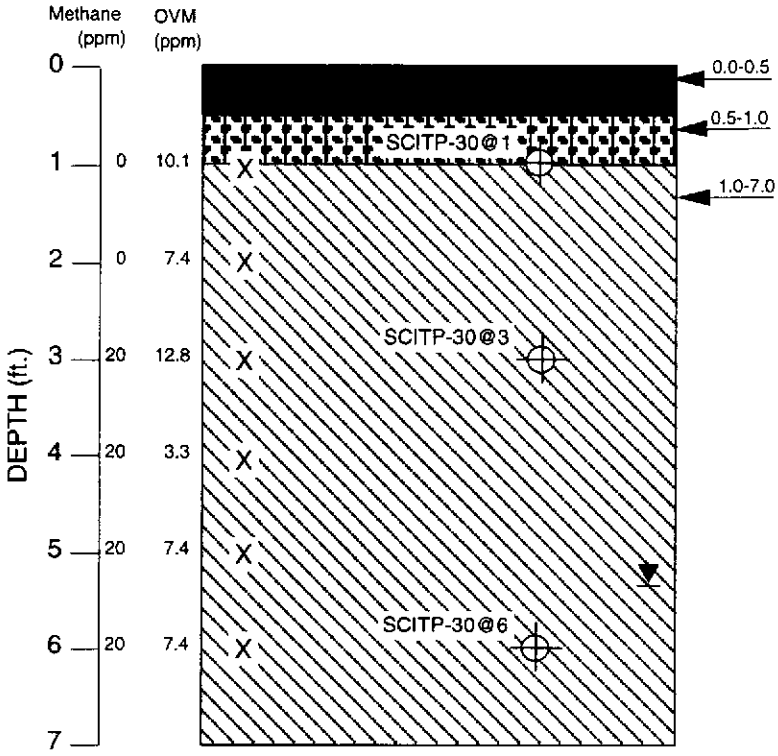
# LOG OF TEST PIT SCITP-29
# ADJACENT TO H-229

SCI **Subsurface Consultants, Inc.**

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE **68**




VIEW OF SOUTH WALL
4/29/97

0.0-0.5 ASPHALTIC CONCRETE - 6-inches thick

0.5-1.0 ORANGE-BROWN SILTY GRAVEL (GM) dense, wet (fill)

1.0-7.0 DARK GRAY AND OLIVE GRAY SILTY CLAY (CL) medium stiff, moist, with wood debris, peat, sand and shell fragments (fill)

GROUNDWATER LEVEL WHILE EXCAVATING
Groundwater has sheen

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil sample at 3.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

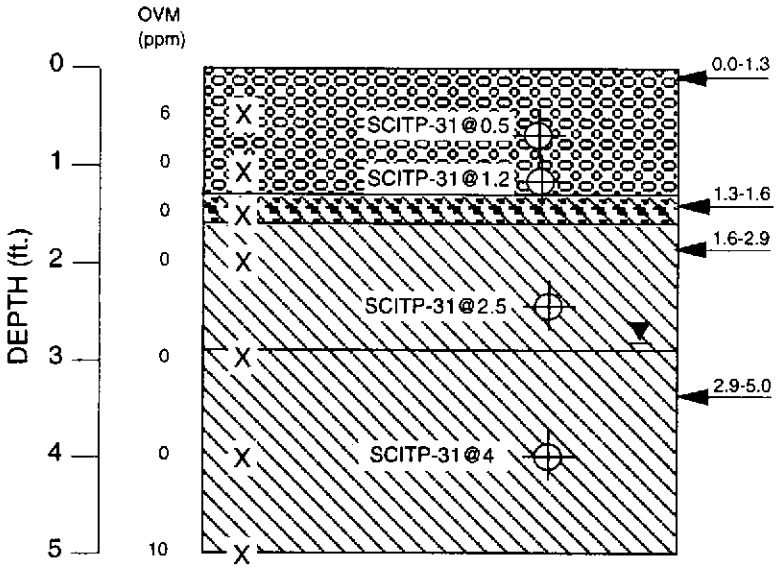
# LOG OF TEST PIT SCITP-30 ADJACENT TO H-229

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 69




GRAY-BROWN RAILROAD BALLAST
- 15-inches thick

GRAY SANDY CLAYEY GRAVEL (GC/GM)
dense, wet (fill)

LIGHT GRAY-BROWN SILTY CLAY (CL)
medium stiff, moist, with sand lenses and perched water @ 2.6 feet

GROUNDWATER LEVEL WHILE EXCAVATING
Sheen on groundwater

MOTTLED LIGHT BROWN AND OLIVE GREEN SILTY CLAY (CL)
medium stiff, moist (fill)

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

4/30/97

Soil sample at 1.2' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

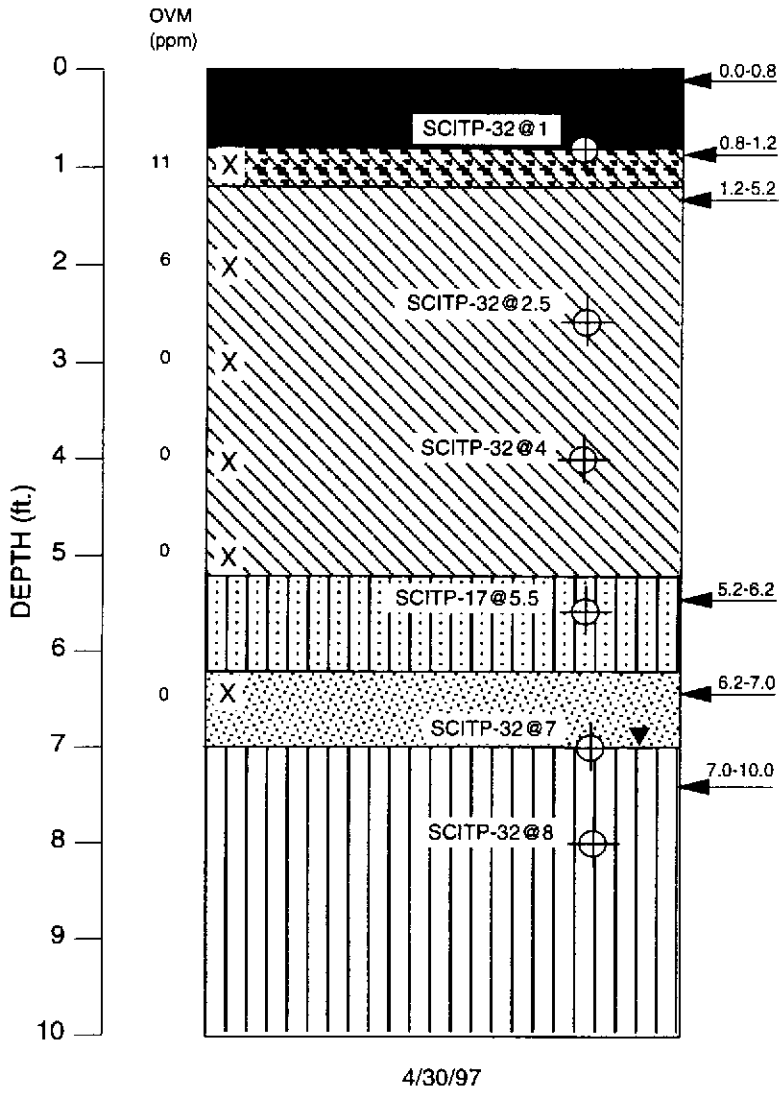
# LOG OF TEST PIT SCITP-31
# DEPRESSED TRACK AREA NEAR H-213

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 70




ASPHALTIC CONCRETE - 9.5-inches thick

ORANGE-BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)
BROWN AND OLIVE GRAY SILTY CLAY (CL)
medium stiff, moist (fill)

OLIVE GRAY SILTY SAND (SM)
loose, wet (fill)

Wood shavings to .5-inch long
GROUNDWATER LEVEL WHILE EXCAVATING
Sheen on water
OLIVE GRAY CLAYEY SILT (MH)
soft, wet (Bay Mud)

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

4/30/97

Soil sample at 2.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

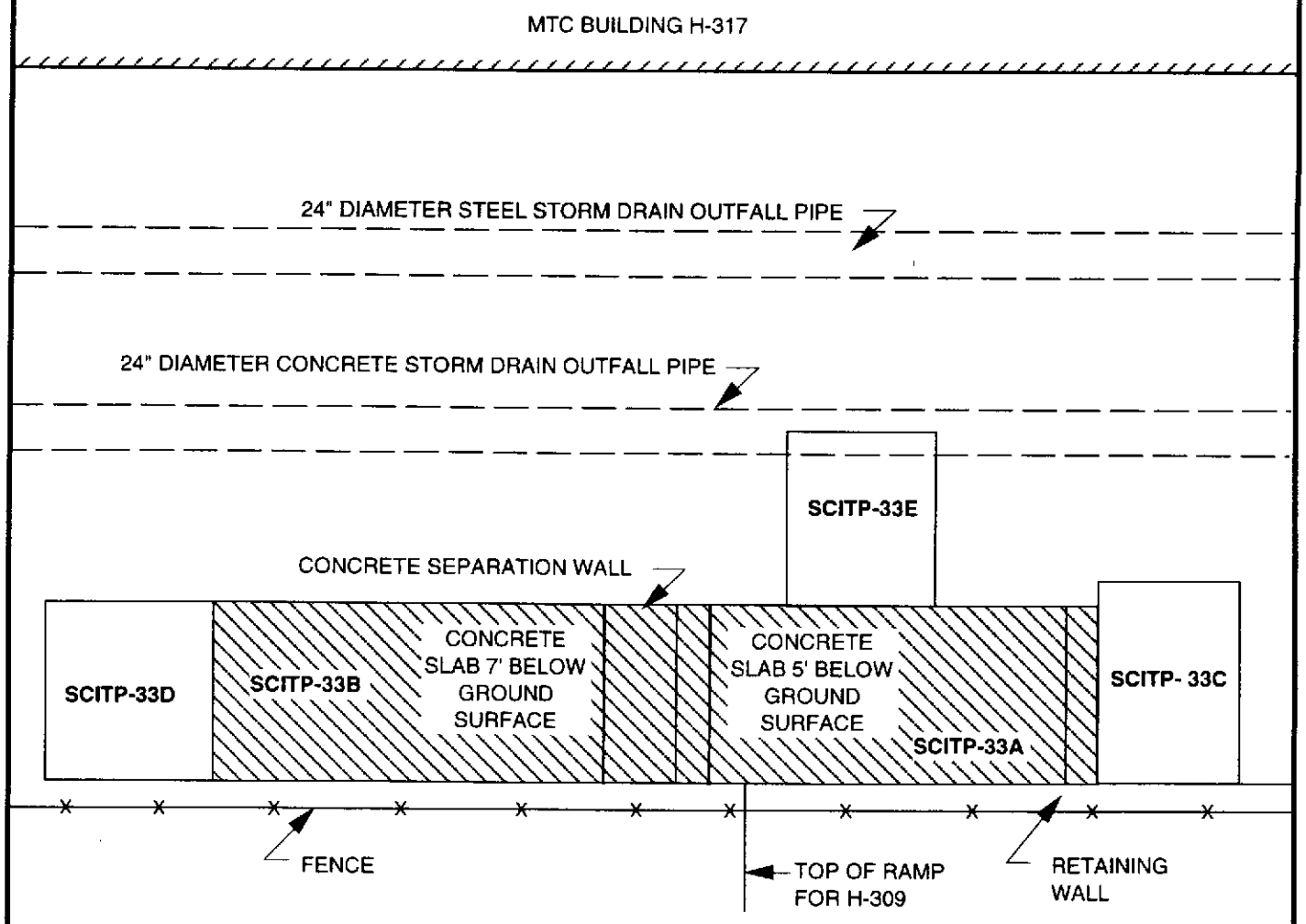
# LOG OF TEST PIT SCITP-32
# SOUTHEAST OF FORMER H-215

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 71




APPROXIMATE SCALE IN FEET

0 5 10

N

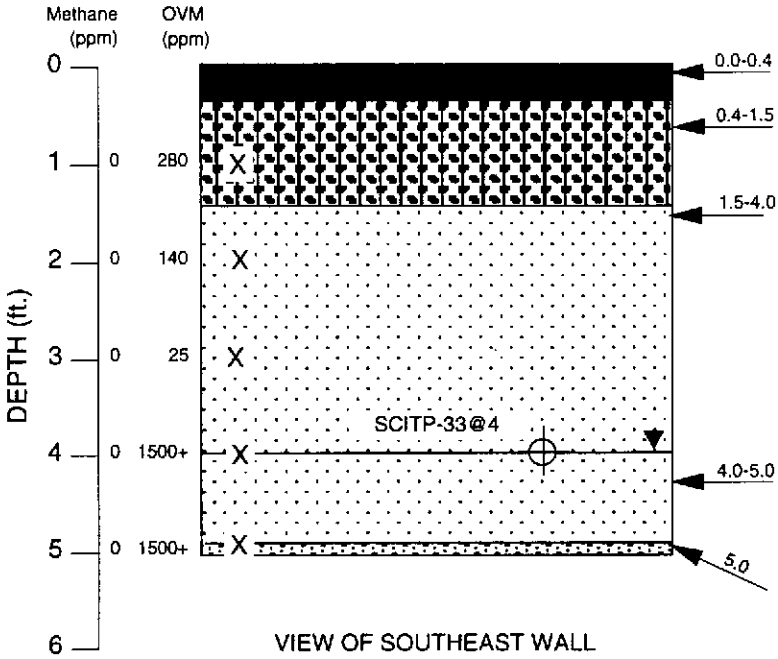
# TEST PIT SCITP-33
# SITE PLAN

Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE 72




VIEW OF SOUTHEAST WALL
5/1/97

ASPHALTIC CONCRETE - 5-inches thick

BROWN SANDY GRAVEL (GM)
dense, moist, gravel to 1.5-inch diameter (fill)

BROWN SAND (SP)
loose, moist (fill)

GROUNDWATER LEVEL WHILE EXCAVATING
Sheen on groundwater
DARK GRAY AND DARK OLIVE GRAY SAND (SP)
loose, saturated, with very strong hydrocarbon odor and hydrocarbon product (fill)
CONCRETE SLAB

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil sample at 4.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

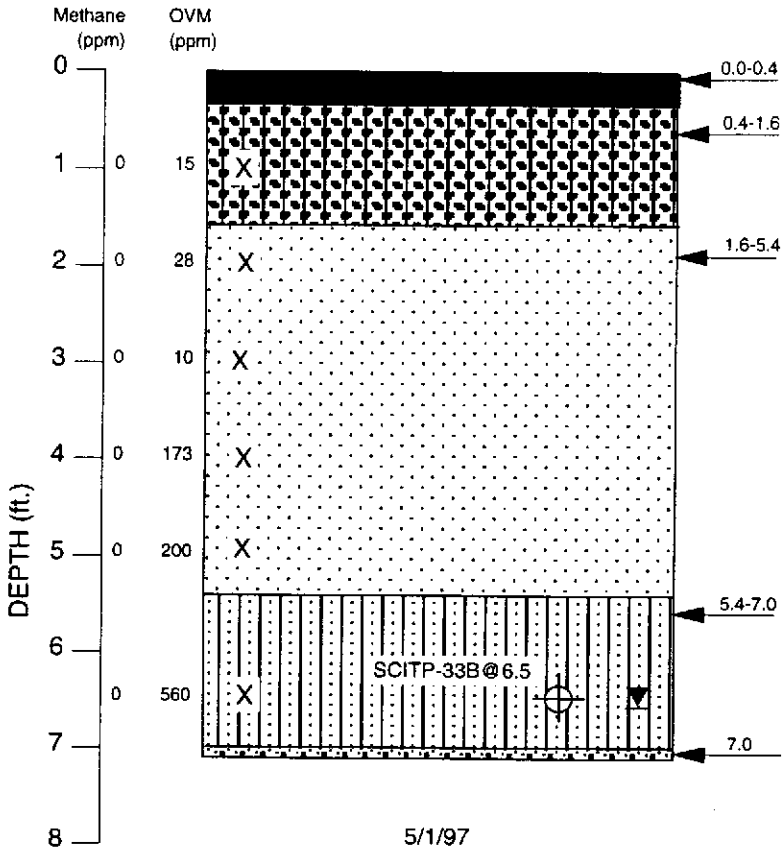
# LOG OF TEST PIT SCITP-33A
# MTC UST AREA

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE 73




ASPHALTIC CONCRETE - 5-inches thick

BROWN SANDY GRAVEL (GM)
dense, moist, gravel to 1.5-inch diameter (fill)

BROWN SAND (SP)
loose, moist, with debris consisting of wood fragments, paper and metal (fill)

DARK GRAY AND BLACK SILTY SAND (SM)
loose, moist, sheen on water (fill)

GROUNDWATER LEVEL WHILE EXCAVATING
Sheen on water
CONCRETE SLAB

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil sample at 6.5' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

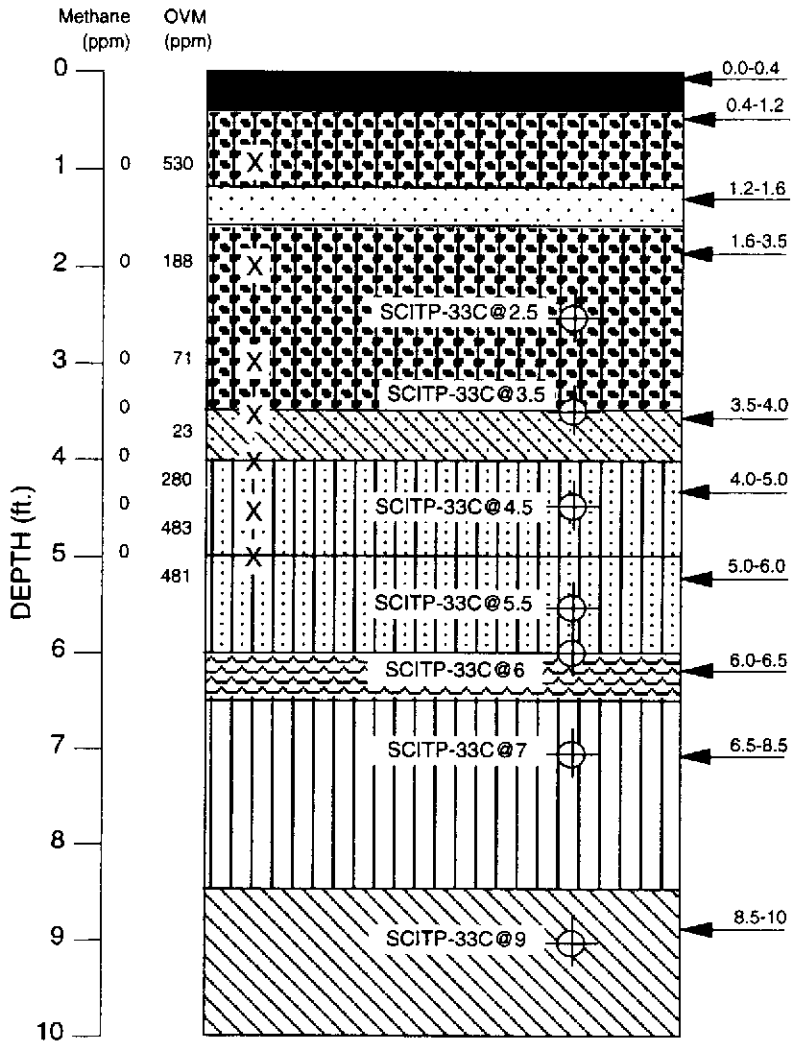
# LOG OF TEST PIT SCITP-33B
# MTC UST AREA

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE 74




0.0-0.4 ASPHALTIC CONCRETE - 5-inches thick

0.4-1.2 ORANGE-BROWN SANDY GRAVEL (GM)
loose, dry (fill)

1.2-1.6 BROWN SAND (SP)
loose, moist (fill)

1.6-3.5 GRAY-BROWN AND ORANGE-BROWN SILTY GRAVEL (GM/GC)
medium dense, moist (fill)

3.5-4.0 DARK BROWN CLAYEY SAND (SC)
medium dense, moist, with gravel and some debris, wood and concrete (fill)

4.0-5.0 DARK GRAY SILTY SAND (SM)
loose, moist, with strong hydrocarbon odor (fill)

5.0-6.0 DARK GRAY-BROWN SILTY SAND (SM)
loose, wet, coated in hydrocarbon product

6.0-6.5 BLACK PEAT (PT)
soft, wet, with hydrocarbon odor

6.5-8.5 DARK GRAY CLAYEY SILT (MH)
soft, wet (fill)

Timber @ 8 feet

8.5-10 MOTTLED BROWN AND OLIVE GREEN SILTY CLAY (CL)
medium stiff, moist (fill)

NO GROUNDWATER ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

5/1/97

Soil sample at 4.5' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

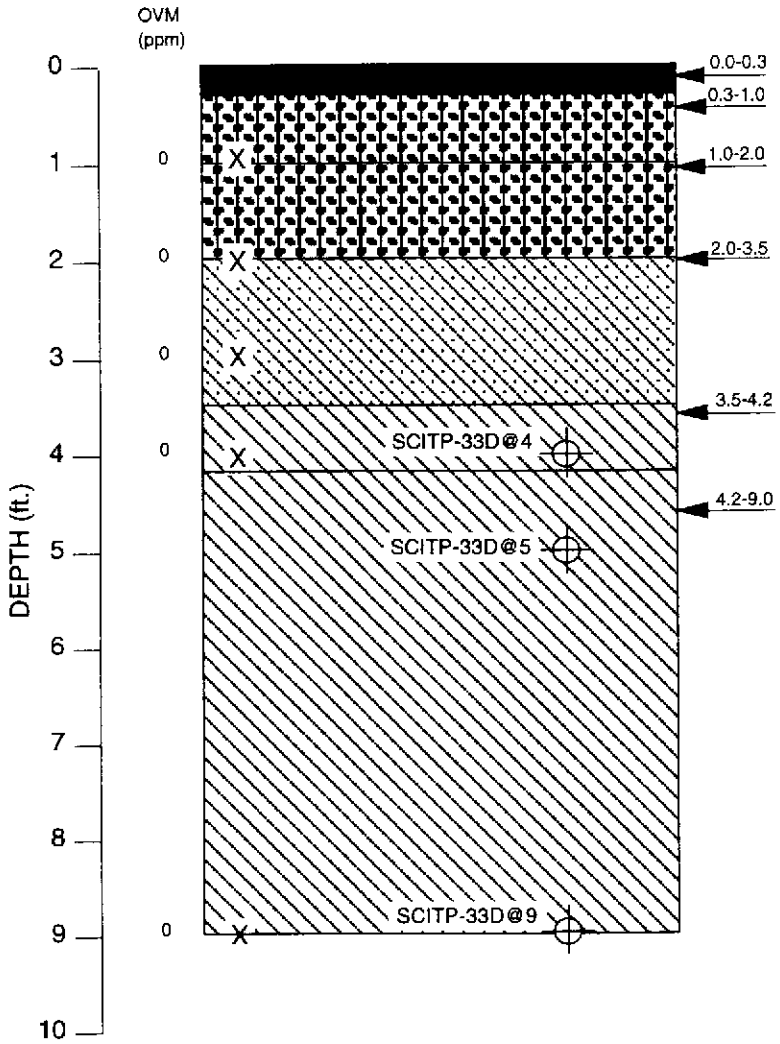
# LOG OF TEST PIT SCITP-33C
# MTC UST AREA

Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 75




ASPHALTIC CONCRETE - 4-inches thick

ORANGE-BROWN SANDY SILTY GRAVEL (GM)
dense, moist (fill)

LIGHT GRAY-BROWN SANDY GRAVEL (GM)
dense, moist (fill)

GRAY-BROWN CLAYEY SAND (SC)
loose, moist (fill)

BLACK, LIGHT GRAY AND OLIVE GRAY GRAVELLY CLAY (CL)
medium stiff, moist, with charcoal and wood (fill)

MOTTLED LIGHT BROWN AND OLIVE GRAY SILTY CLAY (CL)
medium stiff, moist (fill)

NO GROUNDWATER ENCOUNTERED

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

VIEW OF NORTHWEST WALL
5/2/97

Soil sample at 4.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

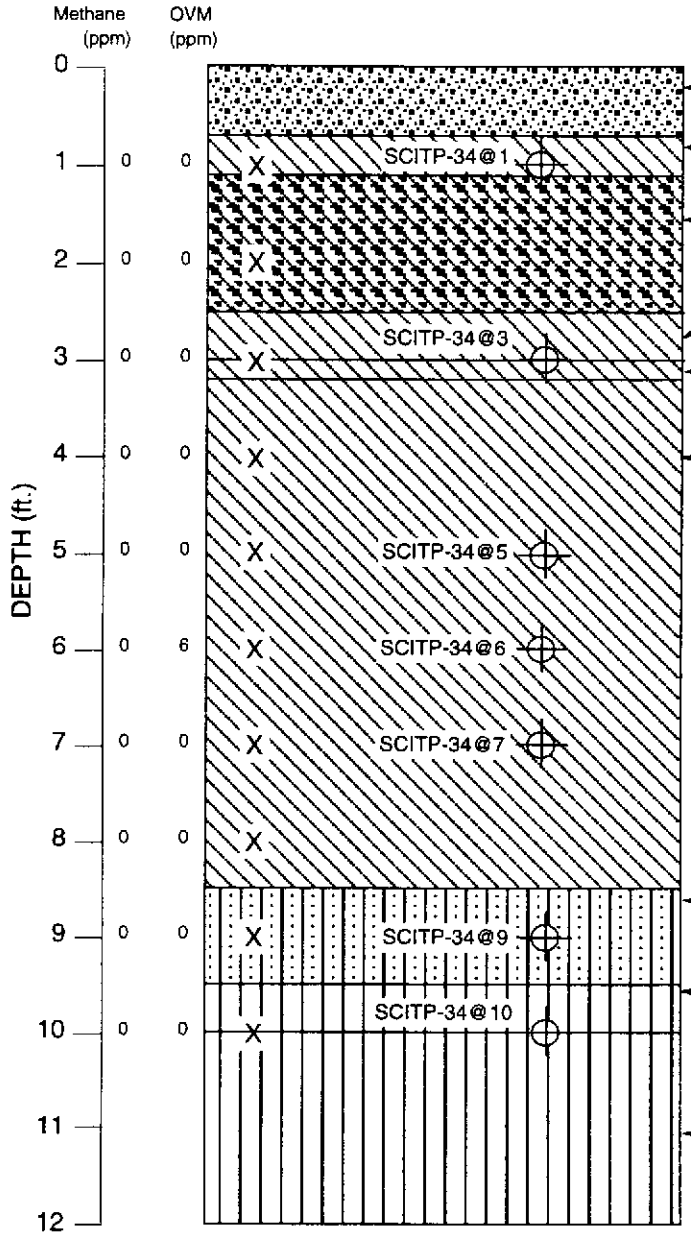
# LOG OF TEST PIT SCITP-33D
# MTC UST AREA

Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 76




| | | | |
|---|---|---|---|
| 0 | | | |
| 1 | 0 | 0 | |
| 2 | 0 | 0 | |
| 3 | 0 | 0 | |
| 4 | 0 | 0 | |
| 5 | 0 | 0 | |
| 6 | 0 | 6 | |
| 7 | 0 | 0 | |
| 8 | 0 | 0 | |
| 9 | 0 | 0 | |
| 10 | 0 | 0 | |
| 11 | | | |
| 12 | | | |

5/1/97

Soil samples at 6.0' and 9.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

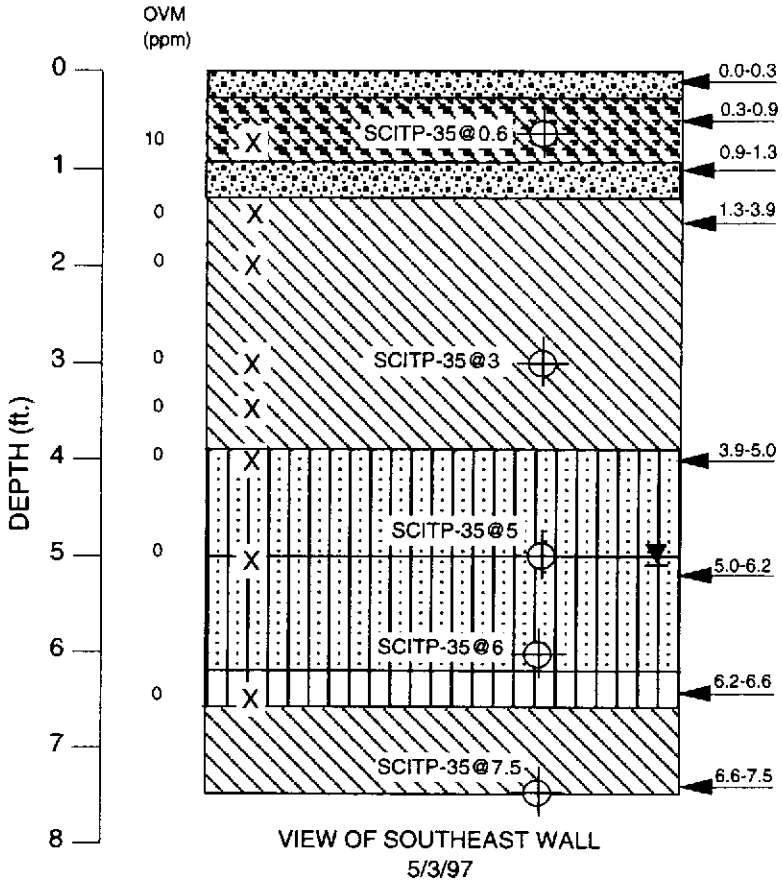
# LOG OF TEST PIT SCITP-34
# KALMAN UNDERGROUND TANK AREA

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE 78




VIEW OF SOUTHEAST WALL
5/3/97

0.0-0.3 CONCRETE SLAB - 4-inches thick

0.3-0.9 ORANGE-BROWN CLAYEY GRAVEL (GC)
dense, moist , with slight hydrocarbon odor

0.9-1.3 CONCRETE SLAB - 5-inches thick
stained black on top

1.3-3.9 BROWN SILTY CLAY (CL/MH)
soft, moist (fill)

3.9-5.0 BROWN SILTY SAND (SM/SP)
loose, wet (fill)

GROUNDWATER LEVEL WHILE EXCAVATING

5.0-6.2 OLIVE GREEN SILTY SAND (SM)
loose, wet, with hydrocarbon odor and sheen on groundwater (fill)

6.2-6.6 BLACK CLAYEY SILT (MH/CH)
soft, wet, with peat, organic debris and charcoal (fill)

6.6-7.5 MOTTLED DARK GRAY AND OLIVE GRAY SILTY CLAY (CL)
medium stiff, moist, with sand lenses (fill)

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil sample at 5.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

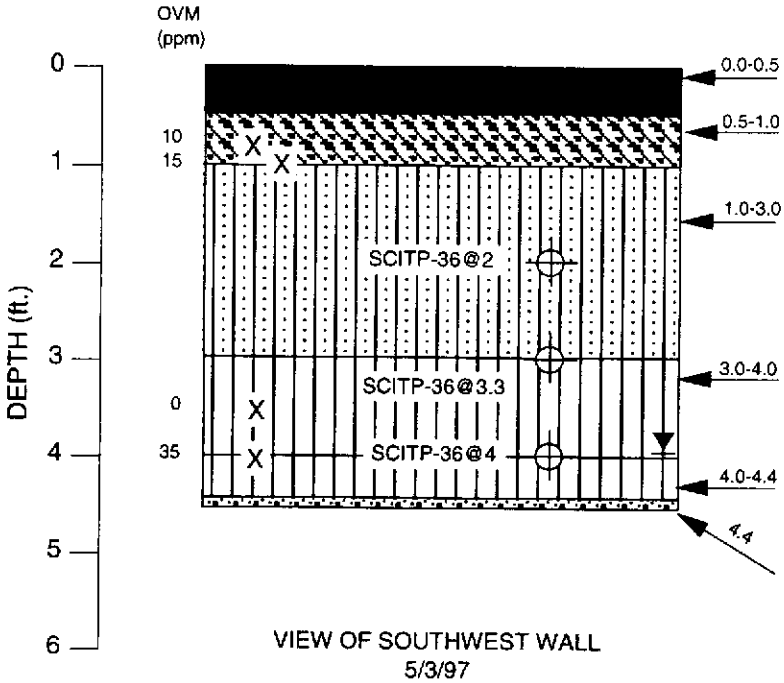
# LOG OF TEST PIT SCITP-35
# NEAR CURRENT KOT AST

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE 79




VIEW OF SOUTHWEST WALL
5/3/97

ASPHALTIC CONCRETE - 6-inches thick

ORANGE-BROWN CLAYEY GRAVEL (GC)
dense, moist (fill)

BROWN SILTY SAND (SM/SP)
loose to medium dense, moist (fill)

OLIVE GREEN SILT (ML)
soft, moist (fill)
GROUNDWATER LEVEL WHILE EXCAVATING

BLACK CLAYEY SILT (ML)
soft, wet, with peat, organic debris and hydrocarbon odor (fill)
CONCRETE SLAB
Water accumulating on slab with visible floating product

TEST PIT BACKFILLED AND COMPACTED WITH SOIL CUTTINGS OR IMPORT FILL AND RESURFACED TO MATCH EXISTING CONDITIONS.

Soil sample at 4.0' bgs submitted for analytical testing. Groundwater sample submitted for analytical testing.

⊕ TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

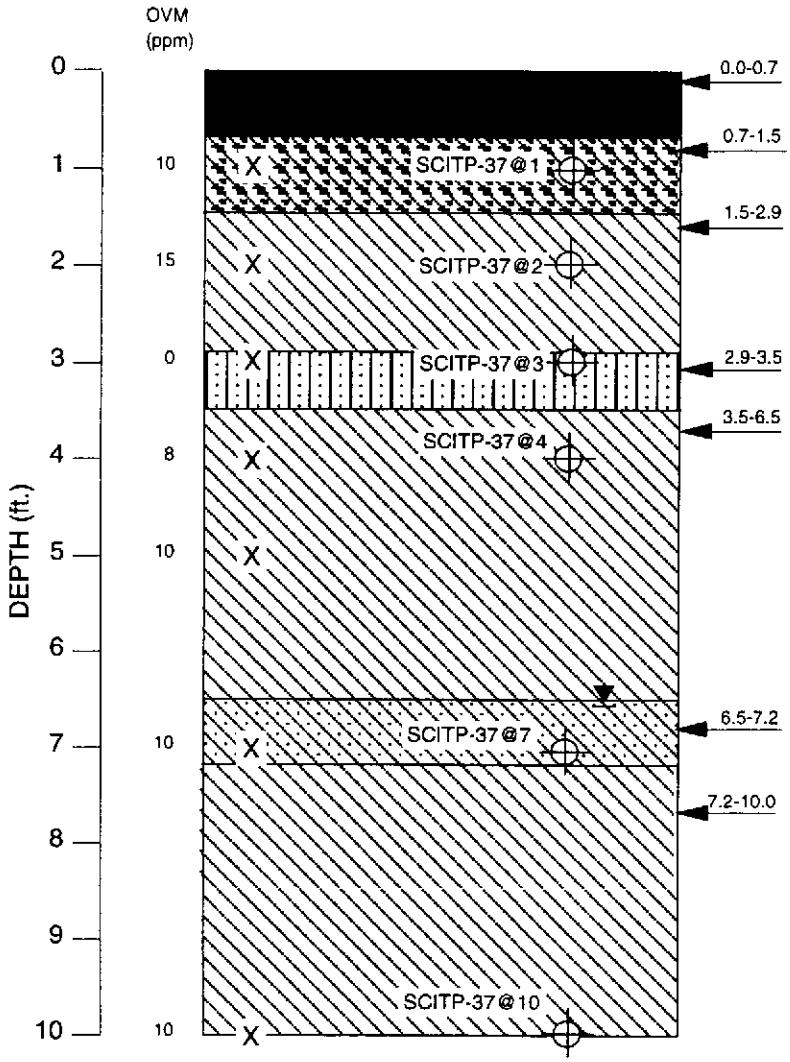
# LOG OF TEST PIT SCITP-36
# NEAR CURRENT KOT AST

SCI Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/20/97 | |

PLATE
80




5/3/97

Soil sample at 7.0' bgs submitted for analytical testing. No groundwater sample submitted for analytical testing.

TUBE/JAR SOIL SAMPLE LOCATION

X BAG SOIL SAMPLE LOCATION

# LOG OF TEST PIT SCITP-37
# CANNERY LINE AREA NEAR KOT RELEASE

Subsurface Consultants, Inc.

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 5/19/97 | |

PLATE 81

| GENERAL SOIL CATEGORIES | | | SYMBOLS | TYPICAL SOIL TYPES |
|---|---|---|---|---|
| COARSE GRAINED SOILS<br>More than half is larger than No. 200 seive | GRAVEL<br>More than half coarse fraction is larger than No. 4 seive size | Clean Gravel with little or no fines | GW | Well Graded Gravel, Gravel-Sand Mixtures |
| | | | GP | Poorly Graded Gravel, Gravel-Sand Mixtures |
| | | Gravel with more than 12% fines | GM | Silty Gravel, Poorly Graded Gravel-Sand-Silt Mixtures |
| | | | GC | Clayey Gravel, Poorly Graded Gravel-Sand-Clay Mixtures |
| | SAND<br>More than half coarse fraction is smaller than No. 4 seive size | Clean Sand with little or no fines | SW | Well Graded Sand, Gravelly Sand |
| | | | SP | Poorly Graded Sand, Gravelly Sand |
| | | Sand with more than 12% fines | SM | Silty Sand, Poorly Graded Sand-Silt Mixtures |
| | | | SC | Clayey Sand, Poorly Graded Sand-Clay Mixtures |
| FINE GRAINED SOILS<br>More than half is smaller than No. 200 seive | SILT AND CLAY<br>Liquid Limit Less than 50% | | ML | Inorganic Silt and Very Fine Sand, Rock Flour, Silty or Clayey Fine Sand, or Clayey Silt with Slight Plasticity |
| | | | CL | Inorganic Clay of Low to Medium Plasticity, Gravelly Clay, Sandy Clay, Silty Clay, Lean Clay |
| | | | OL | Organic Clay and Organic Silty Clay of Low Plasticity |
| | SILT AND CLAY<br>Liquid Limit Greater than 50% | | MH | Inorganic Silt, Micaceous or Diatomaceous Fine Sandy or Silty Soils, Elastic Silt |
| | | | CH | Inorganic Clay of High Plasticity, Fat Clay |
| | | | OH | Organic Clay of Medium to High Plasticity, Organic Silt |
| HIGHLY ORGANIC SOILS | | | PT | Peat and Other Highly Organic Soils |

# UNIFIED SOIL CLASSIFICATION SYSTEM

Subsurface Consultants

NINTH AVENUE TERMINAL - OAKLAND, CA

| JOB NUMBER | DATE | APPROVED |
|---|---|---|
| 133.004 | 12/3/96 | |

PLATE 82

# APPENDIX A

# ACHCSA CORRESPONDENCE

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ARNOLD PERKINS, DIRECTOR
Alameda County CC4580
Environmental Health Services
1131 Harbor Bay Pkwy., #250
Alameda CA 94502-6577
(510)567-6700 FAX(510)337-9335

May 23, 1996
StID # 3335

Ms. Michele Heffes
Port of Oakland Legal Department
530 Water St.
P.O. Box 2064
Oakland CA 94604-2064

**Re: Request for Work Plan for Further Site Characterization at 370 8th Ave., Oakland CA 94606, Keep On Trucking.**

Dear Ms. Heffes:

Our office has recently met with Ms. Jeriann Alexander of Subsurface Consultants, Inc. on May 15, 1996. At our meeting additional information was shown which illustrated the complexity of the above site in regards to determining the exact sources of the petroleum contamination being found at this site. It was clear that the initial belief that only two sources of diesel contamination, the aboveground tank at Building H-213 and the underground tank at Building H-107, is not an accurate description of this site. Many inconsistencies can and have been pointed out which cannot be explained solely by the above two sources.

Ms. Alexander's May 14, 1996 letter to Mr. Jonathan Redding as well as conversation with Ms. Alexander pointed out a number of these inconsistencies. Some of these are:

1. Where the aboveground and underground diesel tanks had formerly been, **both** gasoline and diesel contamination has been detected.

2. Free product and dissolved product contaminant plumes have been observed **upgradient** of the two identified source areas. Either preferential pathways and/or other sources exist. Significant subsurface utilities have been identified at the site which gives credence to the likelihood of preferential pathways.

3. The actual release point to the estuary during the 1992 diesel release has been reported to be from two areas not solely from the storm drain parallel to Eight Ave. A storm drain with a direct outlet to Clinton Basin reportedly was a discharge point for diesel fuel.

4. A number of underground and aboveground tanks were identified through historic maps of this site. The closure of the underground tanks has not been documented.

5. Recently, free product of an oily nature was found in a manhole near the estuary. Considerable amounts of oily water was removed without diminishing the apparent volume of liquid. The source of this liquid is currently unknown.

6. During our meeting, a large map with overlays was presented which indicated that a number of businesses have occupied this site. Potential additional contaminants as well as additional RPs were discussed based on past business usage.

Based on the information presented in this meeting, our office agrees that prior to developing and implementing a Corrective Action Plan for this site, additional site investigation is warranted. We further agree that this investigation should include, at a minimum, a detailed utility survey, screening in those areas where additional underground tanks exist or may have existed, a soil and groundwater sampling plan, additional monitoring wells were appropriate and continued quarterly groundwater monitoring.

Additionally, you are requested to submit all previous investigative reports (Phase I or Phase II) which has not yet been submitted to our office. We are aware that additional monitoring wells have been installed at the site. Please include a map containing similar information as was presented in the May 15th meeting.

Please inform our office of all field activities at this site **with 72 working hours prior notice.**

Please submit a work plan for the above referenced additional site investigation **within 30 days or by June 24, 1996.** Note that this is a formal request for technical reports pursuant to the Water Code Section 13267 (b) and Chapter 6.7, Section 25299.37 of the Health and Safety Code. The failure to submit the requested reports may subject the Port to civil liability.

You are also requested to submit a check for $1800.00 payable to Alameda County Environmental Health to cover the oversight costs related to this SLIC (Spills, Leaks, Investigation and Cleanup) site. As it is not appropriate to attribute the entire petroleum release at this site to the underground diesel tank, it is no longer possible to oversee this site totally under the LOP (Local Oversight Program). Therefore, the fee requested will be used to provide services related to non-UST related investigation and cleanup oversight.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: Mr. Jeff Rubin, Port of Oakland, Environmental Department
Ms. J. Alexander, Subsurface Consultants, Inc., 171 12th St., Suite 201, Oakland CA 94607
Mr. J. Redding, Fitzgerald, Abbott & Beardsley LLP, 1221 Broadway, 21st Floor, P.O. Box 12867, Oakland 94604-2867
Mr. Richard Padovani, Keep on Trucking, 370 8th Ave., Oakland CA, 94606
Mr. Micheal Delehunt, Crosby, Heafy, Roach & May, 1999 Harrison St., Oakland CA 94612
Mr. S. Arigala, RWQCB
G. Jensen, Alameda County District Attorney Office
G. Coleman, files

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ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

August 2, 1996
StID # 3335

Ms. Michele Heffes
Port of Oakland Legal Department
530 Water St.
P.O. Box 2064
Oakland CA 94604-2064

**Re: Request for Work Plan for Further Site Characterization at 370 8th Ave., Oakland CA 94606, Keep On Trucking.**

Dear Ms. Heffes:

Our office met with Ms. Jeriann Alexander of Subsurface Consultants, Inc. and Mr. Johnathan Redding of Fitzgerald, Abbott & Beardsley today at the County's offices. At our meeting, draft results from recent subsurface investigations at the above site were shown which provided information regarding the potential sources and pathways of the petroleum contamination being found at this site. Additional non-petroleum contamination was also detected in these subsurface investigations.

Based on the information presented in this meeting, our office agrees that prior to developing and implementing a Corrective Action Plan for this site, additional site investigation is warranted. We agree that this investigation should continue the previously proposed actions ie completing a detailed utility survey, screening those areas where additional underground tanks exist or may have existed, perform additional soil and groundwater sampling in potential source areas, install additional monitoring wells where appropriate and continue quarterly groundwater monitoring. Our office also concurrs with the other items discussed in the meeting ie the installation of perimeter monitoring wells and additional investigation of the property just south of this site. Additionally, the County requests that all free product at this site be removed to the greatest extent possible.

I understand that the previously requested reports are near completion and are expected to be submitted to our office shortly.

Please submit the requested reports and a work plan for all additional site investigation **within 30 days or by September 3, 1996.** You are reminded that this is a formal request for technical reports pursuant to the Water Code Section 13267 (b) and Chapter 6.7, Section 25299.37 of the Health and Safety Code. The failure to submit the requested reports may subject the Port to civil liability.

Please inform our office of all field activities at this site **with 72 working hours prior notice.**

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: Mr. Jeff Rubin, Port of Oakland, Environmental Department
Ms. J. Alexander, Subsurface Consultants, Inc., 171 12th St., Suite 201, Oakland CA 94607
Mr. J. Redding, Fitzgerald, Abbott & Beardsley LLP, 1221 Broadway, 21st Floor, P.O. Box 12867, Oakland 94604-2867
Mr. Richard Padovani, Keep on Trucking, 370 8th Ave., Oakland CA, 94606
Mr. Micheal Delehunt, Crosby, Heafy, Roach & May, 1999 Harrison St., Oakland CA 94612
Mr. S. Arigala, RWQCB
G. Jensen, Alameda County District Attorney Office
G. Coleman, files

2ssiKOT

AUG 1996

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

August 30, 1996
StID # 3335

Ms. Michele Heffes
Port of Oakland Legal Department
530 Water St.
P.O. Box 2064
Oakland CA 94604-2064

**Re: Work Plan Addendum for Further Site Characterization at 370 8th Ave., Oakland CA 94606, Keep On Trucking.**

Dear Ms. Heffes:

Our office has received and reviewed the August 14, 1996 Work Plan Addendum for Further Site Characterization at the Ninth Avenue Terminal as prepared by Subsurface Consultants, Inc., (SCI). This work plan follows the August 2, 1996 meeting with Ms. Jeriann Alexander of Subsurface Consultants, Inc. and Mr. Johnathan Redding of Fitzgerald, Abbott & Beardsley. We have also received and completed cursory review of the two volumes of data in SCI's Interim Site Characterization report.

Based on the review of the August 14, 1996 SCI work plan addendum, review of the Interim Site Characterization report and the contents of the August 2, 1996 meeting our office approves the work plan addendum. The addendum includes:

1. Additional research;

2. Free product removal within the manhole near the southern bulkhead;

3. Installation of fourteen (14) monitoring wells in strategic locations; and

4. Advancement of additional borings in suspected areas of concern. Please keep in mind, additional requirements may result after closer scrutiny of the extensive report.

In addition, during the August 2nd meeting, due to the identification of potential underground tanks, I have notified our inspection staff regarding this information. Future contact with another Hazardous Materials Specialist from our office will occur. Therefore, the verification of tanks and their proper permitting or closure should be pursued by the Port or the tank owner/operator.

Our office agrees that prior to developing and implementing a Corrective Action Plan for this site, this additional site investigation is warranted.

Please inform our office of all field activities at this site **with 72 working hours prior notice.**

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: Mr. Jeff Rubin, Port of Oakland, Environmental Department
Ms. J. Alexander, Subsurface Consultants, Inc., 3736 Mt. Diablo Blvd., Suite 200, Lafayette, CA 94549
Mr. J. Redding, Fitzgerald, Abbott & Beardsley LLP, 1221 Broadway, 21st Floor, P.O. Box 12867, Oakland 94604-2867
Mr. Richard Padovani, Keep on Trucking, 370 8th Ave., Oakland CA, 94606
Mr. Micheal Delehunt, Crosby, Heafy, Roach & May, 1999 Harrison St., Oakland CA 94612
Mr. S. Arigala, RWQCB
G. Jensen, Alameda County District Attorney Office
G. Coleman, files

3ssiKOT

SEP 1996

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 2, 1996
StID #3335

Ms. Michele Heffes
Port of Oakland Legal Department
530 Water St.
P.O. Box 2064
Oakland CA 94604-2064

**Re: Request for Technical Reports for 370 8th St., Oakland CA 94606, Keep On Trucking**

Dear Ms. Heffes:

In our last correspondence with you, our office approved the Subsurface Consultants, Inc. (SCI) August 14, 1996 Work Plan for Further Site Characterization for the above site. An earlier site investigation identified a number of sites near Keep On Trucking which may have environmental concerns. Therefore, the work plan called for additional research, free product removal within a manhole near the southern bulkhead, the installation of fourteen (14) monitoring wells and the advancement of additional borings in areas of suspected environmental concern. This information was agreed to be necessary prior to developing and implementing a Corrective Action Plan (CAP) for the entire area. To date, our office has not been informed if all or part of the approved work has been performed.

Our office requests an update on all additional subsurface investigation which has occurred at and around the above referenced site. At this time, our office is referring to the entire 8th, 9th and 10th Ave. areas as "Keep On Trucking". More appropriately, this site should be separated into several sites for the purposes of investigation or a no further action letter. I understand that the Port is investigating other potential responsible parties, however, until further information is provided, the Port remains the sole responsible party.

Along with this report, the Port should be ready to provide specific recommendations for their CAP. Such a CAP may include limited removal of contamination, the closure of any identified underground tanks, free product removal, baseline Tier 1 risk assessment and/or other remedial actions.

Please provide all technical reports including a written update of site investigation to our office **within 30 days or by January 3, 1997.** This is a formal request for technical reports pursuant to the California Health and Safety Code and the Water Code.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: Mr. Jeff Rubin, Port of Oakland, Environmental Department
Ms. J. Alexander, Subsurface Consultants, Inc., 3736 Mt. Diablo Blvd., Suite 200, Lafayette, CA 94549
Mr. J. Redding, Fitzgerald, Abbott & Beardsley LLP, 1221 Broadway, 21st Floor, P.O. Box 12867, Oakland 94604-2867
Mr. Richard Padovani, Keep on Trucking, 370 8th Ave., Oakland CA, 94606
Mr. Micheal Delehunt, Crosby, Heafy, Roach & May, 1999 Harrison St., Oakland CA 94612
Mr. S. Arigala, RWQCB
Bob Chambers, Alameda County District Attorney Office
B. Chan, files

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ALAMEDA COUNTY
**HEALTH CARE SERVICES**
AGENCY
DAVID J. KEARS, Agency Director

January 2, 1997
StID #3335

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
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FAX (510) 337-9335

Ms. Michele Heffes
Port of Oakland Legal Department
530 Water St.
P.O. Box 2064
Oakland CA 94604-2064

**Re: Evaluation of Interim Report Site Characterization Eight Ave. Area, Ninth Ave. Terminal Port of Oakland 12/23/96**

Dear Ms. Heffes:

In response to my December 2, 1996 letter, our office has received and reviewed the above technical report which summarizes previous work and gives the results of the second phase of site assessment performed by Subsurface Consultant, Inc. (SCI). The most recent work includes the installation of additional monitoring wells and temporary borings in strategic areas. It is clear that additional investigation will be required since the limits of contamination need to be defined for the specific releases identified and a large number of questions still remain unanswered within this site.

Our office is in receipt of the numerous legal letters of intent to sue in regards to this site. We hope that site investigation, remediation and management can continue in spite of such actions. Until directed otherwise, our office will continue to correspond with the Port for all enviromental issues regarding this site. The site includes the areas along 8th, 9th and 10th Ave. with the Embarcadero, Defremery Ave., the Clinton Basin, the Inner Harbor Basin and Brooklyn Basin as boundaries.

In response to the **Recommendations** within the referenced report, our office has the following comments:

Floating product within the manhole located south of the former bulk fuel processing area should not only be periodically checked to measure for free product, but must be removed as accumulated.

We agree that the extent of contamination should be determined in all areas of significant contamination. A comprehensive groundwater monitoring schedule should be adhered to. Please indicate your intended monitoring schedule for the entire network of wells.

Please elaborate on the evaluation of the bulkheads as to their effectiveness in limiting groundwater migration.

Our office welcomes the opportunity to discuss the findings to date and to agree upon the scope of future investigations. Specific cleanup goals and remedial approaches should also be discussed. It may be necessary to consult with representatives from the Water Board to verify the appropriateness of any proposed Corrective Action Plan (CAP) and to agree upon cleanup levels. Please provide a proposed date for a meeting agreeable with our office and that of the RWQCB.

One remedial approach to consider is whether this area is appropriate for **Containment Zone Designation.** To this end, you are encouraged to examine this site relative to the requirements of this designation.

The results of the electromagnetic survey were not conclusive nor complete. Please address the following:

1. The metallic anomaly detected near the south of Building 229;

2. Clarify the existence and closure of underground tanks beneath the KOT offices and the metallic anomaly north of the office;

3. Clarify the existence of a potential underground tank near Building H-204:

4. Verify the removal or closure of the underground tank @ Building H-230 in Area O; and

5. Verify the existence of a 10K underground tank in Area K, northeast of Building 227.

All unpermitted underground fuel storage tanks must be either permitted or properly closed.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M Chan

Barney M. Chan
Hazardous Materials Specialist

c: Mr. Jeff Rubin, Port of Oakland, Environmental Department
Ms. J. Alexander, Subsurface Consultants, Inc., 3736 Mt. Diablo Blvd., Suite 200, Lafayette, CA 94549
Mr. J. Redding, Fitzgerald, Abbott & Beardsley LLP, 1221 Broadway, 21st Floor, P.O. Box 12867, Oakland 94604-2867
Mr. Richard Padovani, Keep on Trucking, 370 8th Ave., Oakland CA, 94606
Mr. Micheal Delehunt, Crosby, Heafy, Roach & May, 1999 Harrison St., Oakland CA 94612
Mr. S. Arigala, RWQCB
Bob Chambers, Alameda County District Attorney Office
B. Chan, files

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ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

January 14, 1997
StID #3335

Ms. Michele Heffes
Port of Oakland Legal Department
530 Water St.
P.O. Box 2064
Oakland CA 94604-2064

**Re: Evaluation of Data Gap Study Work Plan for Eighth Ave. Area, Ninth Ave. Terminal, Port of Oakland -December 1996**

Dear Ms. Heffes:

Our office has received and reviewed the above technical report from Subsurface Consultants, Inc. which proposes additional site investigation to fill data gaps which exist at the referenced property. The work plan and the January 8, 1997 meeting with Mr. J. Redding and Ms. J. Alexander address those items mentioned in my January 2, 1997 letter in regards to:

1. Anomalies encountered during the former electromagnetic survey;

2. The inspection and removal of free product in wells and within manholes;

3. The determination of the effectiveness the soil in limiting petroleum hydrocarbon migration; and

4. The initiation of a monitoring schedule for the existing network of monitoring wells.

Upon review of the work plan, our office concurrs with the proposed itemized tasks to clarify those areas of unknown or uncertain subsurface conditions. In addition, we request that a monitoring schedule be proposed for the site which provides for long term monitoring consistent with your sitewide remedial approach if you do not intend to monitor **all wells on a quarterly fashion.**

All underground tanks discovered during your investigation must be properly permitted or closed pursuant to Title 23, California Code of Regulations and Chapter 6.7 of the Health and Safety Code.

Please initiate your work plan **within 30 days of this letter** and submit a report of your findings **within 45 days of completion of your field work.**

Please consider this a request for technical reports, pursuant to the Water Code Section 13267 (b) and the Health and Safety Code Sections 25299.37 and 25299.78. The failure to submit the requested documents may subject the Port to civil liability. Also, the Health and Safety Code, section 25299, states that any owner or operator of an underground tank is liable for civil penalties of not less than $500 and not more than $5000 per day, per tank for failure to obtain a permit, or failing to properly close an underground tank.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: Mr. Jeff Rubin, Port of Oakland, Environmental Department
Ms. J. Alexander, Subsurface Consultants, Inc., 3736 Mt. Diablo Blvd., Suite 200, Lafayette, CA 94549
Mr. J. Redding, Fitzgerald, Abbott & Beardsley LLP, 1221 Broadway, 21st Floor, P.O. Box 12867, Oakland 94604-2867
Mr. Richard Padovani, Keep on Trucking, 370 8th Ave., Oakland CA, 94606
Mr. Micheal Delehunt, Crosby, Heafy, Roach & May, 1999 Harrison St., Oakland CA 94612
Mr. S. Arigala, RWQCB
Bob Chambers, Alameda County District Attorney Office
B. Chan, files

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ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

April 25, 1997
SLIC # 3335

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Mr. Jonathan Redding, Esq.
Fitzgerald, Abbott & Beardsley, LLP
1221 Broadway, 21st Floor
Oakland CA 94612

**Re: Site Investigation Work Plan for Ninth Ave. Terminal Area, Oakland CA 94606**

Dear Mr. Redding:

This letter serves to comment on the recently submitted March 26, 1997 work plan for the above site as prepared by your consultant, Subsurface Consultants, Inc., SCI. It is also a result of our recent, April 21, 1997 meeting at the County offices where you and your consultant clarified a number of the items specified in the work plan. Table A, listing the specific locations, analyses and rationale for the further investigation was also provided for my review.

This letter also addresses the planned work in two questionable areas discussed in our meeting; that within the former Midland-Ross plating facility and that area near the former Britz Chemical Company. I discussed these areas with our in-house toxicologist, Ms. Madhulla Logan and have used her input in my comments and recommendations.

In regards to the former plating facility within building H-232, because it was at one time a permitted TSDF facility, jurisdiction for site closure should be clarified through DTSC. Our office is willing to include this facility along with the other areas within the Ninth Avenue Terminal site, however, you should obtain a written statement from DTSC which approves of the County's oversight. Four wells are proposed for this area in addition to sampling two existing wells. Three of the four wells proposed within this area will serve a dual purpose; determining the impact of hexavalent chromium and cyanide to groundwater and secondly determining the extent of petroleum contamination from the KOT (Building H213) area. Our office concurs with the proposed wells, however, to reiterate it would be prudent to have DTSC's approval for County oversight.

In the area of the former Britz Chemical Company, Building H 207, one monitoring well and three test pits are proposed. Our office concurs with this work. In addition, we request that grab groundwater samples be taken from the test pits and filtered through a 0.45u filter prior to analysis for the organic parameters.

I have the following comments to the other bulleted items in SCI's March 26, 1997 letter:

* Bullet item 3 states that since free floating diesel product has been observed in the area of the current aboveground storage tank at KOT, test pits should be excavated to further evaluate the source. This proposal is accepted, however, please insure that **all** proposed analyses are required. Note that chlorinated pesticides are included in the semi-volatiles 8270 analysis so only one of these methods need be performed. What is your rationale for analyzing for chromium +6 and cyanide?

* Bullet item 4 recommends four borings, one test pit and one monitoring well to evaluate the elevated levels of motor oil and lead at the Lakeside Metals Drum and Metal Storage Area. Elevated motor oil and lead have been found in shallow soils and elevated lead in groundwater in this area. This proposal is acceptable. Note that the heavy metals analysis, EPA series 6000/7000 will include both lead and chromium analysis. Again, what is your rationale for chromium +6 and cyanide analyses?

* Bullet item 5 recommends eight test pits to evaluate the depressed trackage area where saturated petroleum has been observed. This investigation is warranted. Please observe the same precautions for analysis so that duplicative analysis is not performed. Is it reasonable that cyanide and hexavalent chromium could be detected in these areas? As the limits of specific contaminants are delineated, you may forego their analysis beyond these points.

* Bullet item 6 recommends investigation of building H-229, the former fertilizer bagging facility and current hazardous materials storage area for KOT. Four borings and one monitoring well are proposed. Our office has inspected this building and concurs that there is a potential for chemical release, therefore, investigation is warranted. I recommend the borings be located within the building, if possible, rather than outside.

* Bullet item 7 recommends investigation in the area of a former gasoline tank within building H-317. No information is available in this area. One test pit is proposed for soil and groundwater analysis. This is acceptable, however, why are the non-petroleum analytes being requested? (Volatile organics, semi-volatiles, chromium +6 and cyanides).

* Bullet item 8 recommends installation of a well just within Building H-215 since surface staining was observed outside this building. Besides analyzing for the chemicals formerly stored in the building, please analyze for the contaminants detected in the borings and test pits south of building H215.

* Bullet item 9 proposes two borings just south of Building H213 to investigate the surface staining observed in these areas. Just soil samples are needed since three monitoring wells are proposed which surround these two borings.

* Bullet item 10 proposes to advance four test pits to investigate the area along Clinton Basin. A previous test pit detected free petroleum product although TPH has not been detected in nearby monitoring wells. Future site remediation requires knowing the extent of this shoreline petroleum contamination thus this work is warranted.

* Bullet item 11 proposes to investigate the location of a former underground tank where saturated soils were detected. This area is located near former Building H204. A monitoring well will be installed in this area.

* Bullet item 12 proposes to investigate the Cannery Line, which has previously detected petroleum fluids and which may serve as a source for contaminant migration. Since this line is part of the underground utilities it may serve directly or indirectly as a conduit for contaminant migration. The general condition and contents of this line may indicate its likelihood to act as a conduit.

All of the above tasks are reasonable. Our office cannot comment on the exact number of samples nor the entire suite of analytes proposed for testing. Your consultant must exercise professional judgement when performing this work by analyzing only samples which give meaningful information and analyzing only for contaminants with a reasonable likelihood of being present. Further, our office has not received a complete report of the most recent field work, therefore, our background information is incomplete.

Our office requests that further investigation be performed beneath the existing KOT office trailer. The work plan proposal says that that USTs may still exist beneath this area. Contamination and piping has also been detected beneath the building. This area requires further investigation.

Our office confirms that stated in your April 23, 1997 letter ie as soon as conclusive evidence is provided that releases from underground petroleum hydrocarbon occurred, specific sites will be transferred into the LOP program. However, this will not prevent these sites from being investigated in a sitewide approach. Should a RP request to accelerate closure of their underground tank site, they may choose to perform additional investigation beyond what is currently proposed.

The following information was requested during our meeting:

1. Names and addresses of additional responsible parties for all former or existing underground tanks. Please also inform our office if any of these parties would like to independently investigate their release site.

2. Specific details of the chemical analysis performed in the former plating facility within Building H-232. Additionally, please provide the complete investigation report for the recent field work.

3. Please be reminded that the proper closure of all unpermitted underground tanks remains a priority. The individuals named above (#1) must proceed diligently with closure applications.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan
Hazardous Materials Specialist

c: Mr. Jeff Rubin and Ms. M. Heffes Esq, Port of Oakland, Env. Department, 530 Water St., Oakland CA 94607
Ms. J. Alexander, Subsurface Consultants, Inc., 3736 Mt. Diablo Blvd., Suite 200, Lafayette, CA 94549
Mr. Richard Padovani, Keep on Trucking, 370 8th Ave., Oakland CA, 94606
Mr. Micheal Delehunt, Crosby, Heafy, Roach & May, 1999 Harrison St., Oakland CA 94612
Mr. S. Arigala, RWQCB
Bob Chambers, Alameda County District Attorney Office
B. Chan, files
7-KOT

# APPENDIX B

## ANALYTICAL TEST REPORTS AND CHAIN-OF-CUSTODY FORMS FOR SPLIT SAMPLES TAKEN DURING RMA's SOIL AND GROUNDWATER INVESTIGATION

Curtis & Tompkins, Ltd., Analytical Laboratories. Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# A N A L Y T I C A L  R E P O R T

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 02-DEC-96
Lab Job Number: 127487
Project ID: 133.005
Location: KOT

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.


## TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3510

| Sample # | Client ID | Batch # | Sampled | Extracted | Analyzed | Moisture |
|---|---|---|---|---|---|---|
| 127487-002 | RMA-1 | 31117 | 11/18/96 | 11/25/96 | 11/27/96 | |
| 127487-004 | RMA-2 | 31117 | 11/18/96 | 11/25/96 | 12/02/96 | |

Matrix: Water

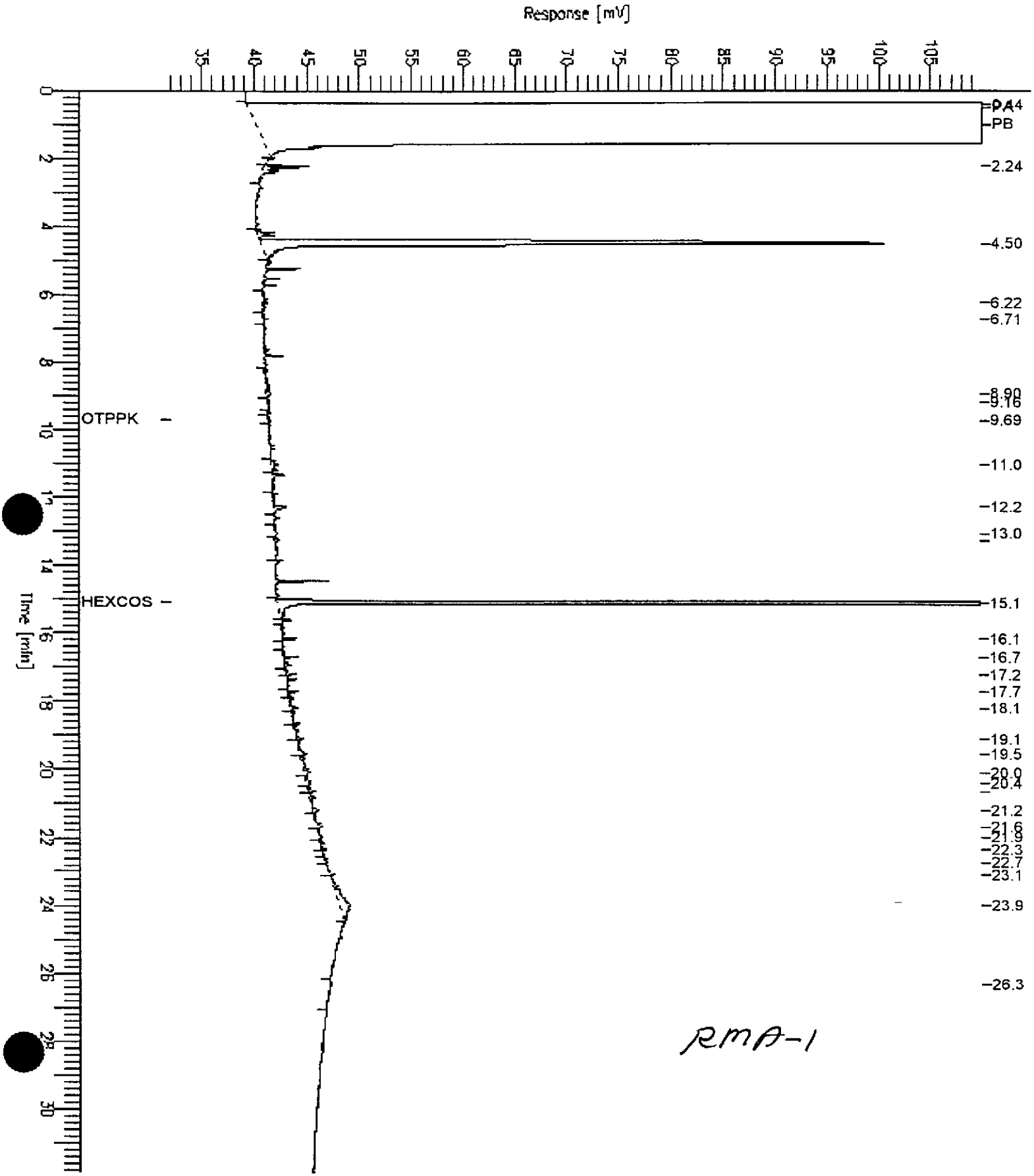
| Analyte | Units | 127487-002 | 127487-004 |
|---|---|---|---|
| Diln Fac: | | 1 | 2 |
| Diesel C12-C22 | ug/L | 110 YZ | 1500 YH |
| Motor Oil C22-C50 | ug/L | <250 | 31000 YH |
| Surrogate | | | |
| Hexacosane | %REC | 68 | 105 |

Y: Sample exhibits fuel pattern which does not resemble standard
Z: Sample exhibits unknown single peak or peaks
H: Heavier hydrocarbons than indicated standard

# GC15 Channel B Surrogate

Sample Name : 127487-002,31117
FileName : G:\GC15\CHB\331B036.raw
Method : DUAL
Start Time : 0.00 min End Time : 31.90 min
Slope Factor: 0.0 Plot Offset: 32 mV

Sample #: 31117 Page 1 of 1
Date : 12/2/96 11:28 AM
Time of Injection: 11/27/96 06:52 PM
Low Point : 32.00 mV High Point : 110.00 mV
Plot Scale: 78.0 mV

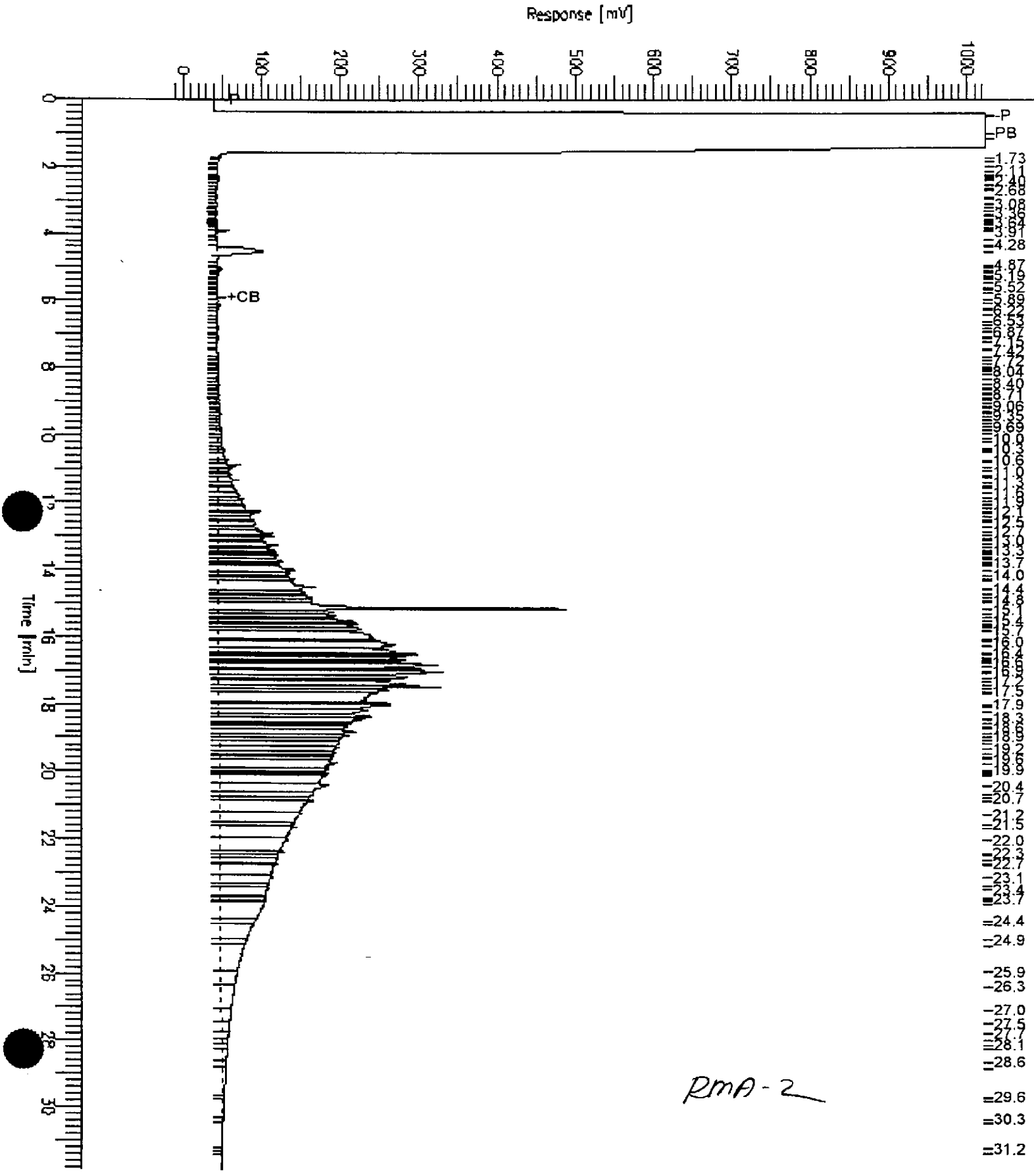



RMA-1

# GC15 Channel B TEH

Sample Name : 127487-~~002~~ 004
FileName : G:\GC15\CHB\337B011.RAW
Method : B332TEH.MTH
Start Time : 0.00 min End Time : 31.90 min
Slope Factor: 0.0 Plot Offset: -12 mV

Sample #: 31117 Page 1 of 1
Date : 12/2/96 04:35 PM
Time of Injection: 12/2/96 03:52 PM
Low Point : -12.31 mV High Point : 1024.00 mV
Plot Scale: 1036.3 mV

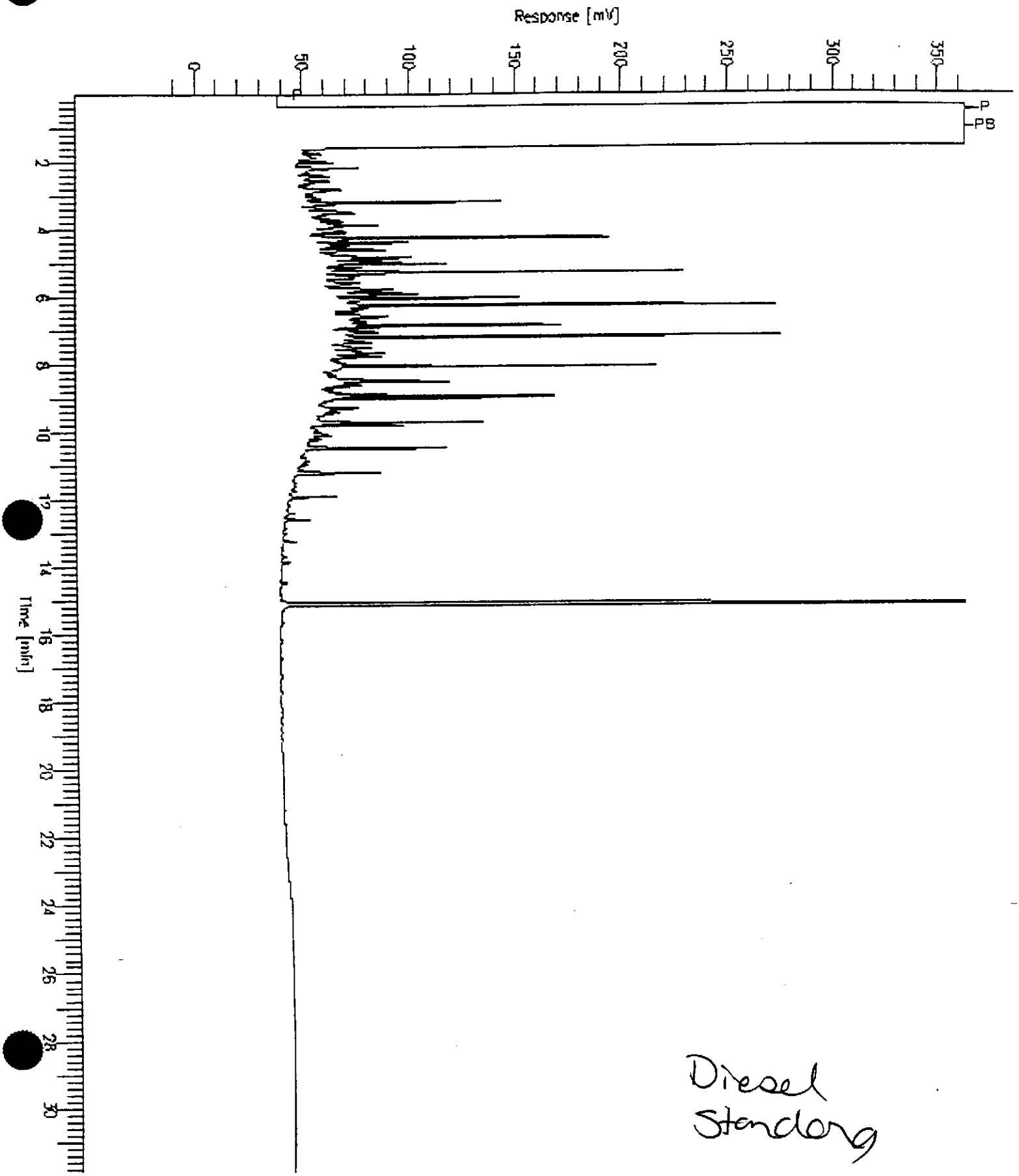



RMA-2

# GC15 Channel B TEH

Sample Name : CCV,96WS3219,DS
FileName : G:\GC15\CHB\331B040.RAW
Method : B332TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: -13 mV

Sample #: 500MG/L Page 1 of 1
Date : 12/2/96 02:56 PM
Time of Injection: 11/27/96 09:48 PM
Low Point : -13.15 mV High Point : 363.15 mV
Plot Scale: 376.3 mV

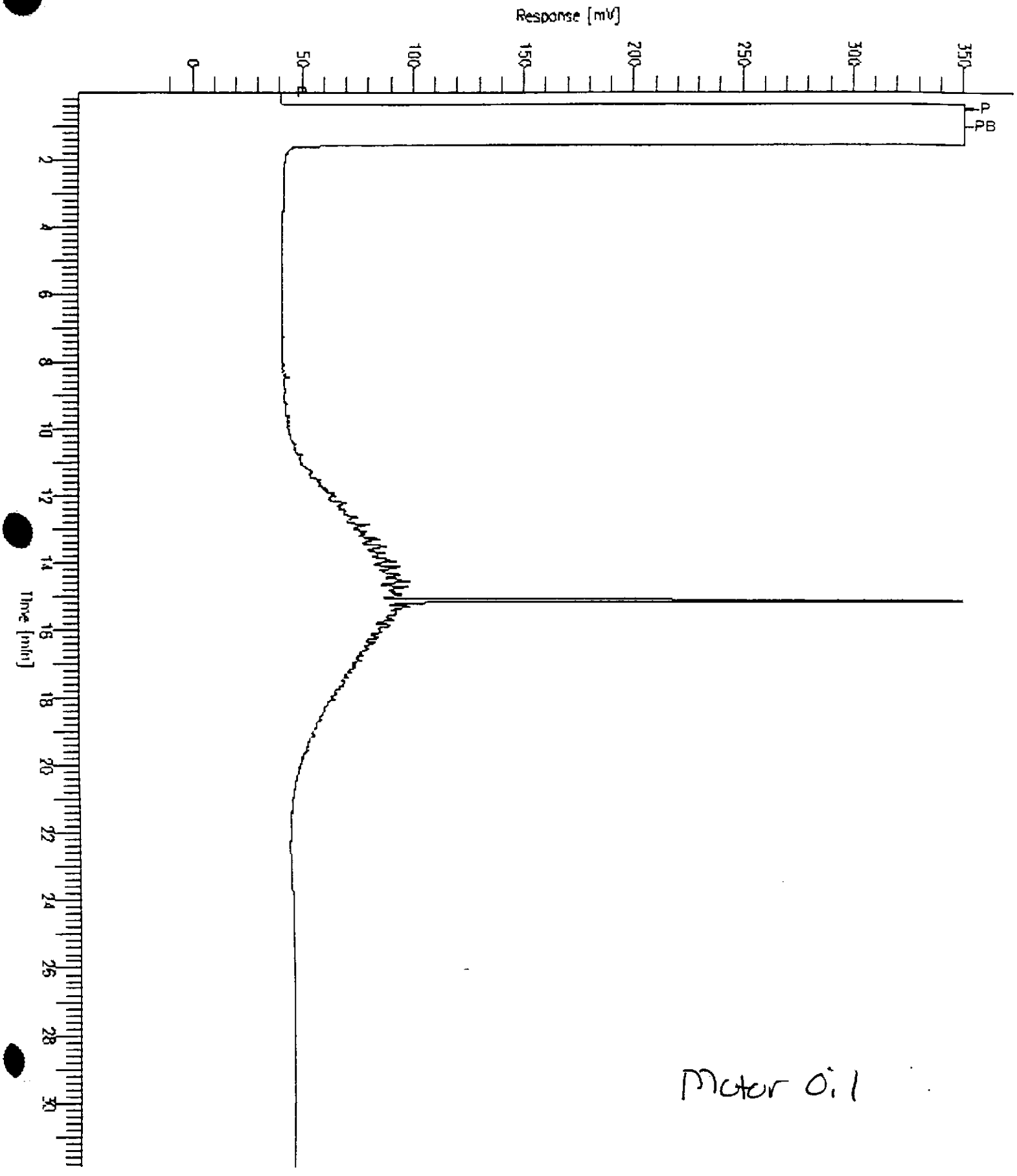



Diesel
Standard

GC15 Channel B TEH

Sample Name : CCV,96WS3096,MO
FileName : G:\GC15\CHB\3318042.RAW
Method : B332TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -11 mV

Sample #: 500MG/L Page 1 of 1
Date : 12/2/96 02:56 PM
Time of Injection: 11/27/96 11:15 PM
Low Point : -11.05 mV High Point : 350.73 mV
Plot Scale: 361.8 mV




Motor Oil

Curtis & Tompkins, Ltd.

Lab #: 127487 BATCH QC REPORT 

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## METHOD BLANK

Matrix: Water
Batch#: 31094
Units: ug/L
Diln Fac: 1

Prep Date: 11/22/96
Analysis Date: 11/22/96

MB Lab ID: QC35263

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 68-126 |
| Toluene-d8 | 99 | 87-125 |
| Bromofluorobenzene | 100 | 79-122 |

Curtis & Tompkins, Ltd.

Lab #: 127487 BATCH QC REPORT 

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 31094
Units: ug/L
Diln Fac: 1

Prep Date: 11/22/96
Analysis Date: 11/22/96

LCS Lab ID: QC35249

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| 1,1-Dichloroethene | 53.02 | 50 | 106 | 51-180 |
| Trichloroethene | 48.99 | 50 | 98 | 73-141 |
| Benzene | 50.86 | 50 | 102 | 78-142 |
| Toluene | 49.27 | 50 | 99 | 76-150 |
| Chlorobenzene | 50.18 | 50 | 100 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 68-126 |
| Toluene-d8 | 100 | 87-125 |
| Bromofluorobenzene | 101 | 79-122 |

# 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

Curtis & Tompkins, Ltd.

Lab #: 127487 BATCH QC REPORT 

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 127541-001
Matrix: Water
Batch#: 31094
Units: ug/L
Diln Fac: 1

Sample Date: 11/19/96
Received Date: 11/19/96
Prep Date: 11/22/96
Analysis Date: 11/22/96

MS Lab ID: QC35260

| Analyte | Spike Added | Sample | MS | %Rec # | Limits |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | <5 | 50.85 | 100 | 51-180 |
| Trichloroethene | 50 | 59.17 | 97.42 | 77 | 73-141 |
| Benzene | 50 | <5 | 49.42 | 98 | 78-142 |
| Toluene | 50 | <5 | 49.01 | 95 | 76-150 |
| Chlorobenzene | 50 | <5 | 48.18 | 96 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 68-126 |
| Toluene-d8 | 101 | 87-125 |
| Bromofluorobenzene | 99 | 79-122 |

MSD Lab ID: QC35261

| Analyte | Spike Added | MSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 50.44 | 99 | 51-180 | 1 | 14 |
| Trichloroethene | 50 | 100.3 | 82 | 73-141 | 3 | 14 |
| Benzene | 50 | 50.31 | 100 | 78-142 | 2 | 11 |
| Toluene | 50 | 50.28 | 97 | 76-150 | 3 | 13 |
| Chlorobenzene | 50 | 49.25 | 99 | 83-129 | 2 | 13 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 68-126 |
| Toluene-d8 | 102 | 87-125 |
| Bromofluorobenzene | 99 | 79-122 |

# 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

14:29:29 Curtis & Tompkins, Berkeley 11/18/96
Login Number: 127487

Project: 133.005
Site: KOT
Account #: SCI
Logged By: JQW
PO#:
Proj. Mgr: TLB

Report To: Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette , CA 94549
ATTN: Jeri Alexander
( 510 ) 299 - 7960

Bill To: Subsurface Consultants SCI
3736 Mt. Diablo Blvd.
Suite 200
Lafayette , CA 94549
ATTN: Jeri Alexander
( 510 ) 299 - 7960

| Sample # | Alias | Client ID / Supp Id. | Samp | Ord | Recv | Hold | Due | Matrix | Loc | Analyses |
|---|---|---|---|---|---|---|---|---|---|---|
| 127487-001 | | RMA-1@3.5 | 11/18 | 11/18 | 11/18 | COMMENTS: | | | | |
| | | | | | | | 11/29 | 11/29 Soil | BK | HOLD |
| | | | | | | | | | | Comments: |
| 127487-002 | | RMA-1 | 11/18 | 11/18 | 11/18 | COMMENTS: | | | | |
| | | | | | | | 11/29 | 11/29 Water | BK | HOLD |
| | | | | | | | | | | Comments: Add TEH (d & mo) & 8240s |
| 127487-003 | | RMA-2@3.5 | 11/18 | 11/18 | 11/18 | COMMENTS: | | | | |
| | | | | | | | 11/29 | 11/29 Soil | BK | HOLD |
| | | | | | | | | | | Comments: |
| 127487-004 | | RMA-2 | 11/18 | 11/18 | 11/18 | COMMENTS: | | | | |
| | | | | | | | 11/29 | 11/29 Water | BK | HOLD |
| | | | | | | | | | | Comments: Add TEH (d & mo) & 8240s |
| 127487-005 | | RMA-3@3.5 | 11/18 | 11/18 | 11/18 | COMMENTS: | | | | |
| | | | | | | | 11/29 | 11/29 Soil | BK | HOLD |
| | | | | | | | | | | Comments: |

Per Norma

Per Norma

OK - SD

12 7487

# CHAIN OF CUSTODY FORM

PAGE

PROJECT NAME: Keep on Trucking
JOB NUMBER: 133.005
PROJECT CONTACT: Jerome de Vernier
SAMPLED BY: Jerome de Vernier
LAB: Curtis & Tompkins
TURNAROUND: Standard
REQUESTED BY: Jerome de Vernier

| LABORATORY I.D. NUMBER | SCI SAMPLE NUMBER | MATRIX: WATER | MATRIX: SOIL | MATRIX: WASTE | MATRIX: AIR | CONTAINERS: VOA | CONTAINERS: LITER | CONTAINERS: PINT | CONTAINERS: TUBE | METHOD PRESERVED: HCL | METHOD PRESERVED: $H_2SO_4$ | METHOD PRESERVED: $HNO_3$ | METHOD PRESERVED: ICE | METHOD PRESERVED: NONE | SAMPLING DATE: MONTH | SAMPLING DATE: DAY | SAMPLING DATE: YEAR | SAMPLING DATE: TIME | NOTES | ANALYSIS REQUESTED |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | RMA-1@3.5 | | X | | | | | | X | | | | X | | 11 | 18 | 96 | 1000 | * | |
| -2 | RMA-1 | X | | | | 2 | 2 | | | | | | X | | | | | 1030 | * | |
| -3 | RMA-2@3.5 | | X | | | | | | X | | | | X | | | | | 1100 | * | |
| -4 | RMA-2 | X | | | | 2 | 2 | | | | | | X | | | | | 1130 | * | |
| -5 | RMA-3@3.5 | | X | | | | | | X | | | | X | | | | | 1200 | * | |

## CHAIN OF CUSTODY RECORD

| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
|---|---|---|---|
| Jerome | 11/18/96 14:25 | | 11/18/96 14:25 |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |

COMMENTS & NOTES:
* Hold until further notice


Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 03-DEC-96
Lab Job Number: 127507
Project ID: 133.005
Location: KOT

Reviewed by: _____

Reviewed by: _____

## TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

| Sample # | Client ID | Batch # | Sampled | Extracted | Analyzed | Moisture |
|---|---|---|---|---|---|---|
| 127507-007 | RMA-11 | 31071 | 11/19/96 | 11/21/96 | 11/27/96 | |

Matrix: Water

| Analyte | Units | 127507-007 | |
|---|---|---|---|
| Diln Fac: | | 10 | |
| Diesel C12-C22 | ug/L | 78000 | |
| Motor Oil C22-C50 | ug/L | 4100 | YL |
| Surrogate | | | |
| Hexacosane | %REC | DO | |

DO: Surrogate diluted out
Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

Lab #: 127507

BATCH QC REPORT

Curtis & Tompkins, Ltd.



## TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

## METHOD BLANK

Matrix: Water
Batch#: 31071
Units: ug/L
Diln Fac: 1

Prep Date: 11/21/96
Analysis Date: 11/23/96

MB Lab ID: QC35162

| Analyte | Result | |
|---|---|---|
| Diesel C12-C22 | <50 | |
| Motor Oil C22-C50 | <250 | |
| **Surrogate** | **%Rec** | **Recovery Limits** |
| Hexacosane | 91 | 60-140 |

Lab #: 127507

BATCH QC REPORT

Curtis & Tompkins, Ltd.



TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 31071
Units: ug/L
Diln Fac: 1

Prep Date: 11/21/96
Analysis Date: 11/23/96

BS Lab ID: QC35163

| Analyte | Spike Added | BS | %Rec # | Limits |
|---|---|---|---|---|
| Diesel C12-C22 | 2475 | 2069 | 84 | 60-140 |
| Surrogate | %Rec | Limits | | |
| Hexacosane | 96 | 60-140 | | |

BSD Lab ID: QC35164

| Analyte | Spike Added | BSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| Diesel C12-C22 | 2475 | 2147 | 87 | 60-140 | 4 | 35 |
| Surrogate | %Rec | Limits | | | | |
| Hexacosane | 95 | 60-140 | | | | |

# 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

# Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: RMA-11
Lab ID: 127507-007
Matrix: Water
Batch#: 31094
Units: ug/L
Diln Fac: 1.67

Sampled: 11/19/96
Received: 11/19/96
Extracted: 11/23/96
Analyzed: 11/23/96

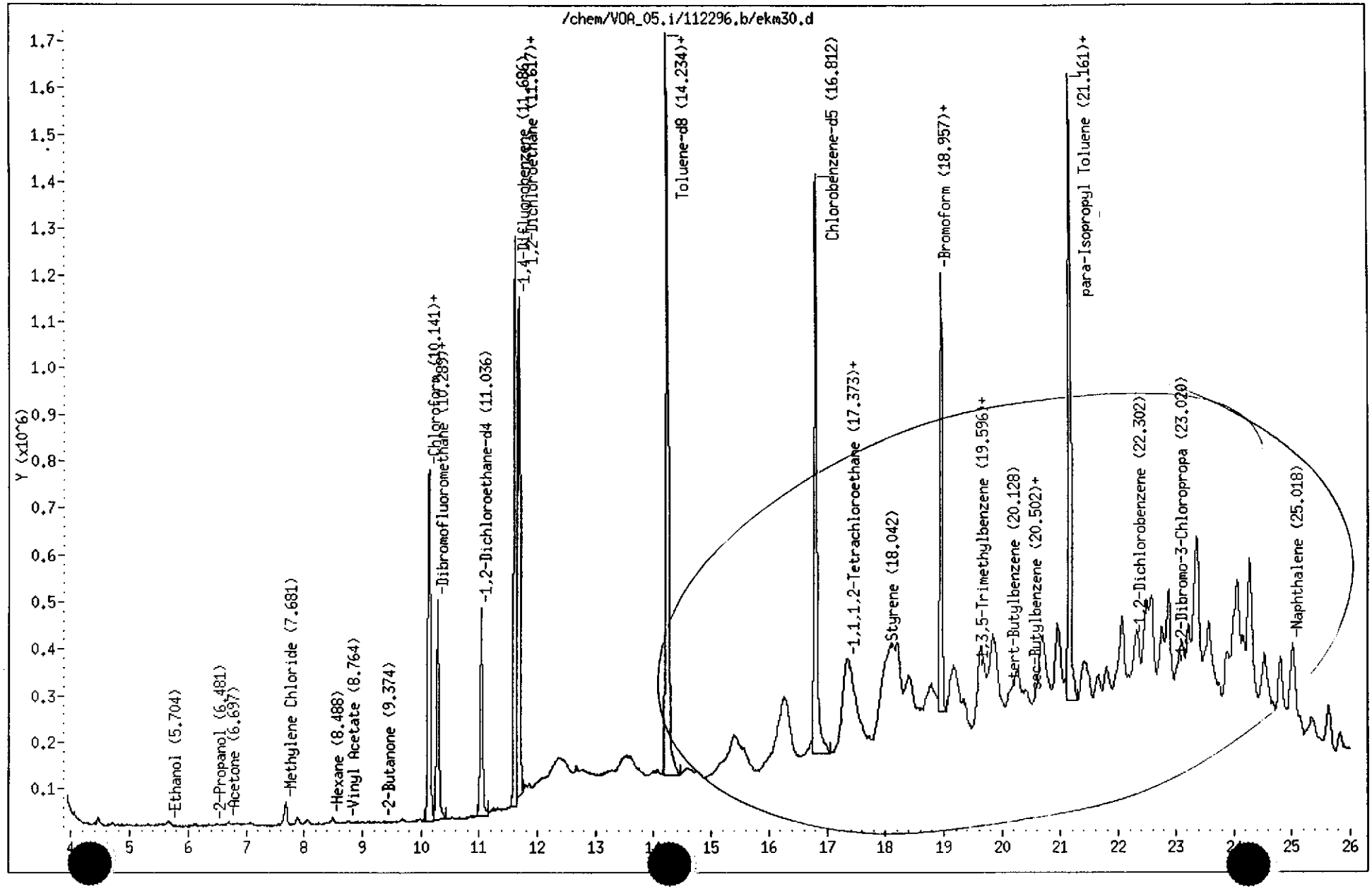
| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 17 |
| Bromomethane | ND | 17 |
| Vinyl Chloride | ND | 17 |
| Chloroethane | ND | 17 |
| Methylene Chloride | ND | 33 |
| Acetone | ND | 33 |
| Carbon Disulfide | ND | 8.3 |
| Trichlorofluoromethane | ND | 8.3 |
| 1,1-Dichloroethene | ND | 8.3 |
| 1,1-Dichloroethane | ND | 8.3 |
| trans-1,2-Dichloroethene | ND | 8.3 |
| cis-1,2-Dichloroethene | ND | 8.3 |
| Chloroform | ND | 8.3 |
| Freon 113 | ND | 8.3 |
| 1,2-Dichloroethane | ND | 8.3 |
| 2-Butanone | ND | 17 |
| 1,1,1-Trichloroethane | ND | 8.3 |
| Carbon Tetrachloride | ND | 8.3 |
| Vinyl Acetate | ND | 83 |
| Bromodichloromethane | ND | 8.3 |
| 1,2-Dichloropropane | ND | 8.3 |
| cis-1,3-Dichloropropene | ND | 8.3 |
| Trichloroethene | ND | 8.3 |
| Dibromochloromethane | ND | 8.3 |
| 1,1,2-Trichloroethane | ND | 8.3 |
| Benzene | ND | 8.3 |
| trans-1,3-Dichloropropene | ND | 8.3 |
| Bromoform | ND | 8.3 |
| 2-Hexanone | ND | 17 |
| 4-Methyl-2-Pentanone | ND | 17 |
| 1,1,2,2-Tetrachloroethane | ND | 8.3 |
| Tetrachloroethene | ND | 8.3 |
| Toluene | ND | 8.3 |
| Chlorobenzene | ND | 8.3 |
| Ethylbenzene | ND | 8.3 |
| Styrene | ND | 8.3 |
| m,p-Xylenes | ND | 8.3 |
| o-Xylene | ND | 8.3 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 68-126 |
| Toluene-d8 | 101 | 87-125 |
| Bromofluorobenzene | 98 | 79-122 |

Chromatogram of following IB showing level of carryover.

Data File: /chem/VOA_05.i/112296.b/ekm30.d
Date : 23-NOV-96 02:01
Client ID: DYNA P&T
Sample Info: IB CLEAN UP
Purge Volume: 5.0
Column phase: RTx Volatiles

Instrument: VOA_05.i
Operator: DM
Column diameter: 0.32



EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 31094
Units: ug/L
Diln Fac: 1

Prep Date: 11/22/96
Analysis Date: 11/22/96

MB Lab ID: QC35263

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 68-126 |
| Toluene-d8 | 99 | 87-125 |
| Bromofluorobenzene | 100 | 79-122 |

Curtis & Tompkins, Ltd.

Lab #: 127507 BATCH QC REPORT 

EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 127541-001
Matrix: Water
Batch#: 31094
Units: ug/L
Diln Fac: 1

Sample Date: 11/19/96
Received Date: 11/19/96
Prep Date: 11/22/96
Analysis Date: 11/22/96

MS Lab ID: QC35260

| Analyte | Spike Added | Sample | MS | %Rec # | Limits |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | <5 | 50.85 | 100 | 51-180 |
| Trichloroethene | 50 | 59.17 | 97.42 | 77 | 73-141 |
| Benzene | 50 | <5 | 49.42 | 98 | 78-142 |
| Toluene | 50 | <5 | 49.01 | 95 | 76-150 |
| Chlorobenzene | 50 | <5 | 48.18 | 96 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 68-126 |
| Toluene-d8 | 101 | 87-125 |
| Bromofluorobenzene | 99 | 79-122 |

MSD Lab ID: QC35261

| Analyte | Spike Added | MSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 50.44 | 99 | 51-180 | 1 | 14 |
| Trichloroethene | 50 | 100.3 | 82 | 73-141 | 3 | 14 |
| Benzene | 50 | 50.31 | 100 | 78-142 | 2 | 11 |
| Toluene | 50 | 50.28 | 97 | 76-150 | 3 | 13 |
| Chlorobenzene | 50 | 49.25 | 99 | 83-129 | 2 | 13 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 68-126 |
| Toluene-d8 | 102 | 87-125 |
| Bromofluorobenzene | 99 | 79-122 |

# 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

# CHAIN OF CUSTODY FORM

127507

PAGE OF

PROJECT NAME: Lapon Trucking
JOB NUMBER: 135005
PROJECT CONTACT: Jerome de Verteuil
SAMPLED BY: Jerome de Verteuil
LAB: Curtis & Tompkins
TURNAROUND: standard
REQUESTED BY: Jerome de V

| LABORATORY I.D. NUMBER | SCI SAMPLE NUMBER | MATRIX: WATER | SOIL | WASTE | AIR | CONTAINERS: VOA | LITER | PINT | TUBE | METHOD PRESERVED: HCL | $H_2SO_4$ | $HNO_3$ | ICE | NONE | SAMPLING DATE: MONTH | DAY | YEAR | TIME | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | RMA-4 | X | | | | 2 | 2 | | | | | | X | | 11 | 18 | 96 | 1500 | * |
| -2 | RMA-5 | | | | | 2 | 2 | | | | | | | | 11 | 18 | 96 | 1600 | * |
| -3 | RMA-7 | | | | | 2 | 2 | | | | | | | | 11 | 19 | 96 | 1000 | * |
| -4 | RMA-8 | | | | | 2 | 2 | | | | | | | | | | | 1100 | * |
| -5 | RMA-9 | | | | | 2 | 2 | | | | | | | | | | | 1200 | * |
| -6 | RMA-10 | | | | | 4 | 2 | | | | | | | | | | | 1500 | * † |
| -7 | RMA-11 | | | | | | | | | | | | | | | | | | |

ANALYSIS REQUESTED: TPH-Diesel w/ Silica Gel Cleanup #8270 Extended List

NOTES: * Please hold until further notice. † Contains some free product.

## CHAIN OF CUSTODY RECORD

| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
|---|---|---|---|
| Jerome de Verteuil | 11/19/96 1000 | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | Tom Grubb | 11/19/96 1700 |

COMMENTS & NOTES:
* Please hold until further notice.
† Contains some free product.


Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 10-DEC-96
Lab Job Number: 127521
Project ID: 133.005
Location: KOT

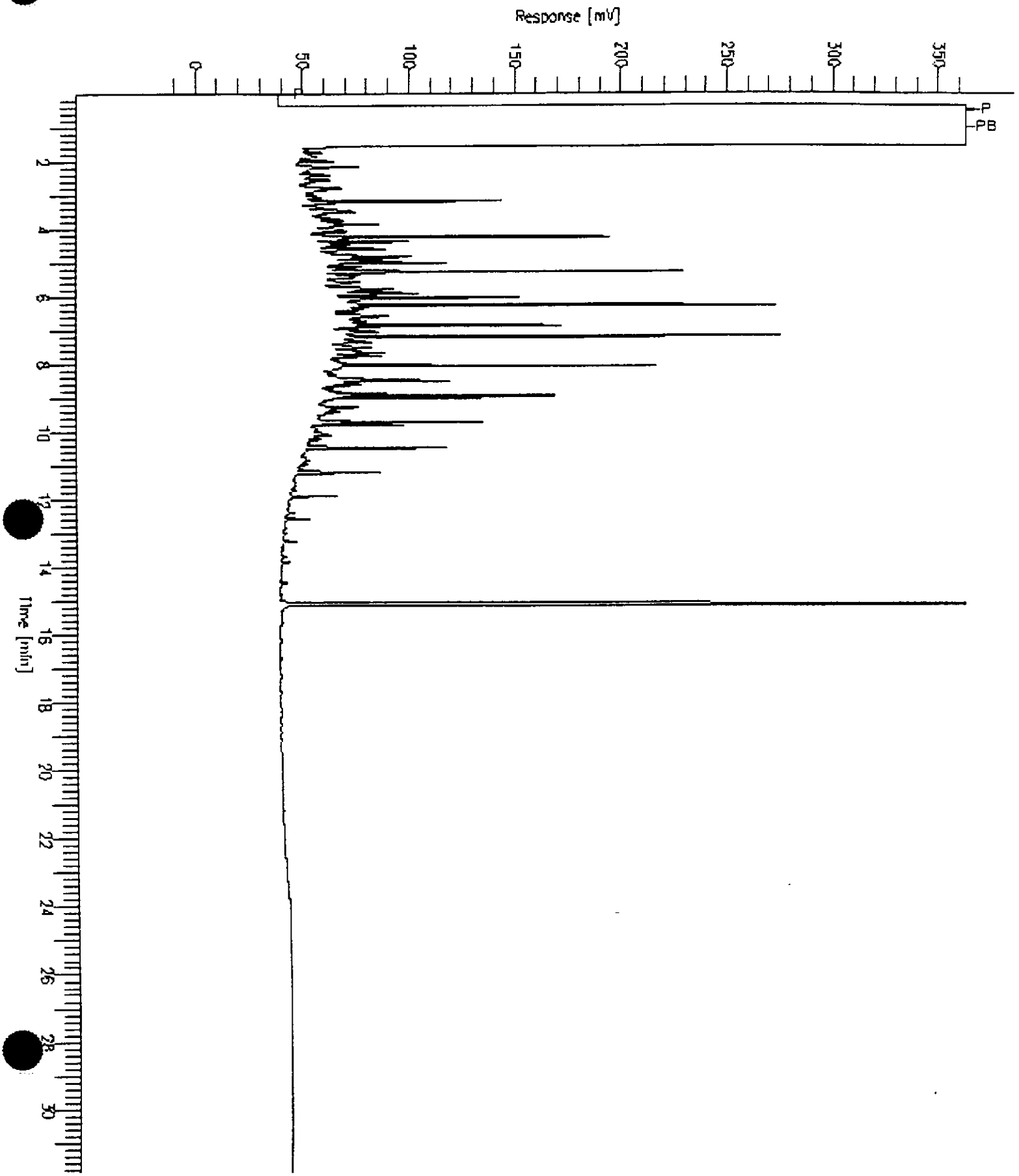
Reviewed by: _____

Reviewed by: _____

# GC15 Channel B TEH

Sample Name : CCV,96WS3219,DS
FileName : G:\GC15\CHB\331B040.RAW
Method : B332TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: -13 mV

Sample #: 500MG/L Page 1 of 1
Date : 12/2/96 02:56 PM
Time of Injection: 11/27/96 09:48 PM
Low Point : -13.15 mV High Point : 363.15 mV
Plot Scale: 376.3 mV



TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 31117
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/26/96

MB Lab ID: QC35352

| Analyte | Result |
|---|---|
| Diesel C12-C22 | <50 |
| Motor Oil C22-C50 | <250 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| Hexacosane | 109 | 60-140 |

Lab #: 127521

BATCH QC REPORT

Curtis & Tompkins, Ltd.



TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 31117
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/26/96

BS Lab ID: QC35353

| Analyte | Spike Added | BS | %Rec # | Limits |
|---|---|---|---|---|
| Diesel C12-C22 | 2475 | 1909 | 77 | 60-140 |
| Surrogate | %Rec | Limits | | |
| Hexacosane | 117 | 60-140 | | |

BSD Lab ID: QC35354

| Analyte | Spike Added | BSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| Diesel C12-C22 | 2475 | 1957 | 79 | 60-140 | 2 | 35 |
| Surrogate | %Rec | Limits | | | | |
| Hexacosane | 110 | 60-140 | | | | |

# 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

# CHAIN OF CUSTODY FORM

127521

PAGE

PROJECT NAME: Keep on Truckin'

JOB NUMBER: 133.005 LAB: Curtis & Tompkins

PROJECT CONTACT: Jerome de Vernier TURNAROUND: Standard

SAMPLED BY: Jerome de Vernier REQUESTED BY: Jerome de Vernier

| LABORATORY I.D. NUMBER | SCI SAMPLE NUMBER | MATRIX: WATER | MATRIX: SOIL | MATRIX: WASTE | MATRIX: AIR | CONTAINERS: VOA | CONTAINERS: LITER | CONTAINERS: PINT | CONTAINERS: TUBE | METHOD PRESERVED: HCL | METHOD PRESERVED: $H_2SO_4$ | METHOD PRESERVED: $HNO_3$ | METHOD PRESERVED: ICE | METHOD PRESERVED: NONE | SAMPLING DATE: MONTH | DAY | YEAR | TIME | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | RMA-12@6.0 | | X | | | | | | X | | | | X | | 11 | 20 | 96 | 0900 | * |
| -2 | RMA-12 | X | | | | 2 | 2 | | | | | | X | | | | | 0930 | * |
| -3 | RMA-13@7.0 | | X | | | | | | X | | | | X | | | | | 1000 | * |
| -4 | RMA-13@8.5 | | X | | | | | | X | | | | X | | | | | 1000 | * |
| -5 | RMA-13 | X | | | | 2 | 2 | | | | | | X | | | | | 1030 | * |
| -6 | RMA-14@7.0 | | X | | | | | | X | | | | X | | | | | 1100 | * |
| -7 | RMA-14@8.0 | | X | | | | | | X | | | | X | | | | | 1100 | * |
| -8 | RMA-14 | X | | | | 2 | 2 | | | | | | X | | | | | 1130 | * |
| -9 | RMA-15@5.0 | | X | | | | | | X | | | | X | | | | | 1200 | * |
| -10 | RMA-15 | X | | | | 2 | 2 | | | | | | X | | | | | 1200 | * |
| -11 | RMA-16@3½ | | X | | | | | | X | | | | X | | | | | 1230 | * |
| -12 | RMA-16 | X | | | | 2 | 1 | | | | | | X | | | | | 1300 | * |

## CHAIN OF CUSTODY RECORD

| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
|---|---|---|---|
| Jerome | 11/20/96 1500 | | 11/20/96 1500 |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | |

COMMENTS & NOTES:

* Please hold until further notice.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# CHAIN OF CUSTODY FORM

127521

PAGE

PROJECT NAME: Keep on Truckin'

JOB NUMBER: 133.005 LAB: Curtis & Tompkins

PROJECT CONTACT: Jerome de Verneil TURNAROUND: standard

SAMPLED BY: Jerome de Verneil REQUESTED BY: Jerome de Verneil

| LABORATORY I.D. NUMBER | SCI SAMPLE NUMBER | MATRIX: WATER | SOIL | WASTE | AIR | CONTAINERS: VOA | LITER | PINT | TUBE | METHOD PRESERVED: HCL | $H_2SO_4$ | $HNO_3$ | ICE | NONE | SAMPLING DATE: MONTH | DAY | YEAR | TIME | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | RMA-12@6.0 | | X | | | | | | X | | | | X | | 11 | 20 | 96 | 0900 | * |
| -2 | RMA-12 | X | | | | 2 | 2 | | | | | | X | | | | | 0930 | * |
| -3 | RMA-13@10.0 | | X | | | | | | X | | | | X | | | | | 1000 | * |
| -4 | RMA-13@8.5 | | X | | | | | | X | | | | X | | | | | 1000 | * |
| -5 | RMA-13 | X | | | | 2 | 2 | | | | | | X | | | | | 1030 | * |
| -6 | RMA-14@7.0 | | X | | | | | | X | | | | X | | | | | 1100 | * |
| -7 | RMA-14@8.0 | | X | | | | | | X | | | | X | | | | | 1100 | * |
| -8 | RMA-14 | X | | | | 2 | 2 | | | | | | X | | | | | 1130 | * |
| -9 | RMA-15@5.0 | | X | | | | | | X | | | | X | | | | | 1200 | * |
| -10 | RMA-15 | X | | | | 2 | 2 | | | | | | X | | | | | 1200 | * |
| -11 | RMA-16@3½ | | X | | | | | | X | | | | X | | | | | 1230 | * |
| -12 | RMA-16 | X | | | | 2 | 1 | | | | | | X | | | | | 1300 | * |

## CHAIN OF CUSTODY RECORD

| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
|---|---|---|---|
| Jerome | 11/20/96 1500 | | 11/20/96 1500 |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | |

COMMENTS & NOTES:

* Please hold until further notice.


Subsurface Consultants, Inc.

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2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# A N A L Y T I C A L  R E P O R T

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 03-DEC-96
Lab Job Number: 127541
Project ID: 133.005
Location: KOT

Reviewed by: Damara Moore

Reviewed by:

## TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

| Sample # | Client ID | Batch # | Sampled | Extracted | Analyzed | Moisture |
|---|---|---|---|---|---|---|
| 127541-001 | RMA-10 | 31208 | 11/19/96 | 12/02/96 | 12/04/96 | |

Matrix: Water

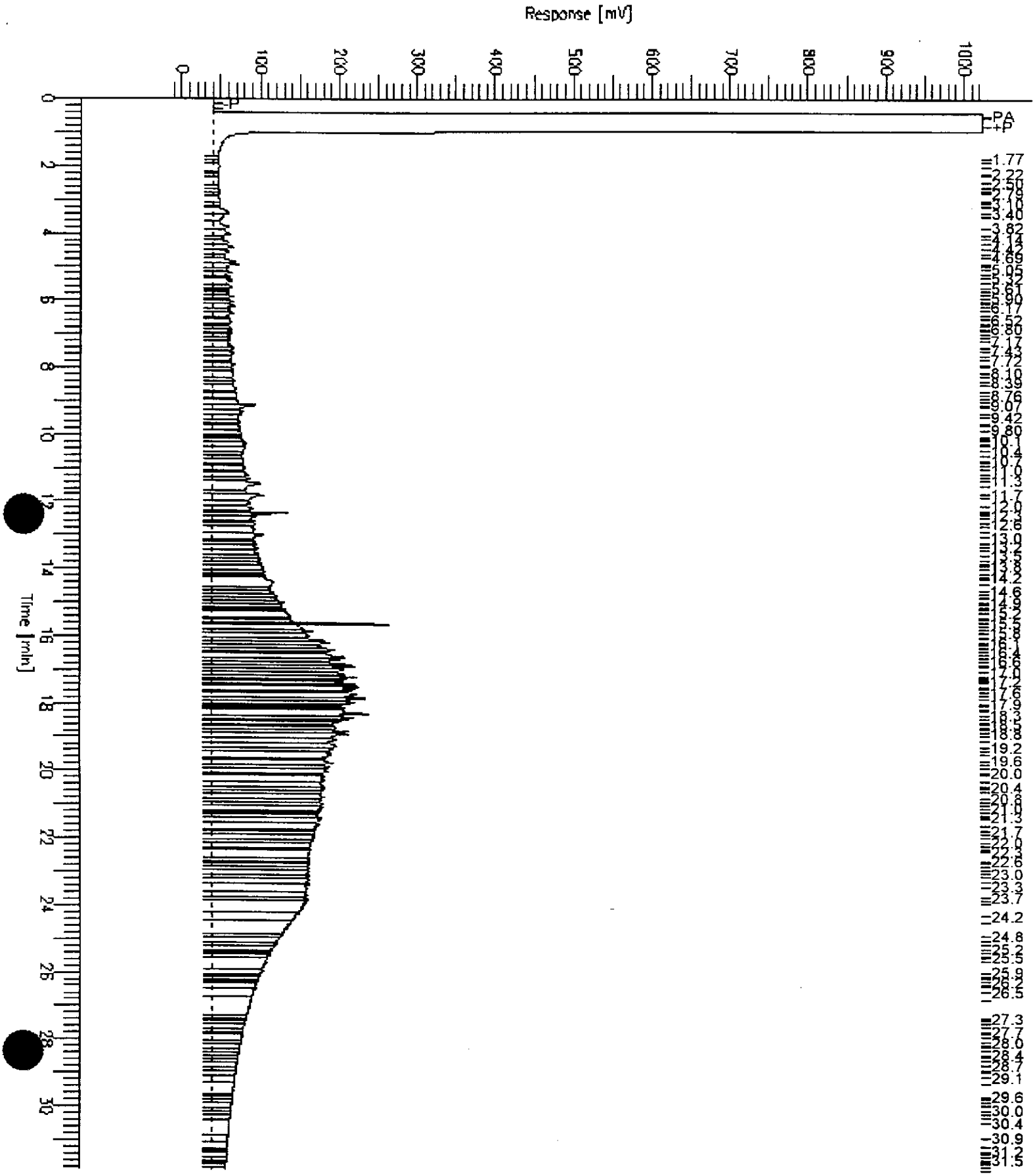
| Analyte | Units | 127541-001 | |
|---|---|---|---|
| Dilu Fac: | | 1 | |
| Diesel C12-C22 | ug/L | 3100 | YH |
| Motor Oil C22-C50 | ug/L | 19000 | YH |
| Surrogate | | | |
| Hexacosane | %REC | 14 | * |

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard

# Chromatogram

Sample Name : 127541-001,31208
FileName : G:\GC13\CHA\338A022.RAW
Method : ATEH331.MTH
Start Time : 0.00 min End Time : 31.90 min
e Factor: 0.0 Plot Offset: -12 mV

Sample #: 31208 Page 1 of 1
Date : 12/4/96 10:18 AM
Time of Injection: 12/4/96 07:53 AM
Low Point : -11.88 mV High Point : 1024.00 mV
Plot Scale: 1035.9 mV



TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 31208
Units: ug/L
Diln Fac: 1

Prep Date: 12/02/96
Analysis Date: 12/03/96

MB Lab ID: QC35676

| Analyte | Result |
|---|---|
| Diesel C12-C22 | <50 |
| Motor Oil C22-C50 | <250 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| Hexacosane | 79 | 60-140 |

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 31208
Units: ug/L
Diln Fac: 1

Prep Date: 12/02/96
Analysis Date: 12/03/96

BS Lab ID: QC35677

| Analyte | Spike Added | BS | %Rec # | Limits |
|---|---|---|---|---|
| Diesel C12-C22 | 2475 | 2348 | 95 | 60-140 |
| **Surrogate** | **%Rec** | **Limits** | | |
| Hexacosane | 96 | 60-140 | | |

BSD Lab ID: QC35678

| Analyte | Spike Added | BSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| Diesel C12-C22 | 2475 | 2094 | 85 | 60-140 | 11 | 35 |
| **Surrogate** | **%Rec** | **Limits** | | | | |
| Hexacosane | 88 | 60-140 | | | | |

# 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

## Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: RMA-10
Lab ID: 127541-001
Matrix: Water
Batch#: 31094
Units: ug/L
Diln Fac: 1

Sampled: 11/19/96
Received: 11/19/96
Extracted: 11/22/96
Analyzed: 11/22/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | 17 | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | 4.7 J | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | 50 | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | 59 | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 68-126 |
| Toluene-d8 | 100 | 87-125 |
| Bromofluorobenzene | 99 | 79-122 |

J: Estimated Value

Curtis & Tompkins, Ltd.

Lab #: 127541 BATCH QC REPORT 

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## METHOD BLANK

Matrix: Water
Batch#: 31094
Units: ug/L
Diln Fac: 1

Prep Date: 11/22/96
Analysis Date: 11/22/96

MB Lab ID: QC35263

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 68-126 |
| Toluene-d8 | 99 | 87-125 |
| Bromofluorobenzene | 100 | 79-122 |

Curtis & Tompkins, Ltd.

Lab #: 127541 BATCH QC REPORT 

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 31094
Units: ug/L
Diln Fac: 1

Prep Date: 11/22/96
Analysis Date: 11/22/96

LCS Lab ID: QC35249

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| 1,1-Dichloroethene | 53.02 | 50 | 106 | 51-180 |
| Trichloroethene | 48.99 | 50 | 98 | 73-141 |
| Benzene | 50.86 | 50 | 102 | 78-142 |
| Toluene | 49.27 | 50 | 99 | 76-150 |
| Chlorobenzene | 50.18 | 50 | 100 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 68-126 |
| Toluene-d8 | 100 | 87-125 |
| Bromofluorobenzene | 101 | 79-122 |

# 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

Curtis & Tompkins, Ltd.

Lab #: 127541 BATCH QC REPORT 

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: RMA-10
Lab ID: 127541-001
Matrix: Water
Batch#: 31094
Units: ug/L
Diln Fac: 1

Sample Date: 11/19/96
Received Date: 11/19/96
Prep Date: 11/22/96
Analysis Date: 11/22/96

MS Lab ID: QC35260

| Analyte | Spike Added | Sample | MS | %Rec # | Limits |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | <5 | 50.85 | 100 | 51-180 |
| Trichloroethene | 50 | 59.17 | 97.42 | 77 | 73-141 |
| Benzene | 50 | <5 | 49.42 | 98 | 78-142 |
| Toluene | 50 | <5 | 49.01 | 95 | 76-150 |
| Chlorobenzene | 50 | <5 | 48.18 | 96 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 68-126 |
| Toluene-d8 | 101 | 87-125 |
| Bromofluorobenzene | 99 | 79-122 |

MSD Lab ID: QC35261

| Analyte | Spike Added | MSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 50.44 | 99 | 51-180 | 1 | 14 |
| Trichloroethene | 50 | 100.3 | 82 | 73-141 | 3 | 14 |
| Benzene | 50 | 50.31 | 100 | 78-142 | 2 | 11 |
| Toluene | 50 | 50.28 | 97 | 76-150 | 3 | 13 |
| Chlorobenzene | 50 | 49.25 | 99 | 83-129 | 2 | 13 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 68-126 |
| Toluene-d8 | 102 | 87-125 |
| Bromofluorobenzene | 99 | 79-122 |

# 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

15:48:09 Curtis & Tomplins, Berkeley 11/20/96
Login Number: 127507

Project: 133.005
Site: KOT
Account #: SCI
Logged By: JOW
PO#:
Proj. Mgr: TLB

Report To: Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette , CA 94549
ATTN: Jeri Alexander
( 510 ) 299 - 7960

Bill To: Subsurface Consultants SCI
3736 Mt. Diablo Blvd.
Suite 200
Lafayette , CA 94549
ATTN: Jeri Alexander
( 510 ) 299 - 7960

| Sample # | Alias | Client ID / Supp Id. | Samp | Ord | Recv | Hold | Due | Matrix | Loc | Analyses | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 127507-001 | | RMA-4 | 11/18 | 11/19 | 11/19 | COMMENTS: | | | | | |
| | | | | | 11/29 | 11/29 | Water | BK | HOLD | Comments: | |
| 127507-002 | | RMA-5 | 11/18 | 11/19 | 11/19 | COMMENTS: | | | | | |
| | | | | | 11/29 | 11/29 | Water | BK | HOLD | Comments: | |
| 127507-003 | | RMA-7 | 11/19 | 11/19 | 11/19 | COMMENTS: | | | | | |
| | | | | | 11/29 | 11/29 | Water | BK | HOLD | Comments: | |
| 127507-004 | | RMA-8 | 11/19 | 11/19 | 11/19 | COMMENTS: | | | | | |
| | | | | | 11/29 | 11/29 | Water | BK | HOLD | Comments: | |
| 127507-005 | | RMA-9 | 11/19 | 11/19 | 11/19 | COMMENTS: | | | | | |
| | | | | | 11/29 | 11/29 | Water | BK | HOLD | Comments: | |
| 127507-006 | | RMA-10 | 11/19 | 11/19 | 11/19 | COMMENTS: | | | | | |
| | | | | | 11/29 | 11/29 | Water | BK | HOLD | Comments: | Add TEH(d & mo) & 8240s |
| 127507-007 | | RMA-11 | 11/19 | 11/19 | 11/19 | COMMENTS: | | | | | |
| | | | | | 12/01 | 11/29 | Water | BK | 8240 | Comments: | |
| | | | | | 11/26 | 12/06 | Water | BK | 8270-1 | Comments: | Ion Scan analysis as before. |
| | | | | | 12/03 | 11/29 | Water | BK | TEH | Comments: | Diesel & Motor Oil |

OK
JD

# CURTIS & TOMPKINS, LTD. BERKELEY LOGIN CHANGE FORM

Reason for change: ✓ Client Request: By Jacamo Date/Time: 11/22/94 Initials: CS
_____ Login Review

| Current Lab ID | Previous Lab ID | Client ID | Matrix | Add/Cancel | Analysis | Duedate |
|---|---|---|---|---|---|---|
| 12754-001 | 12507-006 | RMA-10 | H2O | Add | TFH & MO | |
| | | | | | 8240 | |
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Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 10-DEC-96
Lab Job Number: 127549
Project ID: 133.005
Location: KOT

Reviewed by: _____

Reviewed by: _____

## TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

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

| Sample # | Client ID | Batch # | Sampled | Extracted | Analyzed | Moisture |
|---|---|---|---|---|---|---|
| 127549-003 | RMA-18@10.5 | 31143 | 11/20/96 | 11/26/96 | 12/03/96 | |

Matrix: Soil

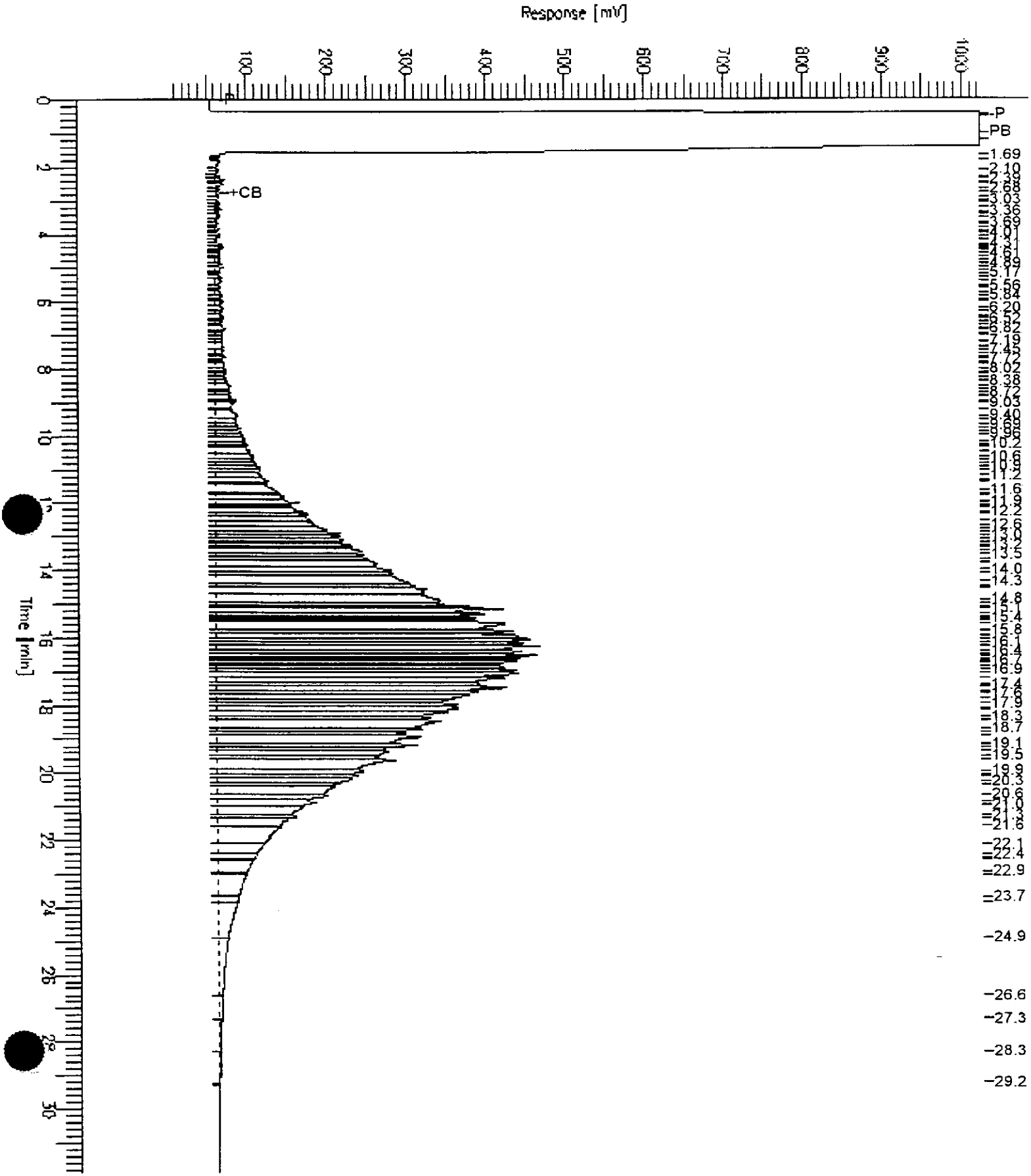
| Analyte | Units | 127549-003 | |
|---|---|---|---|
| Diln Fac: | | 10 | |
| Diesel C12-C22 | mg/Kg | 920 | YH |
| Motor Oil C22-C50 | mg/Kg | 9500 | |
| Surrogate | | | |
| Hexacosane | %REC | DO | |

DO: Surrogate diluted out
Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard

# GC15 Channel B TEH

Sample Name : 127549-003,31143
FileName : G:\GC15\CHB\337B026.RAW
Method : B332TEH.MTH
Start Time : 0.00 min End Time : 31.90 min
Slope Factor: 0.0 Plot Offset: 3 mV

Sample #: 31143 Page 1 of 1
Date : 12/3/96 09:52 AM
Time of Injection: 12/3/96 04:23 AM
Low Point : 3.18 mV High Point : 1024.00 mV
Plot Scale: 1020.8 mV



TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

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

METHOD BLANK

Matrix: Soil
Batch#: 31143
Units: mg/Kg
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/27/96

MB Lab ID: QC35446

| Analyte | Result |
|---|---|
| Diesel C12-C22 | <1.0 |
| Motor Oil C22-C50 | <5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| Hexacosane | 90 | 60-140 |

Curtis & Tompkins, Ltd.

Lab #: 127549 BATCH QC REPORT 

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

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

LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 31143
Units: mg/Kg
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/27/96

LCS Lab ID: QC35447

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| Diesel C12-C22 | 39.64 | 49.5 | 80 | 60-140 |
| Surrogate | %Rec | Limits | | |
| Hexacosane | 90 | 60-140 | | |

# 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

Curtis & Tompkins, Ltd.

Lab #: 127549 BATCH QC REPORT 

TEH-Tot Ext Hydrocarbons

| | | | |
|---|---|---|---|
| Client: | Subsurface Consultants | Analysis Method: | CA LUFT (EPA 8015M) |
| Project#: | 133.005 | Prep Method: | CA LUFT |
| Location: | KOT | | |

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

| | | | |
|---|---|---|---|
| Field ID: | ZZZZZZ | Sample Date: | 11/25/96 |
| Lab ID: | 127572-032 | Received Date: | 11/26/96 |
| Matrix: | Soil | Prep Date: | 11/26/96 |
| Batch#: | 31143 | Analysis Date: | 11/27/96 |
| Units: | mg/Kg dry weight | Moisture: | 12% |
| Diln Fac: | 1 | | |

MS Lab ID: QC35448

| Analyte | Spike Added | Sample | MS | %Rec # | Limits |
|---|---|---|---|---|---|
| Diesel C12-C22 | 56.25 | 30.8 | 74.73 | 78 | 60-140 |
| **Surrogate** | **%Rec** | **Limits** | | | |
| Hexacosane | 93 | 60-140 | | | |

MSD Lab ID: QC35449

| Analyte | Spike Added | MSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| Diesel C12-C22 | 56.25 | 82.89 | 93 | 60-140 | 10 | 30 |
| **Surrogate** | **%Rec** | **Limits** | | | | |
| Hexacosane | 91 | 60-140 | | | | |

# 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

# CHAIN OF CUSTODY FORM

12754 9

PAGE

PROJECT NAME: KOT

JOB NUMBER: 133.005

PROJECT CONTACT: Jerome de Vernier

SAMPLED BY: JD

LAB: Curtis & Tompkins

TURNAROUND: standard

REQUESTED BY: JD

| LABORATORY I.D. NUMBER | SCI SAMPLE NUMBER | MATRIX: WATER | SOIL | WASTE | AIR | A.F. P. | CONTAINERS: VOA | LITER | PINT | TUBE | METHOD PRESERVED: HCL | $H_2SO_4$ | $HNO_3$ | ICE | NONE | SAMPLING DATE: MONTH | DAY | YEAR | TIME | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| -1 | RMA-17@6.0 | | X | | | | | | | X | | | | X | | 11 | 07 | 96 | 1550 | * |
| -2 | RMA-17 | X | | | | | 2 | 2 | | | | | | X | | | | | 1600 | * |
| -3 | RMA-18@10½ | | X | | | | | | | X | | | | X | | | | | 1630 | * |
| -4 | RMA-18 | X | | | | X | 3 | | | | | | | X | | | | | 1600 | * |
| -5 | RMA-19@5.0 | | X | | | | | | | X | | | | X | | 11 | 21 | 96 | 0830 | * |
| -6 | RMA-19 | | | | | X | 1 | 1 | | | | | | X | | | | | 0530 | * |
| -7 | RMA-20@6.5 | | X | | | | | | | X | | | | X | | | | | 0900 | * |
| -8 | RMA-20 | X | | | | | 2 | 2 | | | | | | X | | | | | 0930 | * |
| -9 | RMA-21@6.5 | | X | | | | | | | X | | | | X | | | | | 1000 | * |
| -10 | RMA-21 | X | | | | X | 2 | 2 | | | | | | X | | | | | 1030 | * |

ANALYSIS REQUESTED: TPH-g/BTEX 8015/8020

## CHAIN OF CUSTODY RECORD

| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
|---|---|---|---|
| [signature] | 11/21/96 1815 | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
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| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | [signature] | |

COMMENTS & NOTES:
* Please hold until further notice


Subsurface Consultants, Inc.
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2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 03-DEC-96
Lab Job Number: 127558
Project ID: 133.005
Location: KOT

Reviewed by: Tracy Babz

Reviewed by: Damara Moore

## TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

| Sample # | Client ID | Batch # | Sampled | Extracted | Analyzed | Moisture |
|---|---|---|---|---|---|---|
| 127558-008 | RMA-25 | 31171 | 11/22/96 | 11/28/96 | 11/28/96 | |
| 127558-010 | RMA-26 | 31150 | 11/22/96 | 11/27/96 | 11/27/96 | |

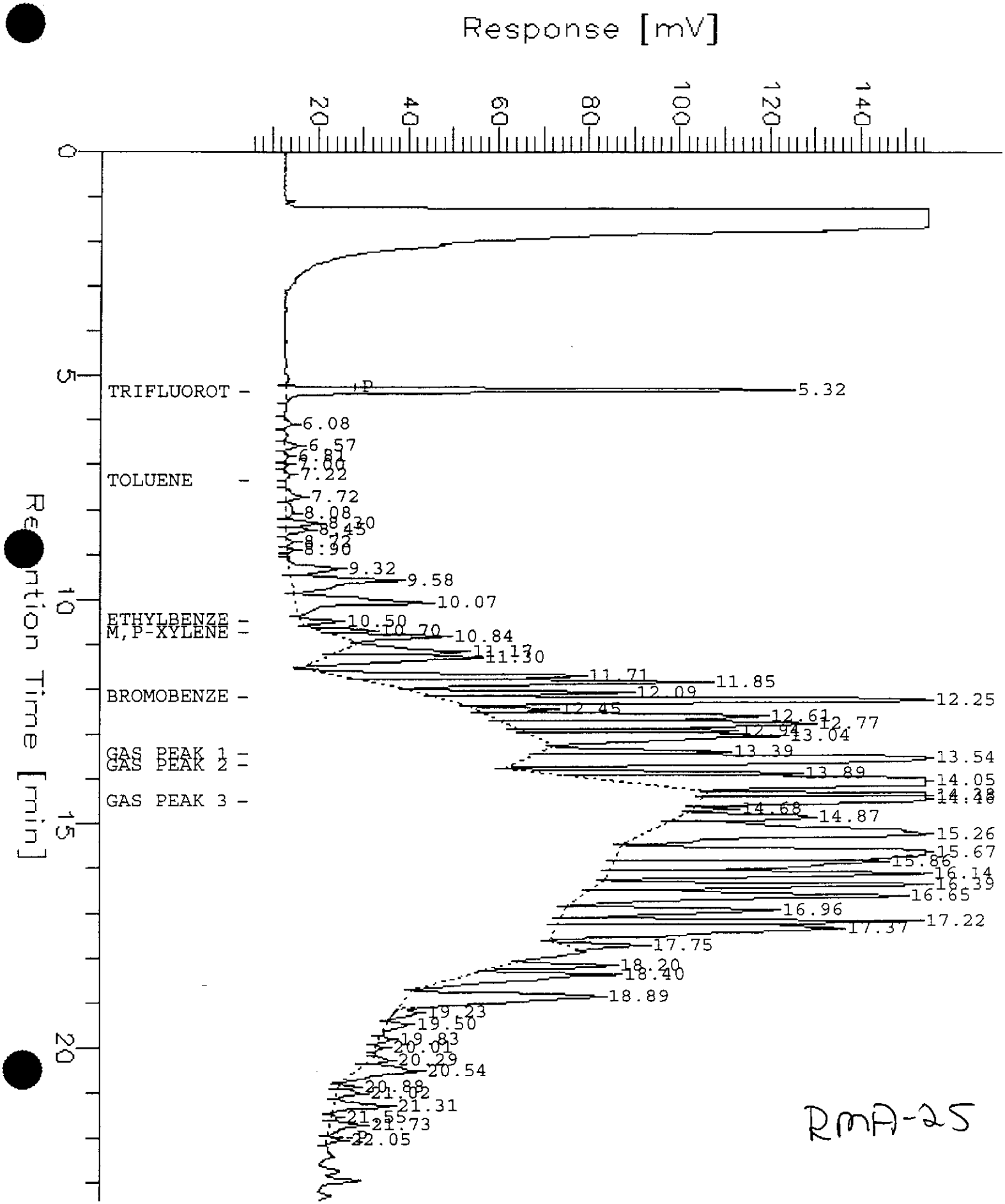
Matrix: Water

| Analyte | Units | 127558-008 | | 127558-010 |
|---|---|---|---|---|
| Diln Fac: | | 20 | | 1 |
| Gasoline | ug/L | 120000 | YH | <50 |
| Surrogate | | | | |
| Trifluorotoluene | %REC | 115 | | 95 |
| Bromobenzene | %REC | 266 | * | 71 |

* Values outside of QC limits
Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard

TVH2 - GC-05 RTX-1

FileName : G:\GC05\332HD17.raw
Start Time : 0.00 min
Scale Factor: 1
End Time : 23.42 min
Plot Offset: 5 mV
Date : 11/28/96 2:37 AM
Low Point : 5.07 mV
Plot Scale: 150 mV
Page 1 of 1
High Point : 155.07 mV




RMA-25

TVH-Total Volatile Hydrocarbons

| | | | |
|---|---|---|---|
| Client: | Subsurface Consultants | Analysis Method: | CA LUFT (EPA 8015M) |
| Project#: | 133.005 | Prep Method: | EPA 5030 |
| Location: | KOT | | |

METHOD BLANK

| | | | |
|---|---|---|---|
| Matrix: | Water | Prep Date: | 11/26/96 |
| Batch#: | 31150 | Analysis Date: | 11/26/96 |
| Units: | ug/L | | |
| Diln Fac: | 1 | | |

MB Lab ID: QC35477

| Analyte | Result | |
|---|---|---|
| Gasoline | <50 | |
| **Surrogate** | **%Rec** | **Recovery Limits** |
| Trifluorotoluene | 101 | 65-135 |
| Bromobenzene | 80 | 65-135 |

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

## TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

### METHOD BLANK

Matrix: Water
Batch#: 31171
Units: ug/L
Diln Fac: 1

Prep Date: 11/27/96
Analysis Date: 11/27/96

MB Lab ID: QC35555

| Analyte | Result | |
|---|---|---|
| Gasoline | <50 | |
| **Surrogate** | **%Rec** | **Recovery Limits** |
| Trifluorotoluene | 109 | 65-135 |
| Bromobenzene | 104 | 65-135 |

Curtis & Tompkins, Ltd.

Lab #: 127558

BATCH QC REPORT



TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 31150
Units: ug/L
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/26/96

LCS Lab ID: QC35475

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| Gasoline | 1866 | 2000 | 93 | 75-125 |

| Surrogate | %Rec | Limits |
|---|---|---|
| Trifluorotoluene | 97 | 65-135 |
| Bromobenzene | 100 | 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

Curtis & Tompkins, Ltd.

Lab #: 127558

BATCH QC REPORT



TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 31171
Units: ug/L
Diln Fac: 1

Prep Date: 11/27/96
Analysis Date: 11/27/96

LCS Lab ID: QC35553

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| Gasoline | 1898 | 2000 | 95 | 75-125 |

| Surrogate | %Rec | Limits |
|---|---|---|
| Trifluorotoluene | 92 | 65-135 |
| Bromobenzene | 117 | 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

## TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

## BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 31171
Units: ug/L
Diln Fac: 1

Prep Date: 11/27/96
Analysis Date: 11/27/96

BS Lab ID: QC35556

| Analyte | Spike Added | BS | %Rec # | Limits |
|---|---|---|---|---|
| Gasoline | 2000 | 1837 | 92 | 75-125 |
| **Surrogate** | **%Rec** | **Limits** | | |
| Trifluorotoluene | 108 | 65-135 | | |
| Bromobenzene | 129 | 65-135 | | |

BSD Lab ID: QC35557

| Analyte | Spike Added | BSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| Gasoline | 2000 | 1938 | 97 | 75-125 | 5 | 35 |
| **Surrogate** | **%Rec** | **Limits** | | | | |
| Trifluorotoluene | 107 | 65-135 | | | | |
| Bromobenzene | 115 | 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

## TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

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

| Sample # | Client ID | Batch # | Sampled | Extracted | Analyzed | Moisture |
|---|---|---|---|---|---|---|
| 127558-001 | RMA-22 @ 7.0 | 31143 | 11/22/96 | 11/26/96 | 12/03/96 | |
| 127558-011 | RMA-27 @ 5.5 | 31143 | 11/22/96 | 11/26/96 | 11/27/96 | |
| 127558-013 | RMA-28 @ 3.5 | 31143 | 11/22/96 | 11/26/96 | 12/03/96 | |

Matrix: Soil

| Analyte | Units | 127558-001 | 127558-011 | 127558-013 |
|---|---|---|---|---|
| Diln Fac: | | 10 | 1 | 5 |
| Diesel C12-C22 | mg/Kg | 1900 YL | 15 YH | 250 YH |
| Motor Oil C22-C50 | mg/Kg | 450 Y | 96 YH | 1100 |
| Surrogate | | | | |
| Hexacosane | %REC | 103 | 83 | 134 |

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

## TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

| Sample # | Client ID | Batch # | Sampled | Extracted | Analyzed | Moisture |
|---|---|---|---|---|---|---|
| 127558-002 | RMA-22 | 31117 | 11/22/96 | 11/25/96 | 12/03/96 | |
| 127558-004 | RMA-23 | 31208 | 11/22/96 | 12/02/96 | 12/04/96 | |
| 127558-008 | RMA-25 | 31117 | 11/22/96 | 11/25/96 | 12/03/96 | |
| 127558-010 | RMA-26 | 31117 | 11/22/96 | 11/25/96 | 11/27/96 | |

Matrix: Water

| Analyte | Units | 127558-002 | | 127558-004 | | 127558-008 | | 127558-010 | |
|---|---|---|---|---|---|---|---|---|---|
| Diln Fac: | | 5 | | 1 | | 5 | | 1 | |
| Diesel C12-C22 | ug/L | 230000 | YL | 1400 | YH | 47000 | YLH | 1300 | YH |
| Motor Oil C22-C50 | ug/L | 130000 | Y | 17000 | YH | 40000 | YL | 580 | YL |
| Surrogate | | | | | | | | | |
| Hexacosane | %REC | 900 | * | 37 | * | 96 | | 108 | |

* Values outside of QC limits
Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

## TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

| Sample # | Client ID | Batch # | Sampled | Extracted | Analyzed | Moisture |
|---|---|---|---|---|---|---|
| 127558-012 | RMA-27 | 31117 | 11/22/96 | 11/25/96 | 11/27/96 | |
| 127558-014 | RMA-28 | 31117 | 11/22/96 | 11/25/96 | 11/27/96 | |

Matrix: Water

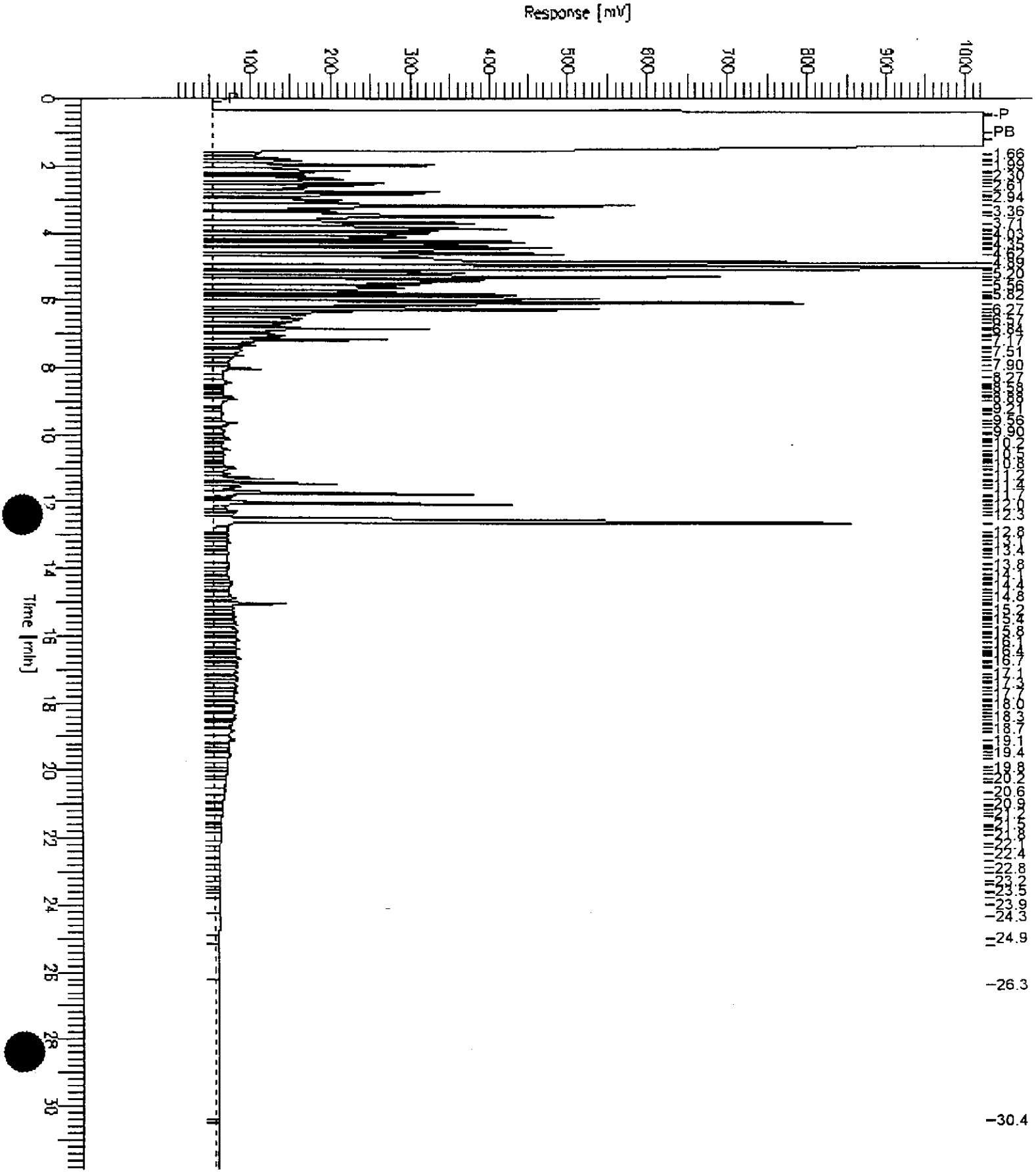
| Analyte | Units | 127558-012 | 127558-014 |
|---|---|---|---|
| Diln Fac: | | 1 | 1 |
| Diesel C12-C22 | ug/L | 560 YH | 720 YH |
| Motor Oil C22-C50 | ug/L | 610 YL | 490 YL |
| **Surrogate** | | | |
| Hexacosane | %REC | 129 | 118 |

Y: Sample exhibits fuel pattern which does not resemble standard
H: Heavier hydrocarbons than indicated standard
L: Lighter hydrocarbons than indicated standard

# GC15 Channel B TEH

Sample Name : 127588-001,31143
FileName : G:\GC15\CHB\337B024.RAW
Method : B332TEH.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: 2 mV

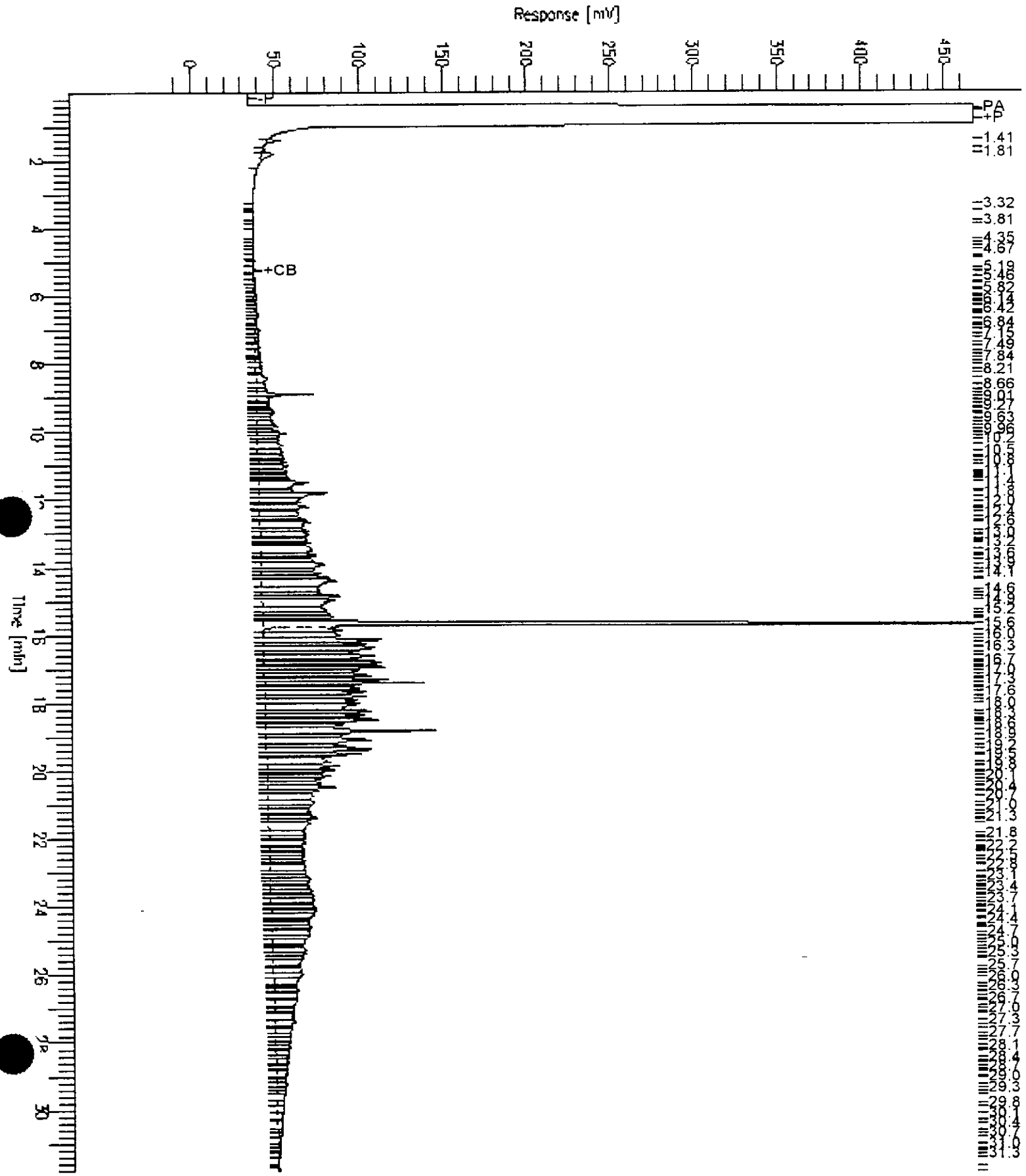
Sample #: 31143 Page 1 of 1
Date : 12/3/96 09:50 AM
Time of Injection: 12/3/96 02:56 AM
Low Point : 1.73 mV High Point : 1024.00 mV
Plot Scale: 1022.3 mV



# Chromatogram

Sample Name : 127558-011,31143
FileName : G:\GC13\CHA\332A021.RAW
Method : ATEH331.MTH
Start Time : 0.01 min End Time : 31.85 min
Multiplier Factor: 0.0 Plot Offset: -17 mV

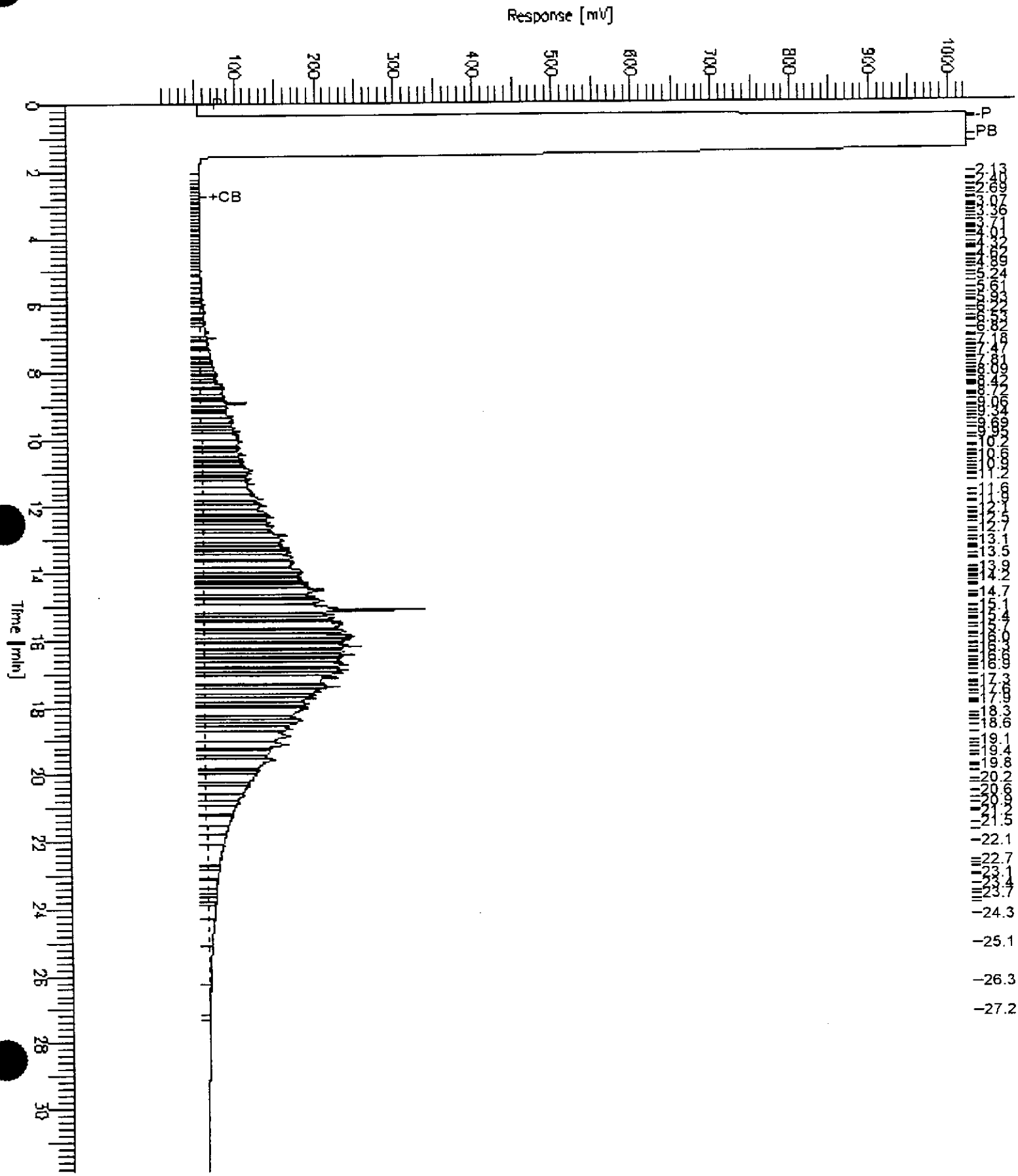
Sample #: 31143 Page 1 of 1
Date : 12/2/96 01:16 PM
Time of Injection: 11/27/96 11:20 PM
Low Point : -17.15 mV High Point : 467.82 mV
Plot Scale: 485.0 mV



# GC15 Channel B TEH

Sample Name : 127558-013,31143
FileName : G:\GC15\CHB\337B025.RAW
Method : B332TEH.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: 2 mV

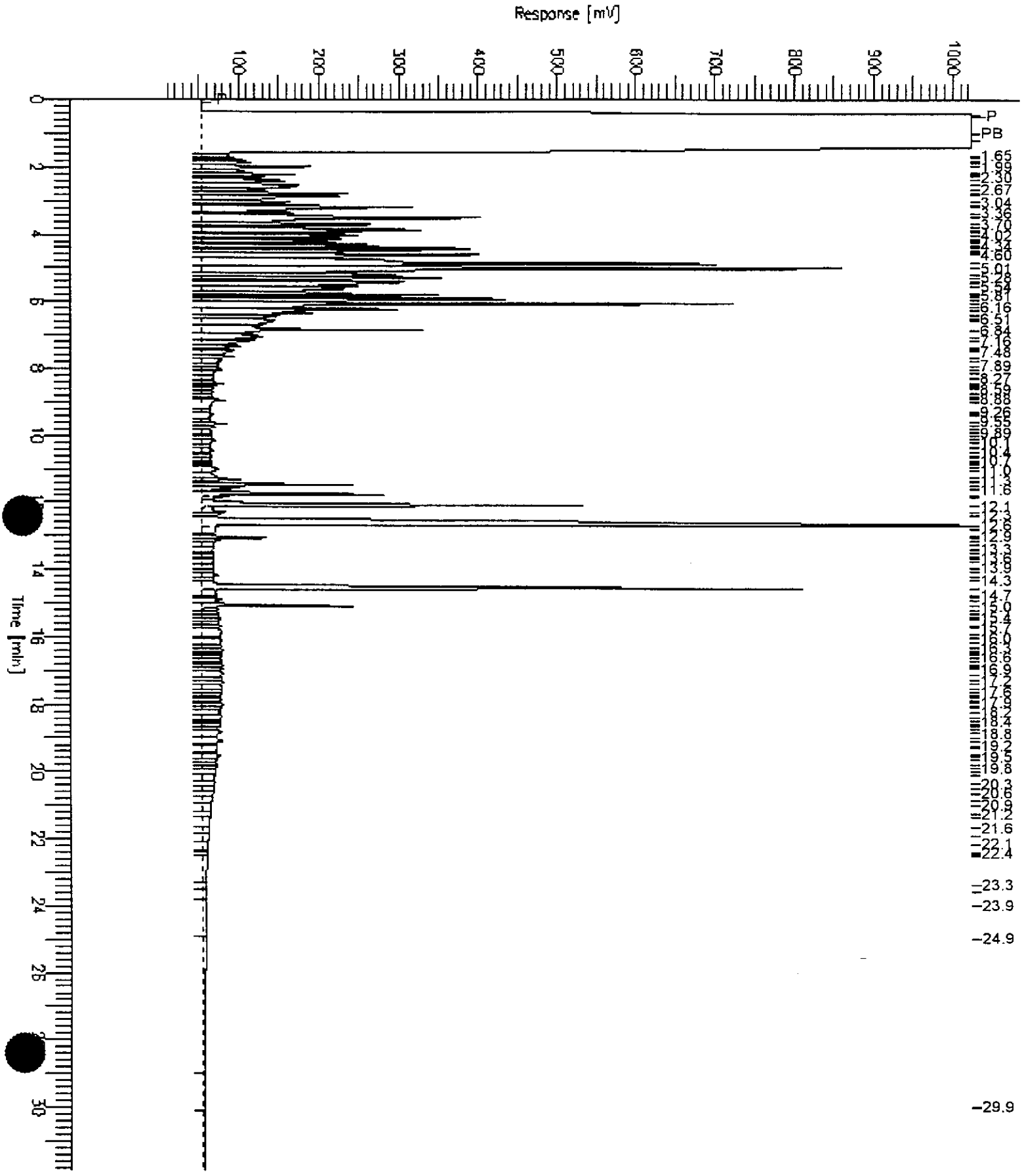
Sample #: 31143 Page 1 of 1
Date : 12/3/96 09:51 AM
Time of Injection: 12/3/96 03:39 AM
Low Point : 2.35 mV High Point : 1024.00 mV
Plot Scale: 1021.7 mV



# GC15 Channel B TEH

Sample Name : 127588-002,31117
FileName : G:\GC15\CHB\337B022.RAW
Method : B332TEH.MTH
Start Time : 0.00 min End Time : 31.90 min
Factor: 0.0 Plot Offset: 2 mV

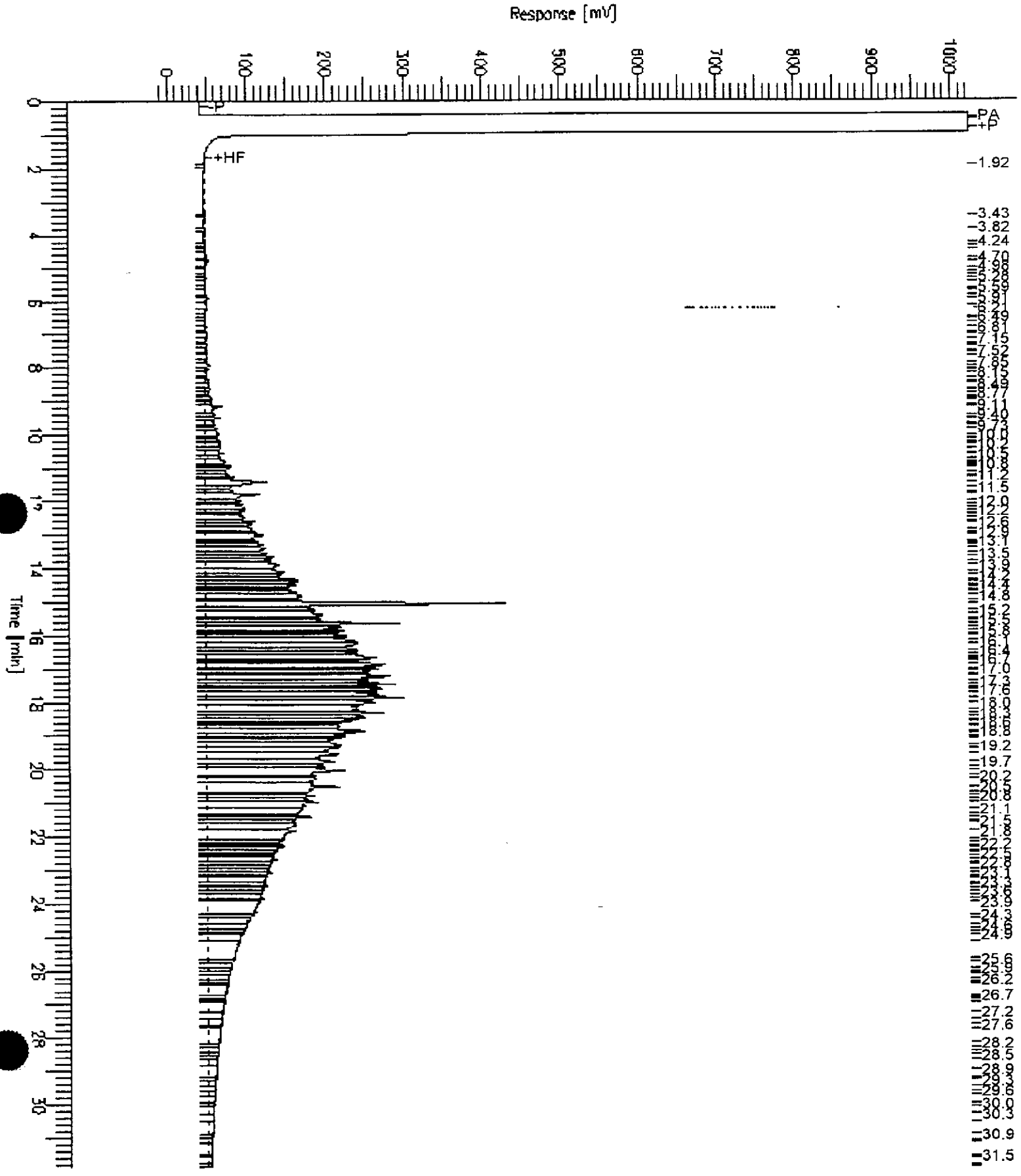
Sample #: 31117 Page 1 of 1
Date : 12/3/96 09:48 AM
Time of Injection: 12/3/96 01:29 AM
Low Point : 2.22 mV High Point : 1024.00 mV
Plot Scale: 1021.8 mV



# Chromatogram

Sample Name : 127558-004,31208
FileName : G:CG 13C HAC338A016.RAW
Method : ATEH331.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -10 mV

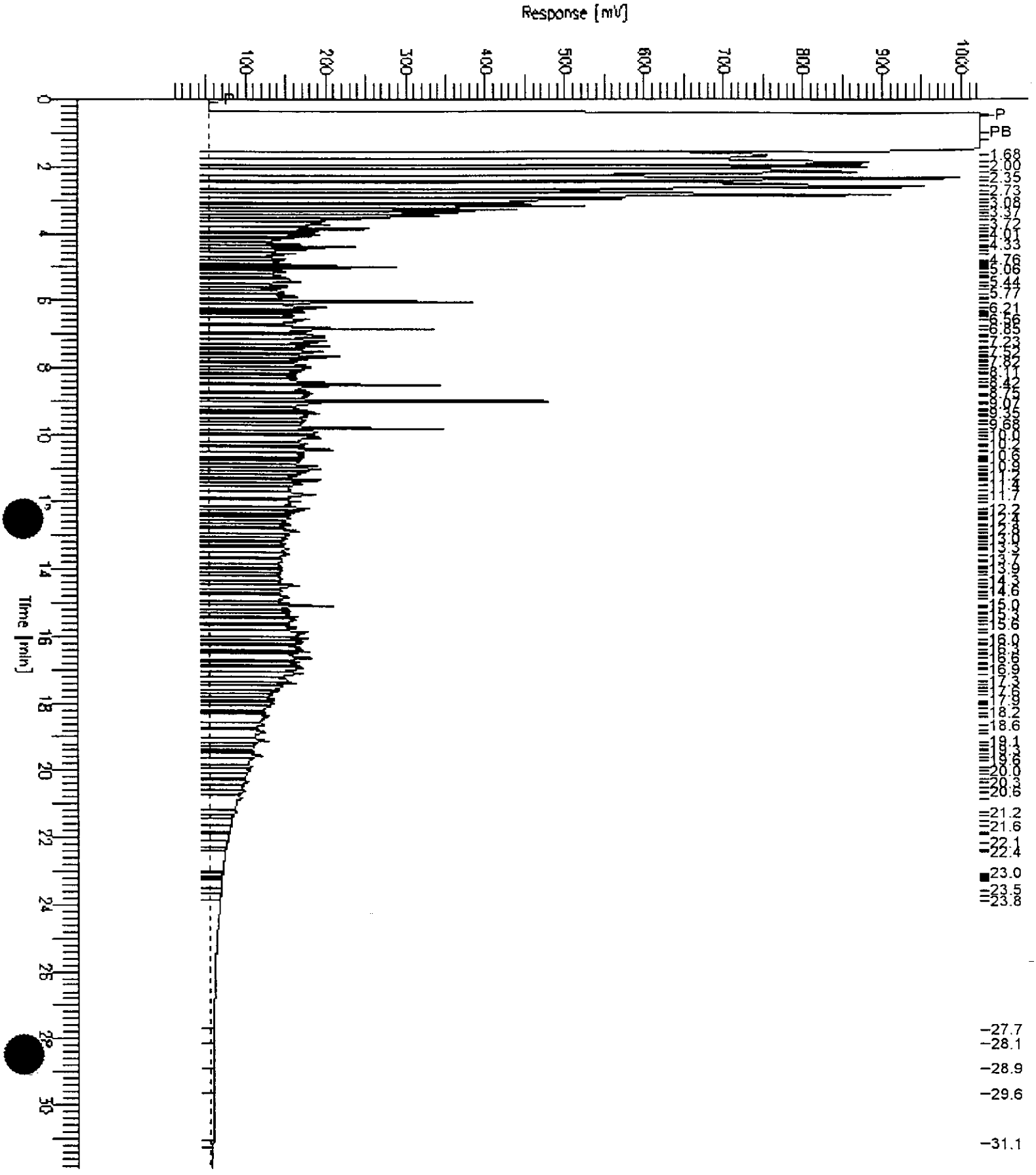
Sample #: 31208 Page 1 of 1
Date : 12/4/96 10:12 AM
Time of Injection: 12/4/96 03:38 AM
Low Point : -10.12 mV High Point : 1024.00 mV
Plot Scale: 1034.1 mV



# GC15 Channel B TEH

Sample Name : 127588-008,31117
FileName : G:\GC15\CHB\337B023.RAW
Method : B332TEH.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: 2 mV

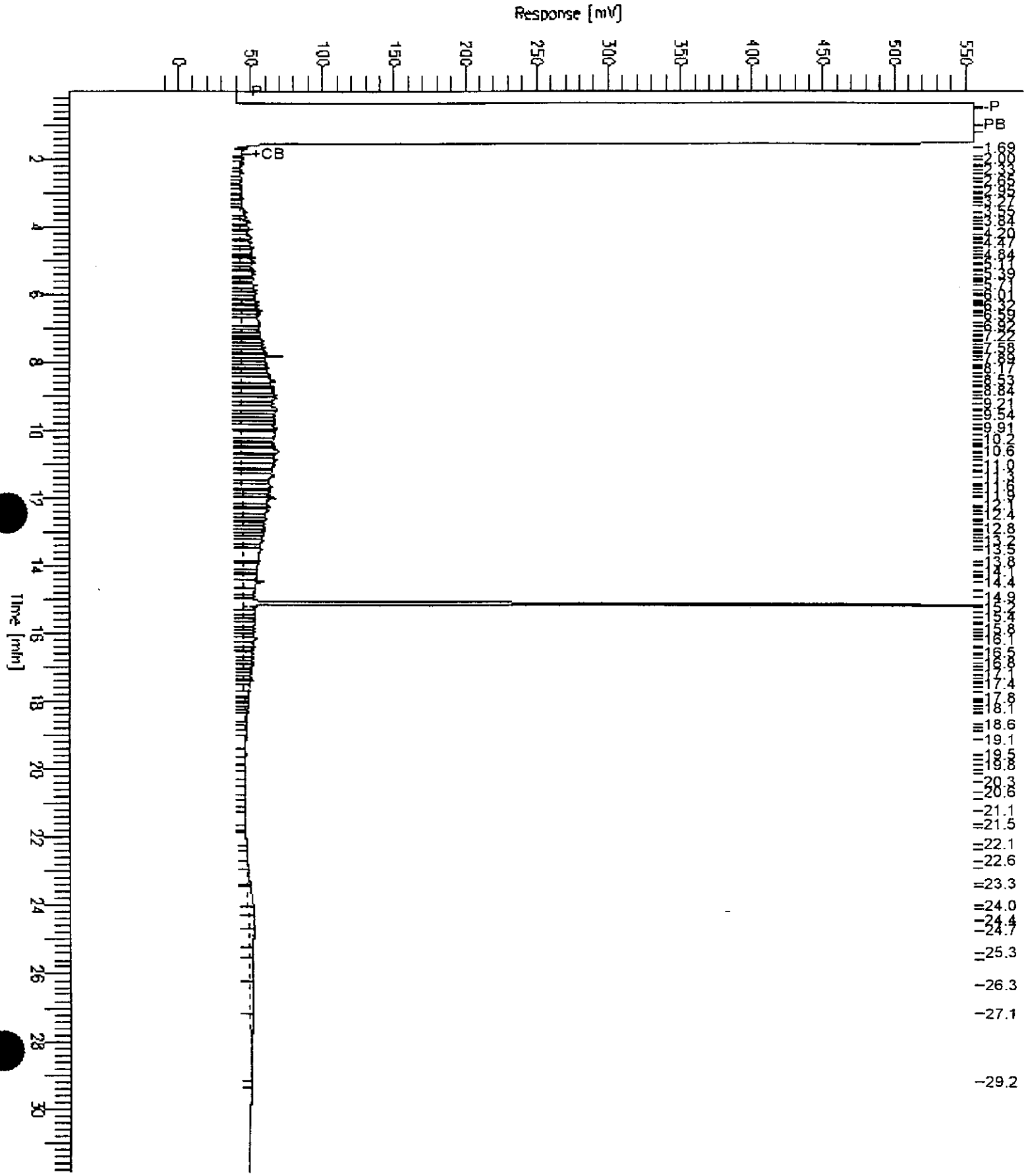
Sample #: 31117 Page 1 of 1
Date : 12/3/96 09:49 AM
Time of Injection: 12/3/96 02:12 AM
Low Point : 2.17 mV High Point : 1024.00 mV
Plot Scale: 1021.8 mV



# GC15 Channel B TEH

Sample Name : 127558-010,31117
FileName : G:\GC15\CHB\331B027.RAW
Method : B332TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: -12 mV

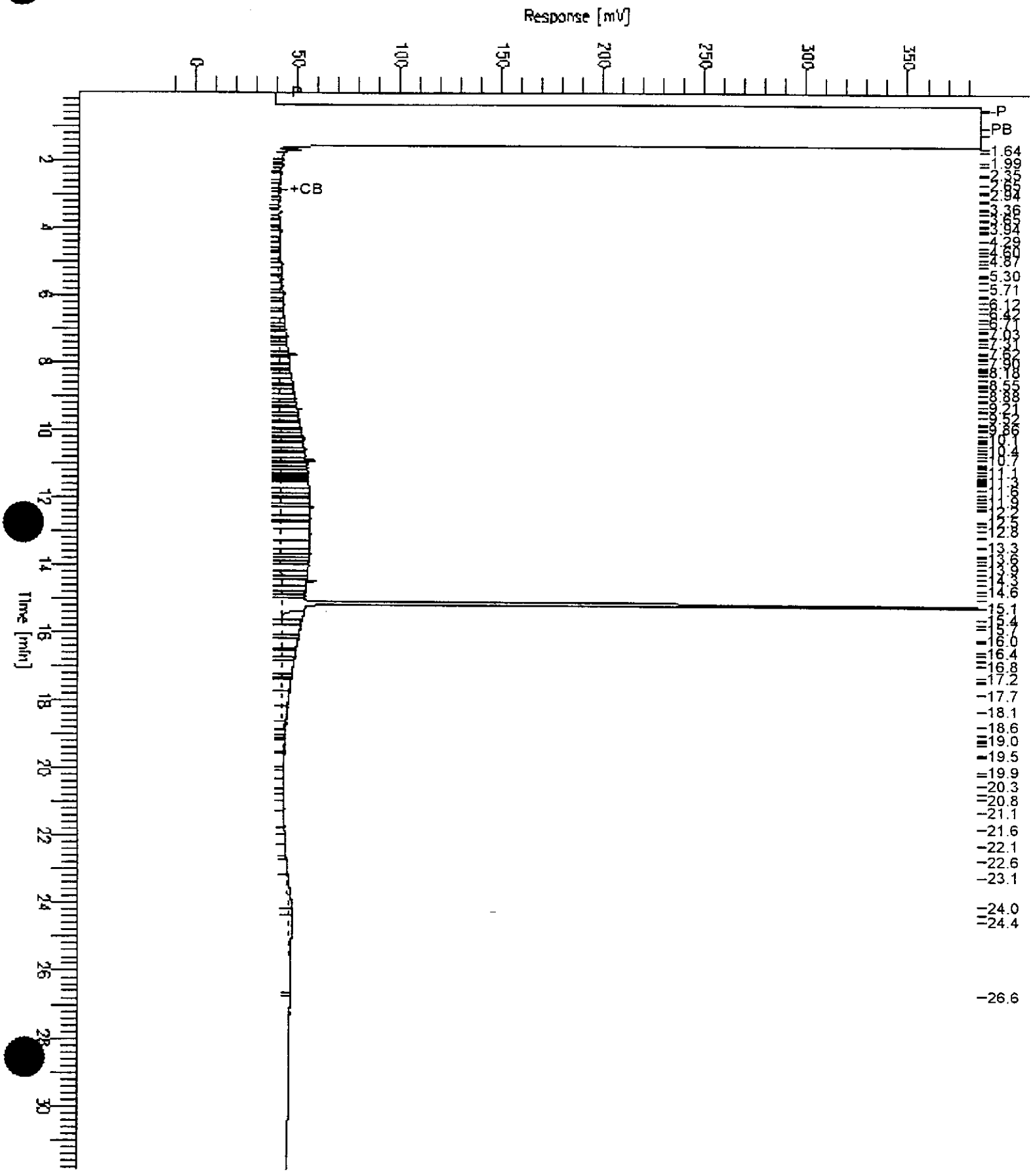
Sample #: 31117 Page 1 of 1
Date : 12/2/96 11:16 AM
Time of Injection: 11/27/96 12:17 PM
Low Point : -12.05 mV High Point : 556.42 mV
Plot Scale: 568.5 mV



# GC15 Channel B TEH

Sample Name : 127558-012,31117
FileName : G:\GC15\CHB\331B028.RAW
Method : B332TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -13 mV

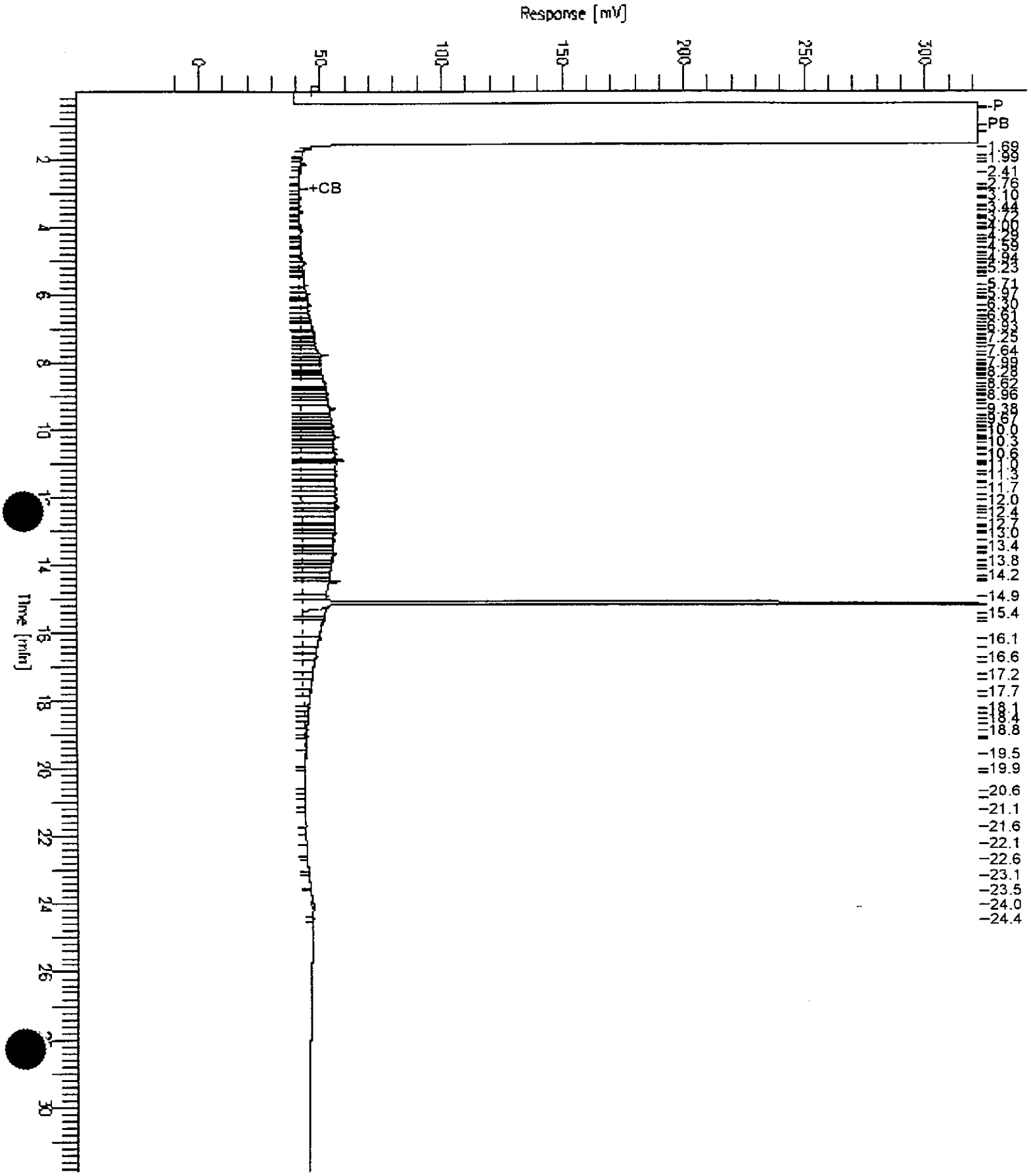
Sample #: 31117 Page 1 of 1
Date : 12/2/96 11:18 AM
Time of Injection: 11/27/96 01:01 PM
Low Point : -12.71 mV High Point : 386.30 mV
Plot Scale: 399.0 mV



# GC15 Channel B TEH

Sample Name : 127558-014,31117
FileName : G:\GC15\CHB\331B029.RAW
Method : B332TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: -13 mV

Sample #: 31117 Page 1 of 1
Date : 12/2/96 11:19 AM
Time of Injection: 11/27/96 01:46 PM
Low Point : -12.60 mV High Point : 322.21 mV
Plot Scale: 334.8 mV

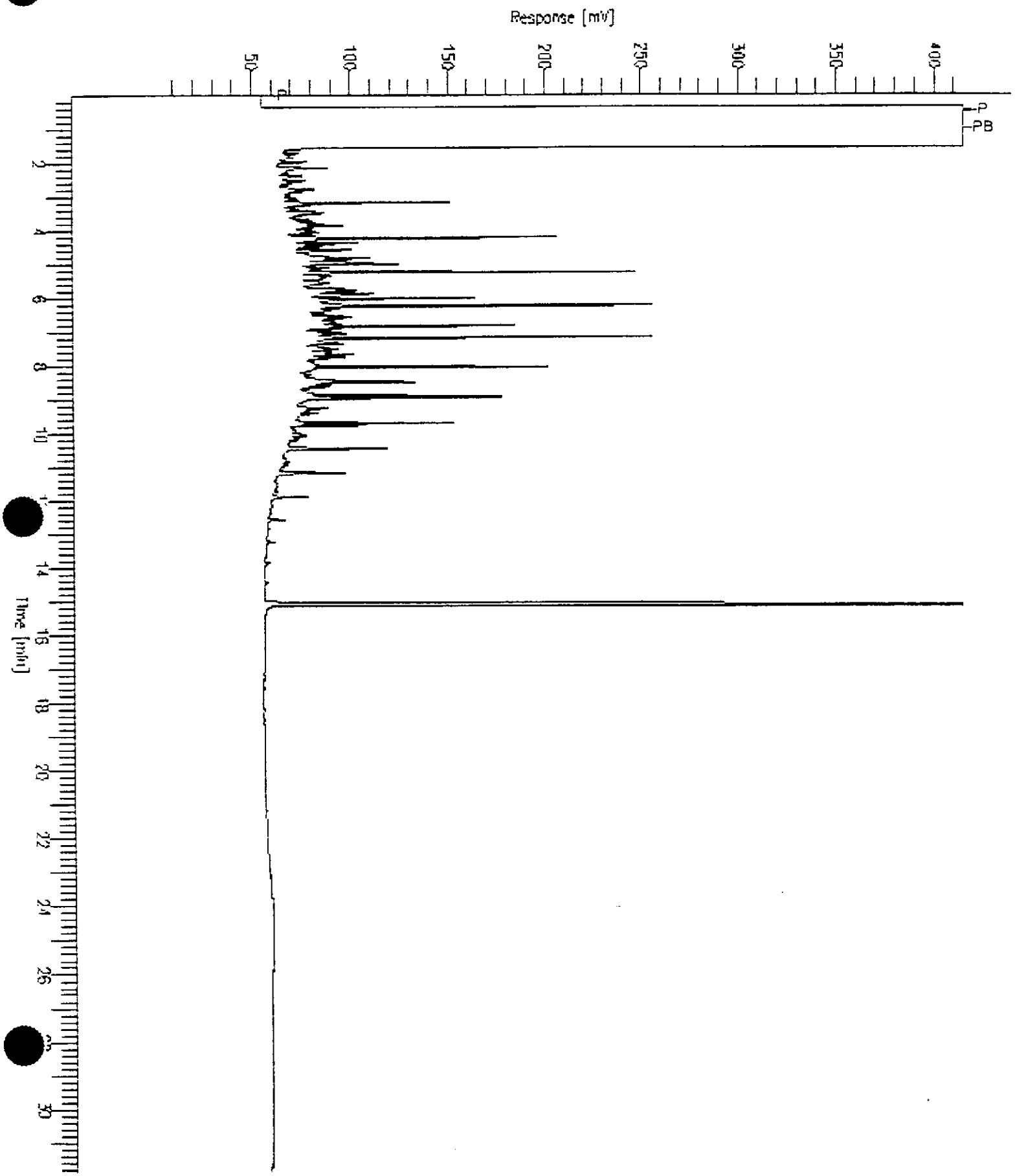


# GC15 Channel B TEH

Sample Name : CCV,96WS3405,DS
FileName : G:\GC15\CHB\3378029.RAW
Method : 8332TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Factor: 0.0 Plot Offset: 4 mV

Sample #: 500MG/L
Date : 12/4/96 12:54 PM
Time of Injection: 12/3/96 06:33 AM
Low Point : 4.49 mV High Point : 415.07 mV
Plot Scale: 410.6 mV

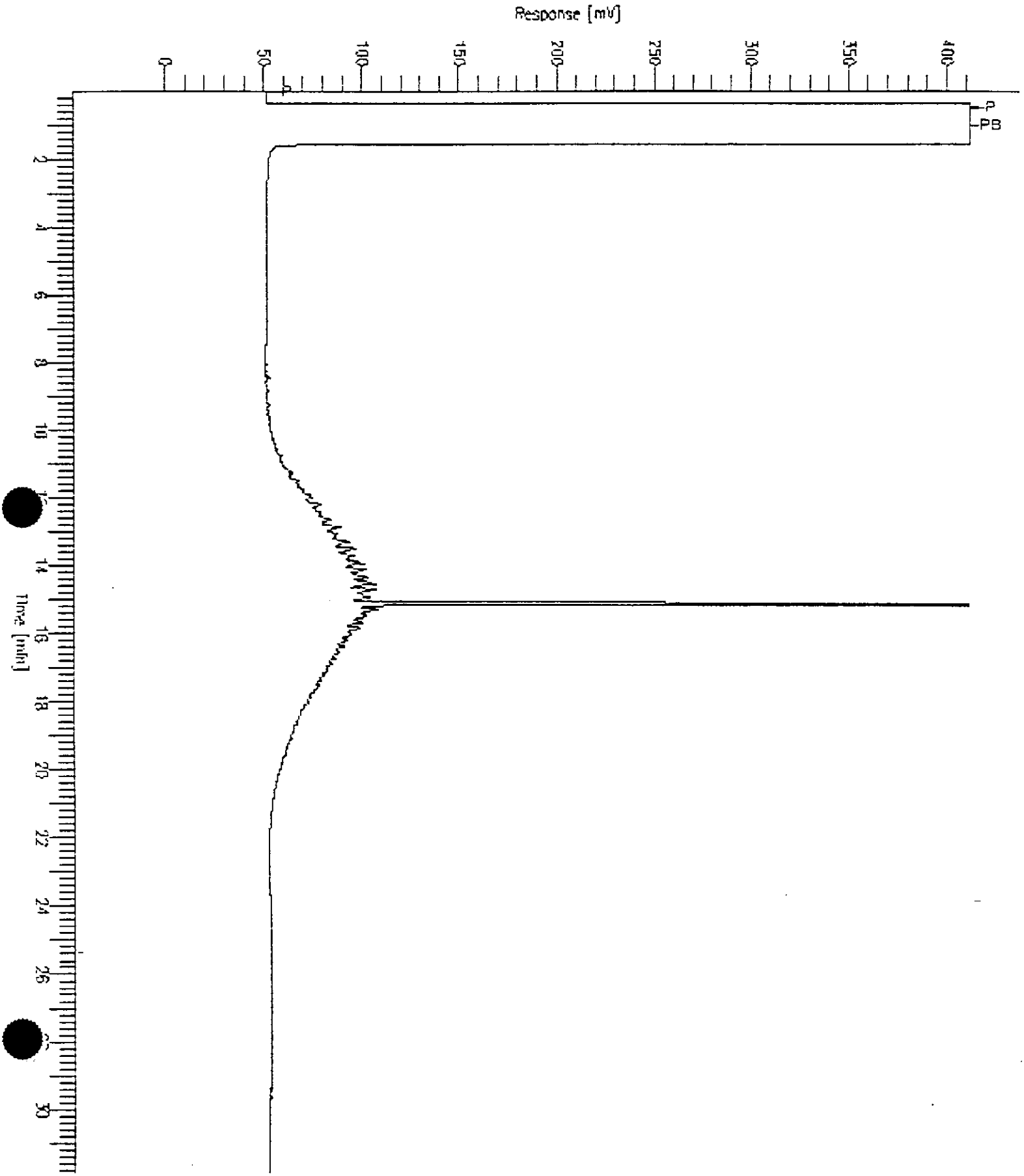




# GC15 Channel B TEH

Sample Name : CCV,96WS3096,MO
FileName : G:\GC15\CHB\337B031.RAW
Method : B332TEH.MTH
Start Time : 0.01 min End Time : 31.91 min
Slope Factor: 0.0 Plot Offset: -0 mV

Sample #: 500MG/L Page 1 of 1
Date : 12/4/96 12:55 PM
Time of Injection: 12/3/96 08:00 AM
Low Point : -0.21 mV High Point : 412.15 mV
Plot Scale: 412.4 mV



Curtis & Tompkins, Ltd.

Lab #: 127558

BATCH QC REPORT



| TEH-Tot Ext Hydrocarbons | |
|---|---|
| Client: Subsurface Consultants | Analysis Method: CA LUFT (EPA 8015M) |
| Project#: 133.005 | Prep Method: CA LUFT |
| Location: KOT | |

| METHOD BLANK | |
|---|---|
| Matrix: Soil | Prep Date: 11/26/96 |
| Batch#: 31143 | Analysis Date: 11/27/96 |
| Units: mg/Kg | |
| Diln Fac: 1 | |

MB Lab ID: QC35446

| Analyte | Result |
|---|---|
| Diesel C12-C22 | <1.0 |
| Motor Oil C22-C50 | <5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| Hexacosane | 90 | 60-140 |

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

| TEH-Tot Ext Hydrocarbons | |
|---|---|
| Client: Subsurface Consultants | Analysis Method: CA LUFT (EPA 8015M) |
| Project#: 133.005 | Prep Method: CA LUFT |
| Location: KOT | |
| **LABORATORY CONTROL SAMPLE** | |
| Matrix: Soil | Prep Date: 11/26/96 |
| Batch#: 31143 | Analysis Date: 11/27/96 |
| Units: mg/Kg | |
| Diln Fac: 1 | |

LCS Lab ID: QC35447

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| Diesel C12-C22 | 39.64 | 49.5 | 80 | 60-140 |
| **Surrogate** | **%Rec** | **Limits** | | |
| Hexacosane | 90 | 60-140 | | |

# 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

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

## TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

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

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 127572-032
Matrix: Soil
Batch#: 31143
Units: mg/Kg dry weight
Diln Fac: 1

Sample Date: 11/25/96
Received Date: 11/26/96
Prep Date: 11/26/96
Analysis Date: 11/27/96
Moisture: 12%

MS Lab ID: QC35448

| Analyte | Spike Added | Sample | MS | %Rec # | Limits |
|---|---|---|---|---|---|
| Diesel C12-C22 | 56.25 | 30.8 | 74.73 | 78 | 60-140 |
| Surrogate | %Rec | Limits | | | |
| Hexacosane | 93 | 60-140 | | | |

MSD Lab ID: QC35449

| Analyte | Spike Added | MSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| Diesel C12-C22 | 56.25 | 82.89 | 93 | 60-140 | 10 | 30 |
| Surrogate | %Rec | Limits | | | | |
| Hexacosane | 91 | 60-140 | | | | |

# 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

Lab #: 127558

BATCH QC REPORT

Curtis & Tompkins, Ltd.



## TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

## METHOD BLANK

Matrix: Water
Batch#: 31117
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/26/96

MB Lab ID: QC35352

| Analyte | Result |
|---|---|
| Diesel C12-C22 | <50 |
| Motor Oil C22-C50 | <250 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| Hexacosane | 109 | 60-140 |

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

| TEH-Tot Ext Hydrocarbons | |
|---|---|
| Client: Subsurface Consultants | Analysis Method: CA LUFT (EPA 8015M) |
| Project#: 133.005 | Prep Method: EPA 3520 |
| Location: KOT | |

| METHOD BLANK | |
|---|---|
| Matrix: Water | Prep Date: 12/02/96 |
| Batch#: 31208 | Analysis Date: 12/03/96 |
| Units: ug/L | |
| Diln Fac: 1 | |

MB Lab ID: QC35676

| Analyte | Result | |
|---|---|---|
| Diesel C12-C22 | <50 | |
| Motor Oil C22-C50 | <250 | |
| **Surrogate** | **%Rec** | **Recovery Limits** |
| Hexacosane | 79 | 60-140 |

Curtis & Tompkins, Ltd.

Lab #: 127558

BATCH QC REPORT



TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 31117
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/26/96

BS Lab ID: QC35353

| Analyte | Spike Added | BS | %Rec # | Limits |
|---|---|---|---|---|
| Diesel C12-C22 | 2475 | 1909 | 77 | 60-140 |
| **Surrogate** | **%Rec** | **Limits** | | |
| Hexacosane | 117 | 60-140 | | |

BSD Lab ID: QC35354

| Analyte | Spike Added | BSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| Diesel C12-C22 | 2475 | 1957 | 79 | 60-140 | 2 | 35 |
| **Surrogate** | **%Rec** | **Limits** | | | | |
| Hexacosane | 110 | 60-140 | | | | |

# 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

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

| TEH-Tot Ext Hydrocarbons | |
|---|---|
| Client: Subsurface Consultants | Analysis Method: CA LUFT (EPA 8015M) |
| Project#: 133.005 | Prep Method: EPA 3520 |
| Location: KOT | |
| **BLANK SPIKE/BLANK SPIKE DUPLICATE** | |
| Matrix: Water | Prep Date: 12/02/96 |
| Batch#: 31208 | Analysis Date: 12/03/96 |
| Units: ug/L | |
| Diln Fac: 1 | |

BS Lab ID: QC35677

| Analyte | Spike Added | BS | %Rec # | Limits |
|---|---|---|---|---|
| Diesel C12-C22 | 2475 | 2348 | 95 | 60-140 |
| **Surrogate** | **%Rec** | **Limits** | | |
| Hexacosane | 96 | 60-140 | | |

BSD Lab ID: QC35678

| Analyte | Spike Added | BSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| Diesel C12-C22 | 2475 | 2094 | 85 | 60-140 | 11 | 35 |
| **Surrogate** | **%Rec** | **Limits** | | | | |
| Hexacosane | 88 | 60-140 | | | | |

# 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

## Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: RMA-22 @ 7.0
Lab ID: 127558-001
Matrix: Soil
Batch#: 31109
Units: ug/Kg
Diln Fac: 5

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 11/26/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 50 |
| Bromomethane | ND | 50 |
| Vinyl Chloride | ND | 50 |
| Chloroethane | ND | 50 |
| Methylene Chloride | ND | 100 |
| Acetone | ND | 100 |
| Carbon Disulfide | ND | 25 |
| Trichlorofluoromethane | ND | 25 |
| 1,1-Dichloroethene | ND | 25 |
| 1,1-Dichloroethane | ND | 25 |
| trans-1,2-Dichloroethene | ND | 25 |
| cis-1,2-Dichloroethene | ND | 25 |
| Chloroform | ND | 25 |
| Freon 113 | ND | 25 |
| 1,2-Dichloroethane | ND | 25 |
| 2-Butanone | ND | 50 |
| 1,1,1-Trichloroethane | ND | 25 |
| Carbon Tetrachloride | ND | 25 |
| Vinyl Acetate | ND | 250 |
| Bromodichloromethane | ND | 25 |
| 1,2-Dichloropropane | ND | 25 |
| cis-1,3-Dichloropropene | ND | 25 |
| Trichloroethene | ND | 25 |
| Dibromochloromethane | ND | 25 |
| 1,1,2-Trichloroethane | ND | 25 |
| Benzene | 76 | 25 |
| trans-1,3-Dichloropropene | ND | 25 |
| Bromoform | ND | 25 |
| 2-Hexanone | ND | 50 |
| 4-Methyl-2-Pentanone | ND | 50 |
| 1,1,2,2-Tetrachloroethane | ND | 25 |
| Tetrachloroethene | ND | 25 |
| Toluene | 22 J | 25 |
| Chlorobenzene | ND | 25 |
| Ethylbenzene | 190 | 25 |
| Styrene | ND | 25 |
| m,p-Xylenes | 160 | 25 |
| o-Xylene | 150 | 25 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 68-126 |
| Toluene-d8 | 97 | 87-125 |
| Bromofluorobenzene | 97 | 79-122 |

J: Estimated Value

## Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: RMA-22
Lab ID: 127558-002
Matrix: Water
Batch#: 31126
Units: ug/L
Diln Fac: 25

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/27/96
Analyzed: 11/27/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 250 |
| Bromomethane | ND | 250 |
| Vinyl Chloride | ND | 250 |
| Chloroethane | ND | 250 |
| Methylene Chloride | ND | 500 |
| Acetone | ND | 500 |
| Carbon Disulfide | ND | 130 |
| Trichlorofluoromethane | ND | 130 |
| 1,1-Dichloroethene | ND | 130 |
| 1,1-Dichloroethane | ND | 130 |
| trans-1,2-Dichloroethene | ND | 130 |
| cis-1,2-Dichloroethene | ND | 130 |
| Chloroform | ND | 130 |
| Freon 113 | ND | 130 |
| 1,2-Dichloroethane | ND | 130 |
| 2-Butanone | ND | 250 |
| 1,1,1-Trichloroethane | ND | 130 |
| Carbon Tetrachloride | ND | 130 |
| Vinyl Acetate | ND | 1300 |
| Bromodichloromethane | ND | 130 |
| 1,2-Dichloropropane | ND | 130 |
| cis-1,3-Dichloropropene | ND | 130 |
| Trichloroethene | ND | 130 |
| Dibromochloromethane | ND | 130 |
| 1,1,2-Trichloroethane | ND | 130 |
| Benzene | ND | 130 |
| trans-1,3-Dichloropropene | ND | 130 |
| Bromoform | ND | 130 |
| 2-Hexanone | ND | 250 |
| 4-Methyl-2-Pentanone | ND | 250 |
| 1,1,2,2-Tetrachloroethane | ND | 130 |
| Tetrachloroethene | ND | 130 |
| Toluene | ND | 130 |
| Chlorobenzene | ND | 130 |
| Ethylbenzene | ND | 130 |
| Styrene | ND | 130 |
| m,p-Xylenes | ND | 130 |
| o-Xylene | ND | 130 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 98 | 68-126 |
| Toluene-d8 | 106 | 87-125 |
| Bromofluorobenzene | 100 | 79-122 |

# Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: RMA-23
Lab ID: 127558-004
Matrix: Water
Batch#: 31108
Units: ug/L
Diln Fac: 1

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 11/26/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 68-126 |
| Toluene-d8 | 106 | 87-125 |
| Bromofluorobenzene | 100 | 79-122 |

## Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: RMA-25
Lab ID: 127558-008
Matrix: Water
Batch#: 31108
Units: ug/L
Diln Fac: 1

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 11/26/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 97 | 68-126 |
| Toluene-d8 | 106 | 87-125 |
| Bromofluorobenzene | 104 | 79-122 |

## Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: RMA-26
Lab ID: 127558-010
Matrix: Water
Batch#: 31108
Units: ug/L
Diln Fac: 1

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 11/26/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 68-126 |
| Toluene-d8 | 108 | 87-125 |
| Bromofluorobenzene | 100 | 79-122 |

## Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: RMA-27 @ 5.5
Lab ID: 127558-011
Matrix: Soil
Batch#: 31172
Units: ug/Kg
Diln Fac: 1

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/27/96
Analyzed: 11/27/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 113 | 68-126 |
| Toluene-d8 | 106 | 87-125 |
| Bromofluorobenzene | 113 | 79-122 |

## Volatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: RMA-28 @ 3.5
Lab ID: 127558-013
Matrix: Soil
Batch#: 31109
Units: ug/Kg
Diln Fac: 1

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 11/26/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | 42 | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | 13 | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 68-126 |
| Toluene-d8 | 99 | 87-125 |
| Bromofluorobenzene | 110 | 79-122 |

Lab #: 127558

BATCH QC REPORT

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## METHOD BLANK

Matrix: Water
Batch#: 31108
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/25/96

MB Lab ID: QC35312

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 68-126 |
| Toluene-d8 | 103 | 87-125 |
| Bromofluorobenzene | 102 | 79-122 |

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## METHOD BLANK

Matrix: Water
Batch#: 31108
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/25/96

MB Lab ID: QC35327

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 68-126 |
| Toluene-d8 | 103 | 87-125 |
| Bromofluorobenzene | 101 | 79-122 |

Curtis & Tompkins, Ltd.

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## METHOD BLANK

Matrix: Water
Batch#: 31126
Units: ug/L
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/26/96

MB Lab ID: QC35389

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 68-126 |
| Toluene-d8 | 108 | 87-125 |
| Bromofluorobenzene | 103 | 79-122 |

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## METHOD BLANK

Matrix: Water
Batch#: 31126
Units: ug/L
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/26/96

MB Lab ID: QC35398

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 68-126 |
| Toluene-d8 | 107 | 87-125 |
| Bromofluorobenzene | 101 | 79-122 |

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 31108
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/25/96

LCS Lab ID: QC35311

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| 1,1-Dichloroethene | 53.87 | 50 | 108 | 51-180 |
| Trichloroethene | 50.02 | 50 | 100 | 73-141 |
| Benzene | 52.71 | 50 | 105 | 78-142 |
| Toluene | 50.3 | 50 | 101 | 76-150 |
| Chlorobenzene | 50.48 | 50 | 101 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 68-126 |
| Toluene-d8 | 101 | 87-125 |
| Bromofluorobenzene | 103 | 79-122 |

# 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 #: 127558

BATCH QC REPORT

Curtis & Tompkins, Ltd.



## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 31126
Units: ug/L
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/26/96

LCS Lab ID: QC35388

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| 1,1-Dichloroethene | 58.24 | 50 | 116 | 51-180 |
| Trichloroethene | 52.11 | 50 | 104 | 73-141 |
| Benzene | 54.29 | 50 | 109 | 78-142 |
| Toluene | 54.25 | 50 | 108 | 76-150 |
| Chlorobenzene | 51.73 | 50 | 103 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 96 | 68-126 |
| Toluene-d8 | 105 | 87-125 |
| Bromofluorobenzene | 103 | 79-122 |

# 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 #: 127558

BATCH QC REPORT

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 127538-011
Matrix: Water
Batch#: 31108
Units: ug/L
Diln Fac: 1

Sample Date: 11/21/96
Received Date: 11/21/96
Prep Date: 11/25/96
Analysis Date: 11/25/96

MS Lab ID: QC35324

| Analyte | Spike Added | Sample | MS | %Rec # | Limits |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 135.5 | 170.8 | 71 | 51-180 |
| Trichloroethene | 50 | 5.218 | 54.54 | 99 | 73-141 |
| Benzene | 50 | <5 | 52.79 | 106 | 78-142 |
| Toluene | 50 | <5 | 50.38 | 101 | 76-150 |
| Chlorobenzene | 50 | <5 | 50.59 | 101 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 68-126 |
| Toluene-d8 | 101 | 87-125 |
| Bromofluorobenzene | 103 | 79-122 |

MSD Lab ID: QC35325

| Analyte | Spike Added | MSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 162.9 | 55 | 51-180 | 5 | 14 |
| Trichloroethene | 50 | 52.8 | 95 | 73-141 | 3 | 14 |
| Benzene | 50 | 51.48 | 103 | 78-142 | 3 | 11 |
| Toluene | 50 | 50.11 | 100 | 76-150 | 1 | 13 |
| Chlorobenzene | 50 | 49.51 | 99 | 83-129 | 2 | 13 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 68-126 |
| Toluene-d8 | 103 | 87-125 |
| Bromofluorobenzene | 102 | 79-122 |

# 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

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 127557-001
Matrix: Water
Batch#: 31126
Units: ug/L
Diln Fac: 1

Sample Date: 11/22/96
Received Date: 11/22/96
Prep Date: 11/26/96
Analysis Date: 11/26/96

MS Lab ID: QC35395

| Analyte | Spike Added | Sample | MS | %Rec # | Limits |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | <5 | 51.5 | 103 | 51-180 |
| Trichloroethene | 50 | <5 | 48.28 | 97 | 73-141 |
| Benzene | 50 | <5 | 50.84 | 102 | 78-142 |
| Toluene | 50 | <5 | 51.63 | 103 | 76-150 |
| Chlorobenzene | 50 | <5 | 48.84 | 98 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 68-126 |
| Toluene-d8 | 107 | 87-125 |
| Bromofluorobenzene | 103 | 79-122 |

MSD Lab ID: QC35396

| Analyte | Spike Added | MSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 49.84 | 100 | 51-180 | 3 | 14 |
| Trichloroethene | 50 | 46.55 | 93 | 73-141 | 4 | 14 |
| Benzene | 50 | 49.57 | 99 | 78-142 | 3 | 11 |
| Toluene | 50 | 49.81 | 99 | 76-150 | 4 | 13 |
| Chlorobenzene | 50 | 47.61 | 95 | 83-129 | 3 | 13 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 99 | 68-126 |
| Toluene-d8 | 106 | 87-125 |
| Bromofluorobenzene | 101 | 79-122 |

# 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

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## METHOD BLANK

Matrix: Soil
Batch#: 31109
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/26/96

MB Lab ID: QC35315

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 68-126 |
| Toluene-d8 | 99 | 87-125 |
| Bromofluorobenzene | 111 | 79-122 |

Lab #: 127558

BATCH QC REPORT

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## METHOD BLANK

Matrix: Soil
Batch#: 31109
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/26/96

MB Lab ID: QC35315

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 68-126 |
| Toluene-d8 | 99 | 87-125 |
| Bromofluorobenzene | 111 | 79-122 |

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## METHOD BLANK

Matrix: Soil
Batch#: 31172
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/27/96
Analysis Date: 11/27/96

MB Lab ID: QC35561

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 68-126 |
| Toluene-d8 | 106 | 87-125 |
| Bromofluorobenzene | 110 | 79-122 |

## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## METHOD BLANK

Matrix: Soil
Batch#: 31172
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/27/96
Analysis Date: 11/27/96

MB Lab ID: QC35561

| Analyte | Result | Reporting Limit |
|---|---|---|
| Chloromethane | ND | 10 |
| Bromomethane | ND | 10 |
| Vinyl Chloride | ND | 10 |
| Chloroethane | ND | 10 |
| Methylene Chloride | ND | 20 |
| Acetone | ND | 20 |
| Carbon Disulfide | ND | 5.0 |
| Trichlorofluoromethane | ND | 5.0 |
| 1,1-Dichloroethene | ND | 5.0 |
| 1,1-Dichloroethane | ND | 5.0 |
| trans-1,2-Dichloroethene | ND | 5.0 |
| cis-1,2-Dichloroethene | ND | 5.0 |
| Chloroform | ND | 5.0 |
| Freon 113 | ND | 5.0 |
| 1,2-Dichloroethane | ND | 5.0 |
| 2-Butanone | ND | 10 |
| 1,1,1-Trichloroethane | ND | 5.0 |
| Carbon Tetrachloride | ND | 5.0 |
| Vinyl Acetate | ND | 50 |
| Bromodichloromethane | ND | 5.0 |
| 1,2-Dichloropropane | ND | 5.0 |
| cis-1,3-Dichloropropene | ND | 5.0 |
| Trichloroethene | ND | 5.0 |
| Dibromochloromethane | ND | 5.0 |
| 1,1,2-Trichloroethane | ND | 5.0 |
| Benzene | ND | 5.0 |
| trans-1,3-Dichloropropene | ND | 5.0 |
| Bromoform | ND | 5.0 |
| 2-Hexanone | ND | 10 |
| 4-Methyl-2-Pentanone | ND | 10 |
| 1,1,2,2-Tetrachloroethane | ND | 5.0 |
| Tetrachloroethene | ND | 5.0 |
| Toluene | ND | 5.0 |
| Chlorobenzene | ND | 5.0 |
| Ethylbenzene | ND | 5.0 |
| Styrene | ND | 5.0 |
| m,p-Xylenes | ND | 5.0 |
| o-Xylene | ND | 5.0 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 106 | 68-126 |
| Toluene-d8 | 106 | 87-125 |
| Bromofluorobenzene | 110 | 79-122 |

Lab #: 127558

BATCH QC REPORT

Curtis & Tompkins, Ltd.



## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 31109
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/26/96

LCS Lab ID: QC35314

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| 1,1-Dichloroethene | 44.35 | 50 | 89 | 51-180 |
| Trichloroethene | 50.77 | 50 | 102 | 73-141 |
| Benzene | 52.04 | 50 | 104 | 78-142 |
| Toluene | 51.73 | 50 | 103 | 76-150 |
| Chlorobenzene | 48.51 | 50 | 97 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 98 | 68-126 |
| Toluene-d8 | 97 | 87-125 |
| Bromofluorobenzene | 112 | 79-122 |

# 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 #: 127558

BATCH QC REPORT

Curtis & Tompkins, Ltd.



## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 31172
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/27/96
Analysis Date: 11/27/96

LCS Lab ID: QC35559

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| 1,1-Dichloroethene | 57.99 | 50 | 116 | 51-180 |
| Trichloroethene | 52.61 | 50 | 105 | 73-141 |
| Benzene | 52.7 | 50 | 105 | 78-142 |
| Toluene | 52.73 | 50 | 105 | 76-150 |
| Chlorobenzene | 51.84 | 50 | 104 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 115 | 68-126 |
| Toluene-d8 | 103 | 87-125 |
| Bromofluorobenzene | 103 | 79-122 |

# 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 #: 127558

BATCH QC REPORT

Curtis & Tompkins, Ltd.



## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: RMA-28 @ 3.5
Lab ID: 127558-013
Matrix: Soil
Batch#: 31109
Units: ug/Kg
Diln Fac: 1

Sample Date: 11/22/96
Received Date: 11/22/96
Prep Date: 11/26/96
Analysis Date: 11/26/96

MS Lab ID: QC35359

| Analyte | Spike Added | Sample | MS | %Rec # | Limits |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | <5 | 47.54 | 95 | 51-180 |
| Trichloroethene | 50 | <5 | 48.17 | 96 | 73-141 |
| Benzene | 50 | <5 | 49.58 | 99 | 78-142 |
| Toluene | 50 | <5 | 46.51 | 93 | 76-150 |
| Chlorobenzene | 50 | <5 | 42.22 | 84 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 80 | 68-126 |
| Toluene-d8 | 95 | 87-125 |
| Bromofluorobenzene | 105 | 79-122 |

MSD Lab ID: QC35360

| Analyte | Spike Added | MSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 56.03 | 112 | 51-180 | 16 | 22 |
| Trichloroethene | 50 | 50.36 | 101 | 73-141 | 4 | 24 |
| Benzene | 50 | 51.18 | 102 | 78-142 | 3 | 21 |
| Toluene | 50 | 47.61 | 95 | 76-150 | 2 | 21 |
| Chlorobenzene | 50 | 44.99 | 90 | 83-129 | 6 | 21 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 86 | 68-126 |
| Toluene-d8 | 95 | 87-125 |
| Bromofluorobenzene | 108 | 79-122 |

# 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

Lab #: 127558

BATCH QC REPORT

Curtis & Tompkins, Ltd.



## EPA 8240 Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8260
Prep Method: EPA 5030

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 127570-006
Matrix: Soil
Batch#: 31172
Units: ug/Kg
Diln Fac: 1

Sample Date: 11/23/96
Received Date: 11/25/96
Prep Date: 11/27/96
Analysis Date: 11/27/96

MS Lab ID: QC35562

| Analyte | Spike Added | Sample | MS | %Rec # | Limits |
|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | <5 | 62.2 | 124 | 51-180 |
| Trichloroethene | 50 | <5 | 41.73 | 84 | 73-141 |
| Benzene | 50 | <5 | 48.08 | 96 | 78-142 |
| Toluene | 50 | <5 | 59.1 | 117 | 76-150 |
| Chlorobenzene | 50 | <5 | 51.68 | 103 | 83-129 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 93 | 68-126 |
| Toluene-d8 | 115 | 87-125 |
| Bromofluorobenzene | 110 | 79-122 |

MSD Lab ID: QC35563

| Analyte | Spike Added | MSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | 50 | 64.02 | 128 | 51-180 | 3 | 22 |
| Trichloroethene | 50 | 42.99 | 86 | 73-141 | 3 | 24 |
| Benzene | 50 | 47.99 | 96 | 78-142 | 0 | 21 |
| Toluene | 50 | 56.67 | 112 | 76-150 | 4 | 21 |
| Chlorobenzene | 50 | 52.13 | 104 | 83-129 | 1 | 21 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 1,2-Dichloroethane-d4 | 92 | 68-126 |
| Toluene-d8 | 113 | 87-125 |
| Bromofluorobenzene | 110 | 79-122 |

# 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

## Semivolatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

Field ID: RMA-22 @ 7.0
Lab ID: 127558-001
Matrix: Soil
Batch#: 31125
Units: ug/Kg
Diln Fac: 10

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 11/26/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Phenol | ND | 6700 |
| 2-Chlorophenol | ND | 6700 |
| Benzyl alcohol | ND | 6700 |
| 2-Methylphenol | ND | 6700 |
| 4-Methylphenol | ND | 6700 |
| 2-Nitrophenol | ND | 33000 |
| 2,4-Dimethylphenol | ND | 6700 |
| Benzoic acid | ND | 33000 |
| 2,4-Dichlorophenol | ND | 6700 |
| 4-Chloro-3-methylphenol | ND | 6700 |
| 2,4,6-Trichlorophenol | ND | 6700 |
| 2,4,5-Trichlorophenol | ND | 33000 |
| 2,4-Dinitrophenol | ND | 33000 |
| 4-Nitrophenol | ND | 33000 |
| 4,6-Dinitro-2-methylphenol | ND | 33000 |
| Pentachlorophenol | ND | 33000 |
| N-Nitrosodimethylamine | ND | 6700 |
| Aniline | ND | 6700 |
| bis(2-Chloroethyl)ether | ND | 6700 |
| 1,3-Dichlorobenzene | ND | 6700 |
| 1,4-Dichlorobenzene | ND | 6700 |
| 1,2-Dichlorobenzene | ND | 6700 |
| bis(2-Chloroisopropyl) ether | ND | 6700 |
| N-Nitroso-di-n-propylamine | ND | 6700 |
| Hexachloroethane | ND | 6700 |
| Nitrobenzene | ND | 6700 |
| Isophorone | ND | 6700 |
| bis(2-Chloroethoxy)methane | ND | 6700 |
| 1,2,4-Trichlorobenzene | ND | 6700 |
| Naphthalene | 28000 | 6700 |
| 4-Chloroaniline | ND | 6700 |
| Hexachlorobutadiene | ND | 6700 |
| 2-Methylnaphthalene | 110000 | 6700 |
| Hexachlorocyclopentadiene | ND | 6700 |
| 2-Chloronaphthalene | ND | 6700 |
| 2-Nitroaniline | ND | 33000 |
| Dimethylphthalate | ND | 6700 |
| Acenaphthylene | ND | 6700 |

## Semivolatile Organics by GC/MS

Field ID: RMA-22 @ 7.0
Lab ID: 127558-001
Matrix: Soil
Batch#: 31125
Units: ug/Kg
Diln Fac: 10

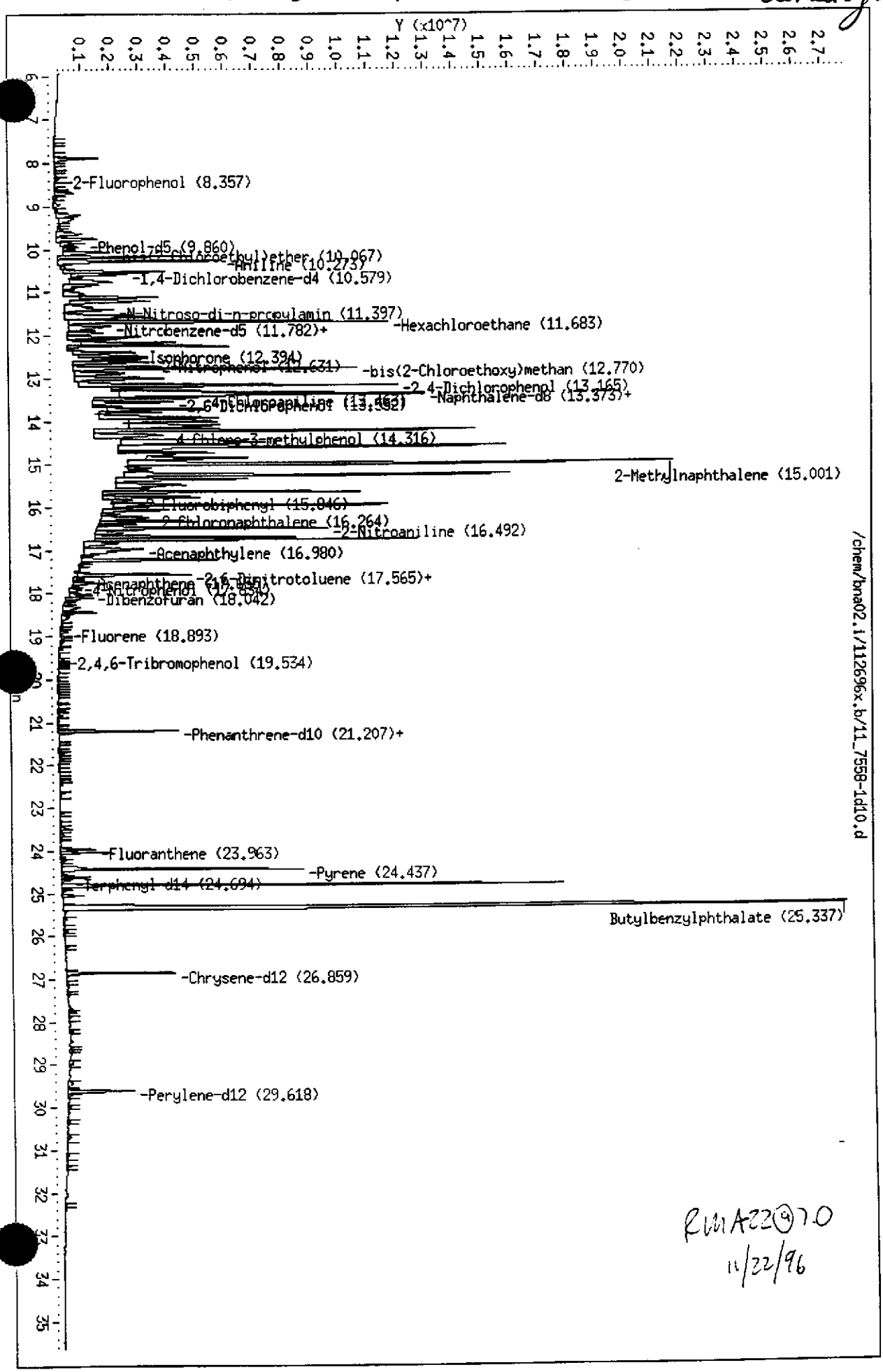
Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 11/26/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| 2,6-Dinitrotoluene | ND | 6700 |
| 3-Nitroaniline | ND | 33000 |
| Acenaphthene | ND | 6700 |
| Dibenzofuran | ND | 6700 |
| 2,4-Dinitrotoluene | ND | 6700 |
| Diethylphthalate | ND | 6700 |
| 4-Chlorophenyl-phenylether | ND | 6700 |
| Fluorene | ND | 6700 |
| 4-Nitroaniline | ND | 33000 |
| N-Nitrosodiphenylamine | ND | 6700 |
| Azobenzene | ND | 6700 |
| 4-Bromophenyl-phenylether | ND | 6700 |
| Hexachlorobenzene | ND | 6700 |
| Phenanthrene | ND | 6700 |
| Anthracene | ND | 6700 |
| Di-n-butylphthalate | ND | 6700 |
| Fluoranthene | ND | 6700 |
| Benzidine | ND | 6700 |
| Pyrene | ND | 6700 |
| Butylbenzylphthalate | ND | 6700 |
| 3,3'-Dichlorobenzidine | ND | 33000 |
| Benzo(a)anthracene | ND | 6700 |
| Chrysene | ND | 6700 |
| bis(2-Ethylhexyl)phthalate | ND | 6700 |
| Di-n-octylphthalate | ND | 6700 |
| Benzo(b)fluoranthene | ND | 6700 |
| Benzo(k)fluoranthene | ND | 6700 |
| Benzo(a)pyrene | ND | 6700 |
| Indeno(1,2,3-cd)pyrene | ND | 6700 |
| Dibenz(a,h)anthracene | ND | 6700 |
| Benzo(g,h,i)perylene | ND | 6700 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 2-Fluorophenol | DO* | 25-121 |
| Phenol-d5 | DO* | 24-113 |
| 2,4,6-Tribromophenol | DO* | 19-122 |
| Nitrobenzene-d5 | DO* | 23-120 |
| 2-Fluorobiphenyl | DO* | 30-115 |
| Terphenyl-d14 | DO* | 18-137 |

* Values outside of QC limits
DO: Surrogate diluted out

127558-001 8270 chromatogram




Data File: /chem/bna02.i/112696x.b/11_7558-1d10.d
Date : 26-NOV-1996 22:30
Client ID: CURTIS&TOMPKINS,LTD
Sample Info:
Volume Injected (uL): 1.0
Column phase: Xti 5 x .5 u

Instrument: bna02.i
Operator: dsh
Column diameter: 0.25

RMA 2270
11/22/96

## Semivolatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

Field ID: RMA-25
Lab ID: 127558-008
Matrix: Water
Batch#: 31119
Units: ug/L
Diln Fac: 10

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/25/96
Analyzed: 11/27/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Phenol | ND | 110 |
| 2-Chlorophenol | ND | 110 |
| Benzyl alcohol | ND | 110 |
| 2-Methylphenol | ND | 110 |
| 4-Methylphenol | ND | 110 |
| 2-Nitrophenol | ND | 530 |
| 2,4-Dimethylphenol | ND | 110 |
| Benzoic acid | ND | 530 |
| 2,4-Dichlorophenol | ND | 110 |
| 4-Chloro-3-methylphenol | ND | 110 |
| 2,4,6-Trichlorophenol | ND | 110 |
| 2,4,5-Trichlorophenol | ND | 530 |
| 2,4-Dinitrophenol | ND | 530 |
| 4-Nitrophenol | ND | 530 |
| 4,6-Dinitro-2-methylphenol | ND | 530 |
| Pentachlorophenol | ND | 530 |
| N-Nitrosodimethylamine | ND | 110 |
| Aniline | ND | 110 |
| bis(2-Chloroethyl)ether | ND | 110 |
| 1,3-Dichlorobenzene | ND | 110 |
| 1,4-Dichlorobenzene | ND | 110 |
| 1,2-Dichlorobenzene | ND | 110 |
| bis(2-Chloroisopropyl) ether | ND | 110 |
| N-Nitroso-di-n-propylamine | ND | 110 |
| Hexachloroethane | ND | 110 |
| Nitrobenzene | ND | 110 |
| Isophorone | ND | 110 |
| bis(2-Chloroethoxy)methane | ND | 110 |
| 1,2,4-Trichlorobenzene | ND | 110 |
| Naphthalene | ND | 110 |
| 4-Chloroaniline | ND | 110 |
| Hexachlorobutadiene | ND | 110 |
| 2-Methylnaphthalene | ND | 110 |
| Hexachlorocyclopentadiene | ND | 110 |
| 2-Chloronaphthalene | ND | 110 |
| 2-Nitroaniline | ND | 530 |
| Dimethylphthalate | ND | 110 |
| Acenaphthylene | ND | 110 |

## Semivolatile Organics by GC/MS

| | | | |
|---|---|---|---|
| Field ID: | RMA-25 | Sampled: | 11/22/96 |
| Lab ID: | 127558-008 | Received: | 11/22/96 |
| Matrix: | Water | Extracted: | 11/25/96 |
| Batch#: | 31119 | Analyzed: | 11/27/96 |
| Units: | ug/L | | |
| Diln Fac: | 10 | | |

| Analyte | Result | Reporting Limit |
|---|---|---|
| 2,6-Dinitrotoluene | ND | 110 |
| 3-Nitroaniline | ND | 530 |
| Acenaphthene | ND | 110 |
| Dibenzofuran | ND | 110 |
| 2,4-Dinitrotoluene | ND | 110 |
| Diethylphthalate | ND | 110 |
| 4-Chlorophenyl-phenylether | ND | 110 |
| Fluorene | ND | 110 |
| 4-Nitroaniline | ND | 530 |
| N-Nitrosodiphenylamine | ND | 110 |
| Azobenzene | ND | 110 |
| 4-Bromophenyl-phenylether | ND | 110 |
| Hexachlorobenzene | ND | 110 |
| Phenanthrene | ND | 110 |
| Anthracene | ND | 110 |
| Di-n-butylphthalate | ND | 110 |
| Fluoranthene | ND | 110 |
| Pyrene | ND | 110 |
| Butylbenzylphthalate | ND | 110 |
| 3,3'-Dichlorobenzidine | ND | 530 |
| Benzo(a)anthracene | ND | 110 |
| Chrysene | ND | 110 |
| bis(2-Ethylhexyl)phthalate | ND | 110 |
| Di-n-octylphthalate | ND | 110 |
| Benzo(b)fluoranthene | ND | 110 |
| Benzo(k)fluoranthene | ND | 110 |
| Benzo(a)pyrene | ND | 110 |
| Indeno(1,2,3-cd)pyrene | ND | 110 |
| Dibenz(a,h)anthracene | ND | 110 |
| Benzo(g,h,i)perylene | ND | 110 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 2-Fluorophenol | DO* | 21-110 |
| Phenol-d5 | DO* | 10-110 |
| 2,4,6-Tribromophenol | DO* | 10-123 |
| Nitrobenzene-d5 | DO* | 35-114 |
| 2-Fluorobiphenyl | DO* | 43-116 |
| Terphenyl-d14 | DO* | 33-141 |

* Values outside of QC limits
DO: Surrogate diluted out

## Semivolatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

Field ID: RMA-26
Lab ID: 127558-010
Matrix: Water
Batch#: 31119
Units: ug/L
Diln Fac: 1

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/25/96
Analyzed: 11/27/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Phenol | ND | 11 |
| 2-Chlorophenol | ND | 11 |
| Benzyl alcohol | ND | 11 |
| 2-Methylphenol | ND | 11 |
| 4-Methylphenol | ND | 11 |
| 2-Nitrophenol | ND | 53 |
| 2,4-Dimethylphenol | ND | 11 |
| Benzoic acid | ND | 53 |
| 2,4-Dichlorophenol | ND | 11 |
| 4-Chloro-3-methylphenol | ND | 11 |
| 2,4,6-Trichlorophenol | ND | 11 |
| 2,4,5-Trichlorophenol | ND | 53 |
| 2,4-Dinitrophenol | ND | 53 |
| 4-Nitrophenol | ND | 53 |
| 4,6-Dinitro-2-methylphenol | ND | 53 |
| Pentachlorophenol | ND | 53 |
| N-Nitrosodimethylamine | ND | 11 |
| Aniline | ND | 11 |
| bis(2-Chloroethyl)ether | ND | 11 |
| 1,3-Dichlorobenzene | ND | 11 |
| 1,4-Dichlorobenzene | ND | 11 |
| 1,2-Dichlorobenzene | ND | 11 |
| bis(2-Chloroisopropyl) ether | ND | 11 |
| N-Nitroso-di-n-propylamine | ND | 11 |
| Hexachloroethane | ND | 11 |
| Nitrobenzene | ND | 11 |
| Isophorone | ND | 11 |
| bis(2-Chloroethoxy)methane | ND | 11 |
| 1,2,4-Trichlorobenzene | ND | 11 |
| Naphthalene | ND | 11 |
| 4-Chloroaniline | ND | 11 |
| Hexachlorobutadiene | ND | 11 |
| 2-Methylnaphthalene | ND | 11 |
| Hexachlorocyclopentadiene | ND | 11 |
| 2-Chloronaphthalene | ND | 11 |
| 2-Nitroaniline | ND | 53 |
| Dimethylphthalate | ND | 11 |
| Acenaphthylene | ND | 11 |

## Semivolatile Organics by GC/MS

| | | | |
|---|---|---|---|
| Field ID: | RMA-26 | Sampled: | 11/22/96 |
| Lab ID: | 127558-010 | Received: | 11/22/96 |
| Matrix: | Water | Extracted: | 11/25/96 |
| Batch#: | 31119 | Analyzed: | 11/27/96 |
| Units: | ug/L | | |
| Diln Fac: | 1 | | |

| Analyte | Result | Reporting Limit |
|---|---|---|
| 2,6-Dinitrotoluene | ND | 11 |
| 3-Nitroaniline | ND | 53 |
| Acenaphthene | ND | 11 |
| Dibenzofuran | ND | 11 |
| 2,4-Dinitrotoluene | ND | 11 |
| Diethylphthalate | ND | 11 |
| 4-Chlorophenyl-phenylether | ND | 11 |
| Fluorene | ND | 11 |
| 4-Nitroaniline | ND | 53 |
| N-Nitrosodiphenylamine | ND | 11 |
| Azobenzene | ND | 11 |
| 4-Bromophenyl-phenylether | ND | 11 |
| Hexachlorobenzene | ND | 11 |
| Phenanthrene | ND | 11 |
| Anthracene | ND | 11 |
| Di-n-butylphthalate | ND | 11 |
| Fluoranthene | ND | 11 |
| Pyrene | ND | 11 |
| Butylbenzylphthalate | ND | 11 |
| 3,3'-Dichlorobenzidine | ND | 53 |
| Benzo(a)anthracene | ND | 11 |
| Chrysene | ND | 11 |
| bis(2-Ethylhexyl)phthalate | ND | 11 |
| Di-n-octylphthalate | ND | 11 |
| Benzo(b)fluoranthene | ND | 11 |
| Benzo(k)fluoranthene | ND | 11 |
| Benzo(a)pyrene | ND | 11 |
| Indeno(1,2,3-cd)pyrene | ND | 11 |
| Dibenz(a,h)anthracene | ND | 11 |
| Benzo(g,h,i)perylene | ND | 11 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 2-Fluorophenol | 71 | 21-110 |
| Phenol-d5 | 85 | 10-110 |
| 2,4,6-Tribromophenol | 67 | 10-123 |
| Nitrobenzene-d5 | 91 | 35-114 |
| 2-Fluorobiphenyl | 65 | 43-116 |
| Terphenyl-d14 | 24* | 33-141 |

* Values outside of QC limits

## Semivolatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

Field ID: RMA-27 @ 5.5
Lab ID: 127558-011
Matrix: Soil
Batch#: 31125
Units: ug/Kg
Diln Fac: 1

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 11/27/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Phenol | ND | 330 |
| 2-Chlorophenol | ND | 330 |
| Benzyl alcohol | ND | 330 |
| 2-Methylphenol | ND | 330 |
| 4-Methylphenol | ND | 330 |
| 2-Nitrophenol | ND | 1700 |
| 2,4-Dimethylphenol | ND | 330 |
| Benzoic acid | ND | 1700 |
| 2,4-Dichlorophenol | ND | 330 |
| 4-Chloro-3-methylphenol | ND | 330 |
| 2,4,6-Trichlorophenol | ND | 330 |
| 2,4,5-Trichlorophenol | ND | 1700 |
| 2,4-Dinitrophenol | ND | 1700 |
| 4-Nitrophenol | ND | 1700 |
| 4,6-Dinitro-2-methylphenol | ND | 1700 |
| Pentachlorophenol | ND | 1700 |
| N-Nitrosodimethylamine | ND | 330 |
| Aniline | ND | 330 |
| bis(2-Chloroethyl)ether | ND | 330 |
| 1,3-Dichlorobenzene | ND | 330 |
| 1,4-Dichlorobenzene | ND | 330 |
| 1,2-Dichlorobenzene | ND | 330 |
| bis(2-Chloroisopropyl) ether | ND | 330 |
| N-Nitroso-di-n-propylamine | ND | 330 |
| Hexachloroethane | ND | 330 |
| Nitrobenzene | ND | 330 |
| Isophorone | ND | 330 |
| bis(2-Chloroethoxy)methane | ND | 330 |
| 1,2,4-Trichlorobenzene | ND | 330 |
| Naphthalene | ND | 330 |
| 4-Chloroaniline | ND | 330 |
| Hexachlorobutadiene | ND | 330 |
| 2-Methylnaphthalene | ND | 330 |
| Hexachlorocyclopentadiene | ND | 330 |
| 2-Chloronaphthalene | ND | 330 |
| 2-Nitroaniline | ND | 1700 |
| Dimethylphthalate | ND | 330 |
| Acenaphthylene | ND | 330 |

## Semivolatile Organics by GC/MS

Field ID: RMA-27 @ 5.5
Lab ID: 127558-011
Matrix: Soil
Batch#: 31125
Units: ug/Kg
Diln Fac: 1

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 11/27/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| 2,6-Dinitrotoluene | ND | 330 |
| 3-Nitroaniline | ND | 1700 |
| Acenaphthene | ND | 330 |
| Dibenzofuran | ND | 330 |
| 2,4-Dinitrotoluene | ND | 330 |
| Diethylphthalate | ND | 330 |
| 4-Chlorophenyl-phenylether | ND | 330 |
| Fluorene | ND | 330 |
| 4-Nitroaniline | ND | 1700 |
| N-Nitrosodiphenylamine | ND | 330 |
| Azobenzene | ND | 330 |
| 4-Bromophenyl-phenylether | ND | 330 |
| Hexachlorobenzene | ND | 330 |
| Phenanthrene | ND | 330 |
| Anthracene | ND | 330 |
| Di-n-butylphthalate | ND | 330 |
| Fluoranthene | ND | 330 |
| Benzidine | ND | 330 |
| Pyrene | ND | 330 |
| Butylbenzylphthalate | ND | 330 |
| 3,3'-Dichlorobenzidine | ND | 1700 |
| Benzo(a)anthracene | ND | 330 |
| Chrysene | ND | 330 |
| bis(2-Ethylhexyl)phthalate | ND | 330 |
| Di-n-octylphthalate | ND | 330 |
| Benzo(b)fluoranthene | ND | 330 |
| Benzo(k)fluoranthene | ND | 330 |
| Benzo(a)pyrene | ND | 330 |
| Indeno(1,2,3-cd)pyrene | ND | 330 |
| Dibenz(a,h)anthracene | ND | 330 |
| Benzo(g,h,i)perylene | ND | 330 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 2-Fluorophenol | 127* | 25-121 |
| Phenol-d5 | 125* | 24-113 |
| 2,4,6-Tribromophenol | 118 | 19-122 |
| Nitrobenzene-d5 | 86 | 23-120 |
| 2-Fluorobiphenyl | 115 | 30-115 |
| Terphenyl-d14 | 101 | 18-137 |

* Values outside of QC limits

## Semivolatile Organics by GC/MS

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

Field ID: RMA-28 @ 3.5
Lab ID: 127558-013
Matrix: Soil
Batch#: 31125
Units: ug/Kg
Diln Fac: 2

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 11/27/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| Phenol | ND | 1300 |
| 2-Chlorophenol | ND | 1300 |
| Benzyl alcohol | ND | 1300 |
| 2-Methylphenol | ND | 1300 |
| 4-Methylphenol | ND | 1300 |
| 2-Nitrophenol | ND | 6700 |
| 2,4-Dimethylphenol | ND | 1300 |
| Benzoic acid | ND | 6700 |
| 2,4-Dichlorophenol | ND | 1300 |
| 4-Chloro-3-methylphenol | ND | 1300 |
| 2,4,6-Trichlorophenol | ND | 1300 |
| 2,4,5-Trichlorophenol | ND | 6700 |
| 2,4-Dinitrophenol | ND | 6700 |
| 4-Nitrophenol | ND | 6700 |
| 4,6-Dinitro-2-methylphenol | ND | 6700 |
| Pentachlorophenol | ND | 6700 |
| N-Nitrosodimethylamine | ND | 1300 |
| Aniline | ND | 1300 |
| bis(2-Chloroethyl)ether | ND | 1300 |
| 1,3-Dichlorobenzene | ND | 1300 |
| 1,4-Dichlorobenzene | ND | 1300 |
| 1,2-Dichlorobenzene | ND | 1300 |
| bis(2-Chloroisopropyl) ether | ND | 1300 |
| N-Nitroso-di-n-propylamine | ND | 1300 |
| Hexachloroethane | ND | 1300 |
| Nitrobenzene | ND | 1300 |
| Isophorone | ND | 1300 |
| bis(2-Chloroethoxy)methane | ND | 1300 |
| 1,2,4-Trichlorobenzene | ND | 1300 |
| Naphthalene | ND | 1300 |
| 4-Chloroaniline | ND | 1300 |
| Hexachlorobutadiene | ND | 1300 |
| 2-Methylnaphthalene | ND | 1300 |
| Hexachlorocyclopentadiene | ND | 1300 |
| 2-Chloronaphthalene | ND | 1300 |
| 2-Nitroaniline | ND | 6700 |
| Dimethylphthalate | ND | 1300 |
| Acenaphthylene | ND | 1300 |

## Semivolatile Organics by GC/MS

Field ID: RMA-28 @ 3.5
Lab ID: 127558-013
Matrix: Soil
Batch#: 31125
Units: ug/Kg
Diln Fac: 2

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 11/27/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| 2,6-Dinitrotoluene | ND | 1300 |
| 3-Nitroaniline | ND | 6700 |
| Acenaphthene | ND | 1300 |
| Dibenzofuran | ND | 1300 |
| 2,4-Dinitrotoluene | ND | 1300 |
| Diethylphthalate | ND | 1300 |
| 4-Chlorophenyl-phenylether | ND | 1300 |
| Fluorene | ND | 1300 |
| 4-Nitroaniline | ND | 6700 |
| N-Nitrosodiphenylamine | ND | 1300 |
| Azobenzene | ND | 1300 |
| 4-Bromophenyl-phenylether | ND | 1300 |
| Hexachlorobenzene | ND | 1300 |
| Phenanthrene | ND | 1300 |
| Anthracene | ND | 1300 |
| Di-n-butylphthalate | ND | 1300 |
| Fluoranthene | ND | 1300 |
| Benzidine | ND | 1300 |
| Pyrene | ND | 1300 |
| Butylbenzylphthalate | ND | 1300 |
| 3,3'-Dichlorobenzidine | ND | 6700 |
| Benzo(a)anthracene | ND | 1300 |
| Chrysene | ND | 1300 |
| bis(2-Ethylhexyl)phthalate | ND | 1300 |
| Di-n-octylphthalate | ND | 1300 |
| Benzo(b)fluoranthene | ND | 1300 |
| Benzo(k)fluoranthene | ND | 1300 |
| Benzo(a)pyrene | ND | 1300 |
| Indeno(1,2,3-cd)pyrene | ND | 1300 |
| Dibenz(a,h)anthracene | ND | 1300 |
| Benzo(g,h,i)perylene | ND | 1300 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| 2-Fluorophenol | 117 | 25-121 |
| Phenol-d5 | 111 | 24-113 |
| 2,4,6-Tribromophenol | 82 | 19-122 |
| Nitrobenzene-d5 | 66 | 23-120 |
| 2-Fluorobiphenyl | 103 | 30-115 |
| Terphenyl-d14 | 90 | 18-137 |

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11/25/96 11:26 AM

CURTIS & TOMPKINS, BERKELEY ** ANALYSIS REQUEST

**LOGIN:** 127558 **PRODUCT:** 8270 w/extended TCL **MATRIX:** Soil

CLIENT: Subsurface Consultants
ACCOUNT CODE: SCI
PROJECT: KOT
PROJECT #: 133.005
CONTACT: Jeri Alexander

PROJECT MGR: TLB
LOGGED BY: TKM
LOCATION: BK

PRIORITY: 1
REPORT DRY WEIGHT?: N

REPORT LEVEL: II
ORDER DATE: 11/25/96

| SAMPLE | CLIENT ID | SMPL | HOLD | DUE | Total # Analyses EXT | VOC | SV | MET | WET |
|---|---|---|---|---|---|---|---|---|---|
| 127558-001 | RMA-22 @ 7.0 | 11/22 | 12/06 | 12/02 | 2 | 1 | 2 | 0 | 0 |
| 127558-011 | RMA-27 @ 5.5 | 11/22 | 12/06 | 12/02 | 3 | 1 | 3 | 1 | 0 |
| 127558-013 | RMA-28 @ 3.5 | 11/22 | 12/06 | 12/02 | 3 | 1 | 3 | 1 | 0 |

Total count: 3

w/ extended TCL soil list 111

## EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

### METHOD BLANK

Matrix: Water
Batch#: 31119
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/26/96

MB Lab ID: QC35362

| Analyte | Result | Reporting Limit |
|---|---|---|
| Phenol | ND | 10 |
| 2-Chlorophenol | ND | 10 |
| Benzyl alcohol | ND | 10 |
| 2-Methylphenol | ND | 10 |
| 4-Methylphenol | ND | 10 |
| 2-Nitrophenol | ND | 50 |
| 2,4-Dimethylphenol | ND | 10 |
| Benzoic acid | ND | 50 |
| 2,4-Dichlorophenol | ND | 10 |
| 4-Chloro-3-methylphenol | ND | 10 |
| 2,4,6-Trichlorophenol | ND | 10 |
| 2,4,5-Trichlorophenol | ND | 50 |
| 2,4-Dinitrophenol | ND | 50 |
| 4-Nitrophenol | ND | 50 |
| 4,6-Dinitro-2-methylphenol | ND | 50 |
| Pentachlorophenol | ND | 10 |
| N-Nitrosodimethylamine | ND | 10 |
| Aniline | ND | 10 |
| bis(2-Chloroethyl)ether | ND | 10 |
| 1,3-Dichlorobenzene | ND | 10 |
| 1,4-Dichlorobenzene | ND | 10 |
| 1,2-Dichlorobenzene | ND | 10 |
| bis(2-Chloroisopropyl) ether | ND | 10 |
| N-Nitroso-di-n-propylamine | ND | 10 |
| Hexachloroethane | ND | 10 |
| Nitrobenzene | ND | 10 |
| Isophorone | ND | 10 |
| bis(2-Chloroethoxy)methane | ND | 10 |
| 1,2,4-Trichlorobenzene | ND | 10 |
| Naphthalene | ND | 10 |
| 4-Chloroaniline | ND | 10 |
| Hexachlorobutadiene | ND | 10 |
| 2-Methylnaphthalene | ND | 10 |
| Hexachlorocyclopentadiene | ND | 10 |
| 2-Chloronaphthalene | ND | 10 |
| 2-Nitroaniline | ND | 50 |
| Dimethylphthalate | ND | 10 |
| Acenaphthylene | ND | 10 |
| 2,6-Dinitrotoluene | ND | 10 |
| 3-Nitroaniline | ND | 50 |

## EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

## METHOD BLANK

Matrix: Water
Batch#: 31119
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/26/96

MB Lab ID: QC35362

| Analyte | Result | Reporting Limit |
|---|---|---|
| Acenaphthene | ND | 10 |
| Dibenzofuran | ND | 10 |
| 2,4-Dinitrotoluene | ND | 10 |
| Diethylphthalate | ND | 10 |
| 4-Chlorophenyl-phenylether | ND | 10 |
| Fluorene | ND | 10 |
| 4-Nitroaniline | ND | 50 |
| N-Nitrosodiphenylamine | ND | 10 |
| Azobenzene | ND | 10 |
| 4-Bromophenyl-phenylether | ND | 10 |
| Hexachlorobenzene | ND | 10 |
| Phenanthrene | ND | 10 |
| Anthracene | ND | 10 |
| Di-n-butylphthalate | ND | 10 |
| Fluoranthene | ND | 10 |
| Pyrene | ND | 10 |
| Butylbenzylphthalate | ND | 10 |
| 3,3'-Dichlorobenzidine | ND | 50 |
| Benzo(a)anthracene | ND | 10 |
| Chrysene | ND | 10 |
| bis(2-Ethylhexyl)phthalate | ND | 10 |
| Di-n-octylphthalate | ND | 10 |
| Benzo(b)fluoranthene | ND | 10 |
| Benzo(k)fluoranthene | ND | 10 |
| Benzo(a)pyrene | ND | 10 |
| Indeno(1,2,3-cd)pyrene | ND | 10 |
| Dibenz(a,h)anthracene | ND | 10 |
| Benzo(g,h,i)perylene | ND | 10 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 2-Fluorophenol | 71 | 21-110 |
| Phenol-d5 | 78 | 10-110 |
| 2,4,6-Tribromophenol | 54 | 10-123 |
| Nitrobenzene-d5 | 84 | 35-114 |
| 2-Fluorobiphenyl | 73 | 43-116 |
| Terphenyl-d14 | 80 | 33-141 |

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

## EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3520

## BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 31119
Units: ug/L
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/26/96

BS Lab ID: QC35363

| Analyte | Spike Added | BS | %Rec | # | Limits |
|---|---|---|---|---|---|
| Phenol | 100 | 68.64 | 69 | | 12-110 |
| 2-Chlorophenol | 100 | 64.59 | 65 | | 27-123 |
| 4-Chloro-3-methylphenol | 100 | 73.89 | 74 | | 23-97 |
| 4-Nitrophenol | 100 | 77.03 | 77 | | 10-80 |
| Pentachlorophenol | 100 | 50 | 50 | | 9-103 |
| 1,4-Dichlorobenzene | 50 | 27.39 | 55 | | 36-97 |
| N-Nitroso-di-n-propylamine | 50 | 31.96 | 54 | | 41-116 |
| 1,2,4-Trichlorobenzene | 50 | 33.49 | 67 | | 39-98 |
| Acenaphthene | 50 | 34.97 | 70 | | 46-118 |
| 2,4-Dinitrotoluene | 50 | 30.35 | 61 | | 24-96 |
| Pyrene | 50 | 39.9 | 80 | | 26-127 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 2-Fluorophenol | 74 | 21-110 |
| Phenol-d5 | 84 | 10-110 |
| 2,4,6-Tribromophenol | 67 | 10-123 |
| Nitrobenzene-d5 | 93 | 35-114 |
| 2-Fluorobiphenyl | 81 | 43-116 |
| Terphenyl-d14 | 88 | 33-141 |

BSD Lab ID: QC35364

| Analyte | Spike Added | BSD | %Rec | # | Limits | RPD | # | Limit |
|---|---|---|---|---|---|---|---|---|
| Phenol | 100 | 68.61 | 69 | | 12-110 | 0 | | 42 |
| 2-Chlorophenol | 100 | 65.32 | 65 | | 27-123 | 0 | | 40 |
| 4-Chloro-3-methylphenol | 100 | 75.26 | 75 | | 23-97 | 1 | | 42 |
| 4-Nitrophenol | 100 | 79.37 | 79 | | 10-80 | 3 | | 50 |
| Pentachlorophenol | 100 | 51.57 | 52 | | 9-103 | 4 | | 50 |
| 1,4-Dichlorobenzene | 50 | 27.82 | 56 | | 36-97 | 2 | | 28 |
| N-Nitroso-di-n-propylamine | 50 | 32.84 | 56 | | 41-116 | 4 | | 38 |
| 1,2,4-Trichlorobenzene | 50 | 33.25 | 67 | | 39-98 | 0 | | 28 |
| Acenaphthene | 50 | 35.43 | 71 | | 46-118 | 1 | | 31 |
| 2,4-Dinitrotoluene | 50 | 31.1 | 62 | | 24-96 | 2 | | 38 |
| Pyrene | 50 | 41.31 | 83 | | 26-127 | 4 | | 31 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 2-Fluorophenol | 77 | 21-110 |
| Phenol-d5 | 85 | 10-110 |
| 2,4,6-Tribromophenol | 70 | 10-123 |
| Nitrobenzene-d5 | 94 | 35-114 |
| 2-Fluorobiphenyl | 83 | 43-116 |
| Terphenyl-d14 | 92 | 33-141 |

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits
DO: Surrogate diluted out

Lab #: 127558

BATCH QC REPORT

## EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

## LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 31125
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/26/96

LCS Lab ID: QC35384

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| Phenol | 2850 | 3333 | 86 | 12-110 |
| 2-Chlorophenol | 2933 | 3333 | 88 | 27-123 |
| 4-Chloro-3-methylphenol | 2881 | 3333 | 86 | 23-97 |
| 4-Nitrophenol | 2058 | 3333 | 62 | 10-80 |
| Pentachlorophenol | 2075 | 3333 | 62 | 9-103 |
| 1,4-Dichlorobenzene | 1245 | 1667 | 75 | 36-97 |
| N-Nitroso-di-n-propylamine | 1179 | 1667 | 71 | 41-116 |
| 1,2,4-Trichlorobenzene | 1305 | 1667 | 78 | 39-98 |
| Acenaphthene | 1292 | 1667 | 78 | 46-118 |
| 2,4-Dinitrotoluene | 1159 | 1667 | 70 | 24-96 |
| Pyrene | 1328 | 1667 | 80 | 26-127 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 2-Fluorophenol | 100 | 21-110 |
| Phenol-d5 | 102 | 10-110 |
| 2,4,6-Tribromophenol | 109 | 10-123 |
| Nitrobenzene-d5 | 92 | 35-114 |
| 2-Fluorobiphenyl | 91 | 43-116 |
| Terphenyl-d14 | 84 | 33-141 |

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 11 outside limits
DO: Surrogate diluted out

## EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

## METHOD BLANK

Matrix: Soil
Batch#: 31125
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/26/96

MB Lab ID: QC35383

| Analyte | Result | Reporting Limit |
|---|---|---|
| Phenol | ND | 10 |
| 2-Chlorophenol | ND | 10 |
| Benzyl alcohol | ND | 10 |
| 2-Methylphenol | ND | 10 |
| 4-Methylphenol | ND | 10 |
| 2-Nitrophenol | ND | 50 |
| 2,4-Dimethylphenol | ND | 10 |
| Benzoic acid | ND | 50 |
| 2,4-Dichlorophenol | ND | 10 |
| 4-Chloro-3-methylphenol | ND | 10 |
| 2,4,6-Trichlorophenol | ND | 10 |
| 2,4,5-Trichlorophenol | ND | 50 |
| 2,4-Dinitrophenol | ND | 50 |
| 4-Nitrophenol | ND | 50 |
| 4,6-Dinitro-2-methylphenol | ND | 50 |
| Pentachlorophenol | ND | 10 |
| N-Nitrosodimethylamine | ND | 10 |
| Aniline | ND | 10 |
| bis(2-Chloroethyl)ether | ND | 10 |
| 1,3-Dichlorobenzene | ND | 10 |
| 1,4-Dichlorobenzene | ND | 10 |
| 1,2-Dichlorobenzene | ND | 10 |
| bis(2-Chloroisopropyl) ether | ND | 10 |
| N-Nitroso-di-n-propylamine | ND | 10 |
| Hexachloroethane | ND | 10 |
| Nitrobenzene | ND | 10 |
| Isophorone | ND | 10 |
| bis(2-Chloroethoxy)methane | ND | 10 |
| 1,2,4-Trichlorobenzene | ND | 10 |
| Naphthalene | ND | 10 |
| 4-Chloroaniline | ND | 10 |
| Hexachlorobutadiene | ND | 10 |
| 2-Methylnaphthalene | ND | 10 |
| Hexachlorocyclopentadiene | ND | 10 |
| 2-Chloronaphthalene | ND | 10 |
| 2-Nitroaniline | ND | 50 |
| Dimethylphthalate | ND | 10 |
| Acenaphthylene | ND | 10 |
| 2,6-Dinitrotoluene | ND | 10 |
| 3-Nitroaniline | ND | 50 |

## EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

### METHOD BLANK

Matrix: Soil
Batch#: 31125
Units: ug/L
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 11/26/96

MB Lab ID: QC35383

| Analyte | Result | Reporting Limit |
|---|---|---|
| Acenaphthene | ND | 10 |
| Dibenzofuran | ND | 10 |
| 2,4-Dinitrotoluene | ND | 10 |
| Diethylphthalate | ND | 10 |
| 4-Chlorophenyl-phenylether | ND | 10 |
| Fluorene | ND | 10 |
| 4-Nitroaniline | ND | 50 |
| N-Nitrosodiphenylamine | ND | 10 |
| Azobenzene | ND | 10 |
| 4-Bromophenyl-phenylether | ND | 10 |
| Hexachlorobenzene | ND | 10 |
| Phenanthrene | ND | 10 |
| Anthracene | ND | 10 |
| Di-n-butylphthalate | ND | 10 |
| Fluoranthene | ND | 10 |
| Pyrene | ND | 10 |
| Butylbenzylphthalate | ND | 10 |
| 3,3'-Dichlorobenzidine | ND | 50 |
| Benzo(a)anthracene | ND | 10 |
| Chrysene | ND | 10 |
| bis(2-Ethylhexyl)phthalate | ND | 10 |
| Di-n-octylphthalate | ND | 10 |
| Benzo(b)fluoranthene | ND | 10 |
| Benzo(k)fluoranthene | ND | 10 |
| Benzo(a)pyrene | ND | 10 |
| Indeno(1,2,3-cd)pyrene | ND | 10 |
| Dibenz(a,h)anthracene | ND | 10 |
| Benzo(g,h,i)perylene | ND | 10 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| 2-Fluorophenol | 102 | 21-110 |
| Phenol-d5 | 99 | 10-110 |
| 2,4,6-Tribromophenol | 85 | 10-123 |
| Nitrobenzene-d5 | 63 | 35-114 |
| 2-Fluorobiphenyl | 89 | 43-116 |
| Terphenyl-d14 | 89 | 33-141 |

Lab #: 127558

BATCH QC REPORT

## EPA 8270 Semi-Volatile Organics

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8270
Prep Method: EPA 3550

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 127567-005
Matrix: Soil
Batch#: 31125
Units: ug/Kg dry weight
Diln Fac: 1

Sample Date: 11/25/96
Received Date: 11/25/96
Prep Date: 11/26/96
Analysis Date: 11/26/96
Moisture: 10%

MS Lab ID: QC35385

| Analyte | Spike Added | Sample | MS | %Rec # | Limits |
|---|---|---|---|---|---|
| Phenol | 3703 | <370.4 | 3296 | 89 | 26-90 |
| 2-Chlorophenol | 3703 | <370.4 | 3316 | 90 | 25-102 |
| 4-Chloro-3-methylphenol | 3703 | <370.4 | 3076 | 83 | 26-103 |
| 4-Nitrophenol | 3703 | <1852 | 2458 | 66 | 11-114 |
| Pentachlorophenol | 3703 | <370.4 | 814.8 | 22 | 17-109 |
| 1,4-Dichlorobenzene | 1852 | <370.4 | 1266 | 68 | 28-104 |
| N-Nitroso-di-n-propylamine | 1852 | <370.4 | 1301 | 70 | 41-126 |
| 1,2,4-Trichlorobenzene | 1852 | <370.4 | 1382 | 75 | 38-107 |
| Acenaphthene | 1852 | <370.4 | 1486 | 80 | 31-137 |
| 2,4-Dinitrotoluene | 1852 | <370.4 | 1289 | 70 | 28-89 |
| Pyrene | 1852 | <370.4 | 1551 | 84 | 35-142 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 2-Fluorophenol | 108 | 25-121 |
| Phenol-d5 | 106 | 24-113 |
| 2,4,6-Tribromophenol | 83 | 19-122 |
| Nitrobenzene-d5 | 92 | 23-120 |
| 2-Fluorobiphenyl | 99 | 30-115 |
| Terphenyl-d14 | 94 | 18-137 |

MSD Lab ID: QC35386

| Analyte | Spike Added | MSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| Phenol | 3703 | 3195 | 86 | 26-90 | 3 | 35 |
| 2-Chlorophenol | 3703 | 3201 | 86 | 25-102 | 5 | 50 |
| 4-Chloro-3-methylphenol | 3703 | 2981 | 80 | 26-103 | 4 | 33 |
| 4-Nitrophenol | 3703 | 2518 | 68 | 11-114 | 3 | 50 |
| Pentachlorophenol | 3703 | 834 | 23 | 17-109 | 4 | 47 |
| 1,4-Dichlorobenzene | 1852 | 1216 | 66 | 28-104 | 3 | 27 |
| N-Nitroso-di-n-propylamine | 1852 | 1256 | 68 | 41-126 | 3 | 38 |
| 1,2,4-Trichlorobenzene | 1852 | 1314 | 71 | 38-107 | 5 | 23 |
| Acenaphthene | 1852 | 1463 | 79 | 31-137 | 1 | 19 |
| 2,4-Dinitrotoluene | 1852 | 1304 | 70 | 28-89 | 0 | 47 |
| Pyrene | 1852 | 1543 | 83 | 35-142 | 1 | 36 |

| Surrogate | %Rec | Limits |
|---|---|---|
| 2-Fluorophenol | 107 | 25-121 |
| Phenol-d5 | 104 | 24-113 |
| 2,4,6-Tribromophenol | 85 | 19-122 |
| Nitrobenzene-d5 | 89 | 23-120 |
| 2-Fluorobiphenyl | 97 | 30-115 |
| Terphenyl-d14 | 90 | 18-137 |

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits
DO: Surrogate diluted out

## Organochlorine Pesticides and PCBs

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

Field ID: RMA-27 @ 5.5
Lab ID: 127558-011
Matrix: Soil
Batch#: 31110
Units: ug/Kg
Diln Fac: 1

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/25/96
Analyzed: 12/05/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| alpha-BHC | ND | 3.0 |
| beta-BHC | ND | 3.0 |
| gamma-BHC | ND | 3.0 |
| delta-BHC | ND | 3.0 |
| Heptachlor | ND | 3.0 |
| Aldrin | ND | 3.0 |
| Heptachlor epoxide B | ND | 3.0 |
| Heptachlor epoxide A | ND | 3.0 |
| Endosulfan I | ND | 3.0 |
| Dieldrin | ND | 6.0 |
| 4,4'-DDE | ND | 6.0 |
| Endrin | ND | 6.0 |
| Endosulfan II | ND | 6.0 |
| Endosulfan sulfate | ND | 6.0 |
| 4,4'-DDD | ND | 6.0 |
| Endrin aldehyde | ND | 6.0 |
| 4,4'-DDT | ND | 6.0 |
| Chlordane | ND | 30 |
| Methoxychlor | ND | 30 |
| Toxaphene | ND | 60 |
| Aroclor-1016 | ND | 12 |
| Aroclor-1221 | ND | 24 |
| Aroclor-1232 | ND | 12 |
| Aroclor-1242 | ND | 12 |
| Aroclor-1248 | ND | 12 |
| Aroclor-1254 | ND | 12 |
| Aroclor-1260 | ND | 12 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| TCMX | 60 | 29-108 |
| Decachlorobiphenyl | 78 | 30-125 |

## Organochlorine Pesticides and PCBs

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

Field ID: RMA-27
Lab ID: 127558-012
Matrix: Water
Batch#: 31155
Units: ug/L
Diln Fac: 1

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 12/04/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| alpha-BHC | ND | 0.1 |
| beta-BHC | ND | 0.1 |
| gamma-BHC | ND | 0.1 |
| delta-BHC | ND | 0.1 |
| Heptachlor | ND | 0.1 |
| Aldrin | ND | 0.1 |
| Heptachlor epoxide B | ND | 0.1 |
| Heptachlor epoxide A | ND | 0.1 |
| Endosulfan I | ND | 0.1 |
| Dieldrin | ND | 0.2 |
| 4,4'-DDE | ND | 0.2 |
| Endrin | ND | 0.2 |
| Endosulfan II | ND | 0.2 |
| Endosulfan sulfate | ND | 0.2 |
| 4,4'-DDD | ND | 0.2 |
| Endrin aldehyde | ND | 0.2 |
| 4,4'-DDT | ND | 0.2 |
| Chlordane | ND | 1.1 |
| Methoxychlor | ND | 1.1 |
| Toxaphene | ND | 2.2 |
| Aroclor-1016 | ND | 1.1 |
| Aroclor-1221 | ND | 2.2 |
| Aroclor-1232 | ND | 1.1 |
| Aroclor-1242 | ND | 1.1 |
| Aroclor-1248 | ND | 1.1 |
| Aroclor-1254 | ND | 1.1 |
| Aroclor-1260 | ND | 1.1 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| TCMX | 37 | 34-128 |
| Decachlorobiphenyl | 37* | 50-150 |

* Values outside of QC limits

## Organochlorine Pesticides and PCBs

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

Field ID: RMA-28 @ 3.5
Lab ID: 127558-013
Matrix: Soil
Batch#: 31110
Units: ug/Kg
Diln Fac: 10

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/25/96
Analyzed: 12/05/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| alpha-BHC | ND | 30 |
| beta-BHC | ND | 30 |
| gamma-BHC | ND | 30 |
| delta-BHC | ND | 30 |
| Heptachlor | ND | 30 |
| Aldrin | ND | 30 |
| Heptachlor epoxide B | ND | 30 |
| Heptachlor epoxide A | ND | 30 |
| Endosulfan I | ND | 30 |
| Dieldrin | ND | 60 |
| 4,4'-DDE | ND | 60 |
| Endrin | ND | 60 |
| Endosulfan II | ND | 60 |
| Endosulfan sulfate | ND | 60 |
| 4,4'-DDD | 170 | 60 |
| Endrin aldehyde | ND | 60 |
| 4,4'-DDT | ND | 60 |
| Chlordane | ND | 300 |
| Methoxychlor | ND | 300 |
| Toxaphene | ND | 600 |
| Aroclor-1016 | ND | 120 |
| Aroclor-1221 | ND | 240 |
| Aroclor-1232 | ND | 120 |
| Aroclor-1242 | ND | 120 |
| Aroclor-1248 | ND | 120 |
| Aroclor-1254 | ND | 120 |
| Aroclor-1260 | ND | 120 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| TCMX | 85 | 29-108 |
| Decachlorobiphenyl | 117 | 30-125 |

## Organochlorine Pesticides and PCBs

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

Field ID: RMA-28
Lab ID: 127558-014
Matrix: Water
Batch#: 31155
Units: ug/L
Diln Fac: 1

Sampled: 11/22/96
Received: 11/22/96
Extracted: 11/26/96
Analyzed: 12/04/96

| Analyte | Result | Reporting Limit |
|---|---|---|
| alpha-BHC | ND | 0.1 |
| beta-BHC | ND | 0.1 |
| gamma-BHC | ND | 0.1 |
| delta-BHC | ND | 0.1 |
| Heptachlor | ND | 0.1 |
| Aldrin | ND | 0.1 |
| Heptachlor epoxide B | ND | 0.1 |
| Heptachlor epoxide A | ND | 0.1 |
| Endosulfan I | ND | 0.1 |
| Dieldrin | ND | 0.2 |
| 4,4'-DDE | ND | 0.2 |
| Endrin | ND | 0.2 |
| Endosulfan II | ND | 0.2 |
| Endosulfan sulfate | ND | 0.2 |
| 4,4'-DDD | ND | 0.2 |
| Endrin aldehyde | ND | 0.2 |
| 4,4'-DDT | ND | 0.2 |
| Chlordane | ND | 1.1 |
| Methoxychlor | ND | 1.1 |
| Toxaphene | ND | 2.2 |
| Aroclor-1016 | ND | 1.1 |
| Aroclor-1221 | ND | 2.2 |
| Aroclor-1232 | ND | 1.1 |
| Aroclor-1242 | ND | 1.1 |
| Aroclor-1248 | ND | 1.1 |
| Aroclor-1254 | ND | 1.1 |
| Aroclor-1260 | ND | 1.1 |

| Surrogate | %Recovery | Recovery Limits |
|---|---|---|
| TCMX | 39 | 34-128 |
| Decachlorobiphenyl | 35* | 50-150 |

* Values outside of QC limits

Lab #: 127558

BATCH QC REPORT

Curtis & Tompkins, Ltd.



## EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

## METHOD BLANK

Matrix: Water
Batch#: 31155
Units: ug/L
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 12/04/96

MB Lab ID: QC35494

| Analyte | Result | Reporting Limit |
|---|---|---|
| alpha-BHC | ND | 0.05 |
| beta-BHC | ND | 0.05 |
| gamma-BHC | ND | 0.05 |
| delta-BHC | ND | 0.05 |
| Heptachlor | ND | 0.05 |
| Aldrin | ND | 0.05 |
| Heptachlor epoxide B | ND | 0.05 |
| Heptachlor epoxide A | ND | 0.05 |
| Endosulfan I | ND | 0.05 |
| Dieldrin | ND | 0.1 |
| 4,4'-DDE | ND | 0.1 |
| Endrin | ND | 0.1 |
| Endosulfan II | ND | 0.1 |
| Endosulfan sulfate | ND | 0.1 |
| 4,4'-DDD | ND | 0.1 |
| Endrin aldehyde | ND | 0.1 |
| 4,4'-DDT | ND | 0.1 |
| Chlordane | ND | 0.5 |
| Methoxychlor | ND | 0.5 |
| Toxaphene | ND | 1.0 |
| Aroclor-1016 | ND | 0.5 |
| Aroclor-1221 | ND | 1.0 |
| Aroclor-1232 | ND | 0.5 |
| Aroclor-1242 | ND | 0.5 |
| Aroclor-1248 | ND | 0.5 |
| Aroclor-1254 | ND | 0.5 |
| Aroclor-1260 | ND | 0.5 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| TCMX | 59 | 34-128 |
| Decachlorobiphenyl | 87 | 50-150 |

Lab #: 127558

BATCH QC REPORT

## EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

## METHOD BLANK

Matrix: Soil
Batch#: 31110
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/26/96

MB Lab ID: QC35316

| Analyte | Result | Reporting Limit |
|---|---|---|
| alpha-BHC | ND | 3.0 |
| beta-BHC | ND | 3.0 |
| gamma-BHC | ND | 3.0 |
| delta-BHC | ND | 3.0 |
| Heptachlor | ND | 3.0 |
| Aldrin | ND | 3.0 |
| Heptachlor epoxide B | ND | 3.0 |
| Heptachlor epoxide A | ND | 3.0 |
| Endosulfan I | ND | 3.0 |
| Dieldrin | ND | 6.0 |
| 4,4'-DDE | ND | 6.0 |
| Endrin | ND | 6.0 |
| Endosulfan II | ND | 6.0 |
| Endosulfan sulfate | ND | 6.0 |
| 4,4'-DDD | ND | 6.0 |
| Endrin aldehyde | ND | 6.0 |
| 4,4'-DDT | ND | 6.0 |
| Chlordane | ND | 30 |
| Methoxychlor | ND | 30 |
| Toxaphene | ND | 60 |
| Aroclor-1016 | ND | 12 |
| Aroclor-1221 | ND | 24 |
| Aroclor-1232 | ND | 12 |
| Aroclor-1242 | ND | 12 |
| Aroclor-1248 | ND | 12 |
| Aroclor-1254 | ND | 12 |
| Aroclor-1260 | ND | 12 |

| Surrogate | %Rec | Recovery Limits |
|---|---|---|
| TCMX | 46 | 29-108 |
| Decachlorobiphenyl | 72 | 30-125 |

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

## EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

## LABORATORY CONTROL SAMPLE

Matrix: Soil
Batch#: 31110
Units: ug/Kg
Diln Fac: 1

Prep Date: 11/25/96
Analysis Date: 11/26/96

LCS Lab ID: QC35317

| Analyte | Result | Spike Added | %Rec # | Limits |
|---|---|---|---|---|
| gamma-BHC | 10.61 | 17 | 64 | 49-115 |
| Heptachlor | 10.8 | 17 | 65 | 51-119 |
| Aldrin | 11.42 | 17 | 68 | 55-112 |
| Dieldrin | 22.71 | 33 | 68 | 54-123 |
| Endrin | 24.45 | 33 | 73 | 63-128 |
| 4,4'-DDT | 23.32 | 33 | 70 | 57-131 |

| Surrogate | %Rec | Limits |
|---|---|---|
| TCMX | 64 | 29-108 |
| Decachlorobiphenyl | 78 | 30-125 |

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

Curtis & Tompkins, Ltd.

Lab #: 127558 BATCH QC REPORT 

## EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8080
Prep Method: EPA 3520

## BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 31155
Units: ug/L
Diln Fac: 1

Prep Date: 11/26/96
Analysis Date: 12/04/96

BS Lab ID: QC35495

| Analyte | Spike Added | BS | %Rec | # | Limits |
|---|---|---|---|---|---|
| gamma-BHC | 0.5 | 0.38 | 76 | | 57-120 |
| Heptachlor | 0.5 | 0.36 | 72 | | 51-109 |
| Aldrin | 0.5 | 0.4 | 80 | | 57-105 |
| Dieldrin | 1 | 0.75 | 75 | | 62-122 |
| Endrin | 1 | 0.8 | 80 | | 70-128 |
| 4,4'-DDT | 1 | 0.77 | 77 | | 67-128 |

| Surrogate | %Rec | Limits |
|---|---|---|
| TCMX | 69 | 34-128 |
| Decachlorobiphenyl | 67 | 50-150 |

BSD Lab ID: QC35496

| Analyte | Spike Added | BSD | %Rec | # | Limits | RPD | # | Limit |
|---|---|---|---|---|---|---|---|---|
| gamma-BHC | 0.5 | 0.37 | 74 | | 57-120 | 3 | | 20 |
| Heptachlor | 0.5 | 0.35 | 70 | | 51-109 | 3 | | 20 |
| Aldrin | 0.5 | 0.39 | 78 | | 57-105 | 3 | | 20 |
| Dieldrin | 1 | 0.72 | 72 | | 62-122 | 4 | | 20 |
| Endrin | 1 | 0.77 | 77 | | 70-128 | 4 | | 20 |
| 4,4'-DDT | 1 | 0.77 | 77 | | 67-128 | 0 | | 20 |

| Surrogate | %Rec | Limits |
|---|---|---|
| TCMX | 60 | 34-128 |
| Decachlorobiphenyl | 83 | 50-150 |

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Lab #: 127558

BATCH QC REPORT

## EPA 8080 Pesticides & PCBs

Client: Subsurface Consultants
Project#: 133.005
Location: KOT

Analysis Method: EPA 8080
Prep Method: EPA 3550

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 127488-001
Matrix: Soil
Batch#: 31110
Units: ug/Kg
Diln Fac: 1

Sample Date: 11/15/96
Received Date: 11/18/96
Prep Date: 11/25/96
Analysis Date: 11/26/96

MS Lab ID: QC35318

| Analyte | Spike Added | Sample | MS | %Rec # | Limits |
|---|---|---|---|---|---|
| gamma-BHC | 17 | <3 | 11 | 65 | 53-124 |
| Heptachlor | 17 | <3 | 11 | 65 | 55-128 |
| Aldrin | 17 | <3 | 12 | 73 | 49-128 |
| Dieldrin | 33 | <6 | 30 | 89 | 54-128 |
| Endrin | 33 | <6 | 30 | 91 | 69-131 |
| 4,4'-DDT | 33 | 23.11 | 50 | 82 | 53-144 |

| Surrogate | %Rec | Limits |
|---|---|---|
| TCMX | 53 | 29-108 |
| Decachlorobiphenyl | 84 | 30-125 |

MSD Lab ID: QC35319

| Analyte | Spike Added | MSD | %Rec # | Limits | RPD # | Limit |
|---|---|---|---|---|---|---|
| gamma-BHC | 17 | 10 | 58 | 53-124 | 11 | 35 |
| Heptachlor | 17 | 9 | 54 * | 55-128 | 17 | 35 |
| Aldrin | 17 | 11 | 64 | 49-128 | 13 | 35 |
| Dieldrin | 33 | 27 | 82 | 54-128 | 8 | 35 |
| Endrin | 33 | 28 | 85 | 69-131 | 7 | 35 |
| 4,4'-DDT | 33 | 56 | 98 | 53-144 | 18 | 35 |

| Surrogate | %Rec | Limits |
|---|---|---|
| TCMX | 37 | 29-108 |
| Decachlorobiphenyl | 85 | 30-125 |

# Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 1 out of 12 outside limits

Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878
2323 Fifth Street
Berkeley, CA 94710
(510)486-0900 ph
(510)486-0532 fx

Project Number: 127558

Subcontract Lab:

APPL
4203 West Swift
Fresno, CA 93722
(209) 275-2175

Please send report to: Tracy Babjar

Turnaround Time: 2 wk

| Sample ID | Date Sampled | Matrix | Analysis | C&T Lab # |
|---|---|---|---|---|
| RMA-27 @ 5.5 | 22-NOV-96 | Soil | 8150 | 127558-011 |
| RMA-28 @ 3.5 | 22-NOV-96 | Soil | 8150 | 127558-013 |

***Please report using Sample ID instead of C&T Lab #.

| Notes: | RELINQUISHED BY: | RECEIVED BY: |
|---|---|---|
| | Teresa Morrison 11/25/96 Date/Time | Date/Time |
| | Date/Time | Date/Time |

Signature on this form constitutes a firm Purchase Order for the services requested above.

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.
4203 West Swift ▼ Fresno, California 93722 ▼ Phone 209.275-2175 ▼ Fax 209.275-4422

Curtis & Tompkins
2323 5th Street
Berkeley, California 94710
Attn: Tracy Babjar

Sample Date: 11/22/96
Report Date: 12/11/96



Sample I.D. No: 127558
RMA-27 @ 5.5
APPL Sample No: R24095-45515S

Date Received: 11/26/96
Date Extracted: 12/03/96
Date Analyzed: 12/10/96

Method 8150 Results (Herbicides):

| Compound | Concentration µg/kg | Quantitation limit µg/kg |
|---|---|---|
| Dicamba | ND* | 40 |
| 2,4-D | ND | 200 |
| 2,4-DB | ND | 400 |
| 2,4-DP (Dichlorprop) | ND | 200 |
| 2,4,5-T | ND | 40 |
| 2,4,5-TP (Silvex) | ND | 40 |
| Dinoseb (DNBP) | ND | 100 |
| Dalapon | ND | 2000 |
| MCPA | ND | 40000 |
| MCPP | ND | 40000 |

* ND = None Detected

Tested By Paula Young

Checked By

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.
4203 West Swift ▼ Fresno, California 93722 ▼ Phone 209.275-2175 ▼ Fax 209.275-4422

Curtis & Tompkins
2323 5th Street
Berkeley, California 94710
Attn: Tracy Babjar

Sample Date: 11/22/96
Report Date: 12/11/96



Sample I.D. No: 127558
RMA-28 @ 3.5
APPL Sample No: R24095-45516S

Date Received: 11/26/96
Date Extracted: 12/03/96
Date Analyzed: 12/10/96

Method 8150 Results (Herbicides):

| Compound | Concentration µg/kg | Quantitation limit µg/kg |
|---|---|---|
| Dicamba | ND* | 40 |
| 2,4-D | ND | 200 |
| 2,4-DB | ND | 400 |
| 2,4-DP (Dichlorprop) | ND | 200 |
| 2,4,5-T | ND | 40 |
| 2,4,5-TP (Silvex) | ND | 40 |
| Dinoseb (DNBP) | ND | 100 |
| Dalapon | ND | 2000 |
| MCPA | ND | 40000 |
| MCPP | ND | 40000 |

* ND = None Detected

Tested By Paula Young

Checked By Mike Day

AGRICULTURE & PRIORITY POLLUTANTS LABORATORIES, INC.
4203 West Swift ▼ Fresno, California 93722 ▼ Phone 209.275-2175 ▼ Fax 209.275-4422

Curtis & Tompkins
2323 5th Street
Berkeley, California 94710
Attn: Tracy Babjar

Sample Date: NA
Report Date: 12/11/96



Sample I.D. No: 127558
Blank for samples taken 11/22/96
APPL Sample No: R24095-961203S

Date Received: NA
Date Extracted: 12/03/96
Date Analyzed: 12/10/96

Method 8150 Results (Herbicides):

| Compound | Concentration µg/kg | Quantitation limit µg/kg |
|---|---|---|
| Dicamba | ND* | 40 |
| 2,4-D | ND | 200 |
| 2,4-DB | ND | 400 |
| 2,4-DP (Dichlorprop) | ND | 200 |
| 2,4,5-T | ND | 40 |
| 2,4,5-TP (Silvex) | ND | 40 |
| Dinoseb (DNBP) | ND | 100 |
| Dalapon | ND | 2000 |
| MCPA | ND | 40000 |
| MCPP | ND | 40000 |

* ND = None Detected

Checked By James Coop

Curtis & Tompkins
2323 5th Street
Berkeley, California 94710
Attn: Tracy Babjar

Report Date: 12/11/96



Project ID No: 127558

APPL Spike ID: R24095 45515S-45516S 45558SA

Concentration Units: µg/kg

SPIKES

| Method | Analysis | Date | Amt in Sample | Amt Spiked | Results | Percent Recovery | RPD |
|---|---|---|---|---|---|---|---|
| 8150 | Dicamba | 12/03/96 | 0.0 | 200 | 147 | 73.5 | 1.4 |
| 8150 | 2,4-DP | 12/03/96 | 0.0 | 200 | 204 | 102 | 13 |
| 8150 | 2,4-D | 12/03/96 | 0.0 | 200 | 216 | 108 | 10 |
| 8150 | Silvex | 12/03/96 | 0.0 | 200 | 190 | 95.0 | 11 |
| 8150 | 2,4,5-T | 12/03/96 | 0.0 | 200 | 223 | 112 | 13 |

APPL Spike ID: R24095 45515S-45516S 45558SB

| Method | Analysis | Date | Amt in Sample | Amt Spiked | Results | Percent Recovery | RPD |
|---|---|---|---|---|---|---|---|
| 8150 | Dicamba | 12/03/96 | 0.0 | 200 | 145 | 72.5 | 1.4 |
| 8150 | 2,4-DP | 12/03/96 | 0.0 | 200 | 180 | 90.0 | 13 |
| 8150 | 2,4-D | 12/03/96 | 0.0 | 200 | 195 | 97.5 | 10 |
| 8150 | Silvex | 12/03/96 | 0.0 | 200 | 171 | 85.5 | 11 |
| 8150 | 2,4,5-T | 12/03/96 | 0.0 | 200 | 195 | 97.5 | 13 |

Comments:

Checked By Pamela Cooper

Curtis & Tompkins, Ltd.

SAMPLE ID: RMA-23
LAB ID: 127558-004
CLIENT: Subsurface Consultants
PROJECT ID: 133.005
LOCATION: KOT
MATRIX: Water

DATE SAMPLED: 11/22/96
DATE RECEIVED: 11/22/96
DATE REPORTED: 12/03/96

## California TITLE 26 Metals

| Compound | Result (ug/L) | Reporting Limit (ug/L) | IDF | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|
| Antimony | ND | 60 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Arsenic | 380 | 5.0 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Barium | 12000 | 200 | 20 | 31146 | EPA 6010A | 11/27/96 |
| Beryllium | 31 | 2.0 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Cadmium | 54 | 2.0 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Chromium (total) | 2900 | 10 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Cobalt | 860 | 20 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Copper | 1900 | 10 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Lead | 540 | 3.0 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Mercury | 3.8 | 0.20 | 1 | 31187 | EPA 7470 | 12/02/96 |
| Molybdenum | 53 | 20 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Nickel | 3800 | 20 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Selenium | 110 | 5.0 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Silver | ND | 5.0 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Thallium | 58 | 5.0 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Vanadium | 2400 | 10 | 1 | 31146 | EPA 6010A | 11/27/96 |
| Zinc | 4200 | 400 | 20 | 31146 | EPA 6010A | 11/27/96 |

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

SAMPLE ID: RMA-28 @ 3.5
LAB ID: 127558-013
CLIENT: Subsurface Consultants
PROJECT ID: 133.005
LOCATION: KOT
MATRIX: Soil

DATE SAMPLED: 11/22/96
DATE RECEIVED: 11/22/96
DATE REPORTED: 12/03/96

## California TITLE 26 Metals

| Compound | Result (mg/Kg) | Reporting Limit (mg/Kg) | IDF | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|
| Antimony | ND | 2.9 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Arsenic | 3.8 | 0.24 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Barium | 66 | 0.48 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Beryllium | 0.25 | 0.096 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Cadmium | 0.81 | 0.096 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Chromium (total) | 42 | 0.48 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Cobalt | 5.5 | 0.96 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Copper | 34 | 0.48 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Lead | 52 | 0.14 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Mercury | ND | 0.10 | 1 | 31131 | EPA 7471 | 11/26/96 |
| Molybdenum | 1.0 | 0.96 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Nickel | 29 | 0.96 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Selenium | 1.1 | 0.24 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Silver | ND | 0.48 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Thallium | ND | 0.24 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Vanadium | 26 | 0.48 | 1 | 31145 | EPA 6010A | 11/27/96 |
| Zinc | 120 | 0.96 | 1 | 31145 | EPA 6010A | 11/27/96 |

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 127558

DATE REPORTED: 12/03/96

## BATCH QC REPORT
## BLANK SPIKE / BLANK SPIKE DUPLICATE

| Compound | Spike Amount | BS Result | BSD Result | Units | BS% Rec. | BSD% Rec. | Rec. Limits | RPD % | RPD Limit | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mercury | 5 | 4.719 | 4.713 | ug/L | 94 | 94 | 80-120 | 0 | 35 | 31131 | EPA 7470 | 11/26/96 |
| Mercury | 5 | 4.788 | 5.043 | ug/L | 96 | 101 | 80-120 | 5 | 35 | 31187 | EPA 7470 | 12/02/96 |

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 127558

DATE REPORTED: 12/03/96

**BATCH QC REPORT**
**LABORATORY CONTROL SAMPLE**

| Compound | Spike Amt | Result | Units | % Rec. | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|---|
| Antimony | 500 | 534 | ug/L | 107 | 31145 | EPA 6010A | 11/27/96 |
| Antimony | 500 | 528 | ug/L | 106 | 31146 | EPA 6010A | 11/27/96 |
| Arsenic | 2000 | 1860 | ug/L | 93 | 31145 | EPA 6010A | 11/27/96 |
| Arsenic | 2000 | 1880 | ug/L | 94 | 31146 | EPA 6010A | 11/27/96 |
| Barium | 2000 | 1930 | ug/L | 97 | 31145 | EPA 6010A | 11/27/96 |
| Barium | 2000 | 2010 | ug/L | 101 | 31146 | EPA 6010A | 11/27/96 |
| Beryllium | 50 | 50.2 | ug/L | 100 | 31145 | EPA 6010A | 11/27/96 |
| Beryllium | 50 | 51.6 | ug/L | 103 | 31146 | EPA 6010A | 11/27/96 |
| Cadmium | 50 | 50.7 | ug/L | 101 | 31145 | EPA 6010A | 11/27/96 |
| Cadmium | 50 | 50.5 | ug/L | 101 | 31146 | EPA 6010A | 11/27/96 |
| Chromium (total) | 200 | 191 | ug/L | 96 | 31145 | EPA 6010A | 11/27/96 |
| Chromium (total) | 200 | 197 | ug/L | 99 | 31146 | EPA 6010A | 11/27/96 |
| Cobalt | 500 | 489 | ug/L | 98 | 31145 | EPA 6010A | 11/27/96 |
| Cobalt | 500 | 498 | ug/L | 100 | 31146 | EPA 6010A | 11/27/96 |
| Copper | 250 | 256 | ug/L | 102 | 31145 | EPA 6010A | 11/27/96 |
| Copper | 250 | 275 | ug/L | 110 | 31146 | EPA 6010A | 11/27/96 |
| Lead | 500 | 472 | ug/L | 94 | 31145 | EPA 6010A | 11/27/96 |
| Lead | 500 | 491 | ug/L | 98 | 31146 | EPA 6010A | 11/27/96 |
| Molybdenum | 400 | 394 | ug/L | 99 | 31145 | EPA 6010A | 11/27/96 |
| Molybdenum | 400 | 402 | ug/L | 101 | 31146 | EPA 6010A | 11/27/96 |
| Nickel | 500 | 488 | ug/L | 98 | 31145 | EPA 6010A | 11/27/96 |
| Nickel | 500 | 497 | ug/L | 99 | 31146 | EPA 6010A | 11/27/96 |
| Selenium | 2000 | 1820 | ug/L | 91 | 31145 | EPA 6010A | 11/27/96 |
| Selenium | 2000 | 1850 | ug/L | 93 | 31146 | EPA 6010A | 11/27/96 |
| Silver | 100 | 106 | ug/L | 106 | 31145 | EPA 6010A | 11/27/96 |
| Silver | 100 | 114 | ug/L | 114 | 31146 | EPA 6010A | 11/27/96 |
| Thallium | 2000 | 1880 | ug/L | 94 | 31145 | EPA 6010A | 11/27/96 |
| Thallium | 2000 | 1930 | ug/L | 97 | 31146 | EPA 6010A | 11/27/96 |
| Vanadium | 500 | 486 | ug/L | 97 | 31145 | EPA 6010A | 11/27/96 |
| Vanadium | 500 | 502 | ug/L | 100 | 31146 | EPA 6010A | 11/27/96 |

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 127558

DATE REPORTED: 12/03/96

**BATCH QC REPORT**
**LABORATORY CONTROL SAMPLE**

| Compound | Spike Amt | Result | Units | % Rec. | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|---|
| Zinc | 500 | 484 | ug/L | 97 | 31145 | EPA 6010A | 11/27/96 |
| Zinc | 500 | 481 | ug/L | 96 | 31146 | EPA 6010A | 11/27/96 |

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 127558

DATE REPORTED: 12/03/96

**BATCH QC REPORT**
**PREP BLANK**

| Compound | Result | Reporting Limit | Units | IDF | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|---|
| Antimony | ND | 3 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Antimony | ND | 60 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Arsenic | ND | 0.25 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Arsenic | ND | 5 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Barium | ND | 0.5 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Barium | ND | 10 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Beryllium | ND | 0.1 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Beryllium | ND | 2 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Cadmium | ND | 0.1 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Cadmium | ND | 2 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Chromium (total) | ND | 0.5 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Chromium (total) | ND | 10 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Cobalt | ND | 1 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Cobalt | ND | 20 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Copper | ND | 0.5 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Copper | ND | 10 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Lead | ND | 0.15 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Lead | ND | 3 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Mercury | ND | 0.1 | mg/Kg | 1 | 31131 | EPA 7471 | 11/26/96 |
| Mercury | ND | 0.2 | ug/L | 1 | 31187 | EPA 7470 | 12/02/96 |
| Molybdenum | ND | 1 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Molybdenum | ND | 20 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Nickel | ND | 1 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Nickel | ND | 20 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Selenium | ND | 0.25 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Selenium | ND | 5 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Silver | ND | 0.5 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Silver | ND | 5 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Thallium | ND | 0.25 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Thallium | ND | 5 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 127558

DATE REPORTED: 12/03/96

**BATCH QC REPORT**
**PREP BLANK**

| Compound | Result | Reporting Limit | Units | IDF | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|---|
| Vanadium | ND | 0.5 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Vanadium | ND | 10 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |
| Zinc | ND | 1 | mg/Kg | 1 | 31145 | EPA 6010A | 11/27/96 |
| Zinc | ND | 20 | ug/L | 1 | 31146 | EPA 6010A | 11/27/96 |

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 127558

DATE REPORTED: 12/03/96

# BATCH QC REPORT
# SAMPLE DUPLICATE

| Compound | Sample | Sample Result | Duplicate Result | Units | RPD % | RPD Limit | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 127572-028 | <3.142 | <3.142 | mg/Kg | NC | 35 | 31145 | EPA 6010A | 11/27/96 |
| Antimony | 127517-001 | <60.000 | <60.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Arsenic | 127572-028 | 2.691 | 2.655 | mg/Kg | 1 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Arsenic | 127517-001 | <5.000 | <5.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Barium | 127572-028 | 70.52 | 70.7 | mg/Kg | 0 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Barium | 127517-001 | 89.4 | 90 | ug/L | 1 | 20 | 31146 | EPA 6010A | 11/27/96 |
| Beryllium | 127572-028 | 0.2199 | 0.2184 | mg/Kg | 1 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Beryllium | 127517-001 | <2.000 | <2.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Cadmium | 127572-028 | 1.13 | 1.121 | mg/Kg | 1 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Cadmium | 127517-001 | <2.000 | <2.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Chromium (total) | 127572-028 | 77.78 | 77.51 | mg/Kg | 0 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Chromium (total) | 127517-001 | <10.000 | 10.5 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Cobalt | 127572-028 | 5.092 | 4.891 | mg/Kg | 4 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Cobalt | 127517-001 | <20.000 | <20.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Copper | 127572-028 | 33.76 | 33.88 | mg/Kg | 0 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Copper | 127517-001 | <10.000 | <10.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Lead | 127572-028 | 182.5 | 181.2 | mg/Kg | 1 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Lead | 127517-001 | <3.000 | <3.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Mercury | 127567-005 | <0.106 | <0.106 | mg/Kg | NC | 20 | 31131 | EPA 7471 | 11/26/96 |
| Mercury | 127526-007 | 0.386 | 0.201 | ug/L | 63* | 20 | 31187 | EPA 7470 | 12/02/96 |
| Molybdenum | 127572-028 | 2.256 | 2.283 | mg/Kg | 1 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Molybdenum | 127517-001 | <20.000 | <20.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Nickel | 127572-028 | 11.51 | 11.47 | mg/Kg | 0 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Nickel | 127517-001 | <20.000 | <20.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Selenium | 127572-028 | 1.41 | 1.11 | mg/Kg | 24* | 20 | 31145 | EPA 6010A | 11/27/96 |
| Selenium | 127517-001 | <5.000 | <5.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Silver | 127572-028 | <0.524 | <0.524 | mg/Kg | NC | 20 | 31145 | EPA 6010A | 11/27/96 |
| Silver | 127517-001 | <5.000 | <5.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Thallium | 127572-028 | <0.262 | <0.262 | mg/Kg | NC | 20 | 31145 | EPA 6010A | 11/27/96 |
| Thallium | 127517-001 | <5.000 | <5.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Vanadium | 127572-028 | 19.5 | 19.43 | mg/Kg | 0 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Vanadium | 127517-001 | <10.000 | <10.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |
| Zinc | 127572-028 | 259.3 | 258.2 | mg/Kg | 0 | 20 | 31145 | EPA 6010A | 11/27/96 |
| Zinc | 127517-001 | <20.000 | <20.000 | ug/L | NC | 20 | 31146 | EPA 6010A | 11/27/96 |

* = Out of Limits
NC = Not Calculable

# CHAIN OF CUSTODY FORM

PROJECT NAME: Keep on Trackin'
JOB NUMBER: 133.005
PROJECT CONTACT: Jerome de Verniere
SAMPLED BY: JD
LAB: Curtis & Tompkins
TURNAROUND: standard
REQUESTED BY: JD

| LABORATORY I.D. NUMBER | SCI SAMPLE NUMBER | MATRIX: WATER | SOIL | WASTE | AIR | CONTAINERS: VOA | LITER | PINT | TUBE | METHOD PRESERVED: HCL | $H_2SO_4$ | $HNO_3$ | ICE | NONE | SAMPLING DATE: MONTH | DAY | YEAR | TIME | NOTES | ANALYSIS REQUESTED: TEH(d+mo) | 8260 extended list | 8240 | Metals | TVH | TEH(d+mo) | 8015 | 8015 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 127558-1 | RMA-22@7.0 | | X | | | | | | X | | | | X | | 11 | 12 | 96 | 0800 | | X | | X | | | X | | | | | |
| -2 | RMA-22 | X | | | | 2 | 1 | | | | | | X | | | | | 0900 | | | | | | | | | | | | |
| -3 | RMA-23@3½ | | X | | | | | | X | | | | X | | | | | 0930 | | | | | | | | | | | | |
| -4 | RMA-23 | X | | | | 2 | 2 | | | | | | X | | | | | 1000 | | X | | X | X | | | | | | | |
| -5 | RMA-24@3.5 | | X | | | | | | X | | | | X | | | | | 1030 | | | | | | | | | | | | |
| -6 | RMA-24 | X | | | | 2 | 2 | | | | | | X | | | | | 1100 | | | | | | | | | | | | |
| -7 | RMA-25@5.0 | | X | | | | | | X | | | | X | | | | | 1130 | | X | | X | | X | | | | | | |
| -8 | RMA-25 | X | | | | 2 | 2 | | | | | | X | | | | | 1200 | | | | | | | | | | | | |
| -9 | RMA-26@3.5 | | X | | | | | | X | | | | X | | | | | 1330 | | X | | X | | X | | | | | | |
| -10 | RMA-26 | X | | | | 2 | 2 | | | | | | X | | | | | 1400 | | X | | X | X | | | X | X | | | |
| -11 | RMA-27@5½ | | X | | | | | | X | | | | X | | | | | 1430 | | X | | | | | | X | | | | |
| -12 | RMA-27 | X | | | | | | | | | | | X | | | | | 1500 | | | | | | | | | | | | |

## CHAIN OF CUSTODY RECORD

| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
|---|---|---|---|
| [signature] | 11/22/96 1130 | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | [signature] | 11/27/96 17:2 |

COMMENTS & NOTES:
~~X [illegible]~~
hold until further notice

~~no VOA vials provided for $H_2O_2$ — only wide mouth liters.~~ TCM

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

# CHAIN OF CUSTODY FORM



PROJECT NAME: KOT

JOB NUMBER: 133.005 LAB:

PROJECT CONTACT: TURNAROUND:

SAMPLED BY: REQUESTED BY:

| LABORATORY I.D. NUMBER | SCI SAMPLE NUMBER | MATRIX: WATER | MATRIX: SOIL | MATRIX: WASTE | MATRIX: AIR | CONTAINERS: VOA | CONTAINERS: LITER | CONTAINERS: PINT | CONTAINERS: TUBE | METHOD PRESERVED: HCL | METHOD PRESERVED: $H_2SO_4$ | METHOD PRESERVED: $HNO_3$ | METHOD PRESERVED: ICE | METHOD PRESERVED: NONE | SAMPLING DATE: MONTH | DAY | YEAR | TIME | NOTES | ANALYSIS REQUESTED: TPH(G+MO) | 8770 alkanes list | 8240s | metals | 8080s | 8150s |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 107558 -13 | RWA-28@3.5 | | X | | | | | | X | | | | X | | 11 | 12 | 96 | 1600 | | X | | | X | X | |
| -14 | RWA 28 | X | | | | 2 | 2 | | | | | | X | | 11 | 12 | 96 | 1630 | | X | | | X | | |

## CHAIN OF CUSTODY RECORD

| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
|---|---|---|---|
| | 11/20/96 1130 | | |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| RELEASED BY: (Signature) | DATE / TIME | RECEIVED BY: (Signature) | DATE / TIME |
| | | | 11/21/96 1715 |

COMMENTS & NOTES:

X hold

Subsurface Consultants, Inc.
171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607
(510) 268-0461 • FAX: 510-268-0137

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 11-DEC-96
Lab Job Number: 127659
Project ID: 133.005
Location: KOT

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

SAMPLE ID: RMA-23
LAB ID: 127659-001
CLIENT: Subsurface Consultants
PROJECT ID: 133.005
LOCATION: KOT
MATRIX: Filtrate

DATE SAMPLED: 11/22/96
DATE RECEIVED: 11/22/96
DATE REPORTED: 12/11/96

## California TITLE 26 Metals

| Compound | Result (ug/L) | Reporting Limit (ug/L) | IDF | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|
| Antimony | ND | 60 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Arsenic | 6.9 | 5.0 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Barium | 81 | 10 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Beryllium | ND | 2.0 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Cadmium | ND | 2.0 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Chromium (total) | ND | 10 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Cobalt | ND | 20 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Copper | ND | 10 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Lead | ND | 3.0 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Mercury | ND | 0.20 | 1 | 31358 | EPA 7470 | 12/11/96 |
| Molybdenum | 45 | 20 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Nickel | ND | 20 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Selenium | ND | 5.0 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Silver | ND | 5.0 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Thallium | ND | 5.0 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Vanadium | ND | 10 | 1 | 31323 | EPA 6010A | 12/11/96 |
| Zinc | ND | 20 | 1 | 31323 | EPA 6010A | 12/11/96 |

ND = Not detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 127659

DATE REPORTED: 12/11/96

**BATCH QC REPORT**
**PREP BLANK**

| Compound | Result | Reporting Limit | Units | IDF | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|---|
| Antimony | ND | 60 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Arsenic | ND | 5 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Barium | ND | 10 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Beryllium | ND | 2 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Cadmium | ND | 2 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Chromium (total) | ND | 10 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Cobalt | ND | 20 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Copper | ND | 10 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Lead | ND | 3 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Mercury | ND | 0.2 | ug/L | 1 | 31358 | EPA 7470 | 12/11/96 |
| Molybdenum | ND | 20 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Nickel | ND | 20 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Selenium | ND | 5 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Silver | ND | 5 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Thallium | ND | 5 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Vanadium | ND | 10 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |
| Zinc | ND | 20 | ug/L | 1 | 31323 | EPA 6010A | 12/11/96 |

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 127659

DATE REPORTED: 12/11/96

# BATCH QC REPORT
# BLANK SPIKE / BLANK SPIKE DUPLICATE

| Compound | Spike Amount | BS Result | BSD Result | Units | BS% Rec. | BSD% Rec. | Rec. Limits | RPD % | RPD Limit | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Antimony | 500 | 484 | 492 | ug/L | 97 | 98 | 80-120 | 2 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Arsenic | 2000 | 2130 | 2000 | ug/L | 107 | 100 | 80-120 | 6 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Barium | 2000 | 2140 | 2100 | ug/L | 107 | 105 | 80-120 | 2 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Beryllium | 50 | 54.1 | 50.5 | ug/L | 108 | 101 | 80-120 | 7 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Cadmium | 50 | 56.7 | 53.6 | ug/L | 113 | 107 | 80-120 | 6 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Chromium (total) | 200 | 211 | 199 | ug/L | 106 | 100 | 80-120 | 6 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Cobalt | 500 | 541 | 506 | ug/L | 108 | 101 | 80-120 | 7 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Copper | 250 | 260 | 259 | ug/L | 104 | 104 | 80-120 | 0 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Lead | 500 | 531 | 495 | ug/L | 106 | 99 | 80-120 | 7 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Mercury | 5 | 5.128 | 5.212 | ug/L | 103 | 104 | 80-120 | 2 | 35 | 31358 | EPA 7470 | 12/11/96 |
| Molybdenum | 400 | 430 | 412 | ug/L | 108 | 103 | 80-120 | 4 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Nickel | 500 | 543 | 515 | ug/L | 109 | 103 | 80-120 | 5 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Selenium | 2000 | 2080 | 1930 | ug/L | 104 | 97 | 80-120 | 8 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Silver | 100 | 113 | 109 | ug/L | 113 | 109 | 80-120 | 4 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Thallium | 2000 | 2090 | 1950 | ug/L | 105 | 98 | 80-120 | 7 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Vanadium | 500 | 534 | 509 | ug/L | 107 | 102 | 80-120 | 5 | 35 | 31323 | EPA 6010A | 12/11/96 |
| Zinc | 500 | 522 | 493 | ug/L | 104 | 99 | 80-120 | 6 | 35 | 31323 | EPA 6010A | 12/11/96 |

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 127659

DATE REPORTED: 12/11/96

# BATCH QC REPORT
# SAMPLE DUPLICATE

| Compound | Sample | Sample Result | Duplicate Result | Units | RPD % | RPD Limit | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| Mercury | 127650-003 | <0.200 | <0.200 | ug/L | NC | 20 | 31358 | EPA 7470 | 12/11/96 |

NC = Not Calculable

# CURTIS & TOMPKINS, LTD. BERKELEY LOGIN CHANGE FORM

Reason for change: X Client Request: By: Jerome Date/Time: 12/4/96 13:50 Initials: JG
_____ Login Review _____ Data Review

| Current Lab ID | Previous Lab ID | Client ID | Matrix | Add/Cancel | Analysis | Duedate |
|---|---|---|---|---|---|---|
| 127659-001 | 127558-004 | RMA-23 | Water | + | Dissolved T26 Metals | 1wk |
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Curtis & Tompkins, Ltd.

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

# ANALYTICAL REPORT

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd. Ste. 200
Layfayette, CA 94549

Date: 23-DEC-96
Lab Job Number: 127763
Project ID: 133.005
Location: KOT

Reviewed by: _____

Reviewed by: _____

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 127763
CLIENT: SUBSURFACE CONSULTANTS
PROJECT#: 133.005
LOCATION: KOT

DATE SAMPLED: 11/22/96
DATE REQUESTED: 12/16/96
DATE ANALYZED: 12/20/96

ANALYSIS: TOTAL PHOSPHOROUS
ANALYSIS METHOD: EPA 365.2

| LAB ID | SAMPLE ID | RESULT | UNITS | REPORTING LIMIT |
|---|---|---|---|---|
| 127763-001 | RMA-27 @ 5.5 | ND | mg/Kg | 1.2 |
| 127763-002 | RMA-28 @ 3.5 | ND | mg/Kg | 1.2 |
| 127763-Method Blank | | ND | mg/Kg | 0.6 |

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: QC SAMPLE 127763-002

| | |
|---|---|
| MS/MSD RPD, % | 1 |
| MS/MSD RECOVERY, % | 108 |
| LCS RECOVERY,% | 108 |

CLIENT: Subsurface Consultants
PROJECT ID: 133.005
LOCATION: KOT
MATRIX: Soil

DATE REPORTED: 12/23/96

## Metals Analytical Report

| | | | | Potassium | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Sample ID | Lab ID | Sample Date | Receive Date | Result (mg/Kg) | Reporting Limit (mg/Kg) | IDF | QC Batch | Method | Analysis Date |
| RMA-27 @ 5.5 | 127763-001 | 11/22/96 | 11/22/96 | 2400 | 24 | 1 | 31455 | EPA 6010A | 12/20/96 |
| RMA-28 @ 3.5 | 127763-002 | 11/22/96 | 11/22/96 | 1200 | 24 | 1 | 31455 | EPA 6010A | 12/20/96 |

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CLIENT: Subsurface Consultants
JOB NUMBER: 127763

DATE REPORTED: 12/23/96

**BATCH QC REPORT**
**PREP BLANK**

| Compound | Result | Reporting Limit | Units | IDF | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|---|
| Potassium | ND | 25 | mg/Kg | 1 | 31455 | EPA 6010A | 12/20/96 |

ND = Not Detected at or above reporting limit

Curtis & Tompkins, Ltd.

CLIENT: Subsurface Consultants
JOB NUMBER: 127763

DATE REPORTED: 12/23/96

# BATCH QC REPORT
## BLANK SPIKE / BLANK SPIKE DUPLICATE

| Compound | Spike Amount | BS Result | BSD Result | Units | BS% Rec. | BSD% Rec. | Rec. Limits | RPD % | RPD Limit | QC Batch | Method | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | 20000 | 17320 | 17160 | ug/L | 87 | 86 | 80-120 | 1 | 35 | 31455 | EPA 6010A | 12/20/96 |

# CURTIS & TOMPKINS, LTD. BERKELEY

# LOGIN CHANGE FORM

Reason for change: ✓ Client Request: By: Jerome Date/Time: 12/16 Initials: DLM

_____ Login Review

| ~~Current~~ previous Lab ID | ~~Previous~~ current Lab ID | Client ID | Matrix | Add/Cancel | Analysis | Duedate |
|---|---|---|---|---|---|---|
| 127558-11 | 127763-1 | | Soil | | PO4-T Potassium | 12/23 |
| 127558-13 | 127763-2 | | Soil | | PO4-T Potassium | 12/23 |

Curtis & Tompkins, Ltd.

# APPENDIX C

# FIELD INVESTIGATION PROTOCOLS

# APPENDIX C
# FIELD INVESTIGATION PROTOCOLS

## A. Utility Survey and UST Locating

C.U. Surveys began their utility survey by first locating all visible surface appurtenances such as exposed pipes, trenches or patches in the pavement. Metal pipes or conduits were located by either transmitting a direct signal via a surface appurtenance or by transmitting a radio signal at strategic locations directly through the ground surface to the utility below. Accessible storm drain or sanitary sewer pipes were located by probing the pipe with a cable transmitting a radio signal. If a utility existed and transmitted a signal, it was detected on the surface by a signal receiving device. Some metallic pipes were located using a magnetometer and/or electromagnetic induction techniques. The location of identified subsurface pipelines and conduits were marked on the ground surface with spray paint.

Similar to the utility survey, C.U. Surveys checked for USTs at SCI specified locations by first locating visible surface appurtenances such as exposed vent pipes or patches in the pavement, and then screening the area using a magnetometer and/or electromagnetic induction techniques.

## B. Geophysical Survey

Norcal began their geophysical survey by noting any surface obstructions (i.e. metallic objects such as buildings, fences, I-beams, etc.) within the survey area that would interfere with their equipment. After any temporary obstructions could be removed, Norcal proceeded to spray paint dots on the pavement to create a grid at 10 foot intervals. From this grid, Norcal was able to generate scale maps of the areas explored and to accurately place located subsurface utilities and

anomalies. The grid was also used as a basis to acquire TC data at regularly spaced intervals so that a TC contour map could be accurately generated. The EMLL equipment, which locates buried metallic utilities, was used in a systematic lengthwise-widthwise fashion throughout the areas explored. A more detailed account of Norcal's methodology, instrumentation, and data analysis is presented in their written report dated March 4, 1997 that is included in Appendix B.

## C. Monitoring Well Installation

Nine monitoring wells (SCIMW-21 through SCIMW-29) were installed by SCI within the study area as part of the April/May 1997 Data Gap Study. Wells SCIMW-26, SCIMW-27 and SCIMW-29 were installed beneath a concrete slab. Therefore, 14-inch diameter holes were cored through the concrete slab to facilitate drilling. A California Drive Sampler having an outside diameter of 2.5 inches and an inside diameter of 2.0 inches was used to obtain soil samples from each test boring. The samplers were driven by a 140-pound hammer with a drop of 30 inches. The number of blows required to drive the sampler the final 12 inches of each 18-inch penetration was recorded and is presented on the test boring logs. Drilling and sampling equipment was thoroughly steam-cleaned prior to each sample drive to reduce the likelihood of cross-contamination between samples and/or borings.

Soil samples were retained in 2.0-inch-diameter brass or stainless steel liners. Teflon sheeting was placed over the ends of the soil liners. The liners were subsequently capped and sealed with tape. The sealed liners were placed in an ice-filled cooler and remained iced until delivery to the analytical laboratory. Chain-of-custody records accompanied the samples to the laboratory. At regular intervals, a shoe sample from each drive was retained in a sealable plastic

bag and screened for volatile organic compounds using an Organic Vapor Meter (OVM). OVM measurements are recorded on the test boring logs.

Upon completion of drilling, monitoring wells were installed in the test borings. Well schematics are shown on the test boring logs. In general, the well consists of 2-inch-diameter, Schedule 40 PVC pipe having flush-threaded joints. The lower 15 feet of the wells consist of machine-slotted well screen having 0.020-inch slots. The remaining upper portion of the wells consists of Schedule 40 PVC blank casing. The well was provided with a bottom cap and locking top cap. The well screen is encased in a filter pack composed of Lonestar No. 3 washed sand. The filter sand was placed by carefully pouring it through the annulus between the hollow-stem of the auger and the well casing. The filter pack in each well extends from the bottom of the well to about 0.5 feet above the screened section of the well. A 1 foot thick bentonite pellet seal was placed above the sand filter. The bentonite pellets were hydrated using clean water. The annulus above the bentonite seal was backfilled with cement grout. The grout mixture consists of Portland cement mixed with clean water. Each monitoring well was completed below grade and is protected by traffic-rated valve boxes encased in concrete.

## D. Well Development

Each new monitoring well was developed at least 24 hours following placement of the grout seal. Initially, the presence of free product was determined using a steel tape coated with product sensitive paste. If free product was present, a sample was collected for analysis. In order to calculate the volume of water in the well, the depth to water and the depth to the well bottom was measured from the top of casing. A minimum of 10 well volumes was purged and transferred into 55-gallon drums left on site for later removal by others. During purging,

conductivity, pH, and temperature of the groundwater was recorded at regular intervals to ensure that they stabilized indicating that fresh water from the aquifer had penetrated the wells. All equipment was thoroughly cleaned between each well to prevent cross-contamination.

## E. Well Sampling

SCI sampled 22 monitoring wells (MW-5, MW-7, and SCIMW-1 through SCIMW-20) as part of the January/February 1997 Data Gap Study. As part of the April/May 1997 Data Gap Study, SCI sampled from 11 monitoring wells (MW-5, MW-6, and SCIMW-21 through SCIMW-29). We purged a minimum of three well volumes of groundwater from each well using a disposable bailer prior to sampling. In accordance with USEPA guidance, the wells were not sampled until groundwater had recharged to within at least 80% of its initial level and pH, temperature, and electrical conductivity of groundwater stabilized. Well sampling forms are included in Appendix D.

Groundwater samples were retained in glass and polyethylene containers pre-cleaned by the supplier in accordance with EPA protocol. The samples were placed in ice chests and remained refrigerated until transmitted to the analytical laboratory. Chain-of-custody records accompanied the samples to the laboratory. Purge water was placed in 55-gallon steel drums and left on-site for later disposal by others.

Prior to sampling, the wells were checked for the presence of free floating product using a steel tape coated with petroleum sensitive paste. In addition, the depth to groundwater below TOC was measured using an electric well sounder. All equipment was thoroughly cleaned between each well.

## F. Test Borings

Precision Sampling, Inc. explored subsurface conditions by drilling 26 test borings (SCI-40 through SCI-65) as part of the January/February 1997 Data Gap study. Precision drilled 9 additional test borings (SCI-66 through SCI-74) as part of the April/May Data Gap Study. The borings were drilled using a hydraulically driven, 2-3/8-inch-diameter, cuttingless soil coring system (Enviro-Core). Borings SCI-62 through SCI-67 and SCI-73 were drilled beneath a concrete slab. Four-inch-diameter holes were cored through the concrete slab to facilitate drilling. Upon completion of drilling, temporary 1-inch-diameter Schedule 40 PVC slotted well casing was installed in the boreholes to facilitate groundwater sampling and free product and groundwater depth measurements.

Soil samples were obtained using an Enviro-Core sampler having an outside diameter of 1-7/8 inches and inside diameter of 1-11/16 inches. The samplers were driven using a hydraulically driven vibrating hammer. Drilling and sampling equipment was thoroughly steam-cleaned prior to each drive to reduce the likelihood of cross-contamination between samples and/or borings.

Soil samples were retained in 1-11/16-inch-diameter stainless steel liners. Teflon sheeting was placed over the ends of the soil liners prior to capping. The sealed liners were placed in ice-filled coolers and remained iced until delivery to the analytical laboratory. Chain-of-custody records accompanied the samples to the laboratory. When the presence of volatile organics was suspected, the shoe sample from each drive was retained in a sealable plastic bag and screened for volatile organic compounds using an OVM. OVM measurements are recorded on the test boring logs.

Following placement of the temporary wells and after groundwater recharged to a static level within the well, SCI checked for the presence of free product using a steel tape coated with petroleum product sensitive paste. The depth to water below the TOC was then measured in the wells using an electric well sounder. Finally, each temporary well was purged of one bailer full of groundwater before obtaining "grab" groundwater samples. Samples were obtained using either stainless steel bailers steam cleaned before each use or disposable plastic bailers. The groundwater samples were retained in containers pre-cleaned by the supplier in accordance with EPA protocol. The samples were placed in an ice chest chilled with ice cubes and/or blue ice and remained iced until delivery to the analytical laboratory. Chain-of-custody records accompanied soil and groundwater samples to the laboratory.

After drilling and sampling, the temporary well casings were removed and the borings were backfilled with cement grout. Where appropriate, concrete slabs were patched with concrete and made flush with existing grade. Borings located within asphalt paved areas were topped with cold asphalt patch and made flush with existing grade.

## G. Potholing

The potholing technique was used in areas to evaluate the existence or nonexistence of USTs or subsurface metallic anomalies. This method involves loosening soil using an air lance which blows compressed air through a nozzle. Loose soil is then removed from the pothole using a large hose connected to a vacuum. In some cases when clay or silt with high plasticity is encountered and the soil cannot be disturbed with the air lance, a hand sampler is used in place of the air lance. Therefore, this is considered an nondestructive exploration technique since utilities or buried objects are not damaged.

Saf-R-Dig excavated six potholes (SCIPH-1 through SCIPH-6) within the study area as part of the January/February 1997 Data Gap Study. Potholes SCIPH-1 and SCIPH-2 were located beneath a concrete slab. Therefore, the outline of the necessary hole (typically 15 inches square) was cut using a concrete cutting machine prior to excavating. The concrete was then broken out with a hydraulic jack hammer. Potholes SCIPH-3 through SCIPH-6 were located beneath asphaltic concrete. Therefore, an approximately 1-foot-diameter hole was broken out with a hydraulic jack hammer. Concrete and asphalt cuttings were temporarily stockpiled next to the pothole. Soil cuttings were vacuumed into a hopper on the potholing rig.

Soil samples were obtained from potholes SCIPH-1, SCIPH-2, SCIPH-4 and SCIPH-6 using a hand sampler at depths from 3.5 feet to 6.0 feet bgs. Soil samples were placed into plastic bags which were then placed into clear glass sampling jars. Samples were then placed in ice-filled coolers and remained iced until delivery to the analytical laboratory. Chain-of-custody records accompanied the samples to the laboratory. Since groundwater was not encountered in any of the potholes, no groundwater was sampled.

After pothole activities had concluded, Saf-R-Dig backfilled the potholes with the temporarily excavated soil and compacted it using a hydraulic vibrating compactor until suitable for paving. Potholes SCIPH-1 and SCIPH-2 were repaved with cement concrete and all other potholes were repaved with cold asphalt patch to match the surrounding pavement. Excess soil cuttings generated from SCIPH-1 and SCIPH-2 were placed into 2-55 gallon drums for later disposal by others.

## H. Test Pit Exploration

SCI retained Dillard to explore subsurface conditions by excavating 14 test pits (SCITP-1 through SCITP-14) within the study area as part of the January/February 1997 Data Gap Study. Dillard used a backhoe equipped with a 2-foot wide bucket. Dillard also excavated 28 test pits (SCITP-15 through SCITP-37) as part of the April/May 1997 Data Gap Study. All test pits except for SCITP-2 through SCITP-4, SCITP-6, SCITP-7, SCITP-25 through SCITP-28, and SCITP-31 were located beneath asphaltic and/or cement concrete. Therefore, the outline of the trench was cut with a concrete cutting machine prior to excavating. The bucket was steam-cleaned prior to excavating each trench to reduce the likelihood of cross-contamination. Pavement and soil cuttings were temporarily stockpiled next to the test pit. Initially, the test pits were excavated to 5 feet bgs. This depth allowed the field engineer to safely access and log the soils in the wall of the pit without the use of bracing. For those test pits that required greater depth, soils below 5 feet bgs were logged from the surface.

Soil samples were obtained using pre-cleaned 2-inch-diameter brass or stainless steel liners typically within zones of visible contamination (i.e. areas of petroleum-saturated soil). If the depth of the test pit was 5 feet or shallower, soil samples were obtained directly from the wall or floor of the test pit. When samples were needed from depths greater than 5 feet, soil samples were obtained directly from the bucket on the backhoe. Teflon sheeting was placed over the ends of the soil liners prior to capping. The sealed liners were placed in ice-filled coolers and remained iced until delivery to the analytical laboratory. Chain-of-custody records accompanied the samples to the laboratory. When the presence of volatile organics was suspected, selected soil samples were retained in sealable plastic bags and later screened for volatile organic compounds using an OVM. OVM measurements are recorded on the test pit logs.

If groundwater was encountered during excavation, "grab" groundwater samples were obtained for analyses. Groundwater and/or free product samples were obtained using disposable plastic bailers. Groundwater samples were retained in glass or polyethylene containers pre-cleaned by the supplier in accordance with EPA protocol. If the groundwater level was accessible near the ground surface, sample containers were immersed beneath the water surface and allowed to fill. All samples were placed in an ice chest chilled with ice cubes or blue ice and remained refrigerated until delivery to the analytical laboratory. Chain-of-custody records accompanied soil and groundwater samples to the laboratory.

It was typical during the January/February Data Gap Study that after test pit activities had concluded, the pits were backfilled with soil cuttings. The soil was compacted with a sheep's foot roller until no visible deflection was observed. The Port recompacted the subsurface soils and placed aggregate base materials and asphaltic concrete to match the surrounding conditions. With respect to test pits SCITP-4 through SCITP-7, some stockpiled soil was not suitable as backfill material and therefore was placed in 10-cubic yard bins and left on-site for future disposal. At these locations, shallow soils above the groundwater table appeared to be saturated with petroleum hydrocarbons. Therefore, care was taken to not place those soils beneath the groundwater table to avoid introducing possibly new contaminants to groundwater. In addition, some soil was so saturated that it could not be compacted properly. Therefore, clean imported fill was used to make up the volume of soil removed.

SCI decided that for the April/May 1997 Data Gap Study, all soil cuttings be placed within soil bins and left on-site for future removal and the test pits be backfilled with suitable import fill. The upper 3 feet of the fill material was compacted in 8-inch lifts with a sheep's foot

roller and gas-powered whacker until more than 90% compaction was achieved. Unlike the last study, Dillard was responsible for repaving the surface with asphaltic concrete. Excavated soils not used as backfill was disposed off-site at a Class II sanitary landfill.

# APPENDIX D

# GEOPHYSICAL SURVEY REPORT

NORCAL GEOPHYSICAL CONSULTANTS INC.

NORCAL

March 4, 1997

Mr. Jerome C. de Verrier
Subsurface Consultants, Inc.
3736 Mt. Diablo Boulevard, Suite 200
Lafayette, CA 94549

Dear Mr. de Verrier:

This report presents the findings of the geophysical investigation performed by NORCAL Geophysical Consultants, Inc. at the 9th Street Terminal of the Port of Oakland in Oakland, California. The survey was conducted on February 4 and 11, 1997 by Geophysicists Donald J. Kirker and Bill Henrich.

## SITE DESCRIPTION

The geophysical investigation at the 9th Street Terminal was performed at two sites, as specified by Subsurface Consultants, Inc. We referred to these sites as Site 1 and 2. The area of investigation at Site 1 is an irregular shaped asphalt covered lot that measures approximately 80 by 250 ft, as shown on the Site 1 Site Map, Plate 1. It is bound by the bay to the west and a chain link fence to the north. Wood debris and metal pipes are located along the west side of the survey area, as shown on Plate 1. Large metal pipes are stored in the lot to the east of the site.

The area of investigation at Site 2 is an irregular shaped asphalt covered lot that measures approximately 170 by 260 feet, as shown on Site 2 Site Map, Plate 2. It is bound by a large metal building to the west and a chain link fence to the north and east. Large metal storage containers and dumpsters are located in the northwest corner of the site. Two small mounds of soil are located in the east-central portion of the site, as shown on Plate 2.

## PURPOSE

Historical information, provided by Subsurface Consultants, Inc., indicates that both sites were formerly occupied by various industrial facilities. These include a bulk fuel storage facility and a wood processing mill. However, information is limited as to the use and/or location of subsurface features at these sites, such as underground storage tanks (UST's), UST associated piping, drain lines, and possible buried metallic and nonmetallic debris. Therefore, the purpose of this survey is to obtain subsurface information that will aid in determining if these subsurface features exist at these sites.

1350 INDUSTRIAL AVENUE SUITE A • PETALUMA, CA 94952
TELEPHONE (707) 763-1312 • FAX (707) 762-5587

## METHODOLOGY AND INSTRUMENTATION

Typically, the magnetometry method is used to investigate for buried metal. However, magnetic interference from the numerous above ground metal objects in the area precluded the use of this method at these sites. Therefore, we used the electromagnetic terrain conductivity (TC) and electromagnetic line locating (EMLL) methods. These methods can be used in closer proximity to above ground metal. The TC method was used to determine shallow conductivity variations that could be due to buried foreign objects (UST's, piping, etc.) or changes in subsurface materials. The EMLL methods were used to locate detectable utilities.

### Electromagnetic Induction - Terrain Conductivity

The electromagnetic method is used to measure variations in subsurface electrical conductivity. The electromagnetic system utilizes two coils separated by a specified distance. One of these coils transmits a time-varying electromagnetic signal (primary magnetic field) which induces current flow in the earth. This in turn creates a secondary magnetic field which is detected by the receiver coil. The secondary signal is complex and has both quadrature and in-phase components. The amplitude of the quadrature component is proportional to the electrical conductivity of the subsurface materials. The in-phase component is proportional to conductivity, but is also affected by electrical properties associated with metal objects. The instrument displays the quadrature component in units of milliSeimens/meter (mS/m). Since this measurement represents the conductivity of the volume of material sampled, rather than individual layers, it is an apparent value and is referred to as electromagnetic terrain conductivity.

We performed the electromagnetic survey using a Geonics EM31-DL ground conductivity meter connected to an Omnidata data recorder. The EM31 has a fixed coil separation of 12 feet, resulting in a total depth of investigation of approximately 10 feet, depending upon local site conditions. The data recorder automatically stores the data as well as station coordinates.

### Electromagnetic Line Location (EMLL)

Electromagnetic line location techniques are used to locate the magnetic field resulting from an electric current flowing on a line. These magnetic fields can arise from currents already on the line (passive) or currents applied to a line with a transmitter

(active). The most common passive signals (ambient) are generated by live electric lines and re-radiated radio signals. Active signals can be introduced by connecting the transmitter to the line at accessible locations. The conducted signal (current) will travel along the specific utility. This is referred to as electromagnetic conduction (EMC). A signal can also be introduced to a line by electromagnetic induction (EMI). This procedure requires the transmission of an electromagnetic field in close proximity to the utility. Typically, the transmitter is on the ground surface. The transmitted field will induce a current into the subsurface and through the line. The detection of underground utilities is dependent upon the composition and construction of the line of interest, as well as depth. Utilities detectable with standard line location techniques include any continuously connected metal pipes, cables/wires or utilities with tracer wires. Unless carrying a passive current these utilities must be exposed at the surface or in accessible utility vaults. These generally include water, electric, natural gas, telephone, and other conduits related to facility operations. Utilities that are not detectable using standard electromagnetic line location techniques include those made of non-electrically conductive materials such as PVC, fiberglass, vitrified clay, and pipes with insulated connections. Pipes generally deeper than about five to seven feet are typically not detected.

The induction mode is also used to detect buried near surface metal objects such as rebar, manhole covers, UST's, and various metallic debris. This is done by holding the transmitter-receiver unit above the ground and continuously scanning the surface. The unit utilizes two orthogonal coils that are separated by a specified distance. One of the coils transmits an electromagnetic signal (primary magnetic field) which in turn produces a secondary magnetic field about the subsurface metal object. Since the receiver coil is orthogonal to the transmitter coil, it is unaffected by the primary field. Therefore, secondary magnetic fields produced by buried metal will generate an audible response from the unit. The peak of this response indicates when the unit is directly over the metal object.

Our instrumentation for this investigation consisted of a Radiodetection RD-400 line locator and a Fisher TW-6 inductive pipe and cable locator.

## DATA ACQUISITION

TC data were collected at 5 foot intervals (stations) along south-north trending traverses spaced 10 feet apart at both sites. The limits of Sites 1 and 2 are shown on the Site Maps, Plate 1 and 2, respectively. The EMLL technique was used systematically throughout each site in both south-north and east-west directions.

## DATA ANALYSIS

### TC Computer Processing

The down loaded TC data were converted into a format for contouring. The contouring program calculated an evenly spaced array of values (gridded) based on the observed field data. Finally, these gridded values were contoured to produce the Contour Maps.

### TC Contour Map Interpretation

Generally, TC values vary smoothly throughout a given region. Areas where variations are strong are defined by closely spaced contours and are typically considered anomalous. If the source of a particular anomaly is an isolated object or a group of closely spaced objects, the contours may form circular or elliptical closures. A large accumulation of buried objects may appear as a group of closely spaced anomalies or one large anomaly.

Actual anomaly magnitude and shape are dependent on the relative position and size of the buried objects with respect to the location of the data points. In general, anomaly magnitude will decrease and anomaly width will increase as distance (depth) to the source increases. Anomalies may or may not have paired high and low values creating what are known as magnetic dipoles.

### EMLL Interpretation

As mentioned above, the EMLL method was used systematically throughout both sites. When a buried metal object, such as an utility, was encountered, an audible tone was emitted from the EMLL instrument. At that location, a mark was placed on the ground. We then continued to trace the surface expression of the utility out and marked it on the ground using white marking paint. The detected utilities are shown on Plates 1 and 2.

## RESULTS

The results of the geophysical investigation at Sites 1 and 2 are presented on the Site Maps, Plate 1 and 2, respectively. Both plates show the limits of the respective survey areas, and the structures or cultural features that may be in close proximity to the site. The TC contour maps indicate a relatively uniform conductivity (190 - 200 mS/m) throughout both sites. These values are high and typical of materials in

close proximity to a saline marine environment. Because of the high background conductivities, variations produced from buried materials may be subtle. The variations shown on these plates represent effects from the above ground metal objects, chain link fences, utility alignments, and buried unknown subsurface features. TC variations that are not associated with noted cultural objects are considered anomalous. A description of the results for Sites 1 and 2 are presented below.

Site 1

The results of the EMLL investigation at Site 1 defined the location of both east-west and south-north trending undifferentiated utility alignments, as well as three anomalous zones of buried near surface metal. The east-west utilities trend from the bay and terminate in the center of the survey area. The south-north utilities trend through the survey area along the west boundary and in the southeast corner of the survey area. The anomalous zones are located in the center and southeast portions of the survey area. These anomalous zones may represent near surface metal such as possible utility vaults, isolated metal debris, or portions of former reinforced concrete slabs. The surface trace of the utilities and anomalous zones are shown on Plate 1.

The TC contour map for Site 1 (Plate 1) shows numerous closely spaced contours in the center of the survey area, as well as in the southwest corner. We believe that the variations in the center represent effects from the utility alignments and isolated near surface metal mentioned above. An TC variation that is not associated with these features is located in the southwest corner of the site, labeled Anomaly A on Plate 1. This anomaly is characterized by an increase in conductivity and has a value of 450 mS/m. This increased conductivity may represent effects from the nearby pipe. However, because of the large areal extent, we believe that it may also represent effects from a change in fill material such as a possible former excavation. There are no additional TC anomalies evident at this site that can not be associated with the above mentioned subsurface features.

Site 2

The results of the EMLL investigation at site 2 defined the location of an electric line and two undifferentiated utility alignments, as shown on Plate 2. The electric utility alignment trends diagonally through the site. Both undifferentiated utility alignments trend east-west from the building and terminate at the center of the site. The surface trace of these utilities are shown on Plate 2.

The TC contour map for Site 2 (Plate 2) shows closely spaced contours in the west central portion of the survey area, as well as along the east boundary. We believe that some of the variations in the center represent effects from the east-west trending utility alignment mentioned above. The closely spaced contours along the east boundary represent effects from the metal cyclone fence. TC variations that are not associated with these features define a zone located in the west central portion of the site. We refer to this area as anomaly zone A on Plate 2. This zone is characterized by several isolated anomalies that exhibit conductivity values that range from 180 to 320 mS/m. This zone of varying conductivities may be the result of buried metallic and/or nonmetallic debris. There are no additional TC anomalies evident at this site that can not be associated with the above mentioned subsurface features.

## STANDARD CARE AND WARRANTY

The scope of NORCAL's services for this project consisted of using geophysical methods to characterize the shallow subsurface. The accuracy of our findings is subject to specific site conditions and limitations inherent to the techniques used. We performed our services in a manner consistent with the level of skill ordinarily exercised by members of the profession currently employing similar methods. No warranty, with respect to the performance of services or products delivered under this agreement, expressed or implied, is made by NORCAL.

We appreciate having the opportunity to provide you with this information.

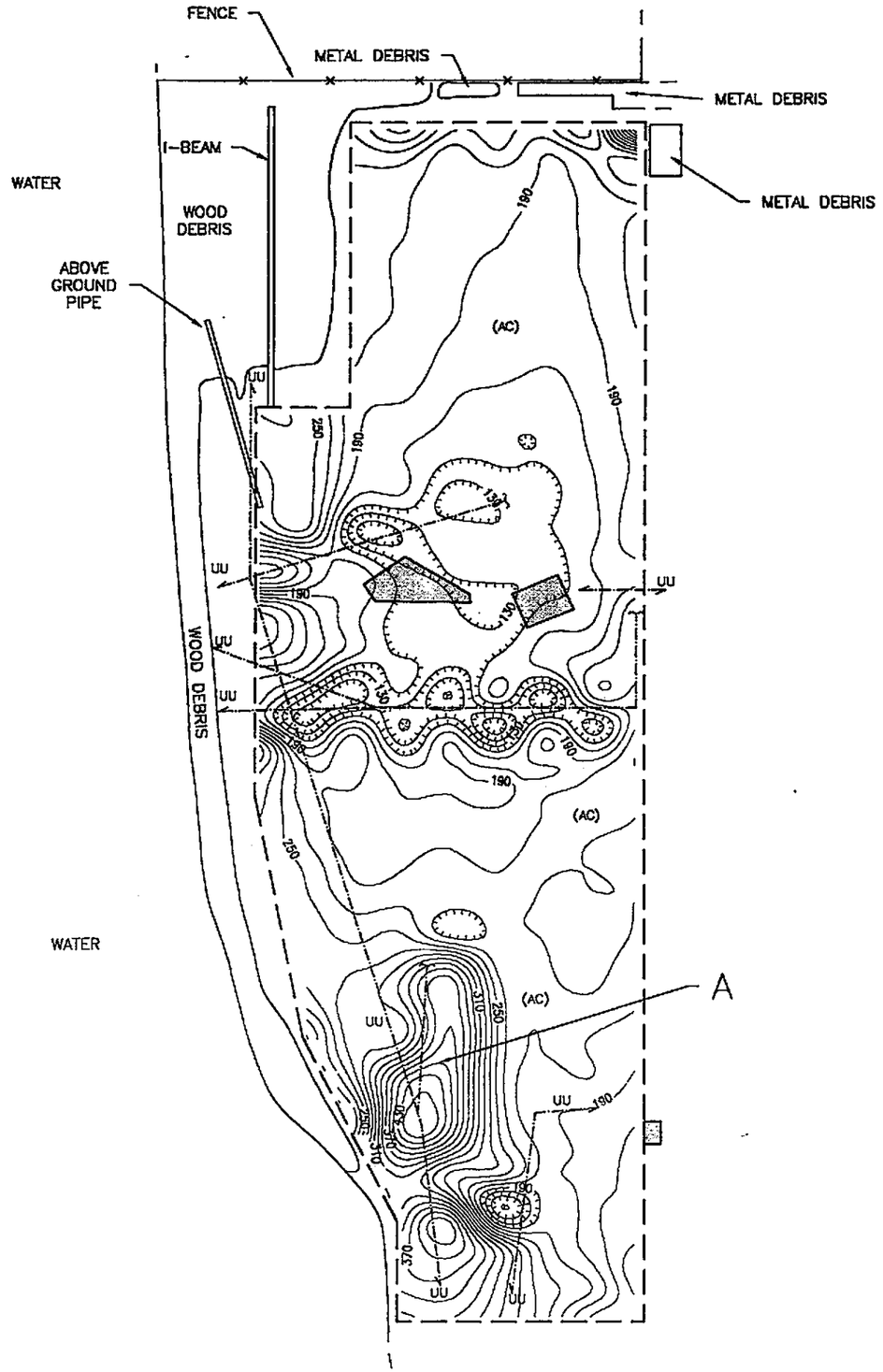
Respectfully,

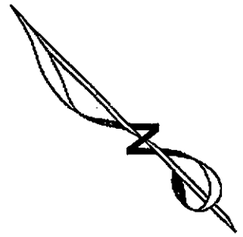
NORCAL Geophysical Consultants, Inc.

Donald J. Kirker
Geophysicist, GP-997

DJK/KGB/jh

Enclosure: Plates 1 and 2



## LEGEND

| | |
|---|---|
| —0— | TERRAIN CONDUCTIVITY (TC) CONTOUR<br>CONTOUR INTERVAL = 30 mS/m |
| — — — | LIMITS OF TC SURVEY |
| —·—·— | UTILITY ALIGNMENT |
| UU | UNDIFFERENTIATED UTILITY |
| AC | ASPHALT |
| A | TC ANOMALY |
| | EMLL ANOMALY |

SCALE

0 15 30 60 120

(feet)

# SITE 1
# SITE MAP

NORCAL GEOPHYSICAL CONSULTANTS INC.

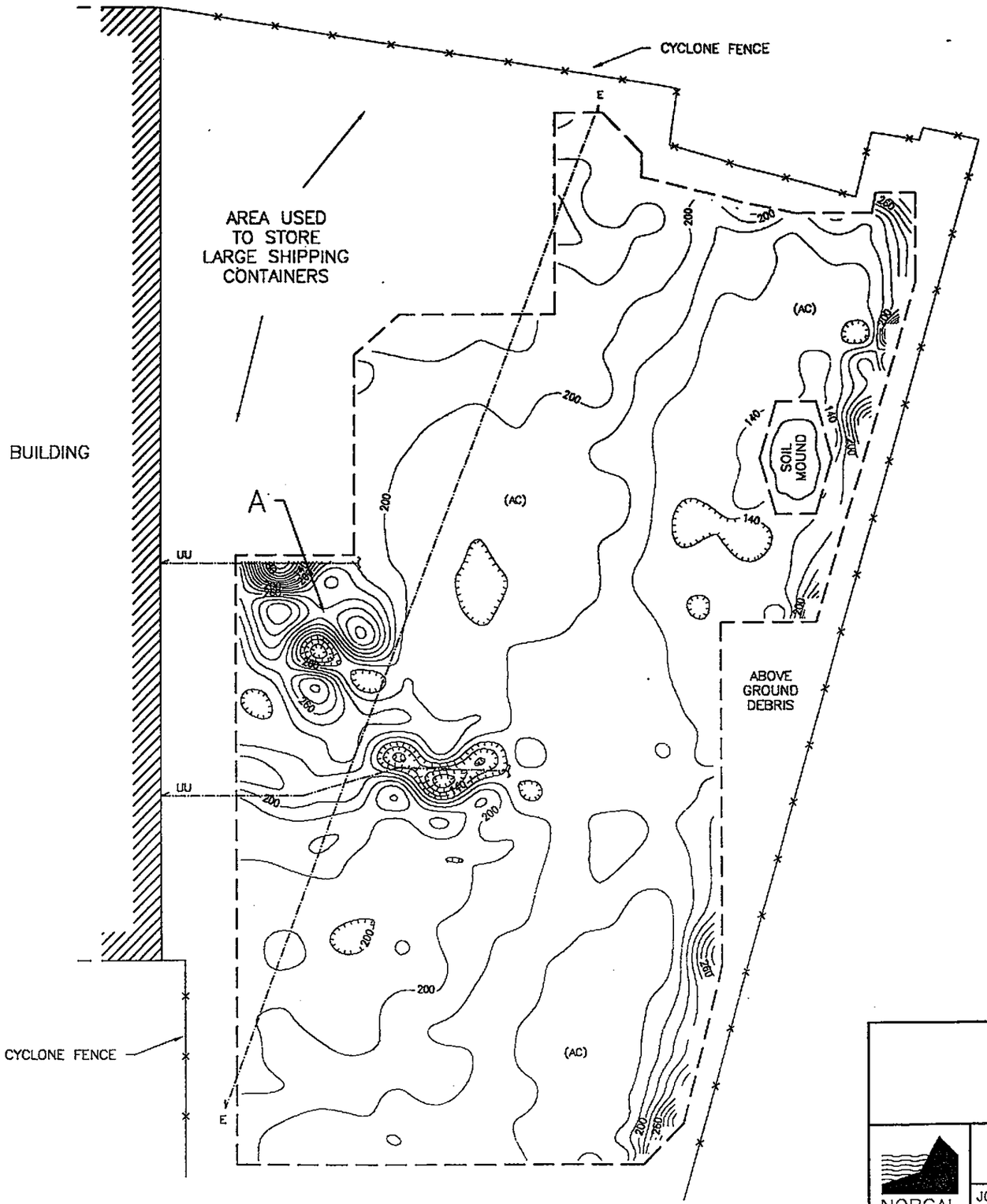
JOB #: 97-130.13
DATE: 3/97

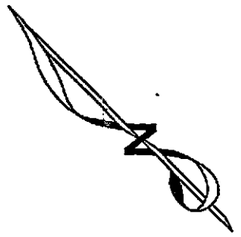
DRAWN BY: SPD
APPROVED: DSK

SURVEY LOCATION:
PORT OF OAKLAND
OAKLAND, CALIFORNIA

CLIENT: SUBSURFACE

PLATE 1



## LEGEND

| | |
|---|---|
| 0 | TERRAIN CONDUCTIVITY (TC) CONTOUR<br>CONTOUR INTERVAL = 30 mS/m |
| — — — | LIMITS OF TC SURVEY |
| ——— | UTILITY ALIGNMENT |
| UU | UNDIFFERENTIATED UTILITY |
| E | ELECTRIC |
| AC | ASPHALT |
| A | TC ANOMOLOUS ZONE |

SCALE

0 15 30 60 120

(feet)

# SITE 2
# SITE MAP

NORCAL

NORCAL GEOPHYSICAL CONSULTANTS INC.

JOB #: 97-130.13
DATE: 3/97

DRAWN BY: SPD
APPROVED: DDK

SURVEY LOCATION:
PORT OF OAKLAND
OAKLAND, CALIFORNIA

CLIENT: SUBSURFACE

PLATE 2

# APPENDIX E

## WELL DEVELOPMENT, WELL SAMPLING AND GROUNDWATER MEASUREMENT FORMS PERMITS

# WELL SAMPLING FORM

Project Name: KOT
Well Number: MW-5
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/17/97
TOC Elevation:
Weather: partly cloudy

Depth to Casing Bottom (below TOC) 20.00 feet
Depth to Groundwater (below TOC) 3.46 feet
Feet of Water in Well 16.54 feet
Depth to Groundwater When 80% Recovered 6.77 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.7 gallons
Depth Measurement Method Tape & Paste (Electronic Sounder) Other
Free Product none
Purge Method disposable bailer

slow recharge (overnight)

## FIELD MEASUREMENTS

Initial E.C. = 375

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 5.76 | 58.6 | 307 | | clear/strong odor & sheen |
| 3 | 5.40 | 60.4 | 400 | | |
| 5 | 5.07 | 62.4 | 630 | | |
| 7 | 5.02 | 62.9 | 680 | | semi-clear |
| 9 | 5.09 | 62.6 | 900 | | murky |

Total Gallons Purged 9 gallons
Depth to Groundwater Before Sampling (below TOC) 4.50 on 1/20/97 @ 0900 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: MW-7
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/16/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 20.50 feet
Depth to Groundwater (below TOC) 3.65 feet
Feet of Water in Well 16.85 feet
Depth to Groundwater When 80% Recovered 7.02 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.8 gallons
Depth Measurement Method Tape & Paste (Electronic Sounder) Other
Free Product none
Purge Method disposable bailer

Recharge - slow (overnight)

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 8.20 | 59.5 | 990 | | clear / Bailing / odor |
| 3 | 7.52 | 61.2 | 991 | | yellow-green tint |
| 5 | 7.29 | 62.9 | 1209 | | decreasing tint increasing organic odor |
| 7 | 7.47 | 63.4 | 1434 | | ↓ |
| 9 | 7.62 | 63.0 | 1678 | | |

Total Gallons Purged 9 gallons
Depth to Groundwater Before Sampling (below TOC) 4.04 on 1/17/97 @ 11:00 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCMW-1
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/21/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 5.01 - taken on 1/16/97 feet
Feet of Water in Well 12.99 feet
Depth to Groundwater When 80% Recovered 7.61 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.1 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product
Purge Method disposable bailer

slow recharge (overnight)

## FIELD MEASUREMENTS

Initial E.C. = 950

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 6.42 | 55.8 | 1110 | | clear / with floating particulates / rotten egg odor |
| 3 | 5.15 | 56.5 | 1170 | | |
| 5 | 4.95 | 57.2 | 1300 | | |
| 7 | 4.97 | 58.0 | 1350 | | |
| | | | | | |

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 4.84 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCIMW-2
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/17/97
TOC Elevation:
Weather: partly cloudy

Depth to Casing Bottom (below TOC) 18.50 feet
Depth to Groundwater (below TOC) 6.10 feet
Feet of Water in Well 12.40 feet
Depth to Groundwater When 80% Recovered 8.58 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.0 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) Other
Free Product none
Purge Method disposable bailer fast recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 0 | 5.00 | 59.3 | 650 | | clear/strong odor product sheen on outside of bailer |
| 2 | 5.05 | 58.6 | 540 | | |
| 4 | 5.08 | 58.4 | 530 | | small globs of product in first few bailerful |
| 6 | 5.40 | 58.4 | 520 | | w/ sheen |
| | | | | | |

Total Gallons Purged 6 gallons
Depth to Groundwater Before Sampling (below TOC) 7.15 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCI MW-3
Job No.: 133,005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/20/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 5.41 feet
Feet of Water in Well 12.59 feet
Depth to Groundwater When 80% Recovered 7.93 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.0 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
moderate recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 0 | 5.15 | 61.1 | 1870 | | clear / w/ yellowish tint |
| 2 | 5.14 | 63.6 | 1740 | | no odor |
| 4 | 5.06 | 64.7 | 1920 | | |
| 6 | 5.10 | 65.9 | 1915 | | |
| | | | | | |

Total Gallons Purged 6 gallons
Depth to Groundwater Before Sampling (below TOC) 7.90 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCIMW-4
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/21/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 1.60 feet
Feet of Water in Well 16.40 feet
Depth to Groundwater When 80% Recovered 4.88 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.7 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product
Purge Method disposable bailer

slow Recharge (overnight)

## FIELD MEASUREMENTS

Initial E.C. = 1030

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 5.08 | 59.2 | 920 | | clear w/ Yellowish tint no odor |
| 3 | 4.92 | 60.2 | 890 | | |
| 5 | 4.87 | 61.2 | 930 | | |
| 7 | 4.94 | 62.0 | 1060 | | |
| 9 | 4.59 | 62.6 | 1080 | | |

Total Gallons Purged 9 gallons
Depth to Groundwater Before Sampling (below TOC) 1.18 on 1/22/97 @ 12:45 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL SAMPLING FORM

Project Name: KOT

Well Number: SCI MW-5

Job No.: 133.005

Well Casing Diameter: 2 inch

Sampled By: DWA

Date: 1/16/97

TOC Elevation: _____

Weather: cloudy

Depth to Casing Bottom (below TOC) 18.50 feet

Depth to Groundwater (below TOC) 4.07 feet

Feet of Water in Well 14.43 feet

Depth to Groundwater When 80% Recovered 6.96 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.4 gallons

Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other

Free Product none

Purge Method disposable bailer

very slow recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 2 | 6.22 | 58.9 | 1793 | | clear/no odor |
| 4 | 5.54 | 61.0 | 1898 | | |
| 6 | 5.31 | 61.5 | 1956 | | |
| 8 | 5.30 | 62.1 | 2010 | | |
| | | | | | |

Total Gallons Purged 8 gallons

Depth to Groundwater Before Sampling (below TOC) 3.35 on 1/20/97 @ 11:15 feet

Sampling Method disposable bailer

Containers Used 6 (40 ml) 3 (liter) _____ (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SC1MW-6
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/22/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 19.50 feet
Depth to Groundwater (below TOC) 5.87 - taken 1/16/97 feet
Feet of Water in Well 13.63 feet
Depth to Groundwater When 80% Recovered 8.60 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.2 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

## FIELD MEASUREMENTS

initial E.C = 1020

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 5.80 | 54.2 | 990 | | muddy/no odor |
| 3 | 5.43 | 53.7 | 920 | | ↓ |
| 5 | 5.25 | 54.9 | 1010 | | Semi-clear |
| 7 | 5.24 | 55.4 | 1040 | | ↓ |
| | | | | | |

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 4.33 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 4 (liter) (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCMW-7
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/16/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 4.94 feet
Feet of Water in Well 13.06 feet
Depth to Groundwater When 80% Recovered 7.55 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.1 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
very slow recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 5.68 | 60.0 | 1185 | | semi-clear/slight odor |
| 3 | 5.38 | 61.6 | 1200 | | |
| 5 | 5.30 | 63.6 | 1422 | | |
| 7 | 5.42 | 63.5 | 1610 | | |
| | | | | | |

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 4.83 on 1/22/97 @ 0930 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCI MW-8
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/21/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 5.11 feet
Feet of Water in Well 12.89 feet
Depth to Groundwater When 80% Recovered 7.69 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.1 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
moderate recharge

## FIELD MEASUREMENTS

Initial E.C. = 1070

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 4.93 | 63.6 | 1050 | | clear/no odor |
| 3 | 4.51 | 64.1 | 1020 | | |
| 5 | 4.51 | 65.0 | 1030 | | |
| 7 | 4.55 | 64.5 | 1170 | | |
| | | | | | |

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 7.60 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCI MW-9
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/22/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 4.66 feet
Feet of Water in Well 13.34 feet
Depth to Groundwater When 80% Recovered 7.33 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.2 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) Other
Free Product none
Purge Method disposable bailer

slow recharge (overnight)

## FIELD MEASUREMENTS

Initial EC = 820

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 4.77 | 61.0 | 870 | | clear / rotten egg ODOR |
| 3 | 4.84 | 62.7 | 940 | | DK. Green TINT |
| 5 | 4.77 | 64.4 | 1090 | | |
| 7 | 4.81 | 63.9 | 1220 | | |
| | | | | | |

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 5.48 on 1/23/97 @ 0930 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCI MW-10
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/23/97
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 4.69 feet
Feet of Water in Well 13.31 feet
Depth to Groundwater When 80% Recovered 7.35 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.2 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

moderate recharge

## FIELD MEASUREMENTS

Initial E.C. = 19,500

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 6.65 | 18.0 | 200x100 | | clear / yellow-green tint / rotten egg odor |
| 3 | 6.62 | 18.5 | 215x100 | | |
| 5 | 6.66 | 19.0 | 210x100 | | |
| 7 | 6.68 | 20.0 | 360x100 | | DK. Green tint |
| | | | | | |

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 7.35 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCIMW-11
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/17/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 5.17 feet
Feet of Water in Well 12.83 feet
Depth to Groundwater When 80% Recovered 7.74 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.1 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
fast recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 0 INITIAL | 5.06 | 53.9 | 761 | | clear/no odor |
| 3 1 | 5.13 | 56.8 | 1080 | | murky w/ orange Brown clumps of organic material w/ odor |
| 3 3 | 4.82 | 59.0 | 1020 | | decreasing clumps |
| 3 5 | 4.73 | 59.9 | 1010 | | ↓ |
| 7 | 4.95 | 62.1 | 1050 | | ↓ |

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 5.21 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCI MW-12
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 11/7/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 6.41 feet
Feet of Water in Well 11.59 feet
Depth to Groundwater When 80% Recovered 8.73 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 1.9 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

fast recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 0 | 5.75 | 50.3 | 700 | | clear / no odor |
| 2 | 5.49 | 52.2 | 840 | | semi-clear |
| 4 | 5.52 | 52.7 | 890 | | murky |
| 6 | 5.50 | 52.3 | 900 | | ↓ |
| | | | | | |

Total Gallons Purged 6 gallons
Depth to Groundwater Before Sampling (below TOC) 8.29 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCI MW-13
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/23/97
TOC Elevation:
Weather: Partly cloudy

Depth to Casing Bottom (below TOC) 18.50 feet
Depth to Groundwater (below TOC) 5.63 feet
Feet of Water in Well 12.87 feet
Depth to Groundwater When 80% Recovered 8.20 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.1 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
slow Recharge

## FIELD MEASUREMENTS

Initial E.C. = 13,000

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 6.57 | 18.0 | 13,500 | | DK. GREEN TINT / strong odor murky / sheen |
| 3 | 6.58 | 19.0 | 17,000 | | |
| 5 | 6.65 | 20.5 | 25,000 | | |
| 7 | 6.78 | 20.5 | 34,000 | | |
| 9 | 6.89 | 20.5 | 33,000 | | Dry @ 9 gals. |

Total Gallons Purged 9 gallons
Depth to Groundwater Before Sampling (below TOC) 8.20 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCIMW-14
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/21/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 8.00 feet
Feet of Water in Well 10.00 feet
Depth to Groundwater When 80% Recovered 18.00 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 1.6 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product none
Purge Method disposable bailer
moderate recharge

## FIELD MEASUREMENTS

Initial EC.=520

| Gallons Removed | pH | Temp (F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 5.85 | 58.8 | 400 | | clear/no odor |
| 2 | 5.76 | 58.6 | 400 | | |
| 3 | 5.67 | 58.8 | 430 | | |
| 4 | 5.59 | 58.8 | 490 | | |
| 5 | 5.56 | 588 | 490 | | |

Total Gallons Purged 5 gallons
Depth to Groundwater Before Sampling (below TOC) 10.00 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCI MW-15
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 4/17/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 8.44 feet
Feet of Water in Well 9.56 feet
Depth to Groundwater When 80% Recovered 10.35 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 1.5 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

fast recharge

## FIELD MEASUREMENTS

Initial EC.=1050

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 5.07 | 56.7 | 970 | | semi-clear/slight odor small sheen |
| 2 | 5.22 | 58.0 | 570 | | |
| 3 | 5.60 | 59.2 | 550 | | |
| 4 | 5.75 | 59.3 | 900 | | |
| 5 | 5.94 | 59.8 | 930 | | |

Total Gallons Purged 5 gallons
Depth to Groundwater Before Sampling (below TOC) 8.58 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCMW-16
Job No.: 133005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/21/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.50 feet
Depth to Groundwater (below TOC) 3.37 feet
Feet of Water in Well 15.13 feet
Depth to Groundwater When 80% Recovered 6.40 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.5 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product none
Purge Method disposable bailer

slow recharge (overnight)

## FIELD MEASUREMENTS

Initial E.C. = 1620

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 2 | 4.37 | 62.4 | 1600 | | clear/no odor yellowish tint |
| 4 | 4.49 | 62.2 | 1560 | | |
| 6 | 4.34 | 63.8 | 1600 | | |
| 8 | 4.39 | 64.8 | 1630 | | |
| | | | | | |

gallons

Total Gallons Purged 8
Depth to Groundwater Before Sampling (below TOC) 6.60 on 1/22/97 @ 11:30 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCI MW-17
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/21/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.50 feet
Depth to Groundwater (below TOC) 2.47 feet
Feet of Water in Well 16.03 feet
Depth to Groundwater When 80% Recovered 5.68 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.5 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

slow recharge (overnight)

## FIELD MEASUREMENTS

Initial E.C. = 1110

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 2 | 4.62 | 60.2 | 1090 | | clear/no odor |
| 4 | 4.72 | 62.2 | 1160 | | |
| 6 | 4.76 | 63.4 | 1440 | | |
| 8 | 4.77 | 64.7 | 1620 | | |
| | | | | | |

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 2.47 on 1/22/97 @ 12:15 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCI MW-18
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/16/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.50 feet
Depth to Groundwater (below TOC) 3.83 feet
Feet of Water in Well 14.67 feet
Depth to Groundwater When 80% Recovered 6.76 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.8 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

very slow recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 5.87 | 60.7 | 1603 | | clear / organic bay mud odor |
| 3 | 5.80 | 62.0 | 1570 | | yellow-green tint |
| 5 | 5.80 | 63.7 | 1590 | | |
| 7 | 5.66 | 64.7 | 1760 | | |
| 9 | 5.68 | 64.6 | 1831 | | |

Total Gallons Purged 9 gallons
Depth to Groundwater Before Sampling (below TOC) 4.06 on 1/20/97 @ 0900 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCI MW-19
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/21/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.50 feet
Depth to Groundwater (below TOC) 3.04 feet
Feet of Water in Well 15.46 feet
Depth to Groundwater When 80% Recovered 6.13 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.5 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
fast recharge

## FIELD MEASUREMENTS

Initial EC.=750

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 2 | 4.94 | 58.5 | 760 | | clear/slight odor w/yellow tint |
| 4 | 4.97 | 60.1 | 800 | | |
| 6 | 4.89 | 61.2 | 850 | | |
| 8 | 4.93 | 62.1 | 890 | | |
| | | | | | |

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 6.04 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

# WELL SAMPLING FORM

Project Name: KOT
Well Number: SCI MW-20
Job No.: 133.005
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 1/16/97
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater (below TOC) 1.44 feet
Feet of Water in Well 16.56 feet
Depth to Groundwater When 80% Recovered 4.75 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.7 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

## FIELD MEASUREMENTS

slow recharge (overnight)

| Gallons Removed | pH | Temp (°F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 5.47 | 57.3 | 1070 | | clear/ no odor |
| 3 | 5.44 | 58.2 | 990 | | semiclear |
| 5 | 5.34 | 59.4 | 1017 | | murky |
| 7 | 5.31 | 61.5 | 1200 | | ↓ |
| 9 | 5.37 | 62.0 | 1388 | | ↓ |

Total Gallons Purged 9 gallons
Depth to Groundwater Before Sampling (below TOC) 1.38 on 1/20/97 @ 1030 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 3 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL DEVELOPMENT FORM

Project Name: K.O.T. Well Number: SC1MW-21

Job No.: 133.004 Well Casing Diameter: 2 inches

Developed By: DWA Date: 4/30/97

TOC Elevation: _____ Weather: sunny

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater (below TOC) 2.15 feet

Feet of Water in Well 15.85 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.5 gallons

Depth Measurement Method (Tape & Paste) / (Electronic Sounder) Other

Development Method disposable bailer

no product
slow recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 7.15 | 18.5 | 3850 | | lightly murky / no odor |
| 3 | 7.11 | 18.0 | 4100 | | |
| 5 | 7.32 | 18.0 | 6000 | | increasing turbidity |
| 7 | 7.22 | 18.0 | 5500 | | |
| 10 | 7.30 | 19.0 | 9250 | | |
| 12 | 7.28 | 19.5 | 11500 | | |
| 15 | | 20.5 | 13000 | | Dry @ 15 gals. |
| 20 | | | | | |
| 25 | | | | | |

Total Gallons Removed 15 gallons

Depth to Groundwater After Development (below TOC) _____ feet

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL DEVELOPMENT FORM

Project Name: K.O.T. Well Number: SCIMW-22

Job No.: 133.004 Well Casing Diameter: 2 inches

Developed By: DWA Date: 4/30/97

TOC Elevation: _____ Weather: Sunny

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater (below TOC) 3.72 feet

Feet of Water in Well 14.28 feet

Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.3 gallons

Depth Measurement Method (Tape & Paste) / (Electronic Sounder) / Other

Development Method disposable bailer

no product
moderate/slow Recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 6.73 | 21.5 | 26,000 | | lightly murky/no odor |
| 3 | 6.70 | 22.0 | 26,250 | | increasing turbidity |
| 5 | 6.70 | 21.0 | 26,000 | | |
| 7 | 6.75 | 21.0 | 26,000 | | |
| 10 | 6.75 | 21.0 | 26,000 | | |
| 12 | 6.80 | 21.0 | 25,500 | | |
| 15 | 6.82 | 21.0 | 27,000 | | |
| 18 | 6.91 | 21.0 | 26,000 | | |
| 20 | 7.07 | 21.5 | 26,500 | | D.W.O @ 20 gals. |

Total Gallons Removed 20 gallons

Depth to Groundwater After Development (below TOC) _____ feet

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL DEVELOPMENT FORM

Project Name: K.O.T. Well Number: SCIMW-23

Job No.: 133.004 Well Casing Diameter: 2 inches

Developed By: DWA Date: 4/30/97

TOC Elevation: _____ Weather: sunny

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater (below TOC) 4.15 feet

Feet of Water in Well 13.85 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.3 gallons

Depth Measurement Method (Tape & Paste) / (Electronic Sounder) / Other

Development Method disposable bailer

no product
slow recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 6.58 | 22.0 | 7000 | | semi-clear, no odor |
| 3 | 6.59 | 21.0 | 7500 | | |
| 5 | 6.66 | 21.5 | 10,750 | | |
| 7 | 6.87 | 21.5 | 15,000 | | |
| 10 | 7.01 | 21.0 | 22,500 | | murky |
| ~~11~~ | 7.06 | 21.0 | 22,000 | | Dry @ 11 gals |
| | | | | | |
| | | | | | |
| | | | | | |

Total Gallons Removed 11 gallons

Depth to Groundwater After Development (below TOC) _____ feet

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL DEVELOPMENT FORM

Project Name: K.O.T. Well Number: SCIMW-24

Job No.: 133.004 Well Casing Diameter: 2 inches

Developed By: DWA Date: 4/30/97

TOC Elevation: _____ Weather: sunny

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater (below TOC) 5.14 feet

Feet of Water in Well 12.86 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.1 gallons

Depth Measurement Method (Tape & Paste) / (Electronic Sounder) / Other

Development Method disposable bailer

Hydrocarbon odor

fast recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 6.78 | 23.5 | 5000 | | murky/strong odor |
| 3 | 6.89 | 23.0 | 5000 | | |
| 5 | 6.88 | 23.0 | 4600 | | |
| 7 | 6.92 | 22.5 | 4350 | | |
| 10 | 6.93 | 22.5 | 4375 | | |
| 12 | 6.97 | 22.5 | 4125 | | decreasing odor/turbidity |
| 15 | 6.95 | 23.0 | 3900 | | |
| 20 | 6.90 | 23.0 | 3825 | | |
| 25 | 6.91 | 22.5 | 3875 | | |

Total Gallons Removed 25 gallons

Depth to Groundwater After Development (below TOC) 5.33 feet

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL DEVELOPMENT FORM

Project Name: K.O.T. Well Number: SC/MW-25

Job No.: 133.004 Well Casing Diameter: 2 inches

Developed By: DWA Date: 5/2/97

TOC Elevation: _____ Weather: sunny

Depth to Casing Bottom (below TOC) 18.00 18.00 feet

Depth to Groundwater (below TOC) ~~8.32~~ .95 feet

Feet of Water in Well 17.05 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.7 gallons

Depth Measurement Method (Tape & Paste) / (Electronic Sounder) / Other

Development Method disposable bailer

no product

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 6.94 | 19.0 | 7000 | | semi-clear/no odor |
| 3 | 6.93 | 18.0 | 9000 | | |
| 5 | 6.94 | 18.5 | 10,500 | | |
| 7 | 7.01 | 18.5 | 13,500 | | increasing turbidity |
| 10 | 7.10 | 18.5 | 17,000 | | |
| 12 | 7.20 | 19.0 | 20,500 | | |
| 15 | 7.33 | 19.0 | 22,000 | | dry @ 15 gals. |
| | | | | | |
| | | | | | |

Total Gallons Removed 15 gallons

Depth to Groundwater After Development (below TOC) _____ feet

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL DEVELOPMENT FORM

Project Name: K.O.T. Well Number: SCIMW-26

Job No.: 133.004 Well Casing Diameter: 2 inches

Developed By: DWA Date: 5/2/97

TOC Elevation: _____ Weather: sunny

Depth to Casing Bottom (below TOC) 19.50 feet

Depth to Groundwater (below TOC) 3.23 feet

Feet of Water in Well 16.27 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.6 gallons

Depth Measurement Method Tape & Paste / Electronic Sounder / Other

Development Method disposable bailer

no product
fast/moderate recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 6.73 | 20.0 | 16,000 | | murky/no odor |
| 3 | 6.71 | 20.0 | 16,000 | | |
| 5 | 6.74 | 20.0 | 16,000 | | |
| 7 | 6.70 | 20.0 | 16,000 | | |
| 10 | 6.72 | 20.0 | 16,000 | | |
| 12 | 6.75 | 20.0 | 16,000 | | |
| 15 | 6.79 | 20.0 | 16,750 | | |
| 20 | 6.99 | 19.0 | 18,500 | | increasing turbidity w/ well drawdown |
| 25 | 7.15 | 20.0 | 18,000 | | |
| 30 | 7.16 | 20.0 | 18,750 | | |

Total Gallons Removed 30 gallons

Depth to Groundwater After Development (below TOC) 15.17 feet

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL DEVELOPMENT FORM

Project Name: K.O.T. Well Number: SCI MW-27

Job No.: 133004 Well Casing Diameter: 2 inches

Developed By: DWA Date: 5/2/97

TOC Elevation: _____ Weather: Sunny

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater (below TOC) 4.99 feet

Feet of Water in Well 13.01 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.1 gallons

Depth Measurement Method (Tape & Paste) / (Electronic Sounder) / Other

Development Method disposable bailer

no product
slow recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 7.00 | 16.5 | 12,500 | | lightly murky / no odor |
| 3 | 6.90 | 16.5 | 13,500 | | decreasing turbidity |
| 5 | 6.89 | 16.5 | 14,750 | | |
| 7 | 7.02 | 17.0 | 16,000 | | |
| 10 | 7.17 | 17.0 | 20,000 | | increasing turbidity near well bottom |
| 12 | 7.19 | 17.0 | 20,000 | | dry @ 12 gals. |
| | | | | | |
| | | | | | |
| | | | | | |

Total Gallons Removed 12 gallons

Depth to Groundwater After Development (below TOC) _____ feet

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

# WELL DEVELOPMENT FORM

Project Name: K.O.T. Well Number: SCI MW-28

Job No.: 133.004 Well Casing Diameter: 2 inches

Developed By: DWF Date: 5/2/97

TOC Elevation: _____ Weather: Sunny

Depth to Casing Bottom (below TOC) 20.00 feet

Depth to Groundwater (below TOC) 4.91 feet

Feet of Water in Well 15.09 feet

Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.5 gallons

Depth Measurement Method (Tape & Paste) / (Electronic Sounder) / Other

Development Method disposable bailer

no product
moderate/slow recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 6.54 | 15.5 | 7.95 | | muddy/no odor |
| 3 | 6.58 | 15.5 | 1050 | | |
| 5 | 6.79 | 15.5 | 2375 | | decreasing turbidity |
| 7 | 7.09 | 15.5 | 4150 | | |
| 10 | 7.19 | 16.0 | 6500 | | increasing turbidity near well bottom |
| 12 | 7.19 | 11.5 | 2000 | | |
| 15 | 7.17 | 16.5 | 11,500 | | |
| 16 | | | | | Dry @ 16 gals. |
| | | | | | |

Total Gallons Removed 16 gallons

Depth to Groundwater After Development (below TOC) _____ feet

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# WELL DEVELOPMENT FORM

Project Name: 9th Ave. Terminal
Well Number: SC1 MW-29
Job No.: 133,004
Well Casing Diameter: 2 inches
Developed By: DWA
Date: 5/15/97
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 19.00 feet
Depth to Groundwater (below TOC) 5.68 feet
Feet of Water in Well 13.32 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.2 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Development Method disposable bailer

recharge rate = 1/10' per 30 secs.
slow recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 7.10 | 18.0 | 12,750 | | murky / sweet odor |
| 3 | 6.90 | 17.5 | 14,000 | | ↓ |
| 5 | 6.94 | 17.5 | ~~15~~ 15,750 | | ↓ increasing turbidity decreasing odor |
| 7 | 6.93 | 17.5 | 17,750 | | |
| 9 | 6.97 | 18.0 | 20,000 | | ↓ |
| 12 | 7.00 | 18.0 | 21,000 | | darker color |
| 13 | 7.20 | 18.0 | 21,000 | | dry @ 13 gals |
| | | | | | |
| | | | | | |

Total Gallons Removed 13 gallons
Depth to Groundwater After Development (below TOC) 18.10' feet

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

# WELL SAMPLING FORM

Project Name: K.O.T. / 9th Ave. Terminal  Well Number: MW-5

Job No.: 133.004  Well Casing Diameter: 2 inch

Sampled By: DWA  Date: 5/5/97

TOC Elevation: _____  Weather: Sunny

Depth to Casing Bottom (below TOC) 19.50 feet

Depth to Groundwater (below TOC) 5.39 feet

Feet of Water in Well 14.11 feet

Depth to Groundwater When 80% Recovered 8.21 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.3 gallons

Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other

Free Product none

Purge Method disposable bailer

Very slow recharge (overnight)

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| ~~2~~ 1 | 6.82 | 19.5 | 2500 | | clear/strong odor |
| ~~4~~ 3 | 6.59 | 18.5 | 8000 | | semi-clear |
| ~~6~~ 5 | 6.68 | 18.5 | 14,500 | | ↓ |
| ~~8~~ 7 | 6.81 | 19.0 | 21,500 | | cloudy |
| 9 | 6.97 | 19.5 | 26,000 | | increasing turbidity dry @ 9 gals |

Total Gallons Purged 9 gallons

Depth to Groundwater Before Sampling (below TOC) 5.55 on 5/6/97 feet

Sampling Method disposable bailer

Containers Used 7 (40 ml) 4 (liter) _____ (pint)

| Subsurface Consultants | JOB NUMBER | DATE | APPROVED | PLATE |
|---|---|---|---|---|

# WELL SAMPLING FORM

Project Name: K.O.T. / 19th Ave. Terminal  Well Number: MW-6

Job No.: 133.004  Well Casing Diameter: 2 inch

Sampled By: DWA  Date: 5/5/95

TOC Elevation: _____  Weather: Sunny

Depth to Casing Bottom (below TOC) 20' 6" (20.50) feet

Depth to Groundwater (below TOC) 4' 9 7/8" (4.83) feet

Feet of Water in Well 15' 8 1/8" (15.67) feet

Depth to Groundwater When 80% Recovered 7.96 feet

Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.6 gallons

Depth Measurement Method Tape & Paste / Electronic Sounder / Other

Free Product 1/2" in skimmer - thin unmeasurable ring in bailer

Purge Method disposable bailer

moderate/slow (overnight)

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 6.46 | 21.5 | 14,000 | | murky / strong odor |
| 3 | 6.48 | 20.5 | 15,000 | | semi-clear |
| 5 | 6.50 | 20.5 | 16,000 | | decreasing product |
| 7 | 6.51 | 20.5 | 20,500 | | |
| 9 | 6.68 | 21.0 | 26,000 | | |

floating globs of product

Total Gallons Purged 9 gallons

Depth to Groundwater Before Sampling (below TOC) 4' 3/4" feet

Sampling Method disposable bailer

Containers Used 7 (40 ml) 4 (liter) _____ (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

## WELL SAMPLING FORM

Project Name: K.O.T./9th Ave. Terminal
Well Number: SC1 MW-31

Job No.: 133.004
Well Casing Diameter: 2 inches

Sampled By: DWA
Date: 5/5/97

TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater Before Purging (below TOC) 2.23 feet

Feet of Water in Well 15.77 feet

Depth to Groundwater When 80% Recovered 5.38 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.6 gallons

Depth Measurement Method: Tape & Paste / (Electronic Sounder) / Other

Free Product: none

Purge Method: disposable bailer
slow recharge (overnight)

## FIELD MEASUREMENTS

| Gallons Removed | Time | pH | Temp (°C / °F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|---|
| 2 | | 7.14 | 20.0 | 3825 | | semi-clear/no odor |
| 4 | | 7.16 | 18.5 | 5000 | | ↓ |
| 6 | | 7.12 | 19.0 | 7000 | | ↓ |
| 8 | | 7.07 | 19.0 | 10,250 | | murky |
| 10 | | 7.08 | 19.5 | 11,250 | | increasing turbidity |
| 12 | | 6.94 | 20.0 | 15,000 | | Dry @ 12 gals. |

Total Gallons Purged 12 gallons

Depth to Groundwater Before Sampling (below TOC) 2.26 on 5/6/97 feet

Sampling Method: disposable bailer

Containers Used: 3 (40 ml) 4 6 (liter) 4 (pint)

## DRUM STATUS

Number of drums at the site

Date and Content

Condition

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

## WELL SAMPLING FORM

Project Name: K.O.T. / 9th Ave. Terminal
Well Number: SciMW-22
Job No.: 133.004
Well Casing Diameter: 2 inches
Sampled By: DWA
Date: 5/5/95
TOC Elevation:
Weather: Sunny
Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater Before Purging (below TOC) 3.78 feet
Feet of Water in Well 14.22 feet
Depth to Groundwater When 80% Recovered 6.62 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.3 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

Recharge rate = 1" / 10 per 10 secs. moderate

### FIELD MEASUREMENTS

| Gallons Removed | Time | pH | Temp (°C / °F) | Conductivity (micromhos/cm) | Salinity S‰ | Comments |
|---|---|---|---|---|---|---|
| 1 | | 6.69 | 22.0 | 26,000 | | Murky/no odor |
| 3 | | 6.63 | 21.0 | 27,000 | | |
| 5 | | 6.67 | 21.0 | 28,000 | | |
| 7 | | 6.66 | 21.0 | 27,000 | | |
| 9 | | 6.72 | 21.5 | 28,500 | | |

Total Gallons Purged 9 gallons
Depth to Groundwater Before Sampling (below TOC) 3.73 on 5/6/95 feet
Sampling Method disposable bailer
Containers Used 7 (40 ml) 6 (liter) ~~4~~ 2 (pint)

### DRUM STATUS

Number of drums at the site
Date and Content
Condition

| Subsurface Consultants | JOB NUMBER | DATE | APPROVED | PLATE |
|---|---|---|---|---|

## WELL SAMPLING FORM

Project Name: K.O.T. / 9th Ave. Terminal
Well Number: SCI MW-23
Job No.: 133.004
Well Casing Diameter: 2 inches
Sampled By: DWA
Date: 5/5/97
TOC Elevation:
Weather: Sunny
Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater Before Purging (below TOC) 4.19 feet
Feet of Water in Well 13.81 feet
Depth to Groundwater When 80% Recovered 6.95 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.3 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

Recharge rate = 1/10 per 90 secs.
slow (overnight)

### FIELD MEASUREMENTS

| Gallons Removed | Time | pH | Temp (°C / °F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|---|
| 1 | | 6.70 | 21.5 | 8000 | | semi-clear / no odor |
| 3 | | 6.67 | 21.0 | 8750 | | ↓ |
| 5 | | 6.62 | 20.5 | 11,000 | | decreasing turbidity |
| 7 | | 6.76 | 20.5 | 17,000 | | ↓ |
| 9 | | 6.80 | 21.0 | 22,000 | | semi-clear Dry @ 9 gals |

Total Gallons Purged 9 gallons
Depth to Groundwater Before Sampling (below TOC) 5.27 on 5/6/97 feet
Sampling Method disposable bailer
Containers Used ____ 40 ml; 7 liter; ____ pint; ____

### DRUM STATUS

Number of drums at the site
Date and Content
Condition

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

## WELL SAMPLING FORM

Project Name: K.O.T. 19th Ave. Terminal
Well Number: SC1 MW-24
Job No.: 133.004
Well Casing Diameter: 2 inches
Sampled By: DWA
Date: 5/6/97
TOC Elevation:
Weather: sunny
Depth to Casing Bottom (below TOC) 18.00 feet
Depth to Groundwater Before Purging (below TOC) 5.30 feet
Feet of Water in Well 12.70 feet
Depth to Groundwater When 80% Recovered 7.84 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.1 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
fast recharge

### FIELD MEASUREMENTS

| Gallons Removed | Time | pH | Temp (°C / °F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|---|
| 1 | | 6.65 | 22.0 | 5500 | | murky / strong odor |
| 3 | | 6.74 | 23.0 | 5500 | | ↓ |
| 5 | | 6.77 | 22.5 | 5000 | | ↓ |
| 7 | | 6.77 | 22.0 | 5000 | | ↓ |
| | | | | | | |

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 5.30 on ~~5/6/97~~ feet
Sampling Method disposable bailer
Containers Used 7 (40 ml) ~~7~~ (liter) (pint)

### DRUM STATUS

Number of drums at the site
Date and Content
Condition

| Subsurface Consultants | JOB NUMBER | DATE | APPROVED | PLATE |
|---|---|---|---|---|

# WELL SAMPLING FORM

Project Name: K.O.T./9th Ave. Terminals  Well Number: SC1 MW-25

Job No.: 133.004  Well Casing Diameter: 2 inch

Sampled By: DJA  Date: 5/6/97

TOC Elevation: _____  Weather: Sunny

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater (below TOC) 1.00 feet

Feet of Water in Well 17.00 feet

Depth to Groundwater When 80% Recovered 4.40 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.7 gallons

Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other

Free Product none

Purge Method disposable bailer

Recharge rate = 1" per 3 mins. slow

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 7.03 | 17.0 | 7000 | | semi-clear/no odor |
| 3 | 6.89 | 17.0 | 7250 | | |
| 5 | 6.93 | 16.5 | 9750 | | |
| 7 | 6.93 | 16.0 | 12,000 | | |
| 9 | 7.01 | 16.0 | 15,000 | | |

Total Gallons Purged 9 gallons

Depth to Groundwater Before Sampling (below TOC) 1.41 on 5/7/97 feet

Sampling Method disposable bailer

Containers Used 7 (40 ml) 5 (liter) _____ (pint)

Subsurface Consultants

JOB NUMBER  DATE  APPROVED  PLATE

# WELL SAMPLING FORM

Project Name: K.O.T./9th Ave. Terminal
Well Number: SC1MW-26

Job No.: 133004
Well Casing Diameter: 2 inch

Sampled By: DWA
Date: 5/6/99

TOC Elevation: _____
Weather: Sunny

Depth to Casing Bottom (below TOC) 19.00 feet

Depth to Groundwater (below TOC) 3.18 feet

Feet of Water in Well 15.82 feet

Depth to Groundwater When 80% Recovered 6.34 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) ~~6.5~~ 2.5 gallons

Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other

Free Product none

Purge Method disposable bailer

fast recharge

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 2 | 6.72 | 23.0 | 18,500 | | muddy / :-odor |
| 4 | 6.73 | 22.5 | 18,000 | | |
| 6 | 6.73 | 22.5 | 18,000 | | |
| 8 | 6.74 | 22.0 | 18,250 | | |
| | | | | | |

Total Gallons Purged 8 gallons

Depth to Groundwater Before Sampling (below TOC) 5.06 feet

Sampling Method disposible bailer

Containers Used 7 (40 ml) 5 (liter) _____ (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

## WELL SAMPLING FORM

Project Name: K.O.T. / 19th Ave. Terminal
Well Number: SC1 MW-27

Job No.: 133.004
Well Casing Diameter: 2 inches

Sampled By: DWA
Date: 5/5/97

TOC Elevation:
Weather: sunny

Depth to Casing Bottom (below TOC) 18.00 feet

Depth to Groundwater Before Purging (below TOC) 4.98 feet

Feet of Water in Well 13.02 feet

Depth to Groundwater When 80% Recovered 7.58 feet

Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.1 gallons

Depth Measurement Method: Tape & Paste / (Electronic Sounder) / Other

Free Product: none

Purge Method: disposable bailer

recharge rate = 1/10" per 2 mins.
slow (overnight)

### FIELD MEASUREMENTS

| Gallons Removed | Time | pH | Temp (°C / °F) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|---|
| 1 | | 6.94 | 20.5 | 13,500 | | semi-clear / slight odor |
| 3 | | 6.87 | 19.0 | 14,250 | | murky |
| 5 | | 6.83 | 18.5 | 15,000 | | increasing turbidity |
| 7 | | 6.92 | 19.0 | 18,750 | | ↓ |
| 9 | | 6.97 | 19.5 | 20,000 | | |

Total Gallons Purged 9 gallons

Depth to Groundwater Before Sampling (below TOC) 4.98 on 5/6/97 feet

Sampling Method: disposable bailer

Containers Used: 7 (40 ml) 5 (liter) (pint)

### DRUM STATUS

Number of drums at the site

Date and Content

Condition

Subsurface Consultants

JOB NUMBER DATE APPROVED

PLATE

# WELL SAMPLING FORM

Project Name: K.O./9th Ave. Terminal
Well Number: SC1 MW-28
Job No.: 133.004
Well Casing Diameter: 2 inch
Sampled By: DWT
Date: 5/6/97
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 20.00 feet
Depth to Groundwater (below TOC) 4.96 feet
Feet of Water in Well 15.04 feet
Depth to Groundwater When 80% Recovered 7.97 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.5 gallons
Depth Measurement Method Tape & Paste (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
Recharge Rate = 1/10' per 2 mins.

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 2 | 6.62 | 20.0 | 900 | | tea colored, sweet semi-clear / no odor |
| 4 | 6.97 | 19.0 | 2100 | | ↓ decreasing ~~color~~ color turbidity |
| 6 | 7.10 | 18.5 | 4500 | | |
| 8 | 7.11 | 18.5 | 7250 | | semi-clear |
| | | | | | |

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 4.91 on 5/7/97 feet
Sampling Method disposable bailer
Containers Used 3 (40 ml) 6 (liter) (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

# WELL SAMPLING FORM

Project Name: 9th Ave. Terminal
Well Number: SCI MW-29
Job No.: 133.004
Well Casing Diameter: 2 inch
Sampled By: DWH
Date: 5/19/97
TOC Elevation:
Weather: sunny

Depth to Casing Bottom (below TOC) 19.00 feet
Depth to Groundwater (below TOC) 5.58 feet
Feet of Water in Well 13.42 feet
Depth to Groundwater When 80% Recovered 8.26 feet
Casing Volume (feet of water x Casing DIA $^2$ x 0.0408) 2.2 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

Recharge rate = 4 mins per 1/10' very slow (overnight)

## FIELD MEASUREMENTS

| Gallons Removed | pH | Temp (°c) | Conductivity (micromhos/cm) | Salinity S% | Comments |
|---|---|---|---|---|---|
| 1 | 7.02 | 17.5 | 11,500 | | semi-clear/no odor |
| 3 | 6.90 | 17.0 | 12,750 | | slight sweet odor when agitated |
| 5 | 6.92 | 17.0 | 15,000 | | ↓ |
| 7 | 6.88 | 17.0 | 16,750 | | |
| | | | | | |

Total Gallons Purged 7 gallons
Depth to Groundwater Before Sampling (below TOC) 5.72 on 5/20/97 @ 13:30 feet
Sampling Method disposable bailer
Containers Used 7 (40 ml) 5 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

# GROUNDWATER DEPTHS

Project Name: KOT

Job No.: 133.005

Measured by: DWA/J.S.

| Well | Date | Time | Groundwater Depth (feet) | Comments |
|---|---|---|---|---|
| MW-1 | 12/30/96 | 12:45 | 4.25 | |
| MW-2 | | 11:20 | 3.92 | |
| MW-3 | | 11:05 | 4.84 | |
| MW-4 | | 11:40 | 2.94 | .4" product in skimmer - no measurable product in well |
| MW-5 | | 11:30 | 2.42 | |
| MW-6 | | 11:55 | 4.55 | .3" product in skimmer - no measurable product in well |
| MW-7 | | 12:10 | 3.62 | |
| SCIMW-1 | | 13:00 | 4.66 | |
| SCIMW-2 | | 12:40 | 4.57 | |
| SCIMW-3 | | 13:50 | 5.49 | |
| SCIMW-4 | | 12:50 | 1.00 | |
| SCIMW-5 | | 12:25 | 4.21 | |
| SCIMW-6 | | 12:30 | 5.60 | |
| SCIMW-7 | | 13:15 | 4.73 | |
| SCIMW-8 | | 13:35 | 4.98 | |
| SCIMW-9 | | 13:45 | 4.51 | |
| SCIMW-10 | | 13:25 | 4.60 | |
| SCIMW-11 | | 14:00 | 3.56 | |
| SCIMW-12 | | 14:05 | 5.12 | |
| SCIMW-13 | | 13:30 | 5.70 | |
| SCIMW-14 | | 14:15 | 7.89 | |
| SCIMW-15 | | 14:10 | 8.36 | |
| SCIMW-16 | | 14:30 | 3.19 | |
| SCIMW-17 | | 14:40 | .18 | |
| SCIMW-18 | | 13:55 | 3.60 | |
| SCIMW-19 | | 13:10 | 2.59 | |
| SCIMW-20 | | 13:05 | 1.12 | |
| Manhole | | 14:20 | 6.22 | immeasurable amount of free product |

# GROUNDWATER DEPTHS

Project Name: KOT

Job No.: 133.005

Measured by: DWA

| Well | Date | Time | Groundwater Depth (feet) | Comments |
|---|---|---|---|---|
| MW-1 | 1/16/97 | 1040 | 4.37 | |
| MW-2 | | 1035 | 3.99 | |
| MW-3 | | 0955 | 4.73 | |
| MW-4 | | 1015 | ~~3.58~~ 3.22 | No measurable product |
| MW-5 | | 1030 | 3.46 | |
| MW-6 | | 1010 | 4' 2 3/4" | Top of Product = 4' ~~3 3/4~~" |
| MW-7 | | 1125 | 3.65 | |
| SCI MW-1 | | 0805 | 5.08 | |
| SCI MW-2 | | 1055 | 6.10 | |
| SCI MW-3 | | 0855 | 5.41 | |
| SCI MW-4 | | 1045 | 1.60 | |
| SCI MW-5 | | 11:15 | 4.07 | |
| SCI MW-6 | | 11:10 | 5.87 | |
| SCI MW-7 | | 0825 | 4.94 | |
| SCI MW-8 | | 0845 | 5.11 | |
| SCI MW-9 | | 0930 on 1/20/97 | 4.66 | |
| SCI MW-10 | | 0910 | 4.69 | |
| SCI MW-11 | | 0920 | 5.17 | |
| SCI MW-12 | | 0925 | 6.41 | |
| SCI MW-13 | | ~~0900~~ | ~~4.59~~ 5.63 | Taken on 1/23/97 |
| SCI MW-14 | | 0935 | 8.00 | |
| SCI MW-15 | | 0930 | 8.44 | |
| SCI MW-16 | | 0840 | 3.37 | |
| SCI MW-17 | | 0830 | 2.47 | |
| SCI MW-18 | | 0915 | 3.83 | |
| SCI MW-19 | | ~~0820~~ | 3.04 | |
| SCI MW-20 | | 0945 | 1.44 | |
| Manhole | ↓ | 0900 | 8.00 | Top of Product = 8' Thin ring ~1/4" on inside of barrel |

# GROUNDWATER DEPTHS

Project Name: KOT

Job No.: 133.005

Measured by: DWA

| Well | Date | Time | Groundwater Depth (feet) | Comments |
|---|---|---|---|---|
| MW-1 | 2/28/97 | 1055 | 4.00 | |
| MW-2 | | 1050 | 3.88 | |
| MW-3 | | 3/5/97 @ 1000 | 4.69 | inaccessable |
| MW-4 | | 1030 | 3.78 | NO measurable product in skimmer/well |
| MW-5 | | 1015 | 5.14 | |
| MW-6 | | 1025 | 4' 6 29/64" | Top of Product = 4' 6 5/8" Product thickness = 1/64" 1/2" product in skimmer |
| MW-7 | | 1110 | 3.71 | |
| SCIMW-1 | | 0815 | 5.38 | |
| SCIMW-2 | | 1125 | 7.04 | WEST BOLLARD PARTIALLY KNOCKED OVER |
| SCIMW-3 | | 0930 | 5.27 | |
| SCIMW-4 | | 1100 | 2.16 | |
| SCIMW-5 | | 1115 | 4.74 | |
| SCIMW-6 | | 1120 | 7.00 | |
| SCIMW-7 | | 0840 | 4.85 | |
| SCIMW-8 | | 0945 | 5.42 | |
| SCIMW-9 | | | | inaccesable |
| SCIMW-10 | | 3/5/97 @ 1015 | 4.47 | inaccesable |
| SCIMW-11 | | 0900 | 6.60 | |
| SCIMW-12 | | 0910 | 7.19 | |
| SCIMW-13 | | 0850 | 5.31 | |
| SCIMW-14 | | 0925 | 8.48 | |
| SCIMW-15 | | 0915 | 8.54 | |
| SCIMW-16 | | 0955 | 3.47 | |
| SCIMW-17 | | 1000 | 2.63 | |
| SCIMW-18 | | 0855 | 3.56 | |
| SCIMW-19 | | 0835 | 3.69 | |
| SCIMW-20 | | 0825 | 1.60 | |
| Manhole | | 0935 | 8'5" to top of product — thin ring 1/64" thick | |

# GROUNDWATER DEPTHS

Project Name: KOT

SCJ No.: 133.005

Measured by: DWA

| Well | Date | Time | Groundwater Depth (feet) | Comments |
|---|---|---|---|---|
| MW-1 | 3/26/97 | 1040 | 4.80 | |
| MW-2 | | 1015 | 3.83 | |
| MW-3 | | 1000 | 4.76 | |
| MW-4 | | 1020 | 3.90 | No Product in well – 5ml in skimmer chamber |
| MW-5 | | 1010 | 5.28 | |
| MW-6 | | 1030 | 4' 6½" | Top of Product - 4'6½" no " in well/skimmer ~~Product Thickness = Bailed~~ |
| MW-7 | | 1050 | 3.71 | |
| SC1MW-1 | | 0815 | 5.54 | |
| SC1MW-2 | | 1105 | 6.59 | |
| SC1MW-3 | | 0930 | 4.98 | |
| SC1MW-4 | | 1045 | 2.68 | |
| SC1MW-5 | | 1055 | 4.53 | |
| SC1MW-6 | | 1100 | 6.54 | |
| SC1MW-7 | | 0840 | 4.94 | |
| SC1MW-8 | | 0850 | 5.39 | |
| SC1MW-9 | | 0845 | 4.60 | |
| SC1MW-10 | | 0900 | 4.33 | |
| SC1MW-11 | | 0910 | 6.85 | |
| SC1MW-12 | | 0915 | 7.24 | |
| SC1MW-13 | | 0855 | 5.14 | Black oily globs on probe tip of sounder |
| SC1MW-14 | | 0925 | 8.34 | |
| SC1MW-15 | | 0920 | 8.57 | |
| SC1MW-16 | | 0945 | 3.39 | |
| SC1MW-17 | | 0950 | 2.51 | |
| SC1MW-18 | | 0905 | 4.70 | |
| SC1MW-19 | | 0835 | 3.69 | |
| SC1MW-20 | | 0820 | 1.54 | well covered over by tractor trailer - inaccessable sampling |
| Man hole | | 0940 | 8' 5" | top of product 8'5" no measurable product |

# GROUNDWATER DEPTHS

Project Name: KOT / 9th Ave. Terminal

Job No.: 133.004

Measured by: DWA

| Well | Date | Time | Groundwater Depth (feet) | Comments |
|---|---|---|---|---|
| MW-1 | 5/5/97 | 0940 | 5.02 | |
| MW-2 | | 0930 | 3.85 | |
| MW-3 | | 0935 | 4.69 | |
| MW-4 | | 1045 | 3.92 | No Measurable product - 1/8" in skimmer |
| MW-5 | | 1040 | 5.39 | |
| MW-6 | | 1050 | 4' 9 7/8" | Top of Product - 4' 9 7/8" - product thickness = thin film<br>1/2" in skimmer " Bailed = unmeasurable |
| MW-7 | | 1035 | 3.80 | |
| SCI MW-1 | | 0715 | 5.86 | |
| SciMW-2 | | 1005 | 7.03 | |
| SCIMW-3 | | 0830 | 4.93 | |
| SciMW-4 | | 0945 | 3.21 | |
| SCIMW-5 | | 0955 | 4.49 | |
| SciMW-6 | | 1000 | ~~5.86~~ 6.72 | |
| SCIMW-7 | | 0735 | 5.13 | |
| SCIMW-8 | | 0815 | 5.40 | |
| SCIMW-9 | | 0820 | 4.65 | |
| SCIMW-10 | | 0920 | 4.21 | |
| SCIMW-11 | | 0855 | 6.94 | |
| SciMW-12 | | 0905 | 7.26 | |
| SciMW-13 | | 0845 | 4' 11 7/8" | occasional BLOBS OF DK BROWN OILY SUBSTANCE<br>NOT MEASURABLE |
| SCIMW-14 | | 0915 | 8.30 | |
| SCIMW-15 | | 0910 | 8.73 | |
| SciMW-16 | | 0810 | 3.27 | |
| SCIMW-17 | | 0800 | 2.63 | |
| SCIMW-18 | | 0850 | 3.36 | |
| SCIMW-19 | | ~~0725~~ | 3.82 | |
| SCIMW-20 | | 0750 | 1.65 | |

# GROUNDWATER DEPTHS

Project Name:

Job No.: 133.004

Measured by:

| Well | Date | Time | Groundwater Depth (feet) | Comments |
|---|---|---|---|---|
| SCIMW-21 | 5/5/97 | 0950 | 2.23 | |
| SCIMW-22 | | 1020 | 3.78 | |
| SCIMW-23 | | 1015 | 4.19 | |
| SCIMW-24 | | 0900 | 5.30 | |
| SCIMW-25 | | 0755 | 1.00 | |
| SCIMW-26 | | 1030 | 3.18 | |
| SCIMW-27 | | 0925 | 4.98 | |
| SCIMW-28 | | 0745 | 4.96 | |
| Caddie | ↓ | 0825 | 8'6 1/16" | Top of Product 8½" Product thickness - 1/16" |

# ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600
FAX (510) 462-3914


## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Ninth Avenue Terminal
7th, 8th, 9th & 10th Avenues, Embarcadero Rd
De Fremery, Oakland

CLIENT
Name Port of Oakland Jeff Rubin
Address 530 Water St. Voice 272-1118
City Oakland Zip 94604-2064

APPLICANT
Name Subsurface Consultants, Inc.
Jeriann Alexander Fax 299-7970
Address 3736 Mt Diablo Blvd Voice 299-7960
City Lafayette Zip 94549

TYPE OF PROJECT

| | | | |
|---|---|---|---|
| Construction | | Geotechnical Investigation | |
| Cathodic Protection | ___ | General | ___ |
| Water Supply | ___ | Contamination | X |
| Monitoring | ___ | Well Destruction | ___ |

PROPOSED WATER SUPPLY WELL USE

| | | | | | |
|---|---|---|---|---|---|
| Domestic | ___ | Industrial | ___ | Other | ___ |
| Municipal | ___ | Irrigation | ___ | | |

DRILLING METHOD:

| | | | | | |
|---|---|---|---|---|---|
| Mud Rotary | ___ | Air Rotary | ___ | Auger | ___ |
| Cable | ___ | Other | Enviro core | | |

DRILLER'S LICENSE NO. 636387 (Precision)

WELL PROJECTS

| | | | | | |
|---|---|---|---|---|---|
| Drill Hole Diameter | ___ | in. | Maximum | | |
| Casing Diameter | ___ | in. | Depth | ~~5~~ 22 | ft. |
| Surface Seal Depth | ___ | ft. | Number | ~~2~~ | |

GEOTECHNICAL PROJECTS

| | | | | | |
|---|---|---|---|---|---|
| Number of Borings | 21 | | Maximum | | |
| Hole Diameter | 2 | in. | Depth | 15 | ft. |

ESTIMATED STARTING DATE 1/21/97
ESTIMATED COMPLETION DATE 1/24/97

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Jeriann Alexander Date 1/16/97

FOR OFFICE USE

PERMIT NUMBER 97042
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL
(1.) A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
(3.) Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 17 Jan 97
Wymar. Hong

91992

# ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE. PLEASANTON, CALIFORNIA 94588-5127 PHONE (510) 484-2600 X235
FAX (510) 462-3914


## DRILLING PERMIT APPLICATION

### FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Ninth Avenue Terminal
7th, 8th 9th 10th Avenues and Embarcadero
Port of Oakland, Oakland, CA

California Coordinates Source USGS Topo ft. Accuracy ± ____ ft.
CCN 475,000 ft. CCE 1,490,000 ft.
APN ____

CLIENT
Name Port of Oakland / Michele Heffes
Address 530 Water Street Phone 272-1100
City Oakland, CA Zip 94604

APPLICANT
Name Subsurface Consultants, Inc. / Jerome de Lemos
Fax 299-7970
Address 3336 Mt. Diablo Blvd Suite 210 Phone 299-7960
City Lafayette, CA Zip 94549

TYPE OF PROJECT

Well Construction
- Cathodic Protection ☐
- Water Supply ☐
- Monitoring ☒

Geotechnical Investigation
- General ☐
- Contamination ☐
- Well Destruction ☐

PROPOSED WATER SUPPLY WELL USE
- New Domestic ☐
- Municipal ☐
- Industrial ☐
- Replacement Domestic ☐
- Irrigation ☐
- Other ____ ☐

N/A

DRILLING METHOD:
- Mud Rotary ☐
- Air Rotary ☐
- Auger ☒
- Cable ☐
- Other ☒ (Enviro-core)

DRILLER'S LICENSE NO. C-57: 522125 ; Precision Sampling: 63387

WELL PROJECTS

| | | | | |
|---|---|---|---|---|
| Drill Hole Diameter | 8 in. (Enviro-core 2½) | Maximum Depth | 20 ft. (Env-1) 20 | F. |
| Casing Diameter | 2 in. (1" Piezo) | | | |
| Surface Seal Depth | 3 ft. N/A | Number | 9 6 | G. |

GEOTECHNICAL PROJECTS
- Number of Borings ____
- Hole Diameter ____ in.
- Maximum Depth ____ ft.

ESTIMATED STARTING DATE April 21, 1997
ESTIMATED COMPLETION DATE May 9, 1997

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Jerome de Lemos Date 4/14/97

### FOR OFFICE USE

PERMIT NUMBER 97248
WELL NUMBER ____
APN ____

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling log and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

(C.) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION. See attached.

G. SPECIAL CONDITIONS

Approved Wyman Hong Date 23 Apr 97
Wyman Hong

1019