EAST BAY
MUNICIPAL UTILITY DISTRICT

June 30, 2008

Mr. Paresh Khatri, Hazardous Materials Specialist
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RE: Request for a Soil and Water Investigation Work Plan for Fuel Leak Case No. RO0000030, EBMUD, 1200 21st Street, Oakland, CA 94607

Dear Mr. Khatri:

The East Bay Municipal Utility District (EBMUD) is in receipt of your May 29, 2008 letter, addressed to Eileen Fanelli who was formerly on my staff, requesting the preparation and submittal of a Soil and Water Investigation Work Plan for the subject site. As explained below, we believe the said work plan is not necessary because the Alameda County Environmental Health Services (ACEHS) has not taken into consideration additional subsurface remediation of the fuel leak that was completed in 1997. We are, instead, submitting a copy of the report that describes the remedial activities that took place to address the subsurface contamination.

Six underground storage tanks (USTs) were removed from the subject site in November 1994. The two largest tanks removed (4,000 and 6,000 gallons) had been used to store gasoline, while the rest either contained some oily fluid or what seemed to be water. Over-excavation was completed at the time of tank removal to a depth of 13' to 16' below ground surface (bgs). Sampling indicated that the highest concentrations of petroleum compounds (TPHgasoline ranging from 1,400 to 2,800 mg/kg) remaining in the perimeter walls of the excavation were located along West Grand Avenue at depths of 4' to 8' bgs and in front of the former service bay portion of the adjacent structure.

As noted in your letter, two subsequent subsurface investigations were conducted. 18 soil borings were completed in January 1995 on and around the property of concern. Then, in October 1996, EBMUD's contractor, Geo Plexus, advanced 15 additional soil borings across the Phase II and Phase III construction areas of the overall Adeline Maintenance Center (AMC) project, including the area of interest. The results, as presented in a January 22, 1997 report titled, "Subsurface Investigation Report and Response to Agency Comments on Addendum No. 2 to Materials Management Plan", indicated that surface soils in the areas of the former USTs and beneath the former auto shop needed to be excavated and removed from the site to mitigate the risk associated with the petroleum compounds. You are concurring with the scope of work proposed in the January 22, 1997 report. However, you are requesting the preparation of a work plan by EBMUD to further characterize the site prior to implementing the proposed remedial alternative which has, in fact, already been implemented.

I understand that Derek Lee of my staff had determined during a recent phone conversation with you that the January 22, 1997 report represents the last correspondence that ACEHS had

received from EBMUD regarding this fuel leak case. For reasons unknown, a final report summarizing the final remediation of this site was never submitted to ACEHS even though it had been prepared. The missing "Final Report, AMC Phase II Construction Materials Management Report", dated June 30, 1998, indicates that additional sampling was conducted in five test pits advanced within the area of concern in May 1997 prior to the June 1997 final remedial excavations. Remedial excavation of the former gasoline station area, adjacent to the locations of the six USTs, proceeded down to 8' to 9' bgs. Approximately 1,300 cubic yards were removed, with confirmation sampling showing compliance with the pre-agreed-upon cleanup levels between ACEHS and EBMUD.[1] Remedial excavation of the former auto shop area was also completed at the same time. It removed around 200 cubic yards of soil, with confirmation sampling again showing compliance with the cleanup levels.

We are submitting this Final Report to complete the file that you have on this site. We believe this report obviates the need to prepare a work plan as requested. It is our opinion that this site no longer presents an environmental or human health risk as the known sources of contamination were removed long ago and over-excavations performed. It should be noted that the remaining petroleum compounds along West Grand Avenue in the perimeter walls of the original 1994 excavation were determined, with concurrence from ACEHS, to have originated from an offsite source across the road. In any event, excavation was extended almost to the point of undermining the road. Additional excavation was determined to be infeasible.

CERTIFICATION

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Should you have any questions, please contact Derek Lee, Senior Environmental Health and Safety Specialist, at (510) 287-1086. Eileen Fanelli has left EBMUD.

Sincerely,

John H. Schroeter, P.E.
Manager of Environmental Compliance

Attachment

[1] EBMUD and ACEHS had agreed that soil within the then proposed footprints of the planned structures would be excavated to concentrations below the 1990 *Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites* and soil outside the proposed footprints would be excavated to concentrations below the predetermined ASTM-RBCA Tier-1 Risk-Based Screening Levels. These cleanup levels are presented in Table 1 of the attached report.

Geo Plexus, Inc.

Health & Safety Training • Geo/Environmental Personnel • Engineering Geology Consultants • Environmental Management Consultants

June 30, 1998

Walsh Pacific Construction
EBMUD Adeline Maintenance Facility
2130-A Adeline Street
Oakland, CA 94607
Attn.: Mr. Eugene Hays

Subject: Transmittal of AMC Phase II Construction Materials Management Final Report for EBMUD Adeline Maintenance Center, Oakland, CA

Dear Mr. Hays:

Geo Plexus, Incorporated is pleased to provide the attached AMC Phase II Construction Materials Management Final Report for the East Bay Municipal Utility District Adeline Maintenance Center, located in Oakland, California.

The attached report summarizes the remedial excavation objectives and threshold criteria and provides documentation (sampling data and analytical test data) for the Phase II construction soil excavation and construction dewatering activities and documents the transportation and off-site disposal of the contaminated soil.

The field observations and analytical test data support our conclusion that the remedial objectives as set forth in the Materials Management Plan (MMP) and in Addendum No. 2 to the MMP were accomplished. Additional investigation or remedial action is not warranted.

It has been a pleasure to be of service to you on this project. Questions or comments regarding the attached report should be addressed to our office.

Respectfully submitted,

Geo Plexus, Incorporated

Kimberly F. Leeds,
President

Cathrene Diane Glick, CEG 1338, HG 32
Director, Geologic and Environmental Services

REGISTERED GEOLOGIST
CATHRENE D. GLICK
No. 1338
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

cc: C95041

1900 Wyatt Drive, Suite 1 • Santa Clara, California 95054 • Phone 408/987-0210 • FAX 408/988-0815

GeoPlexus, Inc.

Health & Safety Training • Geo/Environmental Personnel • Engineering Geology Consultants • Environmental Management Consultants

FINAL REPORT
AMC PHASE II CONSTRUCTION
MATERIALS MANAGEMENT REPORT
EAST BAY MUNICIPAL UTILITY DISTRICT
ADELINE MAINTENANCE CENTER
1200 21st STREET
OAKLAND, CALIFORNIA

prepared for:

Walsh Pacific Construction
EBMUD Adeline Maintenance Facility
2130-A Adeline Street
Oakland, California

and

Special Projects Division
Engineering Department
East Bay Municipal Utility District
375 Eleventh Street
Oakland, California

June 30, 1998

1900 Wyatt Drive, Suite 1 • Santa Clara, California 95054 • Phone 408/987-0210 • FAX 408/988-0815

FINAL REPORT
AMC PHASE II CONSTRUCTION
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EAST BAY MUNICIPAL UTILITY DISTRICT
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1200 21st STREET
OAKLAND, CALIFORNIA

FIGURES

ACRONYMS

AMC	Adeline Maintenance Center
ASTM	American Society for Testing and Materials
BTEX	Volatile Aromatic Compounds (Benzene, Toluene, Ethyl benzene and Xylene)
DHS	State of California Department of Health Services
DTSC	State of California Department of Toxic Substance Control
EBMUD	East Bay Municipal Utility District
EPA	U.S. Environmental Protection Agency
FID	Flame Ionizing Detector
HVOC	Halogenated Volatile Organic Compounds
LUST	Leaking Underground Storage Tank
MMP	Materials Management Plan
OVA	Organic Vapor Analyzer
OVM	Organic Vapor Meter
PID	Photoionization Detector
RBCA	Risk-Based Corrective Action
RBSL	Risk-Based Screening Levels
RCRA	Resource Conservation and Reclamation Act
RWQCB	State of California Regional Water Quality Control Board
STLC	Soluble Threshold Limit Concentration
TPH gas	Total Petroleum Hydrocarbons as gasoline
TPH diesel	Total Petroleum Hydrocarbons as diesel
TTLC	Total Threshold Limit Concentrations
UST	Underground Storage Tank
WPC	Walsh Pacific Construction
VOA	Volatile Organic Analysis
VOC	Volatile Organic Compounds

FINAL REPORT
AMC PHASE II CONSTRUCTION
MATERIALS MANAGEMENT REPORT
EAST BAY MUNICIPAL UTILITY DISTRICT
ADELINE MAINTENANCE CENTER
1200 21st STREET
OAKLAND, CALIFORNIA

1.0 INTRODUCTION

East Bay Municipal Utility District (EBMUD) is constructing a new Adeline Maintenance Center (AMC) at the site of the existing AMC. The AMC site comprises four city blocks, as shown in Figure 1. Walsh Pacific Construction (WPC) has been retained by EBMUD as the design/build contractor for the AMC project which includes demolition of several existing structures, the construction of 5 new buildings, and remodeling of 2 buildings. The construction project is being completed in 3-phases as indicated on Figure 2.

This report addresses the remedial soil excavation activities associated with Phase II of the construction sequence for the planned Shops Building (see Figure 2). Alameda County Health Department is the lead regulatory agency providing oversight of environmental investigations and remedial activities conducted at the site.

1.1 BACKGROUND

Previous environmental investigations of the AMC site have identified localized areas of soil contamination, primarily from the past operation of underground storage tanks. The following reports have been issued to Alameda County Department of Environmental Health to date:

Geo Plexus, Inc., 1995, "Preliminary Site Assessment Report for Adeline Maintenance Facility", prepared for East Bay Municipal Utility District.

Geo Plexus, Inc., January 18, 1996, "Materials Management Plan for Adeline Maintenance Facility", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

Geo Plexus, Inc., January 22, 1996, "Addendum No. 1 Material Management Plan for Adeline Maintenance Facility", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

Geo Plexus, Inc., February 2, 1996, "Response to Alameda County Review Comments on the Material Management Plan for Adeline Maintenance Facility", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

Geo Plexus, Inc., February 2, 1996, "Submittal of Analytical Test Data from Phase 1 Additional Test Pits, EBMUD Adeline Maintenance Center", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

Geo Plexus, Inc., May 29, 1996, "AMC Phase 1- Construction Materials Management Final Report for East Bay Municipal Utility District Adeline Maintenance Center, Oakland, CA" prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

Geo Plexus, Inc., September 12, 1996, "Addendum No. 2 Material Management Plan for EBMUD Adeline Maintenance Facility", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

Geo Plexus, Inc., January 22, 1997, "Subsurface Investigation Report and Response to Alameda County Review Comments on Addendum No. 2 to the Material Management Plan for EBMUD Adeline Maintenance Facility", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

The Materials Management Plan (MMP) for the EBMUD AMC, reference (12), was prepared by Geo Plexus, Inc. to present the general history of the project site, present an evaluation of human and environmental risks associated with the known soil contaminates, present threshold criteria for the soil and ground water, and present phase-specific guidelines for remediation of soil and ground water containing contaminants above the threshold criteria to be implemented during completion of the earthwork associated with the AMC construction.

Addendum No. 1 to the Materials Management Plan, reference (13), was issued to address Alameda County comments on the MMP and to address the planned additional test pit investigation for the Phase 1 construction site and to address the remedial excavation activities for the AMC Phase 1 site. The Phase 1 Construction Materials Management Final Report, reference (17), documented the remedial excavation activities and soil disposal for Phase 1 construction.

Addendum No. 2 to the Materials Management Plan, reference (18), was issued to address the planned additional investigation for the Phase II construction site and to address the remedial excavation activities for the AMC Phase II site.

1.2 PREVIOUS INVESTIGATIVE ACTION

Six underground storage tanks (see Figure 3) were excavated and removed from the property in November, 1994. The native soil material exposed in the sidewalls of the excavation exhibited strong petroleum odors, soil discoloration/staining (gray-green color) and free-product was observed to be leaching from these soils. The excavation for the 4,000 gallon and adjacent concrete encased tanks was extended laterally to the north, east and south to abate the impacted soil (see Figure 3).

The excavation was extended vertically to a depth of 13- to 16-feet below ground surface. Perched water was observed seeping from various locations along the side walls of the excavation and along the sand bedding for the various utility lines (storm sewer, sanitary sewer, water, phone lines, etc.) encountered within the limits of the excavation. Residual, near surface soil contamination remains in-place around the perimeter of the excavation, particularly beneath West Grand Avenue and beneath the former service station building

Subsequent to the tank removal and soil excavation activities, a limited preliminary site assessment was performed, reference (11), which included advancing eighteen exploration borings across the property at the locations indicated on Figure 4. The borings were located to investigate potential areas of subsurface contamination from EBMUD facilities and operations, as well as from previous site uses (as documented by aerial photographs and site records) which included residential housing and commercial office/warehouse structures.

In addition to the former underground storage tanks, Oil and Grease Compounds were detected at concentrations of 13,000-18,000 ppm and TPH diesel was detected at concentrations of 2,200 ppm in the soil samples obtained adjacent to a hydraulic lift inside the Automotive Service Building. Low concentrations of TPH gas and Volatile Organic Compounds were also detected.

Specifics of these investigation activities were presented in the MMP and Addendums No. 1 and No. 2.

1.3 SUPPLEMENTAL INVESTIGATIONS

In October, 1996, Geo Plexus, Inc personnel observed the advancement of 15 additional soil borings across the Phase II and Phase III construction areas to obtain soil samples to further evaluate the petroleum impacted soils and to obtain soil samples for pre-characterization for disposal of the excavated soil. Figure 5 indicates the locations of the additional borings (identified as WB-1 through WB-15). The investigation report, reference (19), also provided responses to Agency comments on Addendum No. 2 to the MMP.

At the request of Walsh Pacific Construction, five (5) additional test pits were advanced within the Phase II construction area on May 6, 1997 to pre-characterize these soils for off-site disposal. The test pits were advanced at locations of planned construction related excavations (i.e, elevator pit, dip tank, etc.) and at locations of previously identified areas of remedial excavation (i.e., gasoline station, auto shop, etc.). Figure 6 indicates the locations of these test pits.

Soil samples from the test pits were obtained utilizing a backhoe and were collected by advancing a pre-cleaned 2 inch I.D. stainless steel liner into the undisturbed soil contained in the backhoe bucket. The soil samples were immediately sealed in the liners using teflon tape and plastic caps and properly labeled including: the date, time, sample location, and project number. The samples were immediately placed in a cooler maintained at 3-5°C for transport to the laboratory under chain-of-custody documentation. These soil samples were submitted to and tested by McCampbell Analytical, a State of California, Department of Health Services certified testing laboratory.

The State certification documents for McCampbell Analytical are included in Appendix A. Analytical testing was scheduled and performed in accordance with the State of California, Regional Water Quality Control Board Recommendations for Initial Evaluation and Investigation of Underground Tanks and Alameda County Department of Environmental Health guidelines.

Since the objectives of these test pits were for disposal characterization, the soil samples were composited by the laboratory and tested for:

Total Petroleum Hydrocarbons as gasoline by Method GCFID 5030/8015
Total Petroleum Hydrocarbons as diesel by Method GCFID 3550/8015
Volatile Aromatics (BTEX and MTBE) by EPA Method 8020
Oil & Grease by EPA Method 5520
Volatile Halocarbons by EPA Method 8010
TCLP Benzene by Method GCFID 5030/8015
CAM 5 Metals by EPA Methods 6000/7000 Series
STLC for Lead and Zinc by EPA Methods 6000/7000 Series

The results of these limited sampling activities were presented in two Geo Plexus Letter Reports dated May 22, 1997, references (21) and (22). The chain-of-custody forms and analytical test data are included in Appendix B.

The composite test sample obtained from the Dip Tank Test Pit, the Auto Shop Test Pit, and Test Pit-2 samples (see Appendix B) contained concentrations of lead at 9.5 ppm. The composite test sample obtained from the Gas Station Test Pit and Test Pit-1 samples contained concentrations of lead at 170 ppm. Based on the analytical testing of the soil samples from the area, the data suggests that the observed high concentration of lead from the gasoline station area was an isolated occurrence and not representative of the area.

2.0 EXCAVATION THRESHOLD CRITERIA

Table 1 presents the updated threshold criteria for soil at the AMC for petroleum hydrocarbon contaminants, VOC's, and PNA's based on the protection of ground water resources from compounds leaching from the soil as established in Addendum No. 2 to the MMP.

TABLE 1

PETROLEUM AND VOC THRESHOLD VALUES FOR SOIL

Constituent	Threshold Values for Within Building Footprint	RBSL Threshold Values for Outside Building Footprint
TPH gas	100 ppm	unlimited
TPH diesel	1,000 ppm	unlimited
Oil & Grease	1,000 ppm	unlimited
Benzene	0.3 ppm	1.67 ppm*
Toluene	0.3 ppm	360 ppm
Ethylbenzene	1 ppm	130 ppm
Xylenes	1 ppm	Res
Napthalene	1 ppm	64 ppm
Benzo(a)pyrene	1 ppm	Res
1,4 Dichlorobenzene	310 ppm	310 ppm
1,1 Dichloroethane	92 ppm	92 ppm
1,2 Dichloroethane	2.5 pm	2.5 pm
Fluoranthene	Res	Res
Phenanthrene	Res	Res
Pyrene	Res	Res
Tetrachloroethane	8,800 ppm	8,800 ppm
1,1,1-Trichloroethane	330 ppm	330 ppm
1,1,2-Trichloroethane	0.42 ppm	0.42 ppm
Trichloroethene	2.4 ppm	2.4 ppm

RBSL - Risk Based Screening Level from RBCA Tier 1 Evaluation.
* Value of 5.82 ppm reduced by 29 percent in accordance with RWQCB guidelines.
Res - selected risk level is not exceeded for pure compound present at any concentration.

Based on the established threshold criteria, EBMUD and Alameda County agreed that soil within the proposed footprints of the planned structures would be excavated to concentrations below the Tri-Regional Guidelines and soil outside the proposed footprints of the planned structures would be excavated to concentrations below the ASTM-RBCA Tier-1 RBSL's. As there are no Tri-Regional Guidelines for VOC's and PNA's, and the calculated RBSL's for soil leaching to ground water are more conservative than calculated RBSL's for soil volatilization indoors, the RBSL's for soil leaching to ground water for these compounds were applied to all areas of the AMC Phase-2 and Phase-3 construction sites.

Threshold Criteria for heavy metal compounds were as stipulated in the California Code of Regulations Title 22 as Total Threshold Limit Concentrations (TTLC) as described in the MMP. TTLC values for the LUFT-5 Metals (for waste oil evaluation) are presented in Table 2.

TABLE 2

HEAVY METAL THRESHOLD VALUES FOR SOIL

Metals of Concern	Threshold Values TTLC
Cadmium	100 ppm
Chromium	2,500 ppm
Lead	1,000 ppm
Nickel	2,000 ppm
Zinc	5,000 ppm

3.0 REMEDIAL ACTION METHODOLOGIES

Based on the established threshold values, the petroleum contaminated soils at the Phase II site requiring removal included the former gasoline service station area and the former automotive service building (see Figure 7). The excavation activities were accomplished by Bay Cities Paving and Grading under contract with WPC under direct oversight by Geo Plexus, Incorporated personnel.

3.1 EXCAVATION PROTOCOLS

The soil removal was accomplished with an excavator and were observed and logged under the direct oversight of a Certified Engineering Geologist from Geo Plexus. The work was scheduled and coordinated with, and observed by, Ms. Julliet Shin with Alameda County Department of Environmental Health.

The soils exposed in the sidewalls and base of the excavations were screened in the field through the use of an Photovac 200 Organic Vapor Meter (OVM) as the excavation proceeded.

3.2 EXCAVATION SOIL CHARACTERIZATION

Soil samples were obtained from the sidewalls and from the base of the excavations as the excavations proceeded to determine the limits of the excavations based on the established threshold criteria and to document and classify the soil materials.

Soil samples were collected from the sidewalls and base of the excavation for analytical testing. The soil samples were obtained by advancing a pre-cleaned 2 inch I.D. brass liner into the undisturbed soil. The soil samples were immediately sealed in the liners using aluminum foil or teflon tape and plastic caps and properly labeled including: the date, time, sample location, and project number. The samples were then placed in a cooler maintained at 3-5°C for transport to the laboratory under chain-of-custody documentation.

The soil samples were submitted to and tested by McCampbell Analytical. Analytical testing was scheduled and performed in accordance with the State of California, Regional Water Quality Control Board Recommendations for Initial Evaluation and Investigation of Underground Tanks and Alameda County Department of Environmental Health guidelines. The testing included:

Total Petroleum Hydrocarbons as gasoline by Method GCFID 5030/8015;
Total Petroleum Hydrocarbons as diesel by Method GCFID 3550/8015;
Oil & Grease by EPA Method 5520
Volatile Aromatics (BTEX) by EPA Method 8020;
Volatile Halocarbons by EPA Method 8010;
PNA's by EPA Method 8270; and
LUFT 5 Metals by EPA 6000/7000 Series.

3.2.1 Former Gasoline Station Excavation

The excavation for the former gasoline station site was initiated immediately north of the previously excavated area and adjacent to West Grand Avenue. The excavation proceeded to the north and west based on field indicators and analytical test data to abate any impacted soil which was exceeded the threshold limits. The excavation extended to the south to encounter the former gravel backfill and ranged from approximately 8- to 9-feet deep.

Figure 8 illustrates the locations of the soil samples obtained throughout the excavation process Approximately 1,300 yards of soil were removed and stockpiled on-site for additional characterization for off-site disposal (discussed in Section 4.0). No additional tanks or sumps were encountered during this activity. The chain-of-custody forms and analytical testing data are included in Appendix C.

Table 3 summarizes the concentrations of TPH gas, TPH diesel, and Benzene detected in the soil samples with reference to the applicable threshold criteria. Where the concentrations of these compounds exceeded the threshold criteria, additional soil was excavated and the area re-sampled.

3.2.2 Former Auto Shop Excavation

The locations of three (3) former hydraulic lifts were excavated to remove the lift cylinders and to obtain verification soil samples. Two of the lifts were contained within concrete encasements while the third consisted of a direct buried ram cylinder and reservoir tank. Approximately 200 yards of soil were removed and stockpiled on-site for additional characterization for off-site disposal (discussed in Section 4.0). Figure 9 illustrates the locations of the soil samples obtained throughout the excavation process. The chain-of-custody forms and analytical testing data are included in Appendix C.

Table 4 summarizes the concentrations of TPH gas, TPH diesel, Oil & Grease, and Benzene detected in the soil samples with reference to the applicable threshold criteria. Where the concentrations of these compounds exceeded the threshold criteria, additional soil was excavated and the area re-sampled.

TABLE 3
SUMMARY OF GASOLINE STATION ANALYTICAL TEST DATA
CONFIRMATION SOIL SAMPLES
GASOLINE, DIESEL AND BENZENE

Sample	TPH gas	TPH diesel	Benzene	Result/ Action
2OX1-S1	N.D.	1.8	N.D.	Below Ext. Bldg. Threshold
2OX1-S2	N.D.	N.D.	N.D.	Below Ext. Bldg. Threshold
2OX1-S3	1.1	N.D.	N.D.	Below Ext. Bldg. Threshold
2OX1-S4	2.0	3.2	N.D.	Below Ext. Bldg. Threshold
2OX1-S5	3.0	3.0	N.D.	Below Ext. Bldg. Threshold
2OX1-S6	N.D.	1.4	N.D.	Below Ext. Bldg. Threshold
2OX1-S7	N.D.	2.6	N.D.	Below Ext. Bldg. Threshold
2OX1-S8	2.7	3.8	0.40	Below Ext. Bldg. Threshold
2OX1-S9	3.1	N.D.	1.1	Below Ext. Bldg. Threshold
2OX1-S10	N.D.	4.0	N.D.	Below Ext. Bldg. Threshold
2OX1-S11	11	7.9	0.055	Below Int. Bldg. Threshold
2OX1-S12	67	27	4.1	Exceeded Int. Bldg. Threshold Area Excavated and Retested
2OX1-S12A	73	44	4.6	Exceeded Int. Bldg. Threshold Area Excavated and Retested
2OX1-S12B	27		0.13	Below Int. Bldg. Threshold
2OX1-S13	4.2	9.7	0.010	Below Ext. Bldg. Threshold
2OX1-S14	N.D.	N.D.	N.D.	Below Ext. Bldg. Threshold
2OX1-S15	4.5	3.8	0.069	Below Ext. Bldg. Threshold
2OX1-S16	6.5	N.D.	0.26	Below Ext. Bldg. Threshold
2OX1-S17	12	5.3	0.29	Below Ext. Bldg. Threshold
2OX1-S18	N.D.	1.2	N.D.	Below Ext. Bldg. Threshold
2OX1-S19	1.2	1.5	0.006	Below Ext. Bldg. Threshold
2OX1-S20	2.6	1,500	N.D.	Exceeded Ext. Bldg. Threshold Area Excavated and Retested
2OX1-S20A	27	42	N.D.	Below Ext. Bldg. Threshold

Notes: Concentrations reported as Parts Per Million (mg/kg).
N.D. indicates that concentrations below detection limit.

TABLE 4
SUMMARY OF AUTO SHOP ANALYTICAL TEST DATA
CONFIRMATION SOIL SAMPLES
GASOLINE, DIESEL, OIL & GREASE AND BENZENE

Sample	TPH gas	TPH diesel	Oil & Grease	Benzene	Result/ Action
HOX1-S1	---	---	---	---	Area Excavated and Retested
HOX1-S2	N.D.	3.3	N.D.	N.D.	Below Ext. Bldg. Threshold
HOX1-S3	N.D.	1.8	N.D.	N.D.	Below Ext. Bldg. Threshold
HOX1-S4	N.D.	3.7	N.D.	N.D.	Below Ext. Bldg. Threshold
HOX1-S5	N.D.	4.7	N.D.	N.D.	Below Ext. Bldg. Threshold
HOX1-S6	N.D.	1.8	N.D.	N.D.	Below Ext. Bldg. Threshold
HOX1-S7	N.D.	3.5	N.D.	N.D.	Below Ext. Bldg. Threshold
HOX1-S8	N.D.	5.6	N.D.	0.040	Below Ext. Bldg. Threshold
HOX1-S9	N.D.	N.D.	N.D.	N.D.	Below Ext. Bldg. Threshold
HOX1-S10	N.D.	N.D.	N.D.	N.D.	Below Ext. Bldg. Threshold
HOX1-S11	N.D.	N.D.	N.D.	N.D.	Below Ext. Bldg. Threshold
2HOX1-S1	67	N.D.	N.D.	4.1	Below Ext. Bldg. Threshold
2HOX1-S2	27	N.D.	N.D.	0.13	Below Ext. Bldg. Threshold
2HOX1-S3	4.2	N.D.	N.D.	0.010	Below Ext. Bldg. Threshold
2HOX1-S4	N.D.	N.D.	N.D.	N.D.	Below Ext. Bldg. Threshold

Notes: Sample 2HOX-S1 not analyzed due to obvious presence of petroleum compounds
Concentrations reported as Parts Per Million (mg/kg).
N.D. indicates that concentrations below detection limit.

In addition, the samples from the hydraulic lift excavations did not contain detectable concentrations of Volatile Halocarbon Compounds or PNA's. The concentrations of Heavy Metals in these samples did not exceed general background concentrations and do not represent an environmental health risk.

The excavation activities were terminated upon reaching the objective threshold criteria as verified by analytical testing of the soil samples.

Additional soil screening was reportedly performed by WPC personnel for the remainder of the construction related excavation activities for the Shops Building (i.e., pile caps, footings, etc.). Based on their reported observations, additional soil contamination above the threshold criteria was not encountered.

3.3 EXCAVATION WATER DISPOSAL

Water seepage (perched water) was observed from various locations along the side walls of the excavations and along the sand bedding for the various utility lines (storm sewer, sanitary sewer, water, electric lines, etc.) encountered within the excavations. The water observed in these shallow areas was not classified as ground water for characterization purposes.

Water seeping into the excavation was pumped from the excavation to a 20,000 gallon Baker tank and was treated by an activated carbon filter system (consisting of two Cameron-Yakima WSU-55 canisters) prior to discharged to the sanitary sewer under permit conditions from East Bay Municipal Utility District.

4.0 EXCAVATED SOIL TRANSPORT AND DISPOSAL

The soil material generated during the excavation activities was stockpiled on-site and characterized for disposal.

Approximately 2,500 tons of soil were transported as non-hazardous waste and disposed of at BFI Vasco Road Landfill in Livermore, California.

In addition, approximately 900 tons of soil containing elevated levels of Lead (above STLC) were manifested and transported as hazardous waste by ECDC and disposed of at ECDC Environmental Landfill in East Carbon, Utah.

5.0 CONCLUSIONS

Based on Geo Plexus personnel observations, the results of the analytical testing, and the reported WPC observations, the objectives of the soil removal from within the footprint and outside of the footprint of the Stores Building were accomplished to concentrations below the threshold limit criteria.

It is our opinion that the project site does not represent an environmental risk to the local or regional ground water conditions and that additional investigation, analysis, or remediation is not warranted. It is recommended that this section of the AMC site be considered for closure without further action.

6.0 LIMITATIONS

We have only observed a small portion of the pertinent soil conditions present at the site. Subsurface conditions across the site have been extrapolated from information obtained from review of existing documents, field investigations, excavation observations, and analytical test data. The conclusions made herein are based on the assumption that soil conditions do not deviate appreciably from those described in the reports and observed in the field.

Geo Plexus, Incorporated provides consulting services in the fields of Geology and Engineering Geology performed in accordance with presently accepted professional practices. Professional judgments presented herein are based partly on information obtained from review of published documents, partly on evaluations of the technical information gathered, and partly on general experience in the fields of geology and engineering geology.

No attempt was made to verify the accuracy of the information prepared/provided by others used in preparation of this assessment report.

If you have questions regarding the findings, conclusions, or recommendations contained in this report, please contact us. We appreciate the opportunity to serve you.

Geo Plexus, Incorporated

REFERENCES

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(2) _____, 1995, "Risk-Based Corrective Action Applied at Petroleum Release Sites", E 1739-95, November, 1995.

(3) California Code of Regulations, Title 22, Social Security, Division 4, Environmental Health (current version).

(4) California Regional Water Quality Control Board, San Francisco Bay Region, 1990, "Tri-Regional Board Staff Regulations for Preliminary Evaluation and Investigation of Underground Tank Sites", August 10, 1990.

(5) _____, 1990, Guidance Document for the Development of Health-Based Remedial Clean-Up Levels for the South Bay Multi-Site Cooperative Superfund Program, prepared by Clement Associates Inc.

(6) California Water Resource Control Board, Leaking Underground Fuel Tank Task Force, 1989, "Leaking Underground Fuel Tank Manual: Guidance for Site Assessment, Cleanup, and Underground Storage Tank Closure", revised October, 1989.

(7) General Environmental Management Services (GEMS), 1994, "Interim Remedial Action Summary Report for EBMUD Facility located at 1200 21st Street, Oakland, CA".

(8) United States Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health (NIOSH), 1990, "NIOSH Pocket Guide to Chemical Hazards".

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(13) _____, January 22, 1996, "Addendum No. 1 Material Management Plan for Adeline Maintenance Facility", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

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(17) _____, May 29, 1996, "AMC Phase 1- Construction Materials Management Final Report for East Bay Municipal Utility District Adeline Maintenance Center, Oakland, CA" prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

(18) _____, September 12, 1996, "Addendum No. 2 Material Management Plan for EBMUD Adeline Maintenance Facility", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

(19) _____, January 22, 1997, "Subsurface Investigation Report and Response to Alameda County Review Comments on Addendum no. 2 to the Material Management Plan for EBMUD Adeline Maintenance Facility", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

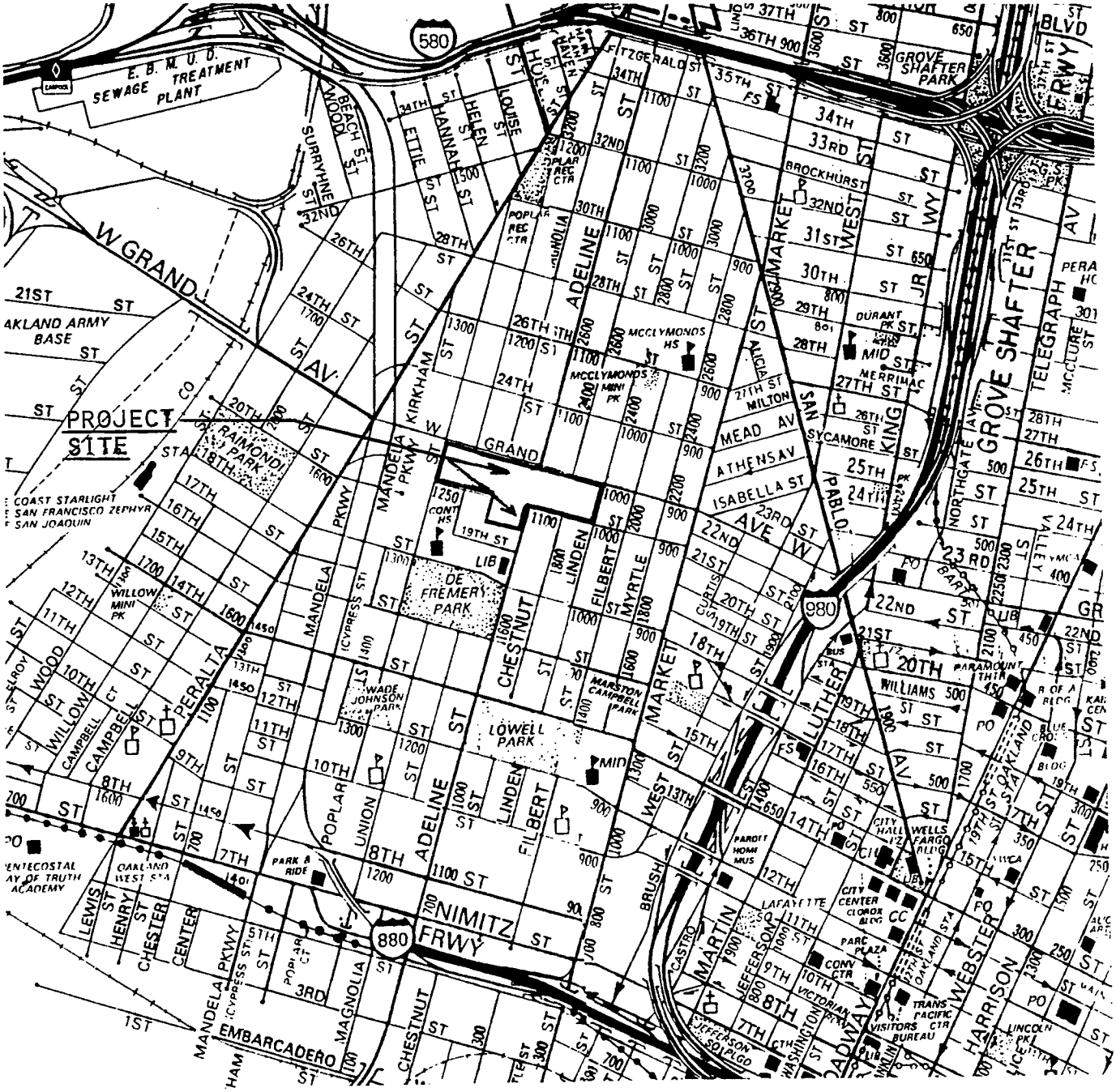
(20) _____, May 20, 1997, "Summary Letter for Soil Excavation and Disposal at EBMUD Adeline Maintenance Center", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

(21) _____, May 22, 1997, "Submittal of Analytical Test Data from Phase II Test Pits for Disposal Characterization, EBMUD Adeline Maintenance Center", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

(22) _____, May 22, 1997, "Submittal of Additional Analytical Test Data from Phase II Test Pits for Disposal Characterization, EBMUD Adeline Maintenance Center", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

(23) _____, June 20, 1997, "Results of Analytical Testing of Stockpiled Soil from EBMUD Adeline Maintenance Center", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.

(24) _____, June 26, 1997, "Summary Letter for Soil Excavation and Disposal at EBMUD Adeline Maintenance Center", prepared for Walsh Pacific Construction and East Bay Municipal Utility District.



Source: Thomas Brothers Maps

EAST BAY MUD FACILITY		
DATE 11/19/94	SCALE n/a	DRAWN BY dcg
LOCATION PLAN		
	Figure 1	

GeoPlexus, Inc.

WEST GRAND AVENUE

POPLAR STREET

UNION STREET

ADELINE STREET

LINDEN STREET

21 ST STREET

CENTRAL SERVICES BUILDING 0854

STORAGE BUILDING

FUEL STATION BLDG. 7

PROPERTY CORNER

BUILDING 2
STORES BUILDING
0853
PHASE 3

ELECTRICAL SWITCHGEAR

BUILDING 3
SHOP BUILDING
0852
PHASE 2

MICROWAVE TOWER

ADMINISTRATIVE BUILDING 0855

MATERIAL TESTING LABORATORY 0856

PROJECT SITE

PROJECT SITE

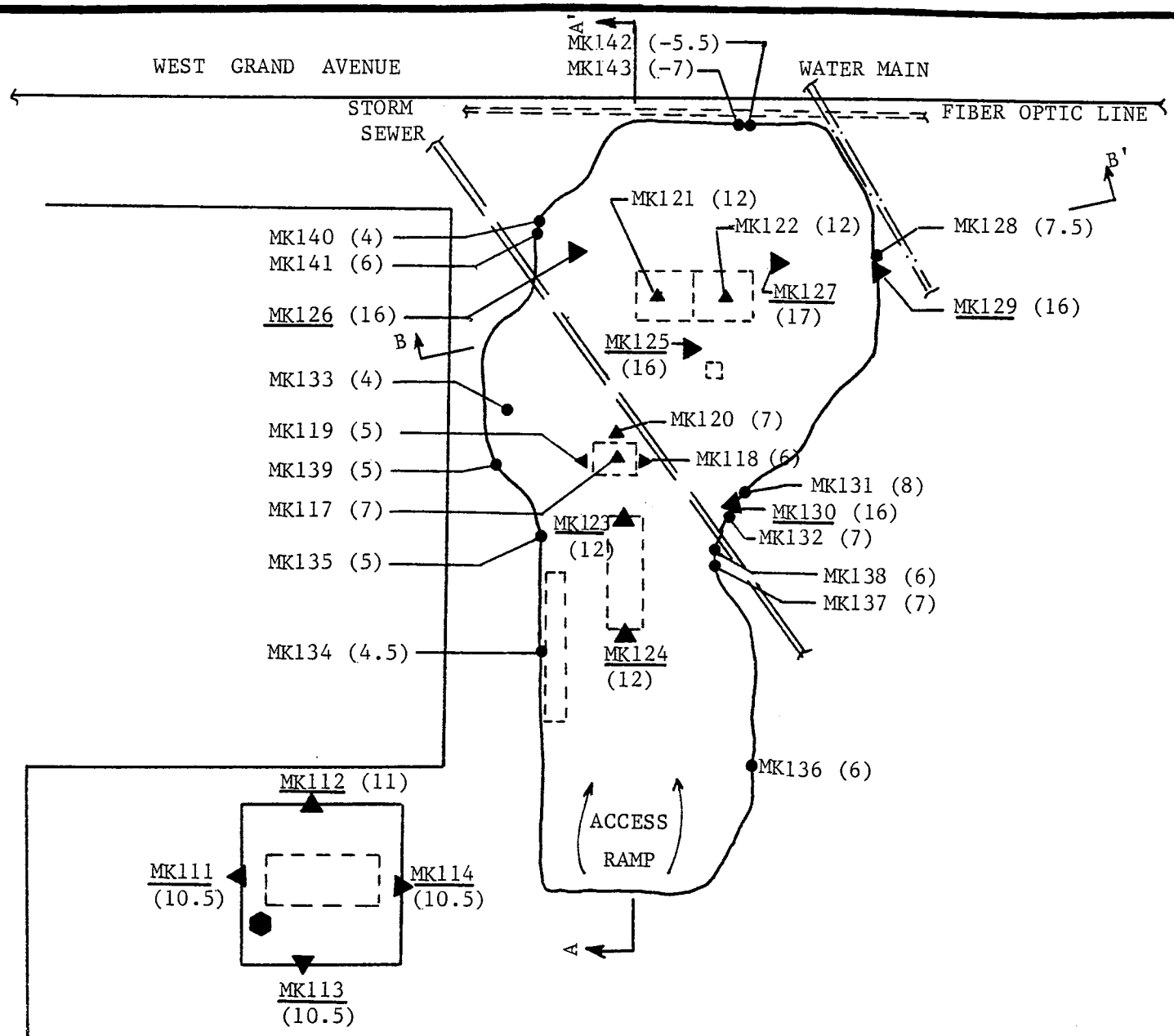
PHASE 1

BUILDING 6
FLEET MAINTENANCE BUILDING
0851

N

CONSTRUCTION PLAN
FIGURE 2

GeoPlexus, Inc.



MK115A,B Water Samples
MK116 Water Sample

LEGEND

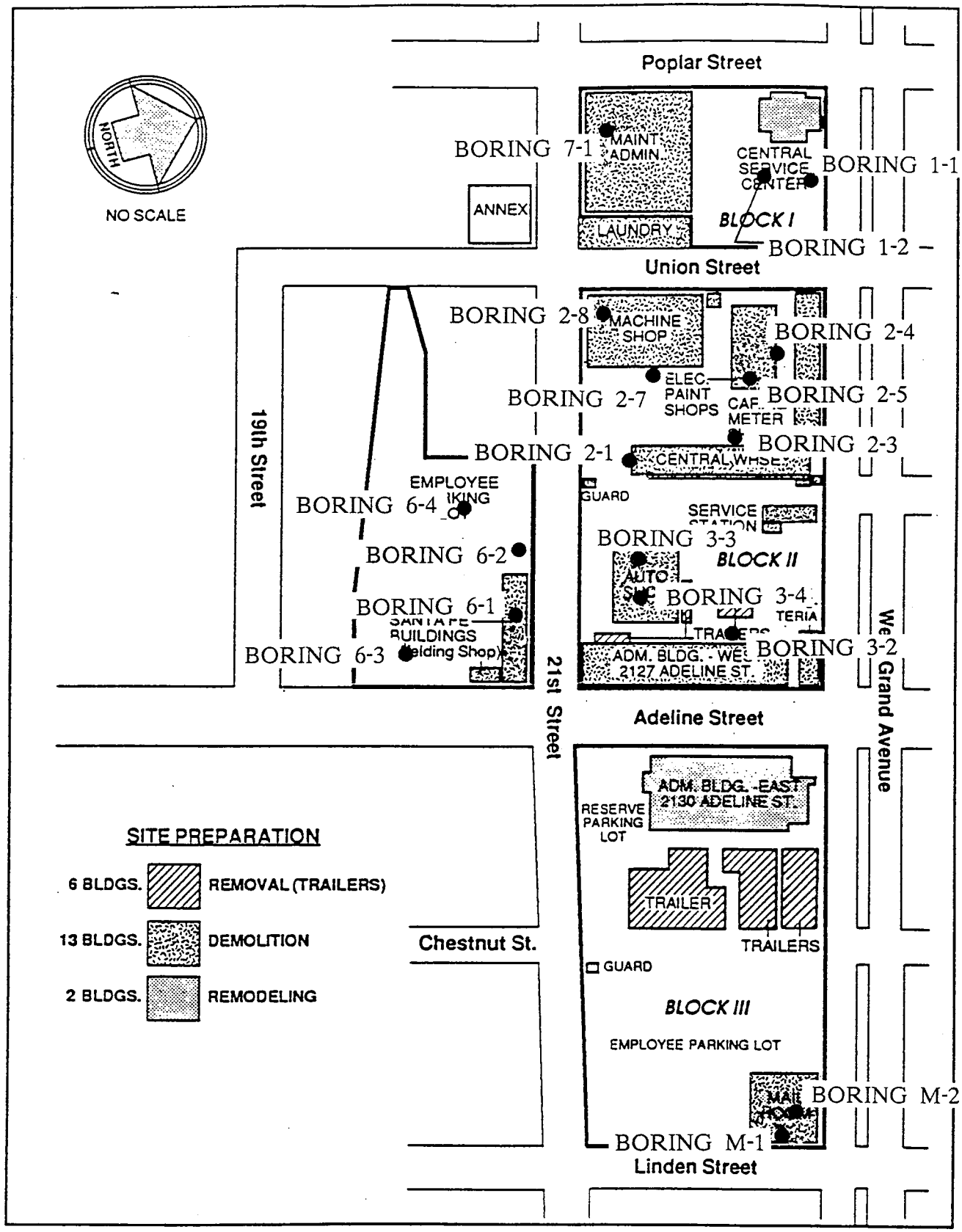
- ▲ Shallow Samples (Area Excavated)
- ▲ Final Bottom/Sidewall Samples
- ● Shallow Sidewall Samples (located in remaing shallow zone)

(16) Depth Below Ground Surface of Samples

N

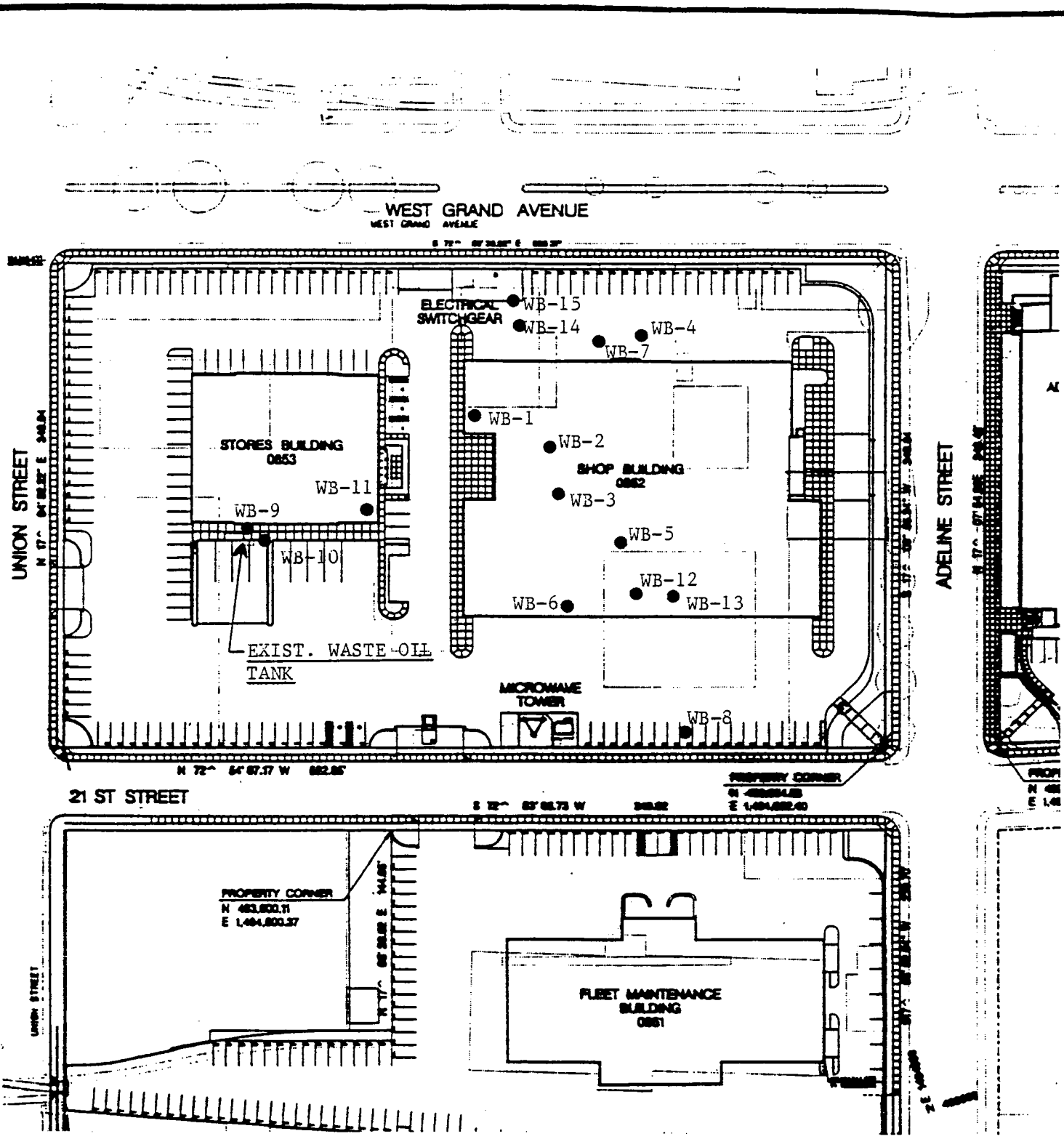
GeoPlexus, Inc.

SAMPLE LOCATION PLAN		
DATE 12/2/94	SCALE 1"=20'	DRAWN BY dcg
EBMUD SITE		
	Figure 3	



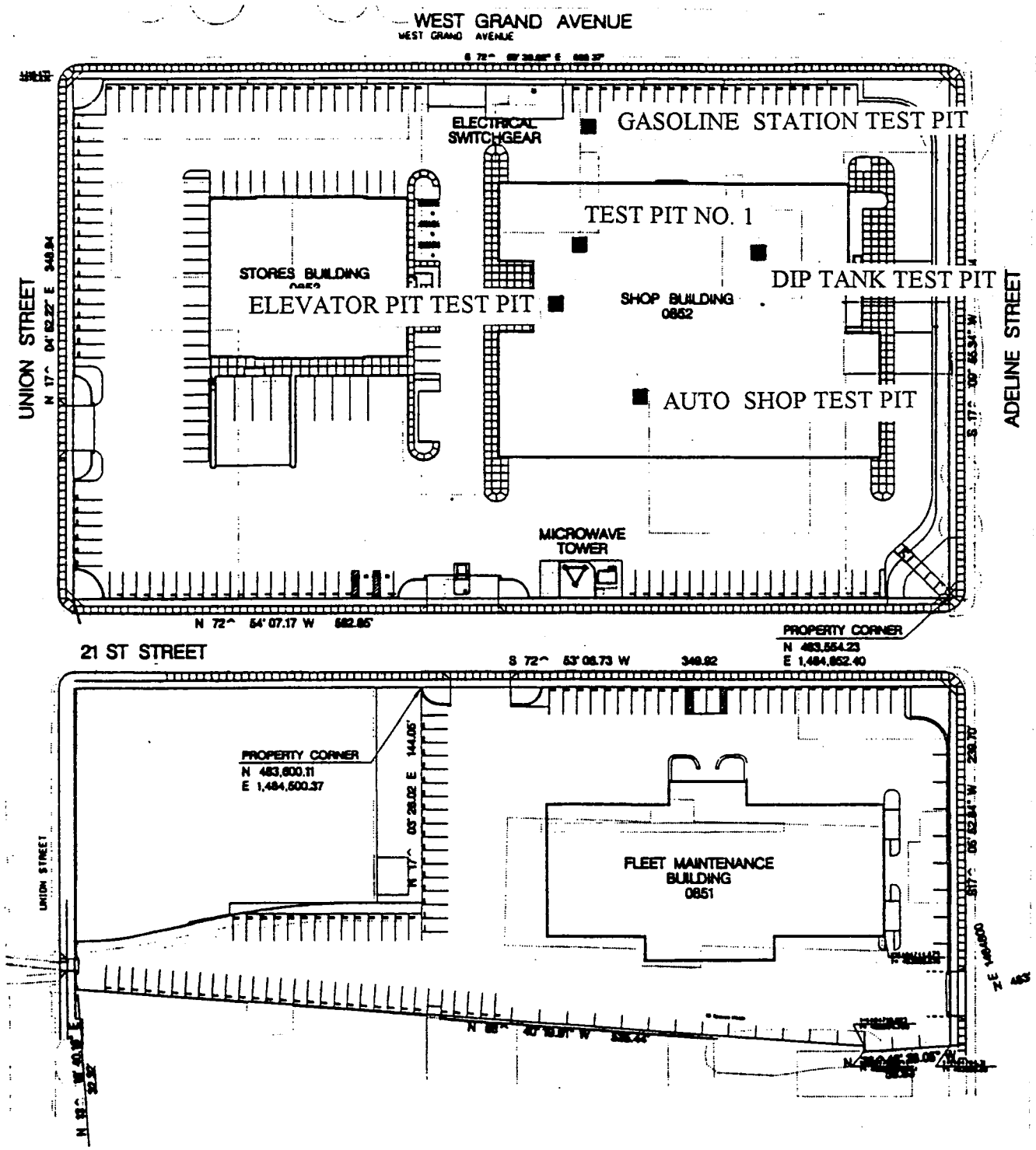
EBMUD FACILITY		
DATE 2/12/95	SCALE n/a	DRAWN BY dcg
BORING LOCATION PLAN		
	Figure 4	

GeoPlexus, Inc.



1996 BORING LOCATIONS		
DATE 12-30-96	SCALE 1"=100'	DRAWN BY dcg
EBMUD SITE		
		Figure 5

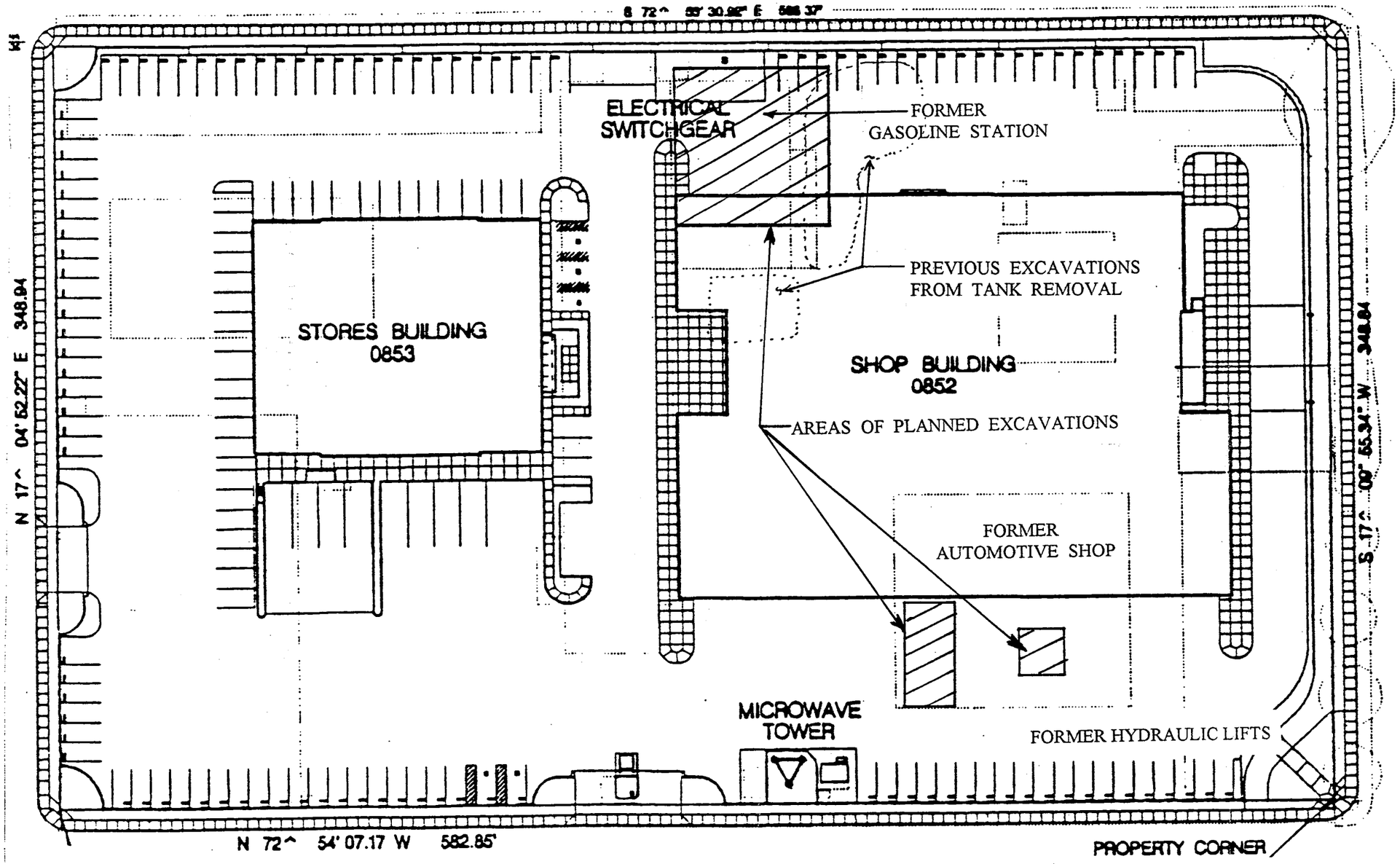
GeoPlexus, Inc.



TEST PIT LOCATION PLAN		
DATE	SCALE	DRAWN BY
2/16/98	n/a	cdg
EBMUD ADELINE CENTER		
	Figure 6	

GeoPlexus, Inc.

WEST GRAND AVENUE

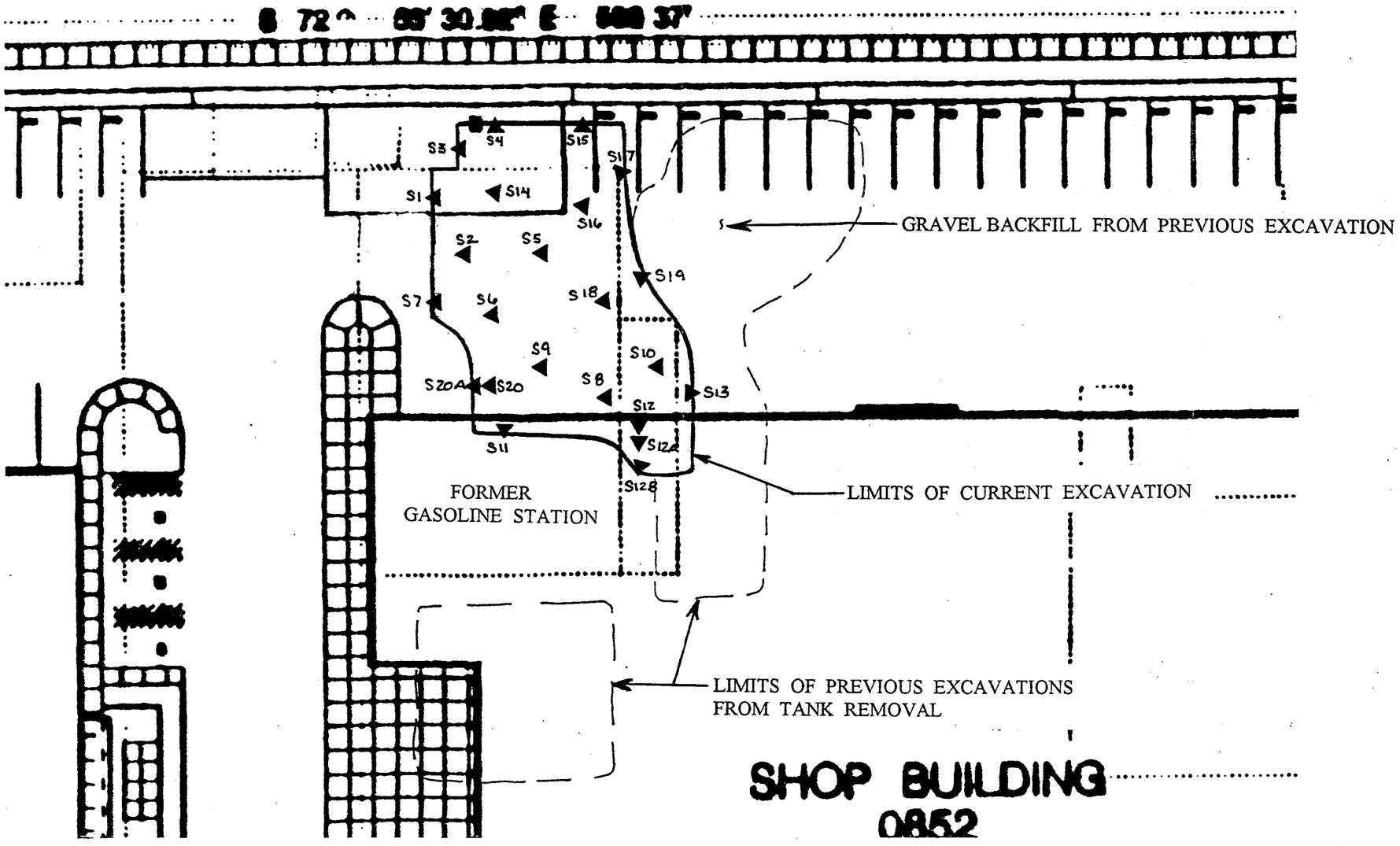


PHASE II EXCAVATION PLAN
FIGURE 7

GeoPlexus, Inc.

WEST GRAND AVENUE

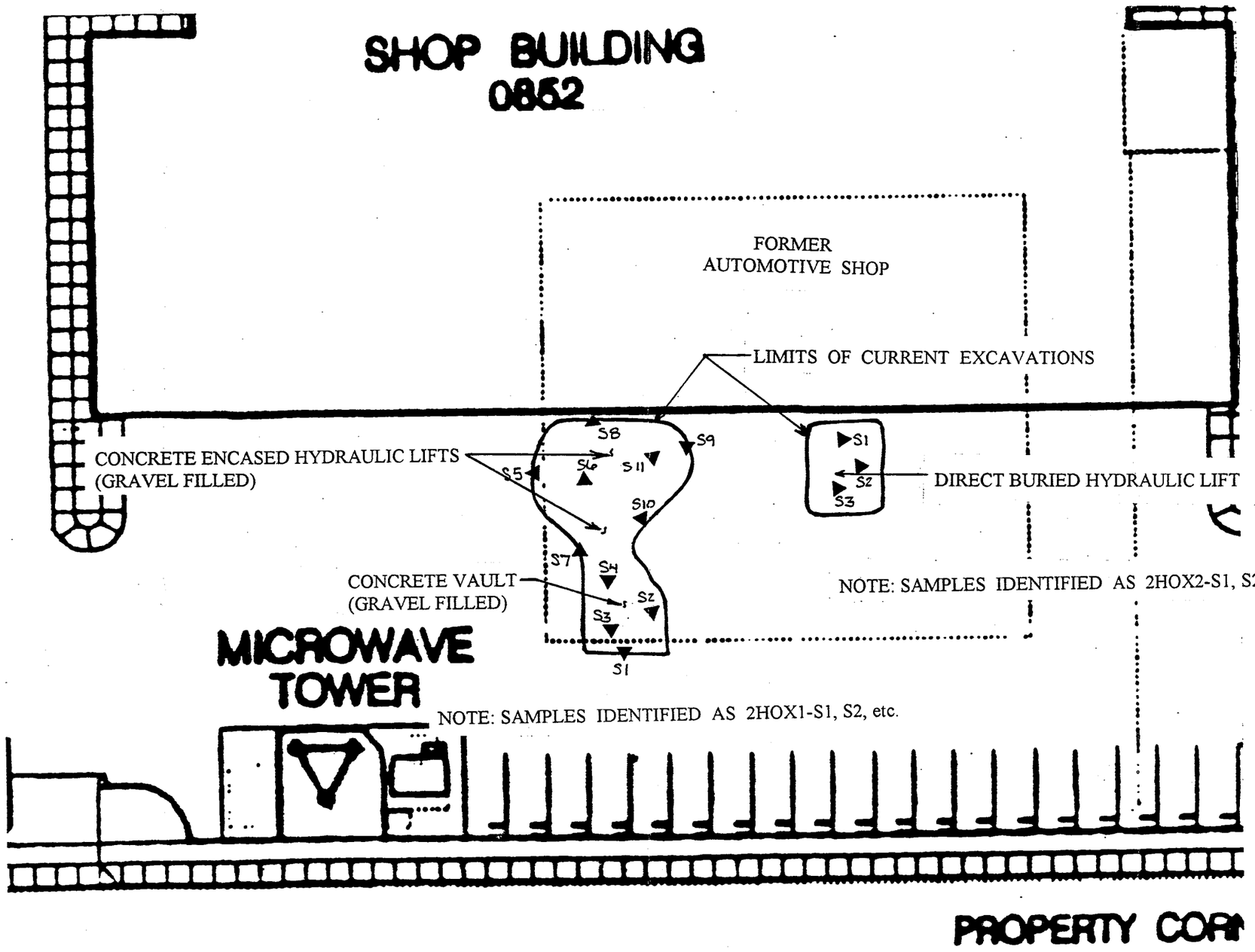
WEST GRAND AVENUE



FORMER GASOLINE STATION
SAMPLE LOCATION PLAN
FIGURE 8

NOTE: SAMPLES IDENTIFIED AS 2OX1-S1, S2, etc.

GeoPlexus, Inc.



FORMER AUTOMOTIVE SHOP
SAMPLE LOCATION PLAN
FIGURE 9

GeoPlexus, Inc.

APPENDIX A

McCAMPBELL ANALYTICAL
DHS CERTIFICATION DOCUMENTS

STATE OF CALIFORNIA—HEALTH AND WELFARE AGENCY PETE WILSON, Governor

DEPARTMENT OF HEALTH SERVICES
2151 BERKELEY WAY
BERKELEY, CA 94704-1011
(510)540-2800

April 29, 1996

Edward Hamilton
McCampbell Analytical, Inc.
110 2nd. Avenue, South, #D7
Pacheco, CA 94533

Certificate No.: 1644

Dear Mr. Hamilton:

This is to advise you that the laboratory named above has been certified as an environmental testing laboratory pursuant to the provisions of the California Environmental Laboratory Improvement Act of 1988 (Health and Safety Code, Division 1, Part 2, Chapter 7.5, commencing with Section 1010).

The fields of testing for which this laboratory has been certified under this Act are indicated in the enclosed "List of Approved Fields of Testing and Analytes." Certification shall remain in effect until October 31, 1997 unless revoked. This certificate is subject to an annual fee as prescribed by Section 1017(a), Health and Safety Code, on the anniversary date of the certificate.

Please note that your laboratory is required to notify the Environmental Laboratory Accreditation Program of any major changes in the laboratory such as the transfer of ownership, change of laboratory director, change in location, or structural alterations which may affect adversely the quality of analyses (Section 1014(b), California Health & Safety Code).

Please note that the new regulations pertaining to environmental laboratories were adopted on December 5, 1994 and may be found in the California Code of Regulations, Title 22, Division 4, Chapter 19, Sections 64801 through 64827.

Your continued cooperation is essential in order to establish a reputation for the high quality of the data produced by environmental laboratories certified by the State of California.

If you have additional questions, please contact Nelson Lan at (510) 540-2800.

Sincerely,

George C. Kulasingam

George C. Kulasingam, Ph.D., Manager
Environmental Laboratory
Accreditation Program

Enclosure

ENVIRONMENTAL LABORATORY ACCREDITATION/REGISTRATION
List of Approved Fields of Testing and Analytes

McCampbell Analytical, Inc.
110 2nd Avenue South, #D7
Pacheco, CA

TELEPHONE No: (510) 798-1620
CALIFORNIA COUNTY: Contra Costa

CERTIFICATE NUMBER: 1644
EXPIRATION DATE: 10/31/97

1 Microbiology of Drinking Water and Wastewater (--------)

1.1	Total Coliforms in Drinking Water by Multiple Tube Fermentation	N
1.2	Fecal Coliforms/E. Coli in Drinking Water by MTF	N
1.3	Total Coliforms in Drinking Water by Membrane Filter Technics	N
1.4	Fecal Coliforms/E. Coli in Drinking Water by Membrane Filter Technics	N
1.5	Total Coliforms and E. Coli in Drinking Water by MMO-MUG	N
1.6	Total Coliforms in Drinking Water by Clark's Presence/Absence	N
1.7	Fecal Coliforms/E. Coli in Drinking Water by Clark's Presence/Absence	N
1.8	Heterotrophic Plate Count	N
1.9	Total Coliforms in Wastewater by Multiple Tube Fermentation	N
1.10	Fecal Coliforms in Wastewater by MTF	N
1.11	Total Coliforms in Wastewater by Membrane Filter Technics	N
1.12	Fecal Coliforms in Wastewater by Membrane Filter Technics	N
1.13	Fecal Streptococci or Enterococci by Multiple Tube Technics	N
1.14	Fecal Streptococci or Enterococci by Membrane Filter Technics	N

2 Inorganic Chemistry and Physical Properties of Drinking Water excluding Toxic Chemical Elements (--------)

2.1	Alkalinity	N
2.2	Calcium	N
2.3	Chloride	N
2.4	Corrosivity	N
2.5	Fluoride	N
2.6	Hardness	N
2.7	Magnesium	N
2.8	MBAS	N
2.9	Nitrate	N
2.10	Nitrite	N
2.11	Sodium	N
2.12	Sulfate	N
2.13	Total Filterable Residue and Conductivity	N
2.14	Iron (Colorimetric Methods Only)	N
2.15	Manganese (Colorimetric Methods Only)	N
2.16	Phosphate, ortho	N
2.17	Silica (Colorimetric Methods Only)	N
2.18	Cyanide	N

3 Analysis of Toxic Chemical Elements in Drinking Water (--------)

3.1	Arsenic	N
3.2	Barium	N
3.3	Cadmium	N
3.4	Chromium, total	N
3.5	Copper	N
3.6	Iron	N
3.7	Lead	N
3.8	Manganese	N
3.9	Mercury	N
3.10	Selenium	N
3.11	Silver	N
3.12	Zinc	N
3.13	Aluminum	N
3.14	Asbestos	N
3.15	EPA Method 200.7	N
3.16	EPA Method 200.8 (Unregulated Elements and Lead Only)	N
3.17	Antimony	N
3.18	Beryllium	N
3.19	Nickel	N
3.20	Thallium	N

4 Organic Chemistry of Drinking Water (measurement by GC/MS combination) (--------)

4.1	EPA Method 501.3	N
4.2	EPA Method 524.2	N
4.3	EPA Method 525	N
4.4	EPA Method 513	N

5 Organic Chemistry of Drinking Water (excluding measurements by GC/MS combination) (--------)

5.1	EPA Method 501.1	N
5.2	EPA Method 501.2	N
5.3	EPA Method 502.1	N
5.4	EPA Method 502.2	N
5.5	EPA Method 503.1	N
5.6	EPA Method 504	N
5.7	EPA Method 505	N
5.8	EPA Method 506	N
5.9	EPA Method 507	N
5.10	EPA Method 508	N
5.11	EPA Method 508A	N
5.12	EPA Method 510.1	N
5.13	EPA Method 515.1	N
5.14	EPA Method 531.1	N
5.15	EPA Method 547	N
5.16	EPA Method 548	N
5.17	EPA Method 549	N
5.18	EPA Method 550	N
5.19	EPA Method 550.1	N
5.20	EPA Method 551	N
5.21	EPA Method 552	N

CERTIFICATE NUMBER: 1644
EXPIRATION DATE: 10/31/97

6 Radiochemistry (--------)

6.1 Gross Alpha and Beta Radiation ----- N
6.2 Total Radium ----- N
6.3 Radium 226 ----- N
6.4 Uranium ----- N
6.5 Radon 222 ----- N
6.6 Radioactive Cesium ----- N
6.7 Iodine 131 ----- N
6.8 Radioactive Strontium ----- N
6.9 Tritium ----- N
6.10 Gamma and Photon Emitters ---------- N
6.11 Gross Alpha by Co-precipitation --------- N
6.12 Radium 228 ----- N
6.13 Radioactive Iodine ----- N
6.14 Gross Alpha & Beta in Hazardous Wastes -- N
6.15 Alpha Emitting Radium Isotopes in Haz. Wastes ----- N
6.16 Radium 228 in Hazardous Wastes ---------- N

7 Shellfish Sanitation (--------)

7.1 Shellfish meat Microbiology ----- N
7.2 Paralytic Shellfish Poison ----- N
7.3 Domoic Acid ----- N

8 Aquatic Toxicity Bioassays (--------)

8.1 Hazardous Waste Aquatic Toxicity Bioassay (Title 22, CCR, 66261.24(a)(6)) ----- N
8.2 Wastewater Testing According to Kopperdahl (1976) using Freshwater Fish. ----- N
8.3 Wastewater Testing According to EPA/600/4-85/013 using Freshwater and/or Marine Organisms --------- N
8.4 Wastewater Testing by EPA Method 1000.0 ----- N
8.5 Wastewater Testing by EPA Method 1002.0 ----- N
8.6 Wastewater Testing by EPA Method 1003.0 ----- N
8.7 Wastewater Testing by EPA Method 1006 ----- N
8.8 Wastewater Testing by EPA Method 1007 ----- N
8.9 Wastewater Testing by EPA Method 1009 ----- N
8.10 Wastewater Testing According to Anderson, et. al. (1990) using Giant Kelp (Macrocystis pyrifera) -- N
8.11 Wastewater Testing According to Anderson, et. al. (1990) using Red Abalone (Haliotus rufescens) --- N
8.12 Wastewater Testing According to Dinnel and Stober (1987) using Purple Sea Urchin (Strongylocentrotus purpuratus) ----- N
8.13 Wastewater Testing According to Dinnel and Stober (1987) using Red Sea Urchin (Strongylocentrotus franciscanus) ----- N
8.14 Wastewater Testing According to Dinnel and Stober (1987) using Sand Dollar (Dendraster excentricus) ----- N
8.15 Wastewater Testing According to procedure E 724-89 (ASTM, 1989) using Pacific Oyster (Crassostrea gigas) ----- N
8.16 Wastewater Testing According to procedure E 724-89 (ASTM, 1989) using California Bay Mussel (Mytilus edulis) ----- N
8.17 Wastewater Testing According to Standard Methods (APHA, 1989) using an alga (Skeletonema costatum) ----- N
8.18 Wastewater Testing According to EPA/600/4-90/027 using Freshwater and/or Marine Organisms --------- N

9 Physical Properties Testing of Hazardous Waste (06-24-92)

9.1 Ignitability by Flashpoint determination (Title 22, CCR, 66261.21) ----- Y
9.2 Corrosivity - pH determination (Title 22, CCR, 66261.22) ----- Y
9.3 Corrosivity - Corrosivity towards steel (Title 22, CCR, 66261.22) ----- N
9.4 Reactivity (Title 22, CCR, 66261.23) ----- Y

10 Inorganic Chemistry and Toxic Chemical Elements of Hazardous Waste

10.1 Antimony
7040(--------) ----- N
7041(--------) ----- N
10.2 Arsenic
7060(05-21-93) ----- Y
7061(07-26-94) ----- Y
10.3 Barium
7080(--------) ----- N
7081(--------) ----- N
10.4 Beryllium
7090(05-21-93) ----- Y
7091(05-21-93) ----- Y
10.5 Cadmium
7130(05-21-93) ----- Y
7131(--------) ----- N
10.6 Chromium, total
7190(--------) ----- N
7191(--------) ----- N
10.7 Cobalt
7200(05-21-93) ----- Y
7201(--------) ----- N
10.8 Copper
7210(05-21-93) ----- Y
7211(--------) ----- N
10.9 Lead
7420(05-21-93) ----- Y
7421(05-21-93) ----- Y
10.10 Mercury
7470(07-26-94) ----- Y
7471(07-26-94) ----- Y
10.11 Molybdenum
7480(--------) ----- N
7481(--------) ----- N
10.12 Nickel
7520(05-21-93) ----- Y

10.13 Selenium
7740(05-21-93) ---------- Y
7741(07-26-94) ---------- Y
10.14 Silver
7760(05-21-93) ---------- Y
7761(05-21-93) ---------- Y
10.15 Thallium
7840(05-21-93) ---------- Y
7841(05-21-93) ---------- Y
10.16 Vanadium
7910(--------) ---------- N
7911(--------) ---------- N
10.17 Zinc
7950(05-21-93) ---------- Y
7951(--------) ---------- N
10.18 Chromium (VI)
7195(--------) ---------- N
7196(06-24-92) ---------- Y
7197(--------) ---------- N
7198(--------) ---------- N
10.19 Cyanide
9010(06-24-92) ---------- Y
10.20 Fluoride
300.0(--------) ---------- N
340.1(--------) ---------- N
340.2(--------) ---------- N
340.3(--------) ---------- N
10.21 Sulfide
9030(--------) ---------- N
10.22 Total Organic Lead
(05-21-93) ---------- Y
10.23 EPA Method 6010(07-26-94) ---------- Y
10.24 EPA Method 6020(--------) ---------- N

11 Extraction Tests of Hazardous Waste (06-24-92)

11.1 California Waste Extraction Test (WET) (Title 22, CCR, 66261.100, Appendix II) ---------- Y
11.2 Extraction Procedure Toxicity ---------- Y
11.3 Toxicity Characteristic Leaching Procedure (TCLP) All Classes ---------- Y
11.4 Toxicity Characteristic Leaching Procedure (TCLP) Inorganics Only ---------- N
11.5 Toxicity Characteristic Leaching Procedure (TCLP) Extractables Only ---------- N
11.6 Toxicity Characteristic Leaching Procedure (TCLP) Volatiles Only ---------- N

12 Organic Chemistry of Hazardous Waste (measurement by GC/MS combination)

12.1 EPA Method 8240(08-04-95) ---------- Y
12.2 EPA Method 8250(--------) ---------- N
12.3 EPA method 8270(--------) ---------- N
12.4 EPA Method 8280(--------) ---------- N
12.5 EPA Method 8290(--------) ---------- N
12.6 EPA Method 8260(08-04-95) ---------- Y

13 Organic Chemistry of Hazardous Waste (excluding measurements by GC/MS combination)

13.1 EPA Method 8010(02-10-93) ---------- Y
13.2 EPA Method 8015(08-04-95) ---------- Y
13.3 EPA Method 8020(10-07-91) ---------- Y
13.4 EPA Method 8030(--------) ---------- N
13.5 EPA Method 8040(--------) ---------- N
13.6 EPA Method 8060(--------) ---------- N
13.7 EPA Method 8080(08-04-95) ---------- Y
13.8 EPA Method 8090(--------) ---------- N
13.9 EPA Method 8100(--------) ---------- N
13.10 EPA Method 8120(--------) ---------- N
13.11 EPA Method 8140(--------) ---------- N
13.12 EPA Method 8150(--------) ---------- N
13.13 EPA Method 8310(--------) ---------- N
13.14 EPA Method 632 (--------) ---------- N
13.15 Total Petroleum Hydrocarbons
(LUFT Manual) (10-07-91)---------- Y
13.16 EPA Method 8011(--------) ---------- N
13.17 EPA Method 8021(--------) ---------- N
13.18 EPA Method 8070(--------) ---------- N
13.19 EPA Method 8110(--------) ---------- N
13.20 EPA Method 8141(--------) ---------- N
13.21 EPA Method 8330(--------) ---------- N

14 Bulk Asbestos Analysis (--------)

14.1 1% or Greater Asbestos Concentrations (Title 22, CCR, 66261.24(a)(2)(A)) ----------N

15 Substances Regulated Under the California Safe Drinking Water and Toxic Enforcement Act (Proposition 65) and Not Included in Other listed Groups.

16 Wastewater Inorganic Chemistry, Nutrients and Demand (10-07-91)

16.1 Acidity ---------- N
16.2 Alkalinity ---------- N
16.3 Ammonia ---------- N
16.4 Biochemical Oxygen Demand ---------- N
16.5 Boron ---------- Y
16.6 Bromide ---------- N
16.7 Calcium ---------- Y
16.8 cBOD ---------- N
16.9 Chemical Oxygen Demand ---------- N
16.10 Chloride ---------- N
16.11 Chlorine Residual, total ---------- N
16.12 Cyanide ---------- N
16.13 Cyanide amenable to Chlorination ------- N
16.14 Fluoride ---------- N
16.15 Hardness ---------- N
16.16 Kjeldahl Nitrogen ---------- N
16.17 Magnesium ---------- Y
16.18 Nitrate ---------- N
16.19 Nitrite ---------- N
16.20 Oil and Grease ---------- Y
16.21 Organic Carbon ---------- N
16.22 Oxygen, Dissolved ---------- N

16.23 pH ---------- Y
16.24 Phenols ---------- N
16.25 Phosphate, ortho- ---------- N
16.26 Phosphorus, total ---------- N
16.27 Potassium ---------- Y
16.28 Residue, Total ---------- Y
16.29 Residue, Filterable (TDS) ---------- Y
16.30 Residue, Nonfilterable (TSS) ---------- Y
16.31 Residue, Settleable (SS) ---------- N
16.32 Residue, Volatile ---------- N
16.33 Silica ---------- Y
16.34 Sodium ---------- Y
16.35 Specific Conductance ---------- Y
16.36 Sulfate ---------- N
16.37 Sulfide (includes total & soluble) - N
16.38 Sulfite ---------- N
16.39 Surfactants (MBAS) ---------- N
16.40 Tannin and Lignin ---------- N
16.41 Turbidity ---------- N
16.42 Iron (Colorimetric Only) ---------- N
16.43 Manganese (Colorimetric Only) --------- N
16.44 Total Recoverable Petroleum Hydrocarbons ---------- Y
16.45 Total Organic Halides ---------- N

17 Toxic Chemical Elements in Wastewater (05-21-93)

17.1 Aluminum ---------- N
17.2 Antimony ---------- N
17.3 Arsenic ---------- Y
17.4 Barium ---------- N
17.5 Beryllium ---------- Y
17.6 Cadmium ---------- Y
17.7 Chromium (VI) ---------- Y
17.8 Chromium, total ---------- Y
17.9 Cobalt ---------- Y
17.10 Copper ---------- Y
17.11 Gold ---------- N
17.12 Iridium ---------- N
17.13 Iron ---------- N
17.14 Lead ---------- Y
17.15 Manganese ---------- N
17.16 Mercury ---------- Y
17.17 Molybdenum ---------- N
17.18 Nickel ---------- Y
17.19 Osmium ---------- N
17.20 Palladium ---------- N
17.21 Platinum ---------- N
17.22 Rhodium ---------- N
17.23 Ruthenium ---------- N
17.24 Selenium ---------- Y
17.25 Silver ---------- Y
17.26 Strontium ---------- N
17.27 Thallium ---------- Y
17.28 Tin ---------- N
17.29 Titanium ---------- N
17.30 Vanadium ---------- N
17.31 Zinc ---------- Y
17.32 EPA Method 200.7 ---------- Y
17.33 EPA Method 200.8 ---------- N
17.34 DCP ---------- N
17.35 Asbestos ---------- N

18 Organic Chemistry of Wastewater (measurements by GC/MS combination (08-04-95)

18.1 EPA Method 624 ---------- Y
18.2 EPA Method 625 ---------- N
18.3 EPA Method 1613 ---------- N
18.4 EPA Method 1625 ---------- N
18.5 EPA Method 613 ---------- N

19 Organic Chemistry of Wastewater (excluding measurements by GC/MS combination) (06-24-92)

19.1 EPA Method 601 ---------- Y
19.2 EPA Method 602 ---------- Y
19.3 EPA Method 603 ---------- N
19.4 EPA Method 604 ---------- N
19.5 EPA Method 605 ---------- N
19.6 EPA Method 606 ---------- N
19.7 EPA Method 607 ---------- N
19.8 EPA Method 608 ---------- Y
19.9 EPA Method 609 ---------- N
19.10 EPA Method 610 ---------- N
19.11 EPA Method 611 ---------- N
19.12 EPA Method 632 ---------- N
19.13 EPA Method 619 ---------- N

20 Inorganic Chemistry and Toxic Chemical Elements of Pesticide Residues in Food (--------)

20.1 Processed Foods by One of the Following Methods
- Atomic Absorption Spectrophotometry ---------- N
- Inductively Coupled Plasma Atomic Emission Spectrophotometry ---------- N
- Inductively Coupled Plasma/Mass Spectrometry ---------- N
- Colorimetry ---------- N

20.2 Raw Commodities by One of the Following Methods
- Atomic Absorption Spectrophotometry ---------- N
- Inductively Coupled Plasma Atomic Emission Spectrophotometry ---------- N
- Inductively Coupled Plasma/Mass Spectrometry ---------- N
- Colorimetric ---------- N

20.3 Dairy Products by One of the Following Methods
- Atomic Absorption Spectrophotometry ---------- N
- Inductively Coupled Plasma Atomic Emission Spectrophotometry ---------- N
- Inductively Coupled Plasma/Mass Spectrometry ---------- N
- Colorimetry ---------- N

20.4 Feed Products by One of the Following Methods
- Atomic Absorption Spectrophotometry ---------- N
- Inductively Coupled Plasma Atomic Emission Spectrophotometry ---------- N
- Inductively Coupled Plasma/Mass Spectrometry ---------- N
- Colorimetry ---------- N

21 Organic Chemistry of Pesticide Residues in Food (measurements by GC/MS) (--------)

21.1 Gas Chromatographic/Mass Spectrometric Methods in Processed Foods ---------- N
21.2 Gas Chromatographic/Mass Spectrometric Methods in Raw Commodities ---------- N
21.3 Gas Chromatographic/Mass Spectrometric Methods in Dairy Products ---------- N
21.4 Gas Chromatographic/Mass Spectrometric Methods in Feed Products ---------- N

22 Organic Chemistry of Pesticide Residues in Food (Excluding Measurement by GC/MS Combination) (--------)

22.1 Halogenated Compounds in Processed Foods by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

22.2 Organophosphorous Compounds in Processed Foods by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

22.3 Carbamates in Processed Foods by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

22.4 Halogenated Compounds in Raw Commodities by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

22.5 Organophosphorous Compounds in Raw Commodities by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

22.6 Carbamates in Raw Commodities by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

22.7 Halogenated Compounds in Dairy Products by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

22.8 Organophosphorous Compounds in Dairy Products by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

22.9 Carbamates in Dairy Products by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

22.10 Halogenated Compounds in Feed Products by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

22.11 Organophosphorous Compounds in Feed Products by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

22.12 Carbamates in Feed Products by One of the Following Methods
- Gas Chromatography ---------- N
- High Pressure Liquid Chromatography ---------- N
- Liquid Chromatography/Mass Spectrometry ---------- N

APPENDIX B

PHASE II TEST PIT
ANALYTICAL TEST DATA

GeoPlexus, Inc.

CHAIN-OF-CUSTODY

8594AGP317

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054
Phone 408/987-0210 Fax 408/988-0815

PROJECT NUMBER: C95041 | PROJECT NAME: EBMUD/WALSH ADELINE MAINT. CENTER

Send Report Attention of: DAVID GLICK | Report Due: / / | Verbal Due: / /

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPH g/BTEX/MTBE	TPH d	Oil & Grease 5520	BOD	Condition of Samples	Initial
EP-S1	5/6/97	816		/	ELEVATOR PIT -3'	1CA	6" BRASS TUBES	✓	✓	✓		76133	
EP-S2		820		/	ELEVATOR PIT -7'			✓	✓	✓		76134	
PIT1-S1		838		/	SW CORNER OF GAS STA -3'			✓	✓	✓		76135	
PIT1 S2		838		/	SW CORNER OF GAS STA -7'			✓	✓	✓		76136	
GASSTA1-S1		842		/	SE CORNER OF GAS STA -3'			✓	✓	✓	✓	76137	
DIPTNK S1		858		/	DIP TANK -3'			✓	✓	✓		76138	
DIPTNK S2		904		/	DIP TANK -7'			✓	✓	✓		76139	
PIT2-S1		915		/	PIT - SVC -3'			✓	✓	✓		76140	
PIT2-S2		918		/	PIT - SVC -7'			✓	✓	✓		76141	
AUTOSHP S1		925		/	NE CORNER OF AUTO SHOP -3'			✓	✓	✓		76142	
AUTO SHP S2	↓	930		/	NE CORNER OF AUTO SHOP -7'	↓	↓	✓	✓	✓	✓	76143	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	5/6/97 1141	Heidi Rucca	5-6-97 11:41
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks: 24 HOUR RUSH

VOAs | O&G | METALS | OTHER

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATIVE APPROPRIATE ✓
CONTAINERS ✓

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID:# C95041; EBMUD/Walsh	Date Sampled: 05/06/97
		Date Received: 05/06/97
	Client Contact: David Glick	Date Extracted: 05/06/97
	Client P.O:	Date Analyzed: 05/06/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
76133	EP-S1	S	3.9,j	ND	0.016	0.016	0.010	0.025	102
76134	EP-S2	S	21,b,j	ND	0.010	0.045	0.061	0.10	96
76135	Pit 1-S1	S	47,b,j	ND	0.026	ND	0.25	1.3	105
76136	Pit 1-S2	S	14,b,j	ND	0.030	0.007	0.017	0.054	101
76137	Gas Sta1-S1	S	2900,j	6.2	16	8.5	7.5	13	101
76138	DIPTNK-S1	S	ND	ND	ND	ND	ND	ND	101
76139	DIPTNK-S2	S	ND	ND	ND	ND	ND	ND	100
76140	Pit 2-S1	S	ND	ND	ND	ND	ND	ND	101
76141	Pit 2-S2	S	2.1,j	ND	ND	ND	ND	0.007	104
76142	Auto Shp-S1	S	ND	ND	ND	ND	ND	ND	100
76143	Auto Shp-S2	S	ND	ND	ND	ND	ND	ND	101
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID:# C95041; EBMUD/Walsh	Date Sampled: 05/06/97
		Date Received: 05/06/97
	Client Contact: David Glick	Date Extracted: 05/06/97
	Client P.O:	Date Analyzed: 05/06/97

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
76133	EP-S1	S	ND	95
76134	EP-S2	S	31,g	103
76135	Pit 1-S1	S	3.3,d	95
76136	Pit 1-S2	S	6.1,d	100
76137	Gas Sta1-S1	S	7000,d	102
76138	DIPTNK-S1	S	ND	96
76139	DIPTNK-S2	S	2.4,b	102
76140	Pit 2-S1	S	9.1,g	102
76141	Pit 2-S2	S	1.3,b	103
76142	Auto Shp-S1	S	ND	103
76143	Auto Shp-S2	S	ND	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP and STLC extracts in mg/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID:# C95041; EBMUD/Walsh	Date Sampled: 05/06/97
		Date Received: 05/06/97
	Client Contact: David Glick	Date Extracted: 05/06/97
	Client P.O:	Date Analyzed: 05/06/97

Petroleum Oil & Grease (with Silica Gel Clean-up) *

EPA methods 413.1, 9070 or 9071; Standard Methods 5520 D/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids

Lab ID	Client ID	Matrix	Oil & Grease*
76133	EP-S1	S	ND
76134	EP-S2	S	160
76135	Pit 1-S1	S	ND
76136	Pit 1-S2	S	ND
76137	Gas Sta1-S1	S	2500
76138	DIPTNK-S1	S	ND
76139	DIPTNK-S2	S	ND
76140	Pit 2-S1	S	380
76141	Pit 2-S2	S	ND
76142	Auto Shp-S1	S	ND
76143	Auto Shp-S2	S	ND
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	5 mg/L
		S	50 mg/kg

* water samples are reported in mg/L and soil and sludge samples in mg/kg

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID:# C95041; EBMUD/Walsh	Date Sampled: 05/06/97 Date Received: 05/06/97
	Client Contact: David Glick	Date Extracted: 05/06/97
	Client P.O:	Date Analyzed: 05/06/97

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	76137	76143		
Client ID	Gas Sta1-S1	Auto Shp-S2		
Matrix	S	S		
Compound	Concentration*			
Bromodichloromethane	ND< 30	ND		
Bromoform(b)	ND< 30	ND		
Bromomethane	ND< 30	ND		
Carbon Tetrachloride(c)	ND< 30	ND		
Chlorobenzene	ND< 30	ND		
Chloroethane	ND< 30	ND		
2-Chloroethyl Vinyl Ether(d)	ND< 30	ND		
Chloroform (e)	ND< 30	ND		
Chloromethane	ND< 30	ND		
Dibromochloromethane	ND< 30	ND		
1,2-Dichlorobenzene	ND< 30	ND		
1,3-Dichlorobenzene	ND< 30	ND		
1,4-Dichlorobenzene	ND< 30	ND		
Dichlorodifluoromethane	ND< 30	ND		
1,1-Dichloroethane	ND< 30	ND		
1,2-Dichloroethane	ND< 30	ND		
1,1-Dichloroethene	ND< 30	ND		
cis 1,2-Dichloroethene	ND< 30	ND		
trans 1,2-Dichloroethene	ND< 30	ND		
1,2-Dichloropropane	ND< 30	ND		
cis 1,3-Dichloropropene	ND< 30	ND		
trans 1,3-Dichloropropene	ND< 30	ND		
Methylene Chloride(f)	ND< 30	ND		
1,1,2,2-Tetrachloroethane	ND< 30	ND		
Tetrachloroethene	ND< 30	ND		
1,1,1-Trichloroethane	ND< 30	ND		
1,1,2-Trichloroethane	ND< 30	ND		
Trichloroethene	ND< 30	ND		
Trichlorofluoromethane	ND< 30	ND		
Vinyl Chloride(g)	ND< 30	ND		
% Recovery Surrogate	108	103		
Comments	j			

* water and vapor samples are reported in ug/L, soil and sludge samples in ug/kg and all TCLP extracts in ug/L.

Reporting limit unless otherwise stated: water/TCLP extracts, ND< 0.5ug/L; soil and sludge, ND< 5ug/kg

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (i) liquid sample that contains greater than ~ 5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/05/97-05/06/97 Matrix: Soil

Analyte	Concentration (mg/kg) Sample (#74888)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	2.180	2.233	2.03	107	110	2.4
Benzene	0.000	0.218	0.212	0.2	109	106	2.8
Toluene	0.000	0.224	0.216	0.2	112	108	3.6
Ethylbenzene	0.000	0.212	0.212	0.2	106	106	0.0
Xylenes	0.000	0.628	0.624	0.6	105	104	0.6
TPH (diesel)	0	305	308	300	102	103	0.7
TRPH (oil and grease)	0.0	25.9	26.8	26	100	103	3.4

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR EPA 8010/8020/EDB

Date: 05/06/97 Matrix: Soil

Analyte	Concentration (ug/kg)				% Recovery		
	Sample (#74888)	MS	MSD	Amount Spiked	MS	MSD	RPD
1,1-DCE	0	94	98	100	94	98	4.2
Trichloroethene	0	81	86	100	81	86	6.0
EDB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	0	84	86	100	84	86	2.4
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobz (PID)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

GeoPlexus, Inc.

CHAIN-OF-CUSTODY

8594AGP317

1900 Wyatt Drive, Suite [illegible], Santa Clara, [illegible]
Phone 408/987-0210 Fax 408/988-[illegible]

PROJECT NUMBER: C95041

PROJECT NAME: EBMUD / WALSH ADELINE MAINT. CENTER

Send Report Attention of: DAVID GLICK

Report Due: / /

Verbal Due: / /

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	TPHg/BTEX/MTBE	TPHd	OIL & GREASE 5520E	BOD	TCLP Benzene RUSH 5/13	CAM 5 RUSH	LEAD/GAS 5/19	STLC Pb Zn RUSH 5/20	Condition of Samples	Initial
EP-S1	5/6/97	816		/	ELEVATOR PIT -3'	1 EA	6" BRASS TUBES	✓	✓	✓			(X) #2 COMP			76133	
EP-S2	↓	820		/	ELEVATOR PIT -7'	↓	↓	✓	✓	✓						76134	
PIT1-S1		838		/	SW CORNER of GAS STA -3'			✓	✓	✓		X	X	composite #1	X	76135	
PIT1 S2		838		/	SW CORNER of GAS STA -7'			✓	✓	✓		X	X		X	76136	
GASSTA1-S1		842		/	SE CORNER of GAS STA -3'			✓	✓	✓	✓	X	X		X	76137	
DIPTNK S1		858		/	DIP TANK -3'			✓	✓	✓			(X) #2 COMP			76138	
DIPTNK S2		904		/	DIP TANK -7'			✓	✓	✓						76139	
PIT2-S1		915		/	PIT - SVC -3'			✓	✓	✓			(X) #2 COMP			76140	
PIT2-S2		918		/	PIT - SVC -7'			✓	✓	✓						76141	
AUTOSHP S1		925		/	NE CORNER of AUTO SHOP -3'			✓	✓	✓			(X) #2 COMP			76142	
AUTO SHP S2		930		/	NE CORNER of AUTO SHOP -7'			✓	✓	✓	✓					76143	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	5/6/97 11:41	Nicole Ricca [signature]	5-6-97 11:41
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks: 24 HOUR RUSH

VOAS | O&G | METALS | OTHER

ICE/T° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATIVE
APPROPRIATE CONTAINERS ✓

1900 Wyatt Drive, Suite 1, Santa Clara, C
Phone 408/987-0210 Fax 408/988-

GeoPlexus, Inc.

CHAIN-OF-CUSTODY

8594AGP317

PROJECT NUMBER	PROJECT NAME		
C95041	EBMUD / WALSH ADELINE MAINT. CENTER		
Send Report Attention of:	**Report Due**	**Verbal Due**	
DAVID GLICK	/ /	/ /	

Type of Analysis

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	TPHg/BTEX/MTBE	TPHd	Oil & Grease 5520	BOD		TCLP Benzene Rush 5/13	CAM-5 Rush 5/19	PNA's	STLC Pb, Zn Rush 5/20/97	Condition of Samples	Initial
EP-S1	5/6/97	816		/	ELEVATOR PIT -3'	1 EA	6" BRASS TUBES	/	/	/				⊗ #2 comp			76133	
EP-S2	↓	820		/	ELEVATOR PIT -7'	↓	↓	/	/	/							76134	
PIT1-S1		838		/	SW CORNER OF GAS STA -3'			/	/	/			X	⊗		⊗ composite #1	76135	
PIT1 S2		838		/	SW CORNER OF GAS STA -7'			/	/	/			X	⊗		X	76136	
GASSTA1-S1		842		/	SE CORNER OF GAS STA -3'			/	/	/	✓		X	⊗		X	76137	
DIPTNK S1		858		/	DIP TANK -3'			/	/	/				⊗ #2 comp			76138	
DIPTNK S2		904		/	DIP TANK -7'			/	/	/							76139	
PIT2-S1		915		/	PIT-SVC -3'			/	/	/				⊗ #2 comp			76140	
PIT2-S2		918		/	PIT-SVC -7'			/	/	/							76141	
AUTOSHP S1		925		/	NE CORNER OF AUTO SHOP -3'			/	/	/				⊗ #2 comp			76142	
AUTO SHP S2	↓	930		/	NE CORNER OF AUTO SHOP -7'	↓	↓	/	/	/	✓						76143	

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	5/6/97 1141	Nadia Ricca [signature]	5-6-97 11:41
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks: 24 HOUR RUSH

	VOAS	O&G	METALS	OTHER
PRESERVATIVE				

ICE/T° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
APPROPRIATE CONTAINERS ✓

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID:# C95041; EBMUD/Walsh	Date Sampled: 05/06/97
		Date Received: 05/06/97
	Client Contact: David Glick	Date Extracted: 05/13-05/14/97
	Client P.O:	Date Analyzed: 05/14/97

Benzene

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	Benzene	% Rec. Surrogate
76135	Pit 1-S1	ZHETCLP	ND	115#
76136	Pit 1-S2	ZHETCLP	ND	103
76137	Gas Sta1-S1	ZHETCLP	0.15	99
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		ZHETCLP	0.0005	
		S	0.005	

* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID:# C95041; EBMUD/Walsh	Date Sampled: 05/06/97
		Date Received: 05/06/97
	Client Contact: David Glick	Date Extracted: 05/19/97
	Client P.O:	Date Analyzed: 05/20/97

LUFT Metals*

EPA analytical methods 6010/200.7, 239.2+

Lab ID	Client ID	Matrix	Extraction°	Cadmium	Chromium	Lead	Nickel	Zinc	% Rec. Surrogate
76135,36,37	Comp.# 1	S	TTLC	ND	33	170	74	400	102
76133,38,40,42	Comp.# 2	S	TTLC	ND	52	9.5	40	44	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		S	TTLC	0.5 mg/kg	0.5	3.0	2.0	1.0	
		W	TTLC	0.005 mg/L	0.005	0.005	0.05	0.05	
		---	STLC,TCLP	0.01 mg/L	0.05	0.2	0.05	0.05	

* soil samples and sludge are reported in mg/kg, and water samples and all STLC & TCLP extracts in mg/L

+ Lead is analysed using EPA method 6010 (ICP)for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC from CA Title 22

surrogate diluted out of range; N/A means surrogate not applicable to this analysis

& reporting limit raised due matrix interference

i) liquid sample that contains greater than ~ 2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

DHS Certification No. 1644

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Tele: 510-798-1620 Fax: 510-798-1622

Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID:# C95041; EBMUD/Walsh	Date Sampled: 05/06/97
		Date Received: 05/06/97
	Client Contact: David Glick	Date Extracted: 05/20-05/22/97
	Client P.O:	Date Analyzed: 05/22/97

Lead & Zinc*

EPA analytical methods 6010/200.7, 239.2+

Lab ID	Client ID	Matrix	Extraction°	Lead*	Zinc*	% Recovery Surrogate
76135,36,37	Comp # 1	S	STLC	8.6	14	NA
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		S	TTLC	3.0 mg/kg	1.0 mg/kg	
		W	TTLC	0.005 mg/L	0.05 mg/L	
		---	STLC,TCLP	0.2 mg/L	0.05 mg/L	

* soil and sludge samples are reported in mg/kg, and water samples and all STLC & TCLP extracts in mg/L

+ Lead is analysed using EPA method 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC from CA Title 22

surrogate diluted out of range; N/A means surrogate not applicable to this analysis

& reporting limit raised due matrix interference

i) liquid sample that contains greater than ~ 2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

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Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 05/14/97 Matrix: ZHETCLP

Analyte	Concentration (mg/L)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.0	96.2	96.3	100.0	96.2	96.3	0.1
Benzene	0.0	8.4	8.5	10.0	84.0	85.0	1.2
Toluene	0.0	8.4	8.6	10.0	84.0	86.0	2.4
Ethyl Benzene	0.0	8.5	8.5	10.0	85.0	85.0	0.0
Xylenes	0.0	25.6	25.4	30.0	85.3	84.7	0.8
TPH (diesel)	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TRPH (oil & grease)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR METALS

Date: 05/20/97 Matrix: Soil

Extraction:TTLC

Analyte	Concentration (mg/kg,mg/L)			Amount	% Recovery		RPD
	Sample	MS	MSD	Spiked	MS	MSD	
Arsenic	0.0	4.7	4.9	5.0	95	99	4.2
Selenium	0.0	4.2	4.1	5.0	85	83	2.2
Molybdenum	0.0	4.9	5.1	5.0	98	101	3.0
Silver	0.0	0.5	0.5	0.5	99	97	1.5
Thallium	0.0	4.7	4.7	5.0	94	93	0.3
Barium	0.0	4.2	4.1	5.0	84	82	2.4
Nickel	0.0	4.9	5.0	5.0	97	99	2.0
Chromium	0.0	5.1	5.2	5.0	101	104	2.6
Vanadium	0.0	4.6	4.7	5.0	92	94	2.1
Beryllium	0.0	5.1	5.1	5.0	102	102	0.0
Zinc	0.0	5.1	5.2	5.0	102	104	1.7
Copper	0.0	4.3	4.3	5.0	87	85	1.8
Antimony	0.0	4.6	4.7	5.0	91	93	2.2
Lead	0.0	4.8	5.1	5.0	97	101	4.2
Cadmium	0.0	4.9	4.9	5.0	98	99	0.6
Cobalt	0.0	4.7	4.8	5.0	95	96	1.1
Mercury	0.000	0.260	0.260	0.25	104	104	0.0

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

APPENDIX C

PHASE II EXCAVATION
ANALYTICAL TEST DATA

GeoPlexus, Inc.

4007XGP521

CHAIN-OF-CUSTODY

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054
Phone 408/987-0210 Fax 408/988-0815

PROJECT NUMBER	PROJECT NAME	Send Report Attention of:	Report Due	Verbal Due
C95041	WALSH Pacific EBMUD AMC	DAVID GLICK	/ /	/ /

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPHG/BTEX/MTBE	TPHd	Oil & Grease 5520	[redacted]
20X1-S1	6/11/97	930		/	NW SIDEWALL -6'	1CA	6" BRASS TUBE	✓	✓		
20X1-S2		930		/	EXC. BOTTOM -8'			✓	✓		
20X1-S3		940		/	NW SIDEWALL -6'			✓	✓	✓	
20X1-S4		945		/	NORTH SIDEWALL -6'			✓	✓	✓	
20X1-S5		952		/	BOTTOM SAMPLE -7'			✓	✓		
20X1-S6		1000		/	EXC. BOTTOM -7			✓	✓		
20X1-S7		1050		/	SW SIDEWALL -7'			✓	✓		
20X1-S8		1080		/	EXC. BOTTOM -9'			✓	✓		
20X1-S9		1053		/	EXC BOTTOM -8'			✓	✓		
20X1-S10		1125		/	EXC BOTTOM -9'			✓	✓		
20X1-S11		1130		/	S WALL -7.5'			✓	✓		
20X1-S12		1138		/	S WALL -5'			✓	✓		

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6/11/97 1313	[signature]	6/11/97 1365
[signature]	6/11/97 1420	Jenny Mulenic	6/11 225pm
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks: 24 HOUR RUSH

1 of 2

GeoPlexus, Inc.

9807XGP321

CHAIN-OF-CUSTODY

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054
Phone 408/987-0210 Fax 408/988-0815

PROJECT NUMBER: C950411

PROJECT NAME: WALSH Pacific EBMUD AMC

Send Report Attention of: DAVID GLICK

Report Due: / /

Verbal Due: / /

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPHg/BTEX / MTBE	TPHd	Oil & Grease 5520	Condition of Samples	Initial
20X1-513	6/11/97	1147		/	SE SIDEWALL -8'	1CN	6" BRASS TUBE	✓	✓			

ICE/T° ✓ GOOD CONDITION ✓ HEAD SPACE ABSENT ✓ PRESERVATIVE APPROPRIATE ✓ CONTAINERS ✓

VOAS | O&G | METALS | OTHER

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6/11/97 1313	[signature]	6/11/97 1316
[signature]	6/11/97 1926	Jenny Milenic	6/11 225pm
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks: 24 Hour TAT
2 of 2

McCAMPBELL ANALYTICAL INC.
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http://www.mccampbell.com E-mail: main@mccampbell.com

Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID: #C95041; Walsh Pacific EBMUD AMC	Date Sampled: 06/11/97
		Date Received: 06/11/97
	Client Contact: David Glick	Date Extracted: 06/11/97
	Client P.O:	Date Analyzed: 06/11-06/12/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
77406	20X1-S1	S	ND	ND	ND	ND	ND	ND	99
77407	20X1-S2	S	ND	ND	ND	ND	ND	ND	95
77408	20X1-S3	S	1.1,j	ND	ND	ND	ND	0.012	96
77409	20X1-S4	S	2.0,j	ND	ND	ND	ND	0.017	96
77410	20X1-S5	S	3.0,j	ND	ND	0.006	ND	0.008	100
77411	20X1-S6	S	ND	ND	ND	0.006	ND	0.011	96
77412	20X1-S7	S	ND	ND	ND	ND	ND	ND	95
77413	20X1-S8	S	2.7,c,a	ND	0.040	0.018	0.013	0.084	103
77414	20X1-S9	S	3.1,c,a	ND	1.1	0.14	0.031	0.081	100
77415	20X1-S10	S	ND	ND	ND	ND	ND	ND	98
77416	20X1-S11	S	11,c,a	ND<0.2	0.055	0.033	0.019	0.12	111#
77417	20X1-S12	S	67,j	ND<0.7	4.1	0.21	0.33	0.44	108#
77418	20X1-S13	S	4.2,j	ND	0.010	0.009	ND	0.033	105
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

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http://www.mccampbell.com E-mail: main@mccampbell.com

Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID: #C95041; Walsh Pacific EBMUD AMC	Date Sampled: 06/11/97
		Date Received: 06/11/97
	Client Contact: David Glick	Date Extracted: 06/11/97
	Client P.O:	Date Analyzed: 06/11-06/12/97

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
77406	20X1-S1	S	1.8,g	98
77407	20X1-S2	S	ND	102
77408	20X1-S3	S	ND	105
77409	20X1-S4	S	3.2,b/g	106
77410	20X1-S5	S	3.0,b/g	103
77411	20X1-S6	S	1.4,g	100
77412	20X1-S7	S	2.6,g	100
77413	20X1-S8	S	3.8,b/g	109
77414	20X1-S9	S	ND	102
77415	20X1-S10	S	4.0,g	103
77416	20X1-S11	S	7.9,d,g	102
77417	20X1-S12	S	27,d	105
77418	20X1-S13	S	9.7,d,g	106
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID: #C95041; Walsh Pacific EBMUD AMC	Date Sampled: 06/11/97
		Date Received: 06/11/97
	Client Contact: David Glick	Date Extracted: 06/11/97
	Client P.O:	Date Analyzed: 06/11/97

Petroleum Oil & Grease (with Silica Gel Clean-up) *

EPA methods 413.1, 9070 or 9071; Standard Methods 5520 D/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids

Lab ID	Client ID	Matrix	Oil & Grease*
77408	20X1-S3	S	ND
77409	20X1-S4	S	ND
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	5 mg/L
		S	50 mg/kg

* water samples are reported in mg/L, wipe samples in mg/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in mg/L

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5vol. % sediment.

DHS Certification No. 1644

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Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 06/10/97-06/11/97 Matrix: Soil

Analyte	Concentration (mg/kg) Sample (#74306)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	2.046	2.058	2.03	101	101	0.6
Benzene	0.000	0.164	0.170	0.2	82	85	3.6
Toluene	0.000	0.186	0.192	0.2	93	96	3.2
Ethylbenzene	0.000	0.190	0.194	0.2	95	97	2.1
Xylenes	0.000	0.566	0.580	0.6	94	97	2.4
TPH (diesel)	0	350	342	300	117	114	2.3
TRPH (oil and grease)	0.0	30.2	32.8	30	101	109	8.3

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

GeoPlexus, Inc.

CHAIN-OF-CUSTODY 68I-IXCIF52

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054
Phone 408/987-0210 Fax 408/988-0815

PROJECT NUMBER: 095041

PROJECT NAME: WALH PACIFIC EBMUD AMC

Send Report Attention of: DAVID GLICK / RICH CAMACHO

Report Due: / /

Verbal Due: / /

Type of Analysis: TPH-G/BTEX/MTBE; TPH-D; OIL & GREASE 5520; 8010; PNA'S; LUFT 5 METALS

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	TPH-G/BTEX/MTBE	TPH-D	OIL & GREASE 5520	8010	PNA'S	LUFT 5 METALS				Comments
20X1-S14	6/12/97	0830		1	EXCAVATION BOTTOM @ 8.5'	1 ea	6" BRASS TUBE	✓	✓								49
20X1-S15	6/12/97	0840		1	NORTH SIDEWALL @ 7'			✓	✓								50
20X1-S16	6/12/97	0850		1	EXCAVATION BOTTOM @ 8.5'			✓	✓								51
20X1-S17	6/12/97	0900		1	EAST SIDEWALL @ 7'			✓	✓								52
20X1-S18	6/12/97	0915		1	EXCAVATION BOTTOM @ 8'			✓	✓								53
20X1-S19	6/12/97	0930		1	EAST SIDEWALL @ 7'			✓	✓								54
40X1-S1	6/12/97	1000		1	SOUTH SIDE WALL @ 7'			✓	✓	✓	✓	✓	✓				55/HOLD
40X1-S2	6/12/97	1025		1	EXCAVATION BOTTOM @ 8'			✓	✓	✓	✓	✓	✓				56
40X1-S3	6/12/97	1030		1	EXCAVATION BOTTOM @ 9'			✓	✓	✓	✓	✓	✓				57
40X1-S4	6/12/97	1038		1	EXCAVATION BOTTOM @ 9'			✓	✓	✓	✓	✓	✓				58
20X1-20	6/12/97	1215		1	WEST SIDEWALL @ 7'			✓	✓	✓							59
40X1-S5	6/12/97	1243		1	WEST WALL @ 6'			✓	✓	✓	✓	✓	✓				60

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Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6/12/97 1623	J Milenic MAI	6/12 4:15

Remarks: 24 HOUR RUSH

FAX COPY DIRECT TO RICH CAMACHO 510 4395854

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Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID: #C95041; Walsh Pacific EBMUD AMC	Date Sampled: 06/12/97
		Date Received: 06/12/97
	Client Contact: David Glick	Date Extracted: 06/12/97
	Client P.O:	Date Analyzed: 06/12-06/13/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
77449	2OX1-S14	S	ND	ND	ND	0.006	ND	ND	99
77450	2OX1-S15	S	4.5,c,a	ND	0.069	0.021	0.010	0.025	107
77451	2OX1-S16	S	6.5,j	ND	0.26	0.032	0.012	0.047	97
77452	2OX1-S17	S	12,c,b	ND	0.29	0.041	0.023	0.15	101
77453	2OX1-S18	S	ND	ND	ND	ND	ND	ND	98
77454	2OX1-S19	S	1.2,j	ND	0.006	0.007	ND	0.021	101
77456	HOX1-S2	S	ND	ND	ND	ND	ND	ND	99
77457	HOX1-S3	S	ND	ND	ND	ND	ND	ND	104
77458	HOX1-S4	S	ND	ND	ND	ND	ND	ND	95
77459	2OX1-20	S	2.6,g	ND	ND	ND	ND	0.014	104
77460	HOX1-S5	S	ND	0.61	ND	ND	ND	0.019	102
77461	HOX1-S6	S	ND	ND	ND	ND	ND	ND	105
77462	HOX1-S7	S	ND	ND	ND	ND	ND	ND	102
77463	HOX1-S8	S	ND	1.2	0.040	0.084	ND	0.017	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg. and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

GeoPlexus, Inc.

CHAIN-OF-CUSTODY

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054
Phone 408/987-0210 Fax 408/988-0815

PROJECT NUMBER	PROJECT NAME	Send Report Attention of:	Report Due	Verbal Due
C95041	WALSH PACIFIC CBMUD AMC	DAVID GLICK/RICH CAMACHO	/ /	/ /

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: TPH g/BTEX/MTBE	TPH d	Oil & Grease 5520	BOD	PNAs	Lufk & Metals	Lab #
H0X1-56	6/12/97	1250		1	BOTTOM NORTHWEST @ 10'	1CA	6" BRASS TUBE	✓	✓	✓	✓	✓	✓	77461
H0X1-57	6/12/97	1303		✓	NW SIDE WALL @ 8'			✓	✓	✓	✓			77462
H0X1-58	6/12/97	1310		✓	N. SIDE WALL @ 8'			✓	✓	✓	✓			77463
H0X1-59	6/12/97	1317		✓	BOTTOM NORTHEAST @ 11'			✓	✓	✓	✓	✓	✓	77464
H0X1-510	6/12/97	1323		✓	BOTTOM @ 11'			✓	✓	✓	✓	✓	✓	77465
H0X1-511	6/12/97	1345		✓	BOTTOM @ 11'			✓	✓	✓	✓	✓	✓	77466
2H0X1-51	6/12/97	1410		✓	BOTTOM NORTH @ 11'			✓	✓	✓	✓	✓	✓	77467
2H0X1-52	6/12/97	1420		✓	BOTTOM CENTER @ 11'			✓	✓	✓	✓	✓	✓	77468
2H0X1-53	6/12/97	1425		✓	BOTTOM SOUTH @ 11'			✓	✓	✓	✓	✓	✓	77469
20X1-54	6/12/97	1431		✓	SIDEWALL N. SIDE @ 10.5			✓	✓	✓	✓	✓	✓	77470

ICE/T° ✓ VOAs | O&G | METALS | OTHER
GOOD CONDITION ✓ PRESERVATIVE
HEAD SPACE ABSENT ✓ APPROPRIATE CONTAINERS ✓

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6/12/97 16:13	J. Milenic MAI	6/12 4:15
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks:

24 HOUR RUSH

FAX COPY DIRECT TO RICH CAMACHO 510 4395064

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Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID: #C95041; Walsh Pacific EBMUD AMC	Date Sampled: 06/12/97
		Date Received: 06/12/97
	Client Contact: David Glick	Date Extracted: 06/12/97
	Client P.O:	Date Analyzed: 06/12-06/13/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
77464	HOX1-S9	S	ND	ND	ND	ND	ND	ND	99
77465	HOX1-S10	S	ND	ND	ND	ND	ND	ND	100
77466	HOX1-S11	S	ND	ND	ND	ND	ND	ND	100
77467	2HOX1-S1	S	ND	ND	ND	ND	ND	ND	99
77468	2HOX1-S2	S	ND	ND	ND	ND	ND	ND	100
77469	2HOX1-S3	S	ND	ND	ND	ND	ND	ND	100
77470	2HOX1-S4	S	ND	ND	ND	ND	ND	ND	99
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

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	Client Contact: David Glick	Date Extracted: 06/12/97
	Client P.O:	Date Analyzed: 06/12-06/13/97

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
77449	2OX1-S14	S	ND	103
77450	2OX1-S15	S	3.8,g	103
77451	2OX1-S16	S	ND	104
77452	2OX1-S17	S	5.3,d,g	106
77453	2OX1-S18	S	1.2,g	108
77454	2OX1-S19	S	1.5,g	104
77456	HOX1-S2	S	3.3,g	103
77457	HOX1-S3	S	1.8,g	100
77458	HOX1-S4	S	3.7,g	101
77459	2OX1-20	S	11,g,b	104
77460	HOX1-S5	S	4.7,g	102
77461	HOX1-S6	S	1.8,g	102
77462	HOX1-S7	S	3.5,g	103
77463	HOX1-S8	S	5.6,g	107
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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		Date Received: 06/12/97
	Client Contact: David Glick	Date Extracted: 06/12/97
	Client P.O:	Date Analyzed: 06/12-06/13/97

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
77464	HOX1-S9	S	ND	101
77465	HOX1-S10	S	ND	103
77466	HOX1-S11	S	1.8,g	105
77467	2HOX1-S1	S	ND	103
77468	2HOX1-S2	S	ND	103
77469	2HOX1-S3	S	ND	105
77470	2HOX1-S4	S	ND	105
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

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	Client Contact: David Glick	Date Extracted: 06/12/97
	Client P.O:	Date Analyzed: 06/12/97

Petroleum Oil & Grease (with Silica Gel Clean-up) *

EPA methods 413.1, 9070 or 9071; Standard Methods 5520 D/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids

Lab ID	Client ID	Matrix	Oil & Grease*
77456	HOX1-S2	S	ND
77457	HOX1-S3	S	ND
77458	HOX1-S4	S	ND
77459	2OX1-20	S	1500
77460	HOX1-S5	S	ND
77461	HOX1-S6	S	ND
77462	HOX1-S7	S	ND
77463	HOX1-S8	S	ND
77464	HOX1-S9	S	ND
77465	HOX1-S10	S	ND
77466	HOX1-S11	S	ND
77467	2HOX1-S1	S	ND
77468	2HOX1-S2	S	ND
77469	2HOX1-S3	S	ND
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	5 mg/L
		S	50 mg/kg

* water samples are reported in mg/L, wipe samples in mg/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in mg/L

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5vol. % sediment.

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	Client Contact: David Glick	Date Extracted: 06/12/97
	Client P.O:	Date Analyzed: 06/12/97

Petroleum Oil & Grease (with Silica Gel Clean-up) *

EPA methods 413.1, 9070 or 9071; Standard Methods 5520 D/E&F or 503 D&E for solids and 5520 B&F or 503 A&E for liquids

Lab ID	Client ID	Matrix	Oil & Grease*
77470	2HOX1-S4	S	ND
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	5 mg/L
		S	50 mg/kg

* water samples are reported in mg/L, wipe samples in mg/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in mg/L

h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5vol. % sediment.

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	Client Contact: David Glick	Date Extracted: 06/12/97
	Client P.O:	Date Analyzed: 06/12/97

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	77456	77457	77458	77460
Client ID	HOX1-S2	HOX1-S3	HOX1-S4	HOX1-S5
Matrix	S	S	S	S
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND	ND
Bromoform[b]	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Carbon Tetrachloride[c]	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether[d]	ND	ND	ND	ND
Chloroform[e]	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
cis 1,2-Dichloroethene	ND	ND	ND	ND
trans 1,2-Dichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
cis 1,3-Dichloropropene	ND	ND	ND	ND
trans 1,3-Dichloropropene	ND	ND	ND	ND
Methylene Chloride[f]	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND
Vinyl Chloride[g]	ND	ND	ND	ND
% Recovery Surrogate	97	100	98	98
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe

Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

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		Date Received: 06/12/97
	Client Contact: David Glick	Date Extracted: 06/12/97
	Client P.O:	Date Analyzed: 06/12/97

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	77461	77462	77463	77464
Client ID	HOX1-S6	HOX1-S7	HOX1-S8	HOX1-S9
Matrix	S	S	S	S
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND	ND
Bromoform[b]	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Carbon Tetrachloride[c]	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether[d]	ND	ND	ND	ND
Chloroform [e]	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
cis 1,2-Dichloroethene	ND	ND	ND	ND
trans 1,2-Dichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
cis 1,3-Dichloropropene	ND	ND	ND	ND
trans 1,3-Dichloropropene	ND	ND	ND	ND
Methylene Chloride[f]	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND
Vinyl Chloride[g]	ND	ND	ND	ND
% Recovery Surrogate	98	100	100	96
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe

Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

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	Client P.O:	Date Analyzed: 06/12/97

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	77465	77466	77467	77468
Client ID	HOX1-S10	HOX1-S11	2HOX1-S1	2HOX1-S2
Matrix	S	S	S	S
Compound	Concentration*			
Bromodichloromethane	ND	ND	ND	ND
Bromoform[b]	ND	ND	ND	ND
Bromomethane	ND	ND	ND	ND
Carbon Tetrachloride[c]	ND	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND
2-Chloroethyl Vinyl Ether[d]	ND	ND	ND	ND
Chloroform [c]	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND
Dibromochloromethane	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND
Dichlorodifluoromethane	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND
cis 1,2-Dichloroethene	ND	ND	ND	ND
trans 1,2-Dichloroethene	ND	ND	ND	ND
1,2-Dichloropropane	ND	ND	ND	ND
cis 1,3-Dichloropropene	ND	ND	ND	ND
trans 1,3-Dichloropropene	ND	ND	ND	ND
Methylene Chloride[f]	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND
Trichlorofluoromethane	ND	ND	ND	ND
Vinyl Chloride[g]	ND	ND	ND	ND
% Recovery Surrogate	97	97	97	96
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe

Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

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	Client P.O:	Date Analyzed: 06/12/97

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	77469	77470		
Client ID	2HOX1-S3	S2OX1-S4		
Matrix	S	S		
Compound	Concentration*			
Bromodichloromethane	ND	ND		
Bromoform[b]	ND	ND		
Bromomethane	ND	ND		
Carbon Tetrachloride[c]	ND	ND		
Chlorobenzene	ND	ND		
Chloroethane	ND	ND		
2-Chloroethyl Vinyl Ether[d]	ND	ND		
Chloroform [e]	ND	ND		
Chloromethane	ND	ND		
Dibromochloromethane	ND	ND		
1,2-Dichlorobenzene	ND	ND		
1,3-Dichlorobenzene	ND	ND		
1,4-Dichlorobenzene	ND	ND		
Dichlorodifluoromethane	ND	ND		
1,1-Dichloroethane	ND	ND		
1,2-Dichloroethane	ND	ND		
1,1-Dichloroethene	ND	ND		
cis 1,2-Dichloroethene	ND	ND		
trans 1,2-Dichloroethene	ND	ND		
1,2-Dichloropropane	ND	ND		
cis 1,3-Dichloropropene	ND	ND		
trans 1,3-Dichloropropene	ND	ND		
Methylene Chloride[f]	ND	ND		
1,1,2,2-Tetrachloroethane	ND	ND		
Tetrachloroethene	ND	ND		
1,1,1-Trichloroethane	ND	ND		
1,1,2-Trichloroethane	ND	ND		
Trichloroethene	ND	ND		
Trichlorofluoromethane	ND	ND		
Vinyl Chloride[g]	ND	ND		
% Recovery Surrogate	97	98		
Comments				

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe

Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

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http://www.mccampbell.com E-mail: main@mccampbell.com

Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID: #C95041; Walsh Pacific EBMUD AMC	Date Sampled: 06/12/97
		Date Received: 06/12/97
	Client Contact: David Glick	Date Extracted: 06/12/97
	Client P.O:	Date Analyzed: 06/13/97

LUFT Metals*

EPA analytical methods 6010/200.7, 239.2+

Lab ID	Client ID	Matrix	Extraction°	Cadmium	Chromium	Lead	Nickel	Zinc	% Recovery Surrogate
77456	HOX1-S2	S	TTLC	ND	42	11	22	40	102
77457	HOX1-S3	S	TTLC	ND	28	6.6	28	25	102
77458	HOX1-S4	S	TTLC	ND	40	6.3	36	44	101
77460	HOX1-S5	S	TTLC	ND	33	5.4	18	25	97
77461	HOX1-S6	S	TTLC	ND	34	6.6	74	45	100
77464	HOX1-S9	S	TTLC	ND	24	4.1	28	24	103
77465	HOX1-S10	S	TTLC	ND	25	4.8	26	26	101
77466	HOX1-S11	S	TTLC	ND	30	5.9	42	45	98
77467	2HOX1-S1	S	TTLC	ND	32	4.8	40	31	93
77468	2HOX1-S2	S	TTLC	ND	35	6.6	43	33	100
77469	2HOX1-S3	S	TTLC	ND	33	9.0	66	33	100
77470	2HOX1-S4	S	TTLC	ND	35	4.3	30	22	102
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		S	TTLC	0.5 mg/kg	0.5	3.0	2.0	1.0	
		W	TTLC	0.005 mg/L	0.005	0.005	0.05	0.05	
		---	STLC, TCLP	0.01 mg/L	0.05	0.2	0.05	0.05	

* water samples are reported in mg/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in mg/L

Lead is analysed using EPA method 6010 (ICP)for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22

surrogate diluted out of range; N/A means surrogate not applicable to this analysis

& reporting limit raised due to matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 06/12/97 Matrix: Soil

Analyte	Concentration (mg/kg) Sample (#75863)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	1.974	2.045	2.03	97	101	3.5
Benzene	0.000	0.162	0.174	0.2	81	87	7.1
Toluene	0.000	0.184	0.180	0.2	92	90	2.2
Ethylbenzene	0.000	0.192	0.182	0.2	96	91	5.3
Xylenes	0.000	0.632	0.536	0.6	105	89	16.4
TPH (diesel)	0	319	316	300	106	105	0.8
TRPH (oil and grease)	0.0	22.4	22.3	20.8	108	107	0.4

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 06/13/97 Matrix: Soil

Analyte	Concentration (mg/kg) Sample (#75863)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	1.846	2.150	2.03	91	106	15.2
Benzene	0.000	0.174	0.184	0.2	87	92	5.6
Toluene	0.000	0.180	0.192	0.2	90	96	6.5
Ethylbenzene	0.000	0.182	0.194	0.2	91	97	6.4
Xylenes	0.000	0.538	0.572	0.6	90	95	6.1
TPH (diesel)	0	320	320	300	107	107	0.0
TRPH (oil and grease)	0.0	22.0	21.3	20.8	106	102	3.2

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR EPA 8010/8020/EDB

Date: 06/12/97 Matrix: Soil

Analyte	Concentration (ug/kg) Sample (#75863)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
1,1-DCE	0	89	89	100	89	89	0.0
Trichloroethene	0	82	82	100	82	82	0.0
EDB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	0	85	85	100	85	85	0.0
Benzene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toluene	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobz (PID)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR ICP and/or AA METALS

Date: 06/13/97 Matrix: Soil

Extraction: TTLC

Analyte	Concentration (mg/kg, mg/L)			Amount	% Recovery		RPD
	Sample	MS	MSD	Spiked	MS	MSD	
Total Lead	0.0	4.76	4.79	5.0	95	96	0.6
Total Cadmium	0.0	5.30	5.24	5.0	106	105	1.1
Total Chromium	0.0	5.29	5.23	5.0	106	105	1.0
Total Nickel	0.0	4.91	4.97	5.0	98	99	1.4
Total Zinc	0.0	5.46	5.39	5.0	109	108	1.3
Total Copper	0.00	4.78	4.74	5.0	96	95	0.8
STLC Lead	N/A	N/A	N/A	N/A	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

1706171

McCAMPBELL ANALYTICAL

110 2nd AVENUE, # D7
PACHECO, CA 94553

(510) 798-1620 FAX (510) 798-1622

CHAIN OF CUSTODY RECORD

TURN AROUND TIME: ☐ RUSH ☒ 24 HOUR ☐ 48 HOUR ☐ 5 DAY ☐ ROUTINE

REPORT TO: ED HAMILTON BILL TO: MAI

PROJECT NUMBER: 8814 PROJECT NAME: GP-C95041

PROJECT LOCATION:

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINERS	MATRIX: WATER	SOIL	AIR	SLUDGE	OTHER	METHOD PRESERVED: HCL	HNO3	ICE	OTHER	ANALYSIS REQUEST: EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080 - PCBs Only	EPA 624/8240/8260	EPA 625/8270	CAM - 17 Metals	EPA - Priority Pollutant Metals	LUFT Metals	LEAD (7240/7421/239.2/6010)	ORGANIC LEAD	RCI	OTHER: PAHs	COMMENTS
HOX1-S2	01A	6/12	1025	1	VOG		X						X														X	77456
HOX1-S3	02A		1030																								X	77457
HOX1-S4	03A		1038																								X	77458
HOX1-S5	04A		1243																								X	77460
HOX1-S6	05A		1250																								X	77461
HOX1-S9	06A		1317																								X	77464
HOX1-S10	07A		1323																								X	77465
HOX1-S11	08A		1345																								X	77466
2HOX1-S1	09A		1410																								X	77467
2HOX1-S2	10A		1420																								X	77468
2HOX1-S3	11A		1425																								X	77469
2HOX1-S4	12A		1431																								X	77470

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:
Milenic	6/12	5:20	Rick Gilmore
Rick Gilmore	6-12-97	18:00	RECEIVED BY:
RELINQUISHED BY:	DATE	TIME	RECEIVED BY LABORATORY:

REMARKS:

Fax A.S.A.P.

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

McCAMPBELL ANALYTICAL
110 2ND AVE. SOUTH, #D7
PACHECO, CA 94553

ATTN: EDWARD HAMILTON
CLIENT PROJ. ID: 8814
CLIENT PROJ. NAME: GP-C95041

REPORT DATE: 06/18/97

DATE(S) SAMPLED: 06/12/97

DATE RECEIVED: 06/12/97

AEN WORK ORDER: 9706171

PROJECT SUMMARY:

On June 12, 1997, this laboratory received 12 soil sample(s).

Client requested sample(s) be analyzed for chemical parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

McCAMPBELL ANALYTICAL

SAMPLE ID: HOX1-S2
AEN LAB NO: 9706171-01
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	400	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	400	ug/kg	06/13/97
Anthracene	120-12-7	ND	400	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	400	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	400	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	400	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	400	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	400	ug/kg	06/13/97
Chrysene	218-01-9	ND	400	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	400	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	400	ug/kg	06/13/97
Fluorene	86-73-7	ND	400	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	400	ug/kg	06/13/97
Naphthalene	91-20-3	ND	400	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	400	ug/kg	06/13/97
Pyrene	129-00-0	ND	400	ug/kg	06/13/97

Less than normal amount of sample available for analysis; reporting limits elevated accordingly.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

McCAMPBELL ANALYTICAL

SAMPLE ID: HOX1-S3
AEN LAB NO: 9706171-02
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	330	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	330	ug/kg	06/13/97
Anthracene	120-12-7	ND	330	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	06/13/97
Chrysene	218-01-9	ND	330	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	330	ug/kg	06/13/97
Fluorene	86-73-7	ND	330	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	06/13/97
Naphthalene	91-20-3	ND	330	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	330	ug/kg	06/13/97
Pyrene	129-00-0	ND	330	ug/kg	06/13/97

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McCAMPBELL ANALYTICAL

SAMPLE ID: HOX1-S4
AEN LAB NO: 9706171-03
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	500	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	500	ug/kg	06/13/97
Anthracene	120-12-7	ND	500	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	500	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	500	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	500	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	500	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	500	ug/kg	06/13/97
Chrysene	218-01-9	ND	500	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	500	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	500	ug/kg	06/13/97
Fluorene	86-73-7	ND	500	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	500	ug/kg	06/13/97
Naphthalene	91-20-3	ND	500	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	500	ug/kg	06/13/97
Pyrene	129-00-0	ND	500	ug/kg	06/13/97

Less than normal amount of sample available for analysis; reporting limits elevated accordingly.

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McCAMPBELL ANALYTICAL

SAMPLE ID: HOX1-S5
AEN LAB NO: 9706171-04
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	330	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	330	ug/kg	06/13/97
Anthracene	120-12-7	ND	330	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	06/13/97
Chrysene	218-01-9	ND	330	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	330	ug/kg	06/13/97
Fluorene	86-73-7	ND	330	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	06/13/97
Naphthalene	91-20-3	ND	330	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	330	ug/kg	06/13/97
Pyrene	129-00-0	ND	330	ug/kg	06/13/97

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McCAMPBELL ANALYTICAL

SAMPLE ID: HOX1-S6
AEN LAB NO: 9706171-05
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	500	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	500	ug/kg	06/13/97
Anthracene	120-12-7	ND	500	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	500	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	500	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	500	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	500	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	500	ug/kg	06/13/97
Chrysene	218-01-9	ND	500	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	500	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	500	ug/kg	06/13/97
Fluorene	86-73-7	ND	500	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	500	ug/kg	06/13/97
Naphthalene	91-20-3	ND	500	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	500	ug/kg	06/13/97
Pyrene	129-00-0	ND	500	ug/kg	06/13/97

Less than normal amount of sample available for analysis; reporting limits elevated accordingly.

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McCAMPBELL ANALYTICAL

SAMPLE ID: HOX1-S9
AEN LAB NO: 9706171-06
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	330	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	330	ug/kg	06/13/97
Anthracene	120-12-7	ND	330	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	06/13/97
Chrysene	218-01-9	ND	330	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	330	ug/kg	06/13/97
Fluorene	86-73-7	ND	330	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	06/13/97
Naphthalene	91-20-3	ND	330	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	330	ug/kg	06/13/97
Pyrene	129-00-0	ND	330	ug/kg	06/13/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

McCAMPBELL ANALYTICAL

SAMPLE ID: HOX1-S10
AEN LAB NO: 9706171-07
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	330	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	330	ug/kg	06/13/97
Anthracene	120-12-7	ND	330	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	06/13/97
Chrysene	218-01-9	ND	330	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	330	ug/kg	06/13/97
Fluorene	86-73-7	ND	330	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	06/13/97
Naphthalene	91-20-3	ND	330	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	330	ug/kg	06/13/97
Pyrene	129-00-0	ND	330	ug/kg	06/13/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

McCAMPBELL ANALYTICAL

SAMPLE ID: HOX1-S11
AEN LAB NO: 9706171-08
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	500	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	500	ug/kg	06/13/97
Anthracene	120-12-7	ND	500	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	500	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	500	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	500	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	500	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	500	ug/kg	06/13/97
Chrysene	218-01-9	ND	500	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	500	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	500	ug/kg	06/13/97
Fluorene	86-73-7	ND	500	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	500	ug/kg	06/13/97
Naphthalene	91-20-3	ND	500	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	500	ug/kg	06/13/97
Pyrene	129-00-0	ND	500	ug/kg	06/13/97

Less than normal amount of sample available for analysis; reporting limits elevated accordingly.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

McCAMPBELL ANALYTICAL

SAMPLE ID: 2HOX1-S1
AEN LAB NO: 9706171-09
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	330	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	330	ug/kg	06/13/97
Anthracene	120-12-7	ND	330	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	06/13/97
Chrysene	218-01-9	ND	330	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	330	ug/kg	06/13/97
Fluorene	86-73-7	ND	330	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	06/13/97
Naphthalene	91-20-3	ND	330	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	330	ug/kg	06/13/97
Pyrene	129-00-0	ND	330	ug/kg	06/13/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

McCAMPBELL ANALYTICAL

SAMPLE ID: 2HOX1-S2
AEN LAB NO: 9706171-10
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	330	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	330	ug/kg	06/13/97
Anthracene	120-12-7	ND	330	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	06/13/97
Chrysene	218-01-9	ND	330	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	330	ug/kg	06/13/97
Fluorene	86-73-7	ND	330	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	06/13/97
Naphthalene	91-20-3	ND	330	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	330	ug/kg	06/13/97
Pyrene	129-00-0	ND	330	ug/kg	06/13/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

McCAMPBELL ANALYTICAL

SAMPLE ID: 2HOX1-S3
AEN LAB NO: 9706171-11
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	330	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	330	ug/kg	06/13/97
Anthracene	120-12-7	ND	330	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	06/13/97
Chrysene	218-01-9	ND	330	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	330	ug/kg	06/13/97
Fluorene	86-73-7	ND	330	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	06/13/97
Naphthalene	91-20-3	ND	330	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	330	ug/kg	06/13/97
Pyrene	129-00-0	ND	330	ug/kg	06/13/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

McCAMPBELL ANALYTICAL

SAMPLE ID: 2HOX1-S4
AEN LAB NO: 9706171-12
AEN WORK ORDER: 9706171
CLIENT PROJ. ID: 8814

DATE SAMPLED: 06/12/97
DATE RECEIVED: 06/12/97
REPORT DATE: 06/18/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for PNAs	EPA 3550	-		Extrn Date	06/12/97
PNAs by EPA 8270	EPA 8270				
Acenaphthene	83-32-9	ND	330	ug/kg	06/13/97
Acenaphthylene	208-96-8	ND	330	ug/kg	06/13/97
Anthracene	120-12-7	ND	330	ug/kg	06/13/97
Benzo(a)anthracene	56-55-3	ND	330	ug/kg	06/13/97
Benzo(b)fluoranthene	205-99-2	ND	330	ug/kg	06/13/97
Benzo(k)fluoranthene	207-08-9	ND	330	ug/kg	06/13/97
Benzo(g,h,i)perylene	191-24-2	ND	330	ug/kg	06/13/97
Benzo(a)pyrene	50-32-8	ND	330	ug/kg	06/13/97
Chrysene	218-01-9	ND	330	ug/kg	06/13/97
Dibenzo(a,h)anthracene	53-70-3	ND	330	ug/kg	06/13/97
Fluoranthene	206-44-0	ND	330	ug/kg	06/13/97
Fluorene	86-73-7	ND	330	ug/kg	06/13/97
Indeno(1,2,3-cd)pyrene	193-39-5	ND	330	ug/kg	06/13/97
Naphthalene	91-20-3	ND	330	ug/kg	06/13/97
Phenanthrene	85-01-8	ND	330	ug/kg	06/13/97
Pyrene	129-00-0	ND	330	ug/kg	06/13/97

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9706171
CLIENT PROJECT ID: 8814

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spikes(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analyses.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behaviour, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrument performance.

D: Surrogates diluted out.

I: Interference.

!: Indicates result outside of established laboratory QC limits.

ANALYSIS: Semi-Volatile Organics

MATRIX: Soil/Bulk

METHOD BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:

LAB ID: BLNK 0612
PREPARED: 06/12/97
ANALYZED: 06/12/97

INSTR RUN: GCMS10\970612000000/6/
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	70.7			107	66.1	41	110		
Phenol-d5	(surr)	68.8			101	68.1	50	127		
Nitrobenzene-d5	(surr)	70.5			110	64.1	43	100		
2-Fluorobiphenyl	(surr)	71.6			101	70.9	49	126		
2,4,6-Tribromophenol	(surr)	66.0			103	64.1	55	125		
Terphenyl-d14	(surr)	96.3			101	95.3	61	125		
Phenol		ND		330						
2-Chlorophenol		ND		330						
1,4-Dichlorobenzene		ND		330						
N-Nitrosodi-n-propylamine		ND		330						
1,2,4-Trichlorobenzene		ND		330						
4-Chloro-3-methylphenol		ND		330						
Acenaphthene		ND		330						
4-Nitrophenol		ND		1600						
2,4-Dinitrotoluene		ND		330						
Pentachlorophenol		ND		1600						
Pyrene		ND		330						
Acenaphthylene		ND		330						
Anthracene		ND		330						
Benzidine		ND		1600						
Benzoic Acid		ND		1600						
Benzo(a)anthracene		ND		330						
Benzo(b)fluoranthene		ND		330						
Benzo(k)fluoranthene		ND		330						
Benzo(g,h,i)perylene		ND		330						
Benzo(a)pyrene		ND		330						
Benzyl Alcohol		ND		660						
Bis(2-chloroethoxy)methane		ND		330						
Bis(2-chloroethyl) Ether		ND		330						
Bis(2-chloroisopropyl) Eth		ND		330						
Bis(2-ethylhexyl) Phthalat		ND		330						
4-Bromophenyl Phenyl Ether		ND		330						
Butylbenzyl Phthalate		ND		330						
4-Chloroaniline		ND		660						
2-Chloronaphthalene		ND		330						
4-Chlorphenyl Phenyl Ether		ND		330						
Chrysene		ND		330						
Dibenzo(a,h)anthracene		ND		330						
Dibenzofuran		ND		330						
Di-n-butyl Phthalate		ND		330						
1,2-Dichlorobenzene		ND		330						
1,3-Dichlorobenzene		ND		330						
3,3'-Dichlorobenzidine		ND		660						
Diethyl Phthalate		ND		330						
Dimethyl Phthalate		ND		330						
2,6-Dinitrotoluene		ND		330						
Di-n-octyl Phthalate		ND		330						
1,2-Diphenylhydrazine		ND		330						
Fluoranthene		ND		330						
Fluorene		ND		330						
Hexachlorobenzene		ND		330						
Hexachlorobutadiene		ND		330						
Hexachlorocyclopentadiene		ND		330						
Hexachloroethane		ND		330						
Indeno(1,2,3-cd)pyrene		ND		330						
Isophorone		ND		330						
2-Methylnaphthalene		ND		330						
Naphthalene		ND		330						
2-Nitroaniline		ND		1600						
3-Nitroaniline		ND		1600						
4-Nitroaniline		ND		1600						
Nitrobenzene		ND		330						
N-Nitrosodimethylamine		ND		330						
N-Nitrosodiphenylamine		ND		330						
Phenanthrene		ND		330						
2,4-Dichlorophenol		ND		330						

ANALYSIS: Semi-Volatile Organics

MATRIX: Soil/Bulk

METHOD BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:

LAB ID: BLNK 0612
PREPARED: 06/12/97
ANALYZED: 06/12/97

INSTR RUN: GCMS10\970612000000/6/
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE	RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2,4-Dimethylphenol	ND		330						
4,6-Dinitro-2-methylphenol	ND		1600						
2,4-Dinitrophenol	ND		1600						
2-Methylphenol	ND		330						
4-Methylphenol	ND		330						
2-Nitrophenol	ND		330						
2,4,5-Trichlorophenol	ND		330						
2,4,6-Trichlorophenol	ND		330						

METHOD SPIKE SAMPLES

SAMPLE TYPE: Laboratory Control Spike
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:

LAB ID: LCD 0612
PREPARED: 06/12/97
ANALYZED: 06/12/97

INSTR RUN: GCMS10\970612000000/8/6
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	66.0	70.7		107	61.7	41	110		
Phenol-d5	(surr)	64.9	68.8		101	64.3	50	127		
Nitrobenzene-d5	(surr)	65.7	70.5		110	59.7	43	100		
2-Fluorobiphenyl	(surr)	68.3	71.6		101	67.6	49	126		
2,4,6-Tribromophenol	(surr)	65.1	66.0		103	63.2	55	125		
Terphenyl-d14	(surr)	88.1	96.3		101	87.2	61	125		
Phenol		1610	ND	330	2940	54.76	41	125		
2-Chlorophenol		1880	ND	330	2980	63.09	45	132		
1,4-Dichlorobenzene		1860	ND	330	2970	62.63	24	126		
N-Nitrosodi-n-propylamine		2050	ND	330	2750	74.55	60	129		
1,2,4-Trichlorobenzene		2010	ND	330	3290	61.09	38	123		
4-Chloro-3-methylphenol		1860	ND	330	2960	62.84	49	145		
Acenaphthene		1900	ND	330	2790	68.10	50	129		
4-Nitrophenol		1560	ND	1600	2960	52.70	29	139		
2,4-Dinitrotoluene		2720	ND	330	3810	71.39	53	127		
Pentachlorophenol		1350	ND	1600	2770	48.74	13	171		
Pyrene		3120	ND	330	3580	87.15	40	130		

SAMPLE TYPE: Laboratory Control Spike
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:

LAB ID: LCS 0612
PREPARED: 06/12/97
ANALYZED: 06/12/97

INSTR RUN: GCMS10\970612000000/7/6
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	66.3	70.7		107	62.0	41	110		
Phenol-d5	(surr)	64.4	68.8		101	63.8	50	127		
Nitrobenzene-d5	(surr)	65.8	70.5		110	59.8	43	100		
2-Fluorobiphenyl	(surr)	66.8	71.6		101	66.1	49	126		
2,4,6-Tribromophenol	(surr)	68.2	66.0		103	66.2	55	125		
Terphenyl-d14	(surr)	86.9	96.3		101	86.0	61	125		
Phenol		1660	ND	330	2940	56.46	41	125		
2-Chlorophenol		1910	ND	330	2980	64.09	45	132		
1,4-Dichlorobenzene		1930	ND	330	2970	64.98	24	126		
N-Nitrosodi-n-propylamine		2080	ND	330	2750	75.64	60	129		
1,2,4-Trichlorobenzene		2040	ND	330	3290	62.01	38	123		
4-Chloro-3-methylphenol		1920	ND	330	2960	64.86	49	145		
Acenaphthene		1970	ND	330	2790	70.61	50	129		
4-Nitrophenol		1500	ND	1600	2960	50.68	29	139		
2,4-Dinitrotoluene		2710	ND	330	3810	71.13	53	127		
Pentachlorophenol		1240	ND	1600	2770	44.77	13	171		
Pyrene		3130	ND	330	3580	87.43	40	130		

ANALYSIS: Semi-Volatile Organics

MATRIX: Soil/Bulk

METHOD SPIKE DUPLICATES

SAMPLE TYPE: Laboratory Control Sample Duplicate
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:

LAB ID: LCR 0612
PREPARED: 06/12/97
ANALYZED: 06/12/97

INSTR RUN: GCMS10\970612000000/9/7
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	66.0	66.3		107	61.7	41	110		
Phenol-d5	(surr)	64.9	64.4		101	64.3	50	127		
Nitrobenzene-d5	(surr)	65.7	65.8		110	59.7	43	100		
2-Fluorobiphenyl	(surr)	68.3	66.8		101	67.6	49	126		
2,4,6-Tribromophenol	(surr)	65.1	68.2		103	63.2	55	125		
Terphenyl-d14	(surr)	88.1	86.9		101	87.2	61	125		
Phenol		1610	1660	330	2940				3.058	30
2-Chlorophenol		1880	1910	330	2980				1.583	30
1,4-Dichlorobenzene		1860	1930	330	2970				3.694	30
N-Nitrosodi-n-propylamine		2050	2080	330	2750				1.453	30
1,2,4-Trichlorobenzene		2010	2040	330	3290				1.481	30
4-Chloro-3-methylphenol		1860	1920	330	2960				3.175	30
Acenaphthene		1900	1970	330	2790				3.618	30
4-Nitrophenol		1560	1500	1600	2960				3.922	30
2,4-Dinitrotoluene		2720	2710	330	3810				0.3683	30
Pentachlorophenol		1350	1240	1600	2770				8.494	30
Pyrene		3120	3130	330	3580				0.3200	30

SAMPLE SURROGATES

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:

LAB ID: 9706171-01A
PREPARED: 06/12/97
ANALYZED: 06/13/97

INSTR RUN: GCMS10\970612000000/10/
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	72.0			107	67.3	41	110		
Phenol-d5	(surr)	70.4			101	69.7	50	127		
Nitrobenzene-d5	(surr)	68.3			110	62.1	43	100		
2-Fluorobiphenyl	(surr)	72.3			101	71.6	49	126		
2,4,6-Tribromophenol	(surr)	70.7			103	68.6	55	125		
Terphenyl-d14	(surr)	85.9			101	85.0	61	125		

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:

LAB ID: 9706171-02A
PREPARED: 06/12/97
ANALYZED: 06/13/97

INSTR RUN: GCMS10\970612000000/11/
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	69.0			107	64.5	41	110		
Phenol-d5	(surr)	69.0			101	68.3	50	127		
Nitrobenzene-d5	(surr)	66.8			110	60.7	43	100		
2-Fluorobiphenyl	(surr)	68.9			101	68.2	49	126		
2,4,6-Tribromophenol	(surr)	72.8			103	70.7	55	125		
Terphenyl-d14	(surr)	85.5			101	84.7	61	125		

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:

LAB ID: 9706171-03A
PREPARED: 06/12/97
ANALYZED: 06/13/97

INSTR RUN: GCMS10\970612000000/12/
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	62.8			107	58.7	41	110		
Phenol-d5	(surr)	62.3			101	61.7	50	127		
Nitrobenzene-d5	(surr)	61.3			110	55.7	43	100		
2-Fluorobiphenyl	(surr)	63.7			101	63.1	49	126		
2,4,6-Tribromophenol	(surr)	69.8			103	67.8	55	125		
Terphenyl-d14	(surr)	84.9			101	84.1	61	125		

ANALYSIS: Semi-Volatile Organics

MATRIX: Soil/Bulk

SAMPLE SURROGATES

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:
LAB ID: 9706171-04A
PREPARED: 06/12/97
ANALYZED: 06/13/97
INSTR RUN: GCMS10\970612000000/13/
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	63.7			107	59.5	41	110		
Phenol-d5	(surr)	62.7			101	62.1	50	127		
Nitrobenzene-d5	(surr)	61.0			110	55.5	43	100		
2-Fluorobiphenyl	(surr)	63.4			101	62.8	49	126		
2,4,6-Tribromophenol	(surr)	72.9			103	70.8	55	125		
Terphenyl-d14	(surr)	85.3			101	84.5	61	125		

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:
LAB ID: 9706171-05A
PREPARED: 06/12/97
ANALYZED: 06/13/97
INSTR RUN: GCMS10\970612000000/14/
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	74.5			107	69.6	41	110		
Phenol-d5	(surr)	74.9			101	74.2	50	127		
Nitrobenzene-d5	(surr)	73.6			110	66.9	43	100		
2-Fluorobiphenyl	(surr)	74.2			101	73.5	49	126		
2,4,6-Tribromophenol	(surr)	70.1			103	68.1	55	125		
Terphenyl-d14	(surr)	88.3			101	87.4	61	125		

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:
LAB ID: 9706171-06A
PREPARED: 06/12/97
ANALYZED: 06/13/97
INSTR RUN: GCMS10\970612000000/15/
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	61.8			107	57.8	41	110		
Phenol-d5	(surr)	61.6			101	61.0	50	127		
Nitrobenzene-d5	(surr)	60.2			110	54.7	43	100		
2-Fluorobiphenyl	(surr)	61.7			101	61.1	49	126		
2,4,6-Tribromophenol	(surr)	58.0			103	56.3	55	125		
Terphenyl-d14	(surr)	80.3			101	79.5	61	125		

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:
LAB ID: 9706171-07A
PREPARED: 06/12/97
ANALYZED: 06/13/97
INSTR RUN: GCMS10\970612000000/16/
BATCH ID: BNAS060997
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	65.4			107	61.1	41	110		
Phenol-d5	(surr)	64.3			101	63.7	50	127		
Nitrobenzene-d5	(surr)	63.2			110	57.5	43	100		
2-Fluorobiphenyl	(surr)	66.3			101	65.6	49	126		
2,4,6-Tribromophenol	(surr)	58.1			103	56.4	55	125		
Terphenyl-d14	(surr)	79.2			101	78.4	61	125		

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:
LAB ID: 9706171-08A
PREPARED: 06/12/97
ANALYZED: 06/13/97
INSTR RUN: GCMS10\970612000000/17/
BATCH ID: BNAS061297
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	70.7			107	66.1	41	110		
Phenol-d5	(surr)	70.9			101	70.2	50	127		
Nitrobenzene-d5	(surr)	69.2			110	62.9	43	100		
2-Fluorobiphenyl	(surr)	71.6			101	70.9	49	126		
2,4,6-Tribromophenol	(surr)	67.5			103	65.5	55	125		
Terphenyl-d14	(surr)	88.0			101	87.1	61	125		

ANALYSIS: Semi-Volatile Organics

MATRIX: Soil/Bulk

SAMPLE SURROGATES

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:
LAB ID: 9706171-09A
PREPARED: 06/12/97
ANALYZED: 06/13/97
INSTR RUN: GCMS10\970612000000/18/
BATCH ID: BNAS061297
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	61.1			107	57.1	41	110		
Phenol-d5	(surr)	60.9			101	60.3	50	127		
Nitrobenzene-d5	(surr)	59.5			110	54.1	43	100		
2-Fluorobiphenyl	(surr)	62.6			101	62.0	49	126		
2,4,6-Tribromophenol	(surr)	65.4			103	63.5	55	125		
Terphenyl-d14	(surr)	84.3			101	83.5	61	125		

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:
LAB ID: 9706171-10A
PREPARED: 06/12/97
ANALYZED: 06/13/97
INSTR RUN: GCMS10\970612000000/19/
BATCH ID: BNAS061297
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	65.7			107	61.4	41	110		
Phenol-d5	(surr)	66.8			101	66.1	50	127		
Nitrobenzene-d5	(surr)	64.0			110	58.2	43	100		
2-Fluorobiphenyl	(surr)	66.4			101	65.7	49	126		
2,4,6-Tribromophenol	(surr)	63.7			103	61.8	55	125		
Terphenyl-d14	(surr)	79.7			101	78.9	61	125		

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:
LAB ID: 9706171-11A
PREPARED: 06/12/97
ANALYZED: 06/13/97
INSTR RUN: GCMS10\970613000000/1/
BATCH ID: BNAS061297
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	73.3			107	68.5	41	110		
Phenol-d5	(surr)	73.5			101	72.8	50	127		
Nitrobenzene-d5	(surr)	68.4			110	62.2	43	100		
2-Fluorobiphenyl	(surr)	66.8			101	66.1	49	126		
2,4,6-Tribromophenol	(surr)	57.2			103	55.5	55	125		
Terphenyl-d14	(surr)	77.5			101	76.7	61	125		

SAMPLE TYPE: Sample-Client
INSTRUMENT: HP-5890 for Semi-volatiles
UNITS: ug/kg
METHOD:
LAB ID: 9706171-12A
PREPARED: 06/12/97
ANALYZED: 06/13/97
INSTR RUN: GCMS10\970613000000/2/
BATCH ID: BNAS061297
DILUTION: 1.00

ANALYTE		RESULT	REF RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
2-Fluorophenol	(surr)	71.7			107	67.0	41	110		
Phenol-d5	(surr)	71.9			101	71.2	50	127		
Nitrobenzene-d5	(surr)	67.3			110	61.2	43	100		
2-Fluorobiphenyl	(surr)	66.8			101	66.1	49	126		
2,4,6-Tribromophenol	(surr)	57.8			103	56.1	55	125		
Terphenyl-d14	(surr)	84.9			101	84.1	61	125		

---------- End of Quality Control Report ----------

GeoPlexus, Inc.

CHAIN-OF-CUSTODY

8846 x GP324

1900 Wyatt Drive, Suite 1, Santa Clara, California 95054
Phone 408/987-0210 Fax 408/988-0815

PROJECT NUMBER: C95041

PROJECT NAME: Wright Pacific / EBMUD

Send Report Attention of: David Glick

Report Due: / /

Verbal Due: / /

Sample Number	Date	Time	Comp	Grab	Station Location	Number of Cntnrs	Type of Containers	Type of Analysis: Tph g/BTX/MTBE									Condition of Samples	Initial
20x1-512B	6/18/97	1216		/	E. END OF S. WALL -5'	1 EA	4" Stainless Steel	✓									[redacted]	

ICE/T° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

	VOAS	O&G	METALS	OTHER
PRESERVATIVE				

APPROPRIATE CONTAINERS ✓

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6/18/97 1259	Heidi Mueller	6-18-97 12:59

Remarks: 24 Hour Rush

McCAMPBELL ANALYTICAL INC.

110 Second Avenue South, #D7, Pacheco, CA 94553
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http://www.mccampbell.com E-mail: main@mccampbell.com

Geo Plexus, Inc. 1900 Wyatt Drive, Suite 1 Santa Clara, CA 95054	Client Project ID: #C95041; Walsh Pacific	Date Sampled: 06/18/97
		Date Received: 06/18/97
	Client Contact: David Glick	Date Extracted: 06/18/97
	Client P.O:	Date Analyzed: 06/18/97

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
77688	20X1-S12B	S	27,j	ND<0.09	0.13	0.034	0.051	0.17	117#
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 06/18/97-06/19/97 Matrix: Soil

Analyte	Concentration (mg/kg) Sample (#75871)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	2.128	2.183	2.03	105	108	2.6
Benzene	0.000	0.186	0.196	0.2	93	98	5.2
Toluene	0.000	0.192	0.202	0.2	96	101	5.1
Ethylbenzene	0.000	0.192	0.202	0.2	96	101	5.1
Xylenes	0.000	0.560	0.586	0.6	93	98	4.5
TPH (diesel)	0	348	347	300	116	116	0.3
TRPH (oil and grease)	0.0	28.0	27.3	27.3	103	100	2.5

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100