VIP Service Station
385 Century Cir.
Danville, Ca 94526
Dec. 30, 1995

Alameda County
Env. Health Dept.
Env. Protection Div
1131 Harbor Bay Pkwy # 250
Alameda, CA 94502, 6577

Attn.: Scott Seery

Site: VIP Service Station
3889 Castro Valley Blvd.
Castro Valley, CA 94546

Subject: Quarterly Ground water Monitoring And sampling Reports
P & D Environmental Reports # 0047 R9 & 10, Dated Oct. 20, and Nov. 7, 1995.

Gentlemen:
We are submitting subject reports documenting quarterly ground water monitoring report for your information as required for continued monitoring at above site.

Above reports are prepared by our consultant P & D Environmental. The work had been carried out with very close contact and direction of Alameda County Health Dept.

Should you have any questions regarding above subject, please contact us.

Sincerely,
L B Patel
L. B. Patel

Attachments: Above Reports

P & D ENVIRONMENTAL

4020 Panama Court
Oakland, CA 94611
Telephone (510) 658-6916

November 7, 1995
Report 0047.R10

Mr. L.B. Patel
Mr. P. Gupta
VIP Service
385 Century Circle
Danville, CA 94526

SUBJECT: Quarterly Groundwater Monitoring and Sampling Report
VIP Service
3889 Castro Valley Blvd.
Castro Valley, CA

Gentlemen:

P&D Environmental (P&D) is pleased to present this report documenting the results of the quarterly monitoring of groundwater monitoring wells MW1, MW2, and MW3 and the sampling of groundwater monitoring well MW3 at the subject site. This work was performed in accordance with P&D's proposal 102095.P1 dated October 20, 1995. The work was performed in accordance with requirements set forth in a letter from Mr. Scott Seery of the Alameda County Department of Environmental Health (ACDEH) dated March 18, 1994 for the subject site. Based upon a telephone conversation with Mr. Seery on July 31, 1995, the sampling of monitoring wells MW1 and MW2 will be reduced to semi-annually. In addition, no further analysis for TPH-D will be performed for well MW3. All three wells were monitored and sampled during this quarter.

The monitoring and sampling was performed on October 24, 1995. The reporting period is for August through October, 1995. A Site Location Map (Figure 1) and Site Plan (Figure 2) are attached with this report.

BACKGROUND

It is P&D's understanding that the site was purchased by VIP Service in December, 1984. Prior to purchase of the property by VIP Service, the site was operated as a retail gasoline station for an undetermined period of time. The site was operated as a retail gasoline station from the time of purchase by VIP Service until the tanks were removed by Accutite on April 26, 1993. The underground tank system consisted of three 10,000 gallon capacity gasoline tanks, two dispenser islands, and one 550 gallon waste oil tank. It is P&D's understanding that the fuel tanks contained leaded and unleaded gasoline while in use by VIP Service. In addition, VIP Service reported that diesel fuel was not stored at the site at any time.

It is P&D's understanding that at the time of tank removal, eight soil samples were collected from the sidewalls of the fuel tank pit, and one soil sample was collected from the waste oil tank pit. Groundwater was reported to have been encountered in the fuel tank pit at a depth of approximately 11 feet. One water sample was collected from the water in the fuel tank pit. On April 28, 1993 Accutite returned to the site and collected seven soil samples from beneath the dispenser islands.

All of the samples were analyzed at Sequoia Analytical in Redwood City, California for Total Petroleum Hydrocarbons as Gasoline (TPH-G); Benzene, Toluene, Ethylbenzene and Xylenes (BTEX); and for Total Lead. In addition, the samples from the waste oil tank were analyzed for Total Petroleum Hydrocarbons as Diesel (TPH-D); Total Oil and Grease (TOG); Halogenated Volatile Organic Compounds using EPA Method 8010; Semi-Volatile Organic Compounds using EPA Method 8270; and for the metals Cadmium, Chromium, Lead, Nickel and Zinc.

The results of the soil samples collected from the fuel tank pit showed TPH-G concentrations ranging from 120 to 6,200 parts per million (ppm), and total lead results ranging from not detected to 13 ppm. The results of the water sample from the fuel tank pit showed 140 ppm TPH-G, and 0.095 ppm total lead.

The results of the soil samples collected from beneath the fuel dispensers showed TPH-G values ranging from not detected to 4.7 ppm, and total lead values ranging from not detected to 7.6 ppm.

The results of the sample collected from the waste oil tank pit showed 670 ppm TPH-G; 410 ppm TPH-D; 1,300 ppm TOG; 0.023 ppm 1,2-Dichloroethane and 0.0094 ppm Tetrachloroethene in the EPA Method 8010 analysis; 2.7 ppm 2-Methylnapthalene and 3.8 ppm Naphthalene in the EPA Method 8270 analysis; and various metals concentrations, none of which exceeded ten times their respective STLC values. The laboratory identified the TPH-D results as being a "non-diesel mix," and indicated that the compounds reported as diesel were diesel-range gasoline and diesel-range oil compounds.

Between August 27 and November 1, 1993 P&D personnel collected stockpiled soil samples for stockpiled soil disposal characterization and oversaw the excavation of approximately 680 cubic yards of soil from the vicinity of the fuel tank pit in an effort to remove petroleum hydrocarbon-impacted soil. In addition, during this time the soil which was stockpiled by Accutite during the tank removal activities and during the subsequent soil excavation activities was disposed of at an appropriate disposal facility, and the tank pit backfilled and compacted. A total of eight confirmation soil samples were collected from the sidewalls of the tank pit on November 19, 1993 at a depth of 10 feet after over-excavation and prior to backfilling. The analytical results of the samples ranged from 33 to 3,200 ppm TPH-G. The sample collection locations are shown on the attached Site Plan, Figure 3. Documentation of excavation, stockpiled soil characterization and disposal, and backfilling of the pit are provided in P&D's report 0047.R1 dated January 24, 1994. The samples results associated with the removal of the tanks by Accutite are also summarized in P&D's report 0047.R1.

On November 10, 1993 P&D personnel oversaw the installation of three groundwater monitoring wells, designated as MW1 through MW3, and one exploratory soil boring, designated as B1, at the subject site. The wells were developed on November 12 and sampled on November 16, 1993. The results of the water samples showed that TPH-G was not detected in wells MW1 and MW2, and that BTEX was not detected in MW2. In well MW1, 0.0022 ppm of benzene was detected. In well MW3, TPH-G was detected at 12 ppm; BTEX was detected with benzene detected at 3.3 ppm; TRPH was not detected; EPA Method 8010 compounds were not detected except for 0.027 ppm 1,2-Dichloroethane; and EPA Method 8270 compounds were not detected except for 0.009 ppm Phenol, 0.006 ppm Benzyl Alcohol, 0.006 2-Methylphenol, 0.007 ppm 2,4-Dimethylphenol, 0.088 ppm Benzoic Acid, 0.042 ppm Naphthalene, and 0.015 2-Methylnapthalene.

Documentation of the monitoring well and soil boring installation and associated sample results are presented in P&D's report 0047.R2 dated January 24, 1994. The locations of the monitoring wells are shown in Figure 2.

In response to a letter dated March 18, 1994 from Mr. Scott Seery ACDEH which commented upon the results of the initial groundwater sampling associated with the installation of the monitoring wells at the subject site, a quarterly groundwater monitoring and sampling program was initiated.

FIELD ACTIVITIES

On October 24, 1995 all three of the monitoring wells at the site were monitored and sampled by P&D personnel. The wells were monitored for depth to

water and the presence of free product or sheen. Depth to water was measured to the nearest 0.01 foot using an electric water level indicator. The presence of free product or sheen was evaluated using a transparent bailer. No free product or sheen was observed in any of the wells. Depth to water level measurements are presented in Table 1.

Prior to sampling, the monitoring wells were purged of a minimum of three casing volumes of water. During purging operations, the field parameters of electrical conductivity, temperature and pH were monitored. Once the field parameters were observed to stabilize, and a minimum of three casing volumes had been purged, a water sample was collected using a clean Teflon bailer.

The water samples were transferred to 40-milliliter glass Volatile Organic Analysis (VOA) vials and 1-liter amber glass bottles, as appropriate, which were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to assure that no air bubbles were present.

The VOA vials and bottles were labeled and then transferred to a cooler with ice, until they were transported to McCampbell Analytical, Inc. in Pacheco, California. McCampbell Analytical, Inc. is a State-certified hazardous waste testing laboratory. Chain of custody documentation accompanied the samples to the laboratory. Records of the field parameters measured during well purging are attached with this report. Water purged from the wells during purging operations was stored in a DOT-approved 55-gallon drum pending appropriate disposal.

HYDROGEOLOGY

Water levels were measured in the monitoring wells once during the quarter. The measured depth to water at the site on October 24, 1995 ranged from 9.39 to 10.00 feet. Groundwater levels have decreased in wells all three of the wells by 0.77 feet since the previous monitoring on August 15, 1995. The calculated groundwater flow direction at the site on October 24, 1995 was to the west-southwest with a gradient of 0.011. The groundwater gradient and the groundwater flow direction have remained unchanged since the previous quarterly monitoring on August 15, 1995.

Groundwater level data collected during the quarter are presented in Table 1. The groundwater flow direction at the site on October 24, 1995 is shown on Figure 2.

LABORATORY RESULTS

The groundwater sample from monitoring well MW3 (near the waste oil tank) was analyzed for TPH-G using EPA Method 5030 in conjunction with Modified EPA Method 8015 (GCFID), BTEX and MTBE using EPA Method 8020, Halogenated Volatile Organic Compounds using EPA Method 8010, and for Semi-volatile Organic Compounds using EPA Method 8270.

The laboratory analytical results of the groundwater samples collected from wells MW1 and MW2 show that TPH-G, BTEX and MTBE were not detected. The laboratory analytical results of the groundwater sample collected from monitoring well MW3 shows that TPH-G was detected at a concentration of 19 ppm; benzene was detected at a concentration of 4.0 ppm; MTBE was detected at a concentration of 0.24 ppm; EPA Method 8010 compounds were not detected except for 0.011 ppm 1,2 Dichloroethane; and EPA Method 8270 compounds were not detected except for 0.043 ppm Naphthalene.

DISCUSSION AND RECOMMENDATIONS

At the request of Mr. Scott Seery, laboratory analysis for MTBE was initiated this quarter. Based on the laboratory analytical results of the water

samples collected from the monitoring wells, P&D recommends that the quarterly groundwater monitoring of wells MW1, MW2, and MW3, the quarterly sampling of well MW3 and the semi-annual sampling of wells MW1 and MW2 be continued. During the next quarter, all of the wells should be monitored and well MW3 should be sampled. In accordance with a request from Mr. Seery, MTBE should be analyzed in future sampling episodes.

DISTRIBUTION

Copies of this report should be distributed to Mr. Scott Seery at the Alameda County Department of Environmental Health, and to Mr. Kevin Graves at the San Francisco Bay Regional Water Quality Control Board. Copies of the report should be accompanied by a transmittal letter signed by the principal executive officer of VIP Service.

LIMITATIONS

This report was prepared solely for the use of VIP Service. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgement based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly-revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgement based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

November 7, 1995
Report 0047.R10

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental

Paul H. King

Paul H. King
Hydrogeologist

Don R Braun

Don R.Braun
Certified Engineering Geologist
Registration No. : 1310
Expires: 6/30/96

PHK
0047.R10

Attachments: Tables 1 & 2
Site Location Map (Figure 1)
Site Plan (Figure 2)
Field Parameter Form
Laboratory Analytical Results
Chain of Custody Documentation

TABLE 1
WELL MONITORING DATA

Well No.	Date Monitored	Top of Casing Elev. (ft.)	Depth to Water (ft.)	Water Table Elev. (ft.)
MW1	10/26/95	180.83	10.00	170.83
	08/15/95		9.23	171.60
	05/02/95		8.56	172.27
	01/30/95		9.50	171.33
	10/31/94		11.55	169.28
	07/29/94		10.86	169.97
	04/25/94		10.70	170.13
	11/16/93		11.63	169.20
	11/12/93*		11.53	169.30
MW2	10/26/95	179.70	9.68	170.02
	08/15/95		8.91	170.79
	05/02/95		8.17	171.53
	01/30/95		8.68	171.02
	10/31/94		10.99	168.71
	07/29/94		10.34	169.36
	04/25/94		10.04	169.66
	11/16/93		11.10	168.60
	11/12/93*		10.95	168.75
MW3	10/26/95	178.98	9.39	169.59
	08/15/95		8.62	170.36
	05/02/95		8.04	170.94
	01/30/95		8.46	170.52
	10/31/94		10.58	168.40
	07/29/94		10.03	168.95
	04/25/94		9.64	169.34
	11/16/93		10.63	168.35
	11/12/93*		10.66	168.32

NOTES:

Elevations are in feet Mean Sea Level.
ft. = Feet.
* = Depth to water measurements prior to groundwater monitoring well development.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes
			Samples Collected on January 30, 1995			
MW1	NA	ND	ND	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3++++	0.70	24	7.6	0.35	0.90	2.2
			Samples Collected on October 31, 1994			
MW1	NA	ND	ND	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3+++++	0.60	8.7	2.6	0.26	0.32	0.92

NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
NA = Not Analyzed.
++++ = Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.018 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.014 ppm 2-Methyl naphthalene and 0.11 ppm Naphthalene.
+++++ = Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.019 ppm 1,2-Dichloroethane; EPA 8270 compounds were not detected except for 0.008 ppm 2-Methyl naphthalene, 0.047 ppm Naphthalene, and 0.002 ppm Bis(2-Ethylhexyl) Pthalate.
Results are in parts per million (ppm), unless otherwise specified.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes
			Samples Collected on July 29, 1994			
MW1	NA	ND	0.0012	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3@	0.67	6.3	2.0	0.13	0.22	0.52
			Samples Collected on April 25, 1994			
MW1	ND	ND	ND	ND	ND	ND
MW2	ND	ND	ND	ND	ND	ND
MW3@@	2.1	17	4.8	0.47	0.29	1.6

NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
NA = Not Analyzed.
@ = Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.0077 ppm 1,2-Dichloroethane; EPA 8270 compounds not detected except for 0.008 ppm 2-Methylnaphthalene and 0.044 ppm Naphthalene.
@@ = Review of the laboratory report and discussions with the laboratory indicate that the results reported as TPH-D are gasoline-range compounds. EPA 8010 compounds not detected except for 0.28 ppm 1,2-Dichloroethane; EPA 8270 compounds not detected except for 0.013 ppm 2-Methylnapthalene and 0.084 ppm Naphthalene.
Results are in parts per million (ppm), unless otherwise specified.

TABLE 2
GROUNDWATER
LABORATORY ANALYTICAL RESULTS
(Continued)

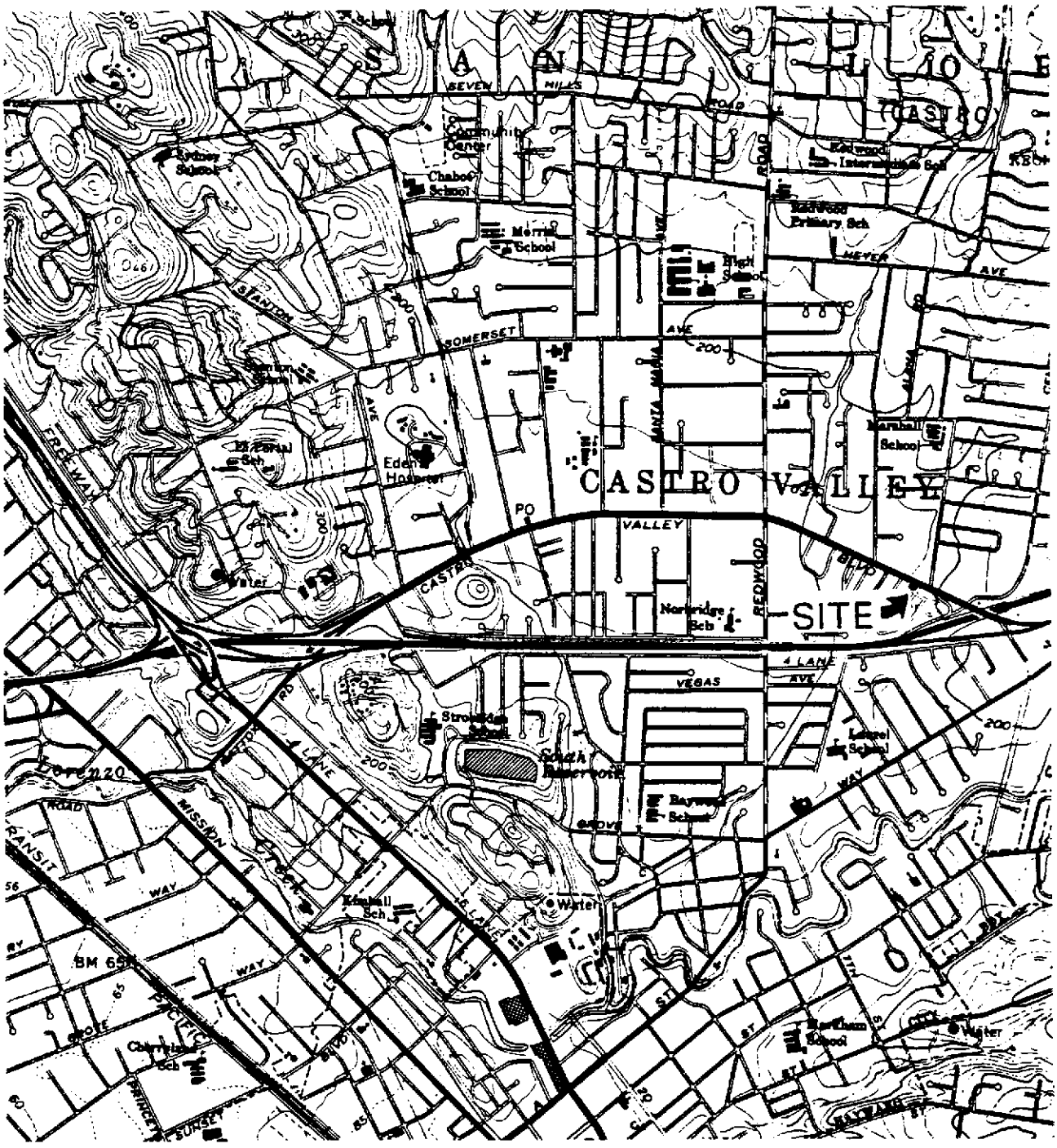
Sample Location	TPH-D	TPH-G	Benzene	Toluene	Ethyl-benzene	Xylenes
			Samples Collected on November 16, 1993			
MW1	NA	ND	0.0022	ND	ND	ND
MW2	NA	ND	ND	ND	ND	ND
MW3@@@	NA	12	3.3	0.66	0.24	1.6

NOTES:

TPH-D = Total Petroleum Hydrocarbons as Diesel.
TPH-G = Total Petroleum Hydrocarbons as Gasoline.
ND = Not Detected.
NA = Not Analyzed.
@@@ = TRPH not detected; EPA 8010 compounds not detected except for 0.027 ppm 1,2-Dichloroethane; EPA 8270 compounds not detected except for 0.009 ppm Phenol, 0.006 ppm Benzyl Alcohol, 0.006 2-Methylphenol, 0.007 ppm 2,4-Dimethylphenol, 0.088 ppm Benzoic Acid, 0.042 ppm Naphthalene, and 0.015 ppm 2-Methylnapthalene.
Results are in parts per million (ppm), unless otherwise specified.

P & D ENVIRONMENTAL

4020 Panama Court
Oakland, CA 94611
Telephone (510) 658-6916



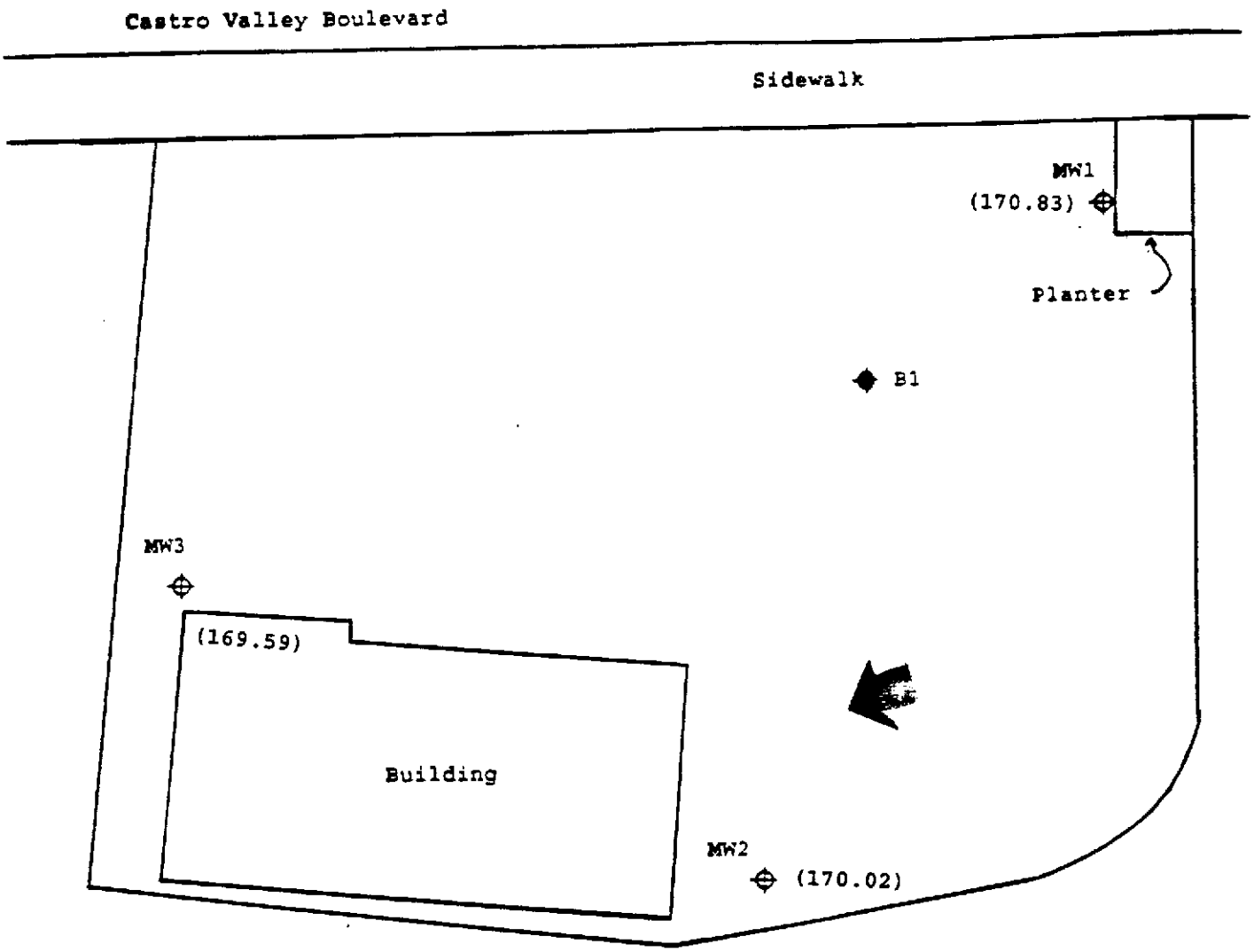
Base Map From
U.S. Geological Survey
Hayward, Calif.
7.5 Minute Quadrangle
Photorevised 1980

N

Scale in Feet
0 1000 2000 3000

Figure 1
SITE LOCATION MAP
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

P & D ENVIRONMENTAL
4020 Panama Court
Oakland, CA 94611
Telephone (510) 658-6916



Base Map From
P&D Environmental
October, 1993

Figure 2
SITE PLAN
VIP Service
3889 Castro Valley Blvd.
Castro Valley, California

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name VEP
Well No. MW1
Job No. 0047
Date 10/26/95
TOC to Water (ft.) 10.00
Sheen None
Well Depth (ft.) 20.00
Free Product Thickness 0
Well Diameter 2"
Sample Collection Method
Gal./Casing Vol. 1.6
Teflon Bailer
$\Sigma = 4.8$

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (uS/cm)
10:45	0.1	9.02	67.9	15.00 x 100
10:47	1.0	8.08	69.2	14.69
10:50	2.0	7.52	68.9	14.94
10:53	3.0	7.22	69.1	15.75
10:56	4.0	7.11	69.3	15.85
10:58	5.0	7.06	69.4	15.56
11:00	Collect	sample		

NOTES: PHK Teflon Bailer purge.

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name VIP Service
Well No. MW2
Job No. 0047
Date 10/26/95
TOC to Water (ft.) 9.68
Sheen None
Well Depth (ft.) 20
Free Product Thickness 0
Well Diameter 2"
Sample Collection Method
Gal./Casing Vol. 1.7 ε = 5.1
Teflon Bailer

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µS/cm)
11:15	0.1	7.01	70.3	2.20 X1000
11:16	1.0	7.05	70.3	2.17
11:18	2.0	7.04	70.1	2.17
11:20	3.0	7.03	70.0	2.17
11:21	4.0	7.04	69.8	2.20
11:23	5.5	7.05	69.9	2.20
11:25	Collect Sample			

NOTES: PHK Teflon bailer bailed

PURGE10.92

P&D ENVIRONMENTAL
GROUNDWATER MONITORING/WELL PURGING
DATA SHEET

Site Name VIP Service
Job No. 0047
TOC to Water (ft.) 9.39
Well Depth (ft.) 20
Well Diameter 2"
Gal./Casing Vol. 1.7
Σ = 5.1

Well No. MW3
Date 10/26/95
Sheen None
Free Product Thickness 0'
Sample Collection Method
Teflon Bailer

TIME	GAL. PURGED	pH	TEMPERATURE (°F)	ELECTRICAL CONDUCTIVITY (µS/cm)
11:40	0.1	7.03	69.8	17.80 x100
11:42	1.0	6.94	69.4	18.00
11:45	2.0	6.92	69.3	17.65
11:46	3.0	6.91	69.2	17.66
11:48	4.0	6.91	69.1	17.61
11:51	5.5	6.92	69.1	17.62
11:55	collect samples.			

NOTES: PHK. Purged with Teflon Bailer.
Hydrocarbon odor in water

PURGE10.92

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

P & D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: # 0047; VIP Service-Castro Valley	Date Sampled: 10/26/95
		Date Received: 10/26/95
	Client Contact: Paul King	Date Extracted: 10/30/95
	Client P.O:	Date Analyzed: 10/30/95

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with 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	% Rec. Surrogate
57899	MW1	W	ND	ND	ND	ND	ND	ND	104
57900	MW2	W	ND	ND	ND	ND	ND	ND	100
57901	MW3	W	19,000,a	240	4000	480	640	1800	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, soil 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

P & D Environmental 4020 Panama Court Oakland, CA 94611	Client Project ID: # 0047; VIP Service-Castro Valley	Date Sampled: 10/26/95 Date Received: 10/26/95
	Client Contact: Paul King	Date Extracted: 10/29/95
	Client P.O:	Date Analyzed: 10/29/95

Volatile Halocarbons

EPA method 601 or 8010

Lab ID	57901			
Client ID	MW3			
Matrix	W			
Compound	Concentration*			
Bromodichloromethane	ND			
Bromoform[b]	ND			
Bromomethane	ND			
Carbon Tetrachloride[c]	ND			
Chlorobenzene	ND			
Chloroethane	ND			
2-Chloroethyl Vinyl Ether[d]	ND			
Chloroform[e]	ND			
Chloromethane	ND			
Dibromochloromethane	ND			
1,2-Dichlorobenzene	ND			
1,3-Dichlorobenzene	ND			
1,4-Dichlorobenzene	ND			
Dichlorodifluoromethane	ND			
1,1-Dichloroethane	ND			
1,2-Dichloroethane	11			
1,1-Dichloroethene	ND			
cis 1,2-Dichloroethene	ND			
trans 1,2-Dichloroethene	ND			
1,2-Dichloropropane	ND			
cis 1,3-Dichloropropene	ND			
trans 1,3-Dichloropropene	ND			
Methylene Chloride[f]	ND			
1,1,2,2-Tetrachloroethane	ND			
Tetrachloroethene	ND			
1,1,1-Trichloroethane	ND			
1,1,2-Trichloroethane	ND			
Trichloroethene	ND			
Trichlorofluoromethane	ND			
Vinyl Chloride[g]	ND			
% Recovery Surrogate	101			
Comments				

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

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

ND means not detected above the reporting limit; N/A means analyse 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.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL

SAMPLE ID: MW3
AEN LAB NO: 9510379-01
AEN WORK ORDER: 9510379
CLIENT PROJ. ID: 5144

DATE SAMPLED: 10/26/95
DATE RECEIVED: 10/27/95
REPORT DATE: 11/02/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	10/29/95
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/01/95
Acenaphthylene	208-96-8	ND	10	ug/L	11/01/95
Anthracene	120-12-7	ND	10	ug/L	11/01/95
Benzidine	92-87-5	ND	50	ug/L	11/01/95
Benzoic Acid	65-85-0	ND	50	ug/L	11/01/95
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/01/95
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/01/95
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/01/95
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/01/95
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/01/95
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/01/95
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/01/95
Bis(2-chloroethyl) Ether	111-44-4	ND	10	ug/L	11/01/95
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/01/95
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/01/95
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/01/95
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/01/95
4-Chloroaniline	106-47-8	ND	20	ug/L	11/01/95
2-Chloronaphthalene	91-58-7	ND	10	ug/L	11/01/95
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/01/95
Chrysene	218-01-9	ND	10	ug/L	11/01/95
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/01/95
Dibenzofuran	132-64-9	ND	10	ug/L	11/01/95
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/01/95
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/01/95
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/01/95
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/01/95
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/01/95
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/01/95
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/01/95
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/01/95
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/01/95
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/01/95
Fluoranthene	206-44-0	ND	10	ug/L	11/01/95
Fluorene	86-73-7	ND	10	ug/L	11/01/95
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/01/95
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/01/95
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/01/95
Hexachloroethane	67-72-1	ND	10	ug/L	11/01/95

McCAMPBELL ANALYTICAL

SAMPLE ID: MW3
AEN LAB NO: 9510379-01
AEN WORK ORDER: 9510379
CLIENT PROJ. ID: 5144

DATE SAMPLED: 10/26/95
DATE RECEIVED: 10/27/95
REPORT DATE: 11/02/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	10/29/95
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/01/95
Acenaphthylene	208-96-8	ND	10	ug/L	11/01/95
Anthracene	120-12-7	ND	10	ug/L	11/01/95
Benzidine	92-87-5	ND	50	ug/L	11/01/95
Benzoic Acid	65-85-0	ND	50	ug/L	11/01/95
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/01/95
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/01/95
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/01/95
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/01/95
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/01/95
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/01/95
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/01/95
Bis(2-chloroethyl) Ether	111-44-4	ND	10	ug/L	11/01/95
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/01/95
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/01/95
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/01/95
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/01/95
4-Chloroaniline	106-47-8	ND	20	ug/L	11/01/95
2-Chloronaphthalene	91-58-7	ND	10	ug/L	11/01/95
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/01/95
Chrysene	218-01-9	ND	10	ug/L	11/01/95
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/01/95
Dibenzofuran	132-64-9	ND	10	ug/L	11/01/95
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/01/95
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/01/95
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/01/95
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/01/95
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/01/95
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/01/95
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/01/95
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/01/95
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/01/95
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/01/95
Fluoranthene	206-44-0	ND	10	ug/L	11/01/95
Fluorene	86-73-7	ND	10	ug/L	11/01/95
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/01/95
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/01/95
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/01/95
Hexachloroethane	67-72-1	ND	10	ug/L	11/01/95

McCAMPBELL ANALYTICAL

SAMPLE ID: MW3
AEN LAB NO: 9510379-01
AEN WORK ORDER: 9510379
CLIENT PROJ. ID: 5144

DATE SAMPLED: 10/26/95
DATE RECEIVED: 10/27/95
REPORT DATE: 11/02/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/01/95
Isophorone	78-59-1	ND	10	ug/L	11/01/95
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/01/95
Naphthalene	91-20-3	43 *	10	ug/L	11/01/95
2-Nitroaniline	88-74-4	ND	50	ug/L	11/01/95
3-Nitroaniline	99-09-2	ND	50	ug/L	11/01/95
4-Nitroaniline	100-01-6	ND	50	ug/L	11/01/95
Nitrobenzene	98-95-3	ND	10	ug/L	11/01/95
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/01/95
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/01/95
Phenanthrene	85-01-8	ND	10	ug/L	11/01/95
Pyrene	129-00-0	ND	10	ug/L	11/01/95
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/01/95
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/01/95
2-Chlorophenol	95-57-8	ND	10	ug/L	11/01/95
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/01/95
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/01/95
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/01/95
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/01/95
2-Methylphenol	95-48-7	ND	10	ug/L	11/01/95
4-Methylphenol	106-44-5	ND	10	ug/L	11/01/95
2-Nitrophenol	88-75-5	ND	10	ug/L	11/01/95
4-Nitrophenol	100-02-7	ND	50	ug/L	11/01/95
Pentachlorophenol	87-86-5	ND	50	ug/L	11/01/95
Phenol	108-95-2	ND	10	ug/L	11/01/95
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/01/95
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/01/95

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

K-1152

9510-3788

McCAMPBELL ANALYTICAL

110 2nd AVENUE, # D7
(510) 798-1620 PACHECO, CA 94553 FAX (510) 798-1622

CHAIN OF CUSTODY RECORD

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

REPORT TO: Ed Hamilton BILL TO: MAI

COMPANY: McCampbell Analytical.
110 2nd Ave So. #D7
Pacheco CA 94553

TELE: (510) 798-1620 FAX #: (510) 798-1622

PROJECT NUMBER: 5144 PROJECT NAME: VIP-CV

PROJECT LOCATION: SAMPLER SIGNATURE:

ANALYSIS REQUEST

SAMPLE ID	LOCATION	SAMPLING DATE	SAMPLING TIME	# CONTAINERS	TYPE CONTAINERS	MATRIX: WATER	MATRIX: SOIL	MATRIX: AIR	MATRIX: SLUDGE	MATRIX: OTHER	METHOD PRESERVED: HCL	METHOD PRESERVED: HNO3	METHOD PRESERVED: OTHER	BTEX & TPH as Gasoline (602/8020 & 8015)	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	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	LEAD ORGANICS (7420/7421/239.2/6010)	LEAD ORGANICS LEAD	RCI	OTHER	COMMENTS
MW3	OIAB	10/26/95	1155	2	L	X							X										X							5791

RELINQUISHED BY: DATE 10/27/95 TIME 1140 RECEIVED BY:

RELINQUISHED BY: DATE TIME RECEIVED BY:

RELINQUISHED BY: DATE TIME RECEIVED BY LABORATORY: 10/27/95 1140

REMARKS:

P & D ENVIRONMENTAL

4020 Panama Court
Oakland, CA 94611
Telephone (510) 658-6916

*5144-Apdx149

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NUMBER:	PROJECT NAME:
00417	VIP Service - Castro Valley

SAMPLED BY: (PRINTED AND SIGNATURE) Paul H. King Paul H. King

SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-G, BTEX, MTBE	EPA 8010	EPA 8270			PRESERVATIVE	REMARKS
MW1	10/26/95	11:00	water		2	X					HCl	Normal Turn Around
MW2	"	11:25	"		2	X					"	" " "
MW3	"	11:55	"		6	X	X	X			"	" " "

57899
57900
57901

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
Paul H. King	10/26/95	4PM	
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
	10/26/95	6pm	Angela Rychlewski
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)

TOTAL NO. OF SAMPLES (THIS SHIPMENT)	3
TOTAL NO. OF CONTAINERS (THIS SHIPMENT)	10
LABORATORY:	McCampbell Analytical
LABORATORY CONTACT:	Ed Hamilton
LABORATORY PHONE NUMBER:	(510) 798-1620

SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( )YES (X)NO

REMARKS: VOAs preserved with HCl
TPH-G, BTEX, MTBE = 2 VOA
EPA 8270 = 2 liter amber

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: 10/30/95 Matrix: Water

Analyte	Concentration (ug/L)			Amount Spiked	% Recovery		RPD
	Sample	MS	MSD		MS	MSD	
TPH (gas)	0.0	110.7	109.1	100	111	109	1.5
Benzene	0	9.1	8.7	10	91.0	87.0	4.5
Toluene	0	9.1	8.7	10	91.0	87.0	4.5
Ethyl Benzene	0	9.2	9.1	10	92.0	91.0	1.1
Xylenes	0	29.9	28.8	30	99.7	96.0	3.7
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
Telc: 510-798-1620 Fax: 510-798-1622

QC REPORT FOR EPA 8010/8020/EDB

Date: 10/29/95 Matrix: Water

Analyte	Concentration (ug/L)				% Recovery		
	Sample	MS	MSD	Amount Spiked	MS	MSD	RPD
1,1-DCE	0.0	10.2	9.8	10.0	102	98	4.0
Trichloroethene	0.0	9.8	8.9	10.0	98	89	9.6
EDB	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	0.0	10.6	9.7	10.0	106	97	8.9
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
110 2ND AVE. SOUTH. #D7
PACHECO, CA 94553

ATTN: EDWARD HAMILTON
CLIENT PROJ. ID: 5144
CLIENT PROJ. NAME: VIP-CV

REPORT DATE: 11/03/95
DATE(S) SAMPLED: 10/26/95
DATE RECEIVED: 10/27/95
AEN WORK ORDER: 9510379

PROJECT SUMMARY:

On October 27, 1995, this laboratory received 1 water sample(s).

Client requested sample(s) be analyzed for organic 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: MW3
AEN LAB NO: 9510379-01
AEN WORK ORDER: 9510379
CLIENT PROJ. ID: 5144

DATE SAMPLED: 10/26/95
DATE RECEIVED: 10/27/95
REPORT DATE: 11/03/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	10/29/95
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	ND	10	ug/L	11/01/95
Acenaphthylene	208-96-8	ND	10	ug/L	11/01/95
Anthracene	120-12-7	ND	10	ug/L	11/01/95
Benzidine	92-87-5	ND	50	ug/L	11/01/95
Benzoic Acid	65-85-0	ND	50	ug/L	11/01/95
Benzo(a)anthracene	56-55-3	ND	10	ug/L	11/01/95
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	11/01/95
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	11/01/95
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	11/01/95
Benzo(a)pyrene	50-32-8	ND	10	ug/L	11/01/95
Benzyl Alcohol	100-51-6	ND	20	ug/L	11/01/95
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	11/01/95
Bis(2-chloroethyl) Ether	111-44-4	ND	10	ug/L	11/01/95
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	11/01/95
Bis(2-ethylhexyl) Phthalate	117-81-7	ND	10	ug/L	11/01/95
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	11/01/95
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	11/01/95
4-Chloroaniline	106-47-8	ND	20	ug/L	11/01/95
2-Chloronaphthalene	91-58-7	ND	10	ug/L	11/01/95
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	11/01/95
Chrysene	218-01-9	ND	10	ug/L	11/01/95
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	11/01/95
Dibenzofuran	132-64-9	ND	10	ug/L	11/01/95
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	11/01/95
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	11/01/95
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	11/01/95
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	11/01/95
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	11/01/95
Diethyl Phthalate	84-66-2	ND	10	ug/L	11/01/95
Dimethyl Phthalate	131-11-3	ND	10	ug/L	11/01/95
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	11/01/95
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	11/01/95
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	11/01/95
Fluoranthene	206-44-0	ND	10	ug/L	11/01/95
Fluorene	86-73-7	ND	10	ug/L	11/01/95
Hexachlorobenzene	118-74-1	ND	10	ug/L	11/01/95
Hexachlorobutadiene	87-68-3	ND	10	ug/L	11/01/95
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	11/01/95
Hexachloroethane	67-72-1	ND	10	ug/L	11/01/95

American Environmental Network

McCAMPBELL ANALYTICAL

SAMPLE ID: MW3
AEN LAB NO: 9510379.01
AEN WORK ORDER: 9510379
CLIENT PROJ. ID: 5144

DATE SAMPLED: 10/26/95
DATE RECEIVED: 10/27/95
REPORT DATE: 11/03/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	11/01/95
Isophorone	78-59-1	ND	10	ug/L	11/01/95
2-Methylnaphthalene	91-57-6	ND	10	ug/L	11/01/95
Naphthalene	91-20-3	43 *	10	ug/L	11/01/95
2-Nitroaniline	88-74-4	ND	50	ug/L	11/01/95
3-Nitroaniline	99-09-2	ND	50	ug/L	11/01/95
4-Nitroaniline	100-01-6	ND	50	ug/L	11/01/95
Nitrobenzene	98-95-3	ND	10	ug/L	11/01/95
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	11/01/95
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	11/01/95
Phenanthrene	85-01-8	ND	10	ug/L	11/01/95
Pyrene	129-00-0	ND	10	ug/L	11/01/95
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	11/01/95
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	11/01/95
2-Chlorophenol	95-57-8	ND	10	ug/L	11/01/95
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	11/01/95
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	11/01/95
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	11/01/95
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	11/01/95
2-Methylphenol	95-48-7	ND	10	ug/L	11/01/95
4-Methylphenol	106-44-5	ND	10	ug/L	11/01/95
2-Nitrophenol	88-75-5	ND	10	ug/L	11/01/95
4-Nitrophenol	100-02-7	ND	50	ug/L	11/01/95
Pentachlorophenol	87-86-5	ND	50	ug/L	11/01/95
Phenol	108-95-2	ND	10	ug/L	11/01/95
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	11/01/95
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	11/01/95

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9510379

CLIENT PROJECT ID: 5144

Quality Control and Project Summary

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

Definitions

Laboratory Control Sample (LCS)/Method Spike(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 analysis.

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 behavior, 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 instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.