FOURTH QUARTER 2002 GROUNDWATER MONITORING REPORT

USPS GMF/VMF
1675 7TH STREET
OAKLAND, CALIFORNIA

Prepared for

United States Postal Service
1675 7TH Street
Oakland, California

Professional Service Industries
4703 Tidewater Avenue, Suite B
Oakland, California 94601

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575-2G007

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STATEMENT OF LIMITATIONS AND PROFESSIONAL CERTIFICATION

Information provided in Professional Services Industries, Inc., (PSI) report number 575-2G007 is intended exclusively for the United States Postal Service (USPS) for the evaluation of groundwater contamination as it pertains to the subject site. PSI is responsible for the facts and accuracy of the data presented herein. The professional services provided have been performed in accordance with practices generally accepted by other geologists, hydrologists, hydrogeologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. As with all subsurface investigations, there is no guarantee that the work conducted will identify any and all sources or locations of contamination.

This report is issued with the understanding that the USPS is responsible for ensuring that the information contained in this report is brought to the attention of the appropriate regulatory agency. This report has been reviewed by a geologist who is registered in the State of California and whose signature and license number appear below.

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Senior Hydrogeologist

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EXECUTIVE SUMMARY

The Fourth Quarter 2002 groundwater monitoring included samples from MW-1 through MW-4, and MW-6. The samples were analyzed for Total Petroleum Hydrocarbons as diesel and gasoline (TPH-D and TPH-G), and volatile organic compounds (VOCs) including fuel oxygenates. The results of the lab analysis indicate that TPH-G was not detected in any of the wells sampled and that levels of TPH-D have increased slightly in MW-2, decreased slightly in MW-1 and MW-3 and have decreased significantly in MW-4 from last quarter. The decrease in MW-4 (2 factors of magnitude over the last 2 quarters) is likely due to our removal of free product from MW-4, initiated in August 2002, which appears to have been successful. Results for downgradient well MW-6 were non-detect for all parameters tested except Methyl Tertiary-Butyl Ether (MTBE). As such, MW-6 appears to provide an adequate downgradient boundary to the contaminant plume. Of the few VOCs detected, two (1,2-Dichloroethane and Chloroform) are above their respective State of California Primary Maximum Contaminant Level (MCL) or EPA Region IX Preliminary Remediation Goal (PRG) for drinking water.

PSI is currently in progress of addressing concerns raised by the Alameda County Health Care Services Agency (ACHCSA) regarding the risk assessment performed by Lowney Associates, dated October 11, 1999, in hopes of obtaining closure for the subject site and the discontinuation of the quarterly groundwater monitoring program.

1.0 INTRODUCTION

1.1 PURPOSE AND SCOPE OF WORK

This Quarterly Groundwater Monitoring Report (QMR) summarizes the results of the Fourth Quarter 2002 groundwater monitoring activities conducted on December 5, 2002 at the United States Postal Service (USPS) Vehicle Maintenance Facility (VMF) in Oakland, California (see Figure 1 - Site Location Map). The purpose of the groundwater monitoring program is to observe the change in concentration of dissolved hydrocarbon compounds at the site over time.

The work presented herein was conducted in accordance with USPS Contract Number 052571-01-J-0014 and Project Authorization Number 2-1F-055509-E-554. The scope of work performed included measurement of water levels, purging and sampling of groundwater wells, analysis of water samples, calculation of hydraulic gradient and preparation of this report.

1.2 SITE LOCATION AND DESCRIPTION

The subject site is located at 1675 7th Street in Oakland, California and consists of a one-story concrete structure with multiple indoor vehicle-service bays and office space for operations and management (see Figure 2 – Groundwater Elevation Map). The VMF is surrounded by asphalt-paved parking to the north and west; a truck wash bay and paved parking to the south; and a fueling area and truck loading bays to the east.

2.0 GROUNDWATER MONITORING ACTIVITIES

2.1 GROUNDWATER ELEVATION AND HYDRAULIC GRADIENT

The five groundwater monitoring wells at the site (MW-1 through MW-4 and MW-6) are installed to depths of approximately 20 feet below the ground surface (bgs). Due to the recent installation of MW-6, all of the wells at the site were resurveyed in September, 2002 to provide accurate depth-to-groundwater information for gradient determination. Prior to purging, the groundwater levels in the monitoring wells were measured using a Solinst electric water level indicator. No free product was observed within MW-4 or in any of the other wells.

Water levels are read from the north side of the top of each monitoring well casing to an accuracy of 0.01 foot. This is performed in order to calculate the well purge volumes and to determine the groundwater flow direction and gradient. The water level indicators were decontaminated before and after each use to prevent cross-contamination of the wells. Depths to groundwater, measured on December 5, 2002, and calculated groundwater elevations are presented in Table 1. A table of historic water level measurements is included in Appendix A.

The regional groundwater gradient is expected to be toward the San Francisco Bay in a west to southwesterly direction. Our water level measurements obtained on December 5, 2002, indicate that the groundwater flow direction at the subject site is toward the southwest. Groundwater surface contours representing December 5, 2002 water levels beneath the site are shown on Figure 2. Based on these contours, a hydraulic gradient of approximately 0.008 was calculated for the site. Both the slope and direction of the gradient is generally the same as that calculated for the previous quarterly monitoring, and is in agreement with the expected regional gradient. A historic gradient rose diagram is presented on Figure 2.

2.2 GROUNDWATER SAMPLING

Groundwater samples were collected from monitoring wells MW-1 through MW-4 and MW-6. Prior to the collection of samples, the monitoring wells were purged of a minimum of three well volumes of water until pH, conductivity, and temperature stabilized.

The following quality assurance/quality control procedures were implemented while performing well monitoring, well purging, and water sampling:

1. All equipment was washed prior to entering the well with an Alconox solution, followed by two tap water rinses and a deionized water rinse.

2. Prior to purging the wells, depth-to-water was measured using a Solinst groundwater interface probe to an accuracy of approximately 0.01 foot. The measurements were made to the top of the well casing on the north side.

3. Monitoring wells at the site were prepared for sampling by purging the well of a minimum of 3 well volumes of water using an electric pump. If the wells were purged to dryness, they were allowed to recover to at least 80 percent of their original static groundwater levels prior to sampling.

4. Water samples were collected with an electric pump through dedicated polyethylene tubing after the well had been purged. The water collected was immediately decanted into laboratory-supplied vials and bottles. The containers were overfilled, capped, labeled, and placed in a chilled cooler prior to delivery to the laboratory for analysis.

5. Chain-of-custody protocol was used to document water sample handling and transport from collection to delivery to the laboratory for analyses.

6. Groundwater samples were delivered to the State-certified hazardous waste laboratory within approximately 48-hours of collection.

7. Purged water was contained in DOT-approved 55-gallon drums. The drums were labeled with the contents, date, well number, client name, and project number and left at the site pending analysis for proper disposal at a later time.

A summary of field measurements, site conditions, well purging data, sample collection data, and other pertinent information is recorded on the groundwater monitoring purge logs, presented in Appendix B.

2.3 LABORATORY ANALYSIS AND RESULTS

Five groundwater samples were submitted for analysis to Basic Laboratory of Redding, California, a State of California-certified hazardous waste analytical laboratory. The samples were analyzed for the following:

- EPA 8015 modified - Total Petroleum Hydrocarbons as Gasoline (TPH-G);
- EPA 8015 modified - Total Petroleum Hydrocarbons as Diesel (TPH-D);
- EPA 8260 – Volatile Organic Compounds (VOCs)

The results of the groundwater analyses are as follows:

- TPH-G was not detected at or above the laboratory detection limits in the groundwater samples from any of the wells.

- TPH-D was not detected in MW-6 at or above the laboratory detection limit. MW-1, MW-2, MW-3 and MW-4 had TPH-D concentrations of 261, 80.9, 397 and 513 micrograms per liter (ug/l) respectively.

- Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) were not detected at or above the laboratory detection limits in the groundwater samples from any of the wells.

- Analysis for VOCs indicated that MTBE was detected in groundwater samples from all of the wells between 0.6 and 9.3 ug/l.

- Analysis for VOCs indicated 1,2-dichloroethane in MW-3 at 2.2 ug/l and sec-Butylbenzene in MW-4 at 0.5 ug/l. Chloroform, a common chlorinization by-product, was also detected in the sample from MW-1 at 1.4 ug/l. No other VOCs were detected in the groundwater samples during this quarterly sampling event.

A summary of the laboratory results for the Fourth Quarter 2002 groundwater samples is presented in Table 2. Copies of the laboratory analytical report and chain of custody records are presented in Appendix C.

2.4 DISCUSSION OF GROUNDWATER QUALITY

With the exception of the significant decrease in the TPH-D level in MW-4, the concentrations of contaminants detected during the Fourth Quarter 2002 monitoring event are generally similar to the results from last quarter.

The results of the groundwater analyses were compared to the State of California Primary Maximum Contaminant Level (MCL) and, if the compound did not have an MCL, with the EPA Region IX Preliminary Remediation Goals (PRG) for tap water. The following compounds were above their respective MCL or PRG.

- 1,2-Dichloroethane in MW-3 at 5.4 ug/l (MCL of 0.5 ug/l)

- Chloroform in MW-1 at 1.4 ug/l (PRG of 0.16 ug/l)

All other compounds detected were below their respective MCL or PRG.

2.5 FREE PRODUCT REMOVAL

Bulk removal of free product (diesel fuel) and installation and regular replacement of absorbent socks in MW-4 were performed during the Third Quarter, 2002. Our efforts to remove free product appear to have been successful, as there is no longer a measurable height of free product within the well casing. Based on the relatively sudden appearance of free product and its lack of persistence after removal, it is our opinion that the presence of diesel in MW-4 was likely the result of a single-event release or spill, caused by a mistake, accident or other event centered around or in MW-4.

Our referenced summary report (PSI, Dec., 2002) contains historic environmental data for the site including documentation of free product removal.

3.0 SUMMARY AND CONCLUSIONS

PSI performed groundwater monitoring activities on December 5, 2002. The results of the monitoring event are summarized below.

- Groundwater flows toward the southwest under a hydraulic gradient of 0.008.
- Free-floating product (diesel fuel) has not returned to MW-4 after the discontinuation of free product removal efforts at the end of the Third Quarter, 2002.
- TPH-G was not detected at or above the laboratory detection limit in the samples from any of the wells.
- TPH-D was detected in MW-1, MW-2, MW-3 and MW-4 and was not detected at or above the laboratory detection limit in MW-6.
- Four VOCs were detected in the groundwater samples submitted for the site. MTBE was detected in samples from all of the wells but was below the MCL in all cases. The other VOCs detected include chloroform (in MW-1), sec-butylbenzene (in MW-4) and 1,2-dichloroethane (in MW-3). Both chloroform and 1,2-dichloroethane were above their respective PRG or MCL. No other VOCs were detected in any of the samples analyzed.
- Since chloroform is a common chlorinization by-product, is not commonly associated with hydrocarbon fuel contamination, and was not detected in any other well during any other quarter, it is our opinion that this detection is anomalous and does not pertain to the USPS VMF UST case.
- The recently installed MW-6, downgradient from the former underground storage tank locations, is relatively free from contaminants, and therefore appears to provide an adequate downgradient boundary to the hydrocarbon contaminant plume.

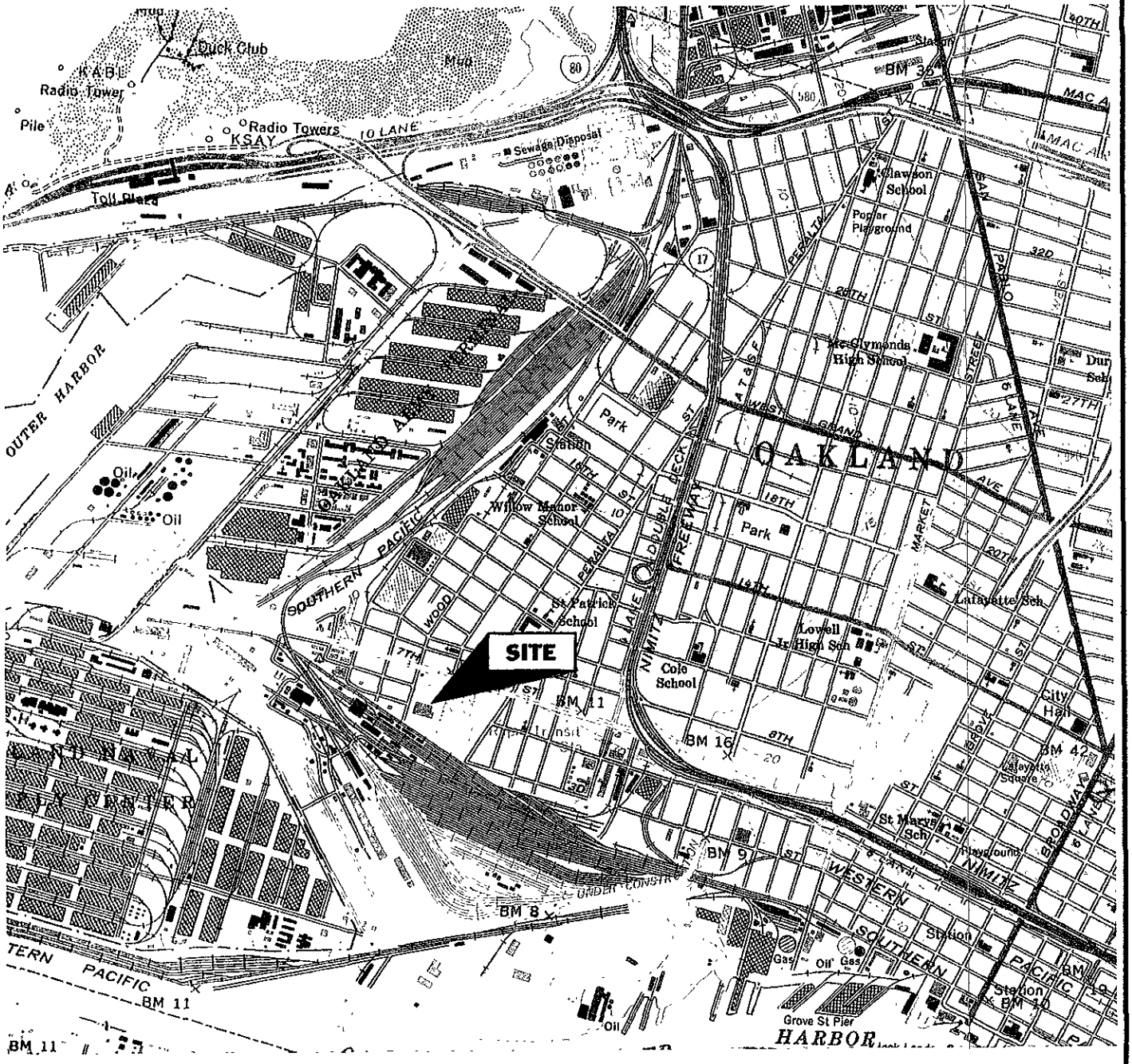
4.0 REFERENCES

1. Alameda County Health Care Services Agency, July 19, 2002, Letter titled: "Fuel Leak Case RO0000016, 1675 7th Street, Oakland, CA 94607."

2. Professional Service Industries, October 30, 2002, "Third Quarter 2002 Groundwater Monitoring Report, USPS GMF/VMF, 1675 7th Street, Oakland, California," Project No. 575-2G007.

3. Professional Service Industries, December 30, 2002, "Historic Summary Report and Closure Request, United States Postal Service Vehicle Maintenance Facility, 1675 7th Street, Oakland, California," Project No. 575-2G007.

FIGURES



NORTH

0 1/2 1 MILE

SCALE

REFERENCE:
U.S.G.S. OAKLAND WEST CALIFORNIA, 7.5 MINUTE SERIES TOPOGRAPHIC MAP, DATED 1959, PHOTOREVISED 1980.

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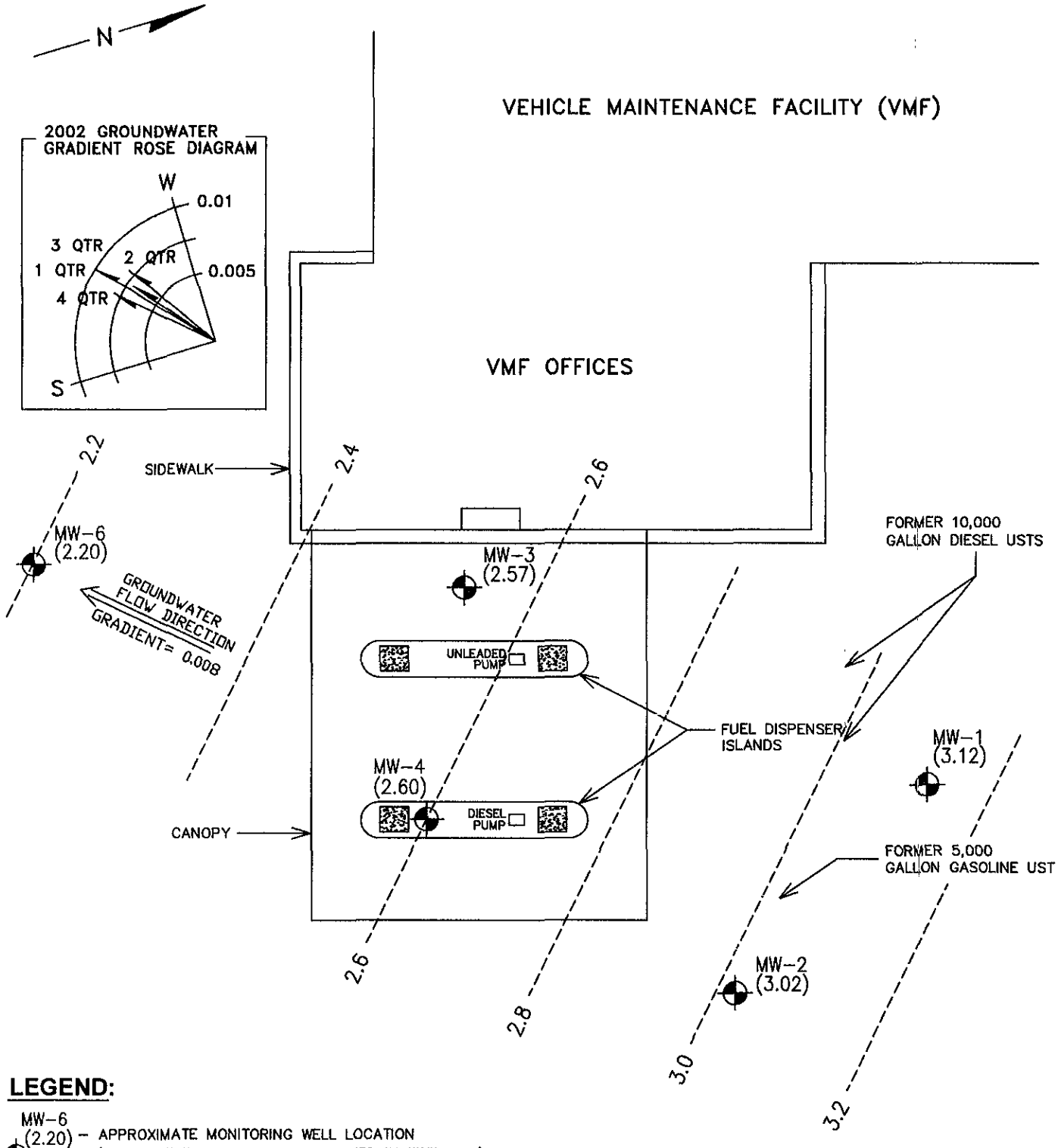
Project Name:	Drawn By:	Date:	File No.:	Figure No.:
USPS VEHICLE MAINTENANCE FACILITY 1675 7th STREET, OAKLAND, CALIFORNIA	B.W.B.	7/02	2G007-01	1
Title: SITE LOCATION MAP	Approved By: F.P.	Project No.: 575-2G007		



NOTES:
1. BASE MAP TAKEN FROM FIELD SURVEY PERFORMED BY PSI ON JUNE 18, 2002.
2. LOCATIONS AND ELEVATIONS OF WELLS SURVEYED BY MORROW SURVEYING ON 9/27/02.

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Project Name:	Drawn By:	Date:	File No.:	Figure No.:
OAKLAND VEHICLE MAINTENANCE FACILITY 1675 7th STREET, OAKLAND, CALIFORNIA	B.W.B.	2/02	2G007-11	2
Title: GROUNDWATER ELEVATION MAP (DECEMBER 5, 2002)	Approved By: F.P.	Project No.: 575-2G007		

TABLES

TABLE 1

DEPTH TO GROUNDWATER DATA
USPS VEHICLE MAINTENANCE FACILITY
OAKLAND, CALIFORNIA

Sample I.D.	Date	TOC Elevation (feet msl)	Depth To Groundwater (feet)	Groundwater Elevation (feet msl)
MW-1	12/5/02	11.44	8.32	3.12
MW-2	12/5/02	12.06	9.04	3.02
MW-3	12/5/02	12.48	9.91	2.57
MW-4	12/5/02	12.83	10.23	2.60
MW-6	12/5/02	11.93	9.73	2.20

Notes: TOC = Top of well casing elevation.
msl = Mean sea level

TABLE 2

ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES
USPS VEHICLE MAINTENANCE FACILITY
OAKLAND, CALIFORNIA

Sample I.D.	Date	TPH-G (ug/l)	TPH-D (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl-benzene (ug/l)	Total Xylenes (ug/l)	MTBE (ug/l)	VOCs (ug/l)
MW-1	12/5/02	<50	**261**	<0.5	<0.5	<0.5	<1.0	**1.2**	**Chloroform - 1.4**
MW-2	12/5/02	<50	**80.9***	<0.5	<0.5	<0.5	<1.0	**1.4**	ND
MW-3	12/5/02	<50	**397**	<0.5	<0.5	<0.5	<1.0	**5.4**	**1,2-Dichloroethane - 2.2**
MW-4	12/5/02	<50	**513**	<0.5	<0.5	<0.5	<1.0	**9.3**	**sec-Butylbenzene - 0.5**
MW-6	12/5/02	<50	<50	<0.5	<0.5	<0.5	<1.0	**0.6**	ND

Notes:
TPH-G = Total petroleum hydrocarbons as gasoline
TPH-D = Total petroleum hydrocarbons as diesel
* = Lab indicates that TPH-D result for MW-2 is a non-typical diesel pattern.
MTBE = Methyl tert-butyl ether
VOCs = Volatile Organic Compounds
VOCs presented are the only compounds detected; all other compounds were not detected.
ug/l = Micrograms per liter
< = Less than the laboratory test method detection limit indicated.
ND = Not Detected

TABLE 3

SUMMARY OF HISTORIC GROUNDWATER ANALYTICAL RESULTS
USPS, VEHICLE MAINTENANCE FACILITY
OAKLAND, CALIFORNIA

Sample I.D.	Date	TPH-G (ug/l)	TPH-D (ug/l)	Benzene (ug/l)	Toluene (ug/l)	Ethyl-benzene (ug/l)	Total Xylenes (ug/l)	MTBE (ug/l)
MW-1	9/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	3/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/1/94	<50	73	<0.5	<0.5	<0.5	<0.5	NA
	2/22/95	<50	600	<0.5	<0.5	<0.5	<0.5	NA
	6/6/95	<50	900	<0.5	<0.5	<0.5	<0.5	NA
	8/16/95	<50	810	<0.5	<0.5	<0.5	<0.5	NA
	11/14/95	<50	590	<0.5	<0.5	<0.5	<0.5	NA
	5/16/96	NA	900	NA	NA	NA	NA	NA
	11/15/96	NA	330	NA	NA	NA	NA	NA
	3/11/02	<500	<400	<0.5	<0.5	<0.5	<1.0	<1.0
	6/18/02	<50	222	<0.5	<0.5	<0.5	<1.0	1.2
	9/26/02	<50	519	<0.5	<0.5	<0.5	<1.0	<0.5
	12/5/02	<50	261	<0.5	<0.5	<0.5	<1.0	1.2
MW-2	9/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	3/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	2/22/95	<50	280	<0.5	<0.5	<0.5	<0.5	NA
	6/6/95	<50	570	<0.5	<0.5	<0.5	<0.5	NA
	8/16/95	<50	150	<0.5	<0.5	<0.5	<0.5	NA
	11/14/95	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	5/16/96	NA	320	NA	NA	NA	NA	NA
	11/15/96	NA	<50	NA	NA	NA	NA	NA
	3/11/02	<500	<400	<0.5	<0.5	<0.5	<1.0	<1.0
	6/18/02	<50	<50	<0.5	<0.5	<0.5	<1.0	0.9
	9/26/02	<50	<50	<0.5	<0.5	<0.5	<1.0	4.2
	12/5/02	<50	80.9*	<0.5	<0.5	<0.5	<1.0	1.4
MW-3	9/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	3/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/1/94	Insufficient water - no sample collected.						
	2/22/95	50	350	<0.5	<0.5	<0.5	<0.5	NA
	6/6/95	<50	380	<0.5	<0.5	<0.5	<0.5	NA
	8/16/95	<50	440	<0.5	<0.5	<0.5	<0.5	NA
	11/14/95	<50	200	0.8	<0.5	<0.5	<0.5	NA
	5/16/96	NA	1,100	NA	NA	NA	NA	NA
	11/15/96	NA	470	NA	NA	NA	NA	NA
	3/11/02	<500	540	<0.5	<0.5	<0.5	<1.0	3.8
	6/19/02	<50	407	<0.5	<0.5	<0.5	<1.0	4.9
	9/26/02	<50	741	<0.5	<0.5	<0.5	<1.0	4.4
	12/5/02	<50	397	<0.5	<0.5	<0.5	<1.0	5.4
MW-4	9/1/93	<50	580	<0.5	<0.5	<0.5	<0.5	NA
	1/26/94	<50	850	0.8	<0.5	<0.5	<0.5	NA
	3/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/1/94	<50	260	1.7	<0.5	<0.5	<0.5	NA
	2/22/95	140	1,100	1.4	<0.5	<0.5	<0.5	NA
	6/6/95	24,000	23,000	<0.5	<0.5	0.5	<0.5	NA
	8/16/95	2,000	3,400	1.2	<0.5	1.0	0.8	NA
	11/14/95	950	7,400	<0.5	<0.5	<0.5	<0.5	NA
	5/16/96	<50	2,000	<0.5	<0.5	<0.5	<1.0	NA
	11/15/96	600	13,000	0.78	<0.5	0.94	<1.0	NA
	3/11/02	NT	NT	<0.5	<0.5	<0.5	<1.0	8.5
	6/19/02	228	235,000	<2.5	<2.5	<2.5	<5.0	14.1
	9/26/02	<50	16,400	<0.5	<0.5	<0.5	<1.0	6.5
	12/5/02	<50	513	<0.5	<0.5	<0.5	<1.0	9.3
MW-5	9/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	1/26/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	3/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	6/1/94	<50	<50	<0.5	<0.5	<0.5	<0.5	NA
	MW-5 abandoned in January 1995							
MW-6	9/26/02	<50	<50	<0.5	3.8	<0.5	<1.0	<0.5
	12/5/02	<50	<50	<0.5	<0.5	<0.5	<1.0	0.6

Notes.
TPH-D = Total petroleum hydrocarbons as diesel
TPH-G = Total petroleum hydrocarbons as gasoline
MTBE = Methyl tert-butyl ether
ug/l = Micrograms per liter
< = Less than laboratory test method detection limit, as indicated.
NT = Not Tested / Not Measured

APPENDIX A

HISTORIC WATER LEVELS

Table 1. Summary of Groundwater Elevations
United States Postal Service - GMF/VMF
1675 7th Street
Oakland, California

Well Name	Date	Top of Well Casing Elevation (ft MSL)*	Depth to Product (ft BTOC)**	Depth to Water (ft BTOC)**	Product Thickness (feet)	Groundwater Elevation (ft MSL)*
MW-1	9/93	8.30	No Product	3.90	No Product	4.40
	1/26/94		No Product	3.64	No Product	4.66
	2/94		No Product	3.37	No Product	4.93
	3/94		No Product	7.51	No Product	0.79
	4/94		No Product	10.74	No Product	-2.44
	5/94		No Product	12.98	No Product	-4.68
	6/94		No Product	15.55	No Product	-7.25
	2/22/95		No Product	6.98	No Product	1.32
	6/6/95		No Product	7.51	No Product	0.79
	8/16/95		No Product	8.11	No Product	0.19
	11/14/95		No Product	9.04	No Product	-0.74
	5/16/96		No Product	7.00	No Product	1.30
MW-2	9/93	8.86	No Product	4.55	No Product	4.31
	1/26/94		No Product	4.69	No Product	4.17
	2/94		No Product	3.98	No Product	4.88
	3/94		No Product	8.14	No Product	0.72
	4/94		No Product	10.60	No Product	-1.74
	5/94		No Product	13.47	No Product	-4.61
	6/94		No Product	15.50	No Product	-6.64
	2/22/95		No Product	7.66	No Product	1.20
	6/6/95		No Product	8.06	No Product	0.80
	8/16/95		No Product	8.77	No Product	0.09
	11/14/95		No Product	9.66	No Product	-0.80
	5/16/96		No Product	7.58	No Product	1.28
MW-3	9/93	9.28	No Product	5.00	No Product	4.28
	1/26/94		No Product	5.04	No Product	4.24
	2/94		No Product	4.62	No Product	4.66
	3/94		No Product	9.54	No Product	-0.26
	4/94		No Product	11.69	No Product	-2.41
	5/94		No Product	14.85	No Product	-5.57
	6/94		No Product	17.30	No Product	-8.02
	2/22/95		No Product	8.64	No Product	0.64
	6/6/95		No Product	9.07	No Product	0.21
	8/16/95		No Product	9.66	No Product	-0.38
	11/14/95		No Product	10.46	No Product	-1.18
	5/16/96		No Product	8.61	No Product	0.67

Table 1. Summary of Groundwater Elevations
United States Postal Service - GMF/VMF
1675 7th Street
Oakland, California

Well Name	Date	Top of Well Casing Elevation (ft MSL)*	Depth to Product (ft BTOC)**	Depth to Water (ft BTOC)**	Product Thickness (feet)	Groundwater Elevation (ft MSL)*
MW-4	9/93	8.73	No Product	4.55	No Product	4.18
	1/26/94		No Product	4.60	No Product	4.13
	2/94		No Product	3.95	No Product	4.78
	3/94		No Product	8.96	No Product	-0.23
	4/94		No Product	8.96	No Product	-0.23
	5/94		No Product	14.24	No Product	-5.51
	6/94		No Product	17.28	No Product	-8.55
	2/22/95		No Product	7.93	No Product	0.80
	6/6/95		No Product	8.48	No Product	0.25
	8/16/95		8.92	9.08	0.16	-0.20***
	11/14/95		9.82	9.92	0.10	-1.0***
	5/16/96		No Product	7.88	No Product	0.85
MW-5	9/93	8.23	No Product	3.63	No Product	4.60
	1/26/94		No Product	3.70	No Product	4.53
	2/94		No Product	3.23	No Product	5.00
	3/94		No Product	7.76	No Product	0.47
	4/94		No Product	10.19	No Product	-1.96
	5/94		No Product	11.46	No Product	-3.23
	6/94		No Product	14.25	No Product	-6.02
		Well Abandoned - January 1995				

Notes:

* Feet above mean sea level

** Feet below top of casing

*** Groundwater elevation corrected for product

APPENDIX B

GROUNDWATER PURGE LOGS

530 741-4580

FLUID MEASUREMENT FIELD DATA

SHEET. (OF)

DATE: 12/5/02 | PROJECT NAME: USPS - OAKLAND | PROJECT NO: 26007

WATER LEVEL MEASUREMENT INSTRUMENT: | SERIAL NO:

PRODUCT DETECTION INSTRUMENT: | SERIAL NO:

EQUIP. DECON: ☒ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE ☐ TAP WATER FINAL RINSE

☐ TAP WATER WASH ☐ LIQUINOX WASH ☒ DIST/DEION 2 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE ☐ AIR DRY

WELL NUMBER	GROUND SURFACE ELEVATION	TOP OF CASING ELEVATION	DEPTH TO PRODUCT BELOW TOC	DEPTH TO WATER BELOW TOC	WELL DEPTH BELOW TOC	PRODUCT THICKNESS	WATER TABLE ELEVATION	ACTUAL TIME	
MW-1				8.32	20.00			1153	
MW-2				9.04	20.00			1155	
MW-3				9.91	20.00			1157	
MW-4				10.23	20.00			1202	SOCK DISPLACES SOME H_2O
MW-6				9.73	20.00			1150	2"

REMEMBER TO CORRECT PRODUCT THICKNESS FOR DENSITY BEFORE CALCULATING WATER TABLE ELEVATION

PREPARED BY: C. MERRITT

PSI
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WELL PURGING AND SAMPLING DATA

WELL NO: MW-1

DATE: 12/5/02 | PROJECT NAME: ~~XXXXXX~~ USPS OAKLAND | PROJECT NO: 2G007

WEATHER CONDITIONS: SUNNY, COOL

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ OTHER _____

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC) 20 FT. | DEPTH TO WATER BEFORE PURGING (TOC) 8.32 FT.

LENGTH OF WATER 11.68 FT. | CALCULATED ONE WELL VOLUME[1]: 7.81 GAL.

PURGING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

SAMPLING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE
☒ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☐ LIQUINOX WASH ☒ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MODEL & SERIAL NO: MYRON L 602154

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ °F ☐ °C	SPECIFIC CONDUCT MS	pH	DISS OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID)	
1322	INITIAL	20.0	10.50	7.73			CL/TU/CL	479	9028
1325	4.0	20.5	11.71	7.73			CL	500	10.20 PPT
1330	16	21.0	8154 MS	7.72			CL	515	6811
1335	24	21.1	6810	7.72			CL	518	5559

DEPTH TO WATER AFTER PURGING (TOC) FT. | SAMPLE FILTERED ☐ YES ☐ NO SIZE _____

NOTES:

SAMPLE TIME: 1340 ID# MW-1

DUPLICATE ☐ TIME: ID#:

EQUIP. BLANK: ☐ TIME: ID#:

PREPARED BY: C. MERRITT

[1] A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIP

WELL PURGING AND SAMPLING DATA

WELL NO: MW-2

DATE: 12/5/02 | PROJECT NAME: USPS OAKLAND | PROJECT NO: 26007

WEATHER CONDITIONS: SUNNY, WARM

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ OTHER

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC) 20 FT. | DEPTH TO WATER BEFORE PURGING (TOC) 9.04 FT.

LENGTH OF WATER 10.96 FT. | CALCULATED ONE WELL VOLUME[1]: 7.16 GAL.

PURGING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

SAMPLING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE
☐ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MODEL & SERIAL NO: MYRON L 602154

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ °F ☐ °C	SPECIFIC CONDUCT.	pH	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID)	
1244	INITIAL	21.0	1905	7.73			CL/TU/OL	489	1388
1249	7.25	20.8	1693	7.73			CL/TU INT	0	1228
1254	14.50	20.8	1675	7.73			CL/TU INT	0	1215
1302	21.75	20.7	1884	7.75			CL/CO	470	1374

DEPTH TO WATER AFTER PURGING (TOC) FT. | SAMPLE FILTERED ☐ YES ☐ NO SIZE

NOTES:

SAMPLE TIME: 1305 ID# MW-2

DUPLICATE ☐ TIME: ID#:

EQUIP. BLANK: ☐ TIME: ID#:

PREPARED BY: C. MERRITT

PSI Rev. 12/95

[1] A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIP

WELL PURGING AND SAMPLING DATA

WELL NO: MW-3

DATE: 12/5/02 | PROJECT NAME: USPS OAKLAND | PROJECT NO: 26007

WEATHER CONDITIONS: SUNNY, WARM

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ OTHER

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC) 20 FT. | DEPTH TO WATER BEFORE PURGING (TOC) 9.91 FT.

LENGTH OF WATER 10.09 FT. | CALCULATED ONE WELL VOLUME[1]: ~6.6 GAL.

PURGING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

SAMPLING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE
☒ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☐ LIQUINOX WASH ☒ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MODEL & SERIAL NO: MYRON L 602154

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ °F ☐ °C	SPECIFIC CONDUCT. µS	pH	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID)	
1402	INITIAL	19.1	5182	7.74			CL	497	4.50
1405	6.6	19.2	3124	7.75			CL	498	2386
1410	13.5	19.2	3958	7.76			CL	526	3081
1415	20.1	19.2	5125	7.76			CL	532	4098

DEPTH TO WATER AFTER PURGING (TOC) FT. | SAMPLE FILTERED ☐ YES ☐ NO SIZE ____

NOTES:

SAMPLE TIME: 1420 ID# MW-3

DUPLICATE ☐ TIME: ID#:

EQUIP. BLANK: ☐ TIME: ID#:

PREPARED BY: C. MERRITT

PSI Rev. 12/95

[1] A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIP

WELL PURGING AND SAMPLING DATA

WELL NO: MW-4

DATE: 12/5/02 | PROJECT NAME: USPS OAKLAND | PROJECT NO: 26007

WEATHER CONDITIONS: SUNNY, WARM

WELL DIAMETER (IN.) ☐ 1 ☐ 2 ☒ 4 ☐ 6 ☐ OTHER _____

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC) ~~19.23~~ 20 FT. | DEPTH TO WATER BEFORE PURGING (TOC) 10.23 FT.

LENGTH OF WATER 9.77 FT. | CALCULATED ONE WELL VOLUME[1]: 6.5 GAL.

PURGING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

SAMPLING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE
☒ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☐ LIQUINOX WASH ☒ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MODEL & SERIAL NO: MYRON L 602154

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ °F ☐ °C	SPECIFIC CONDUCT.	pH	DISS. OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID)	
1438	INITIAL	19.6	1694	7.79			CL	0 DEGRADED ~~ROTTEN~~ ODOR	1233
1440	5.0	19.8	1639	7.78			CL	-199	1189
1442	10.0	19.8	1670	7.76			CL	-163	1214
1444	15	19.4	1647	7.76			CL	-159	1188
1446	20	19.8	1655	7.77				0	1194

DEPTH TO WATER AFTER PURGING (TOC) FT. | SAMPLE FILTERED ☐ YES ☐ NO SIZE _____

NOTES:

SAMPLE TIME: 1450 ID# MW-4

DUPLICATE ☐ TIME: ID#:

EQUIP. BLANK: ☐ TIME: ID#:

PREPARED BY: C. MERRITT

PSI [1] A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIP
Rev. 12/95

WELL PURGING AND SAMPLING DATA

WELL NO: MW-6

DATE: 12/5/02 | PROJECT NAME: USPS ORLAND | PROJECT NO: 26007

WEATHER CONDITIONS:

WELL DIAMETER (IN.) ☐ 1 ☒ 2 ☐ 4 ☐ 6 ☐ OTHER

SAMPLE TYPE: ☒ GROUNDWATER ☐ WASTEWATER ☐ SURFACE WATER ☐ OTHER

WELL DEPTH (TOC) 20 FT. | DEPTH TO WATER BEFORE PURGING (TOC) 9.73 FT.

LENGTH OF WATER 10.27 FT. | CALCULATED ONE WELL VOLUME[1]: 1.75 GAL.

PURGING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

SAMPLING DEVICE: ☒ DEDICATED ☐ DISPOSABLE ☒ DECONTAMINATED

EQUIP. DECON. ☐ TAP WATER WASH ☐ ISOPROPANOL ☐ ANALYTE FREE FINAL RINSE
☐ ALCONOX WASH ☐ DIST/DEION 1 RINSE ☐ OTHER SOLVENT ☐ DIST/DEION FINAL RINSE
☐ LIQUINOX WASH ☐ DIST/DEION 2 RINSE ☐ TAP WATER FINAL RINSE ☐ AIR DRY

CONTAINER PRESERVATION: ☒ LAB PRESERVED ☐ FIELD PRESERVED

WATER ANALYZER MODEL & SERIAL NO: MYRON L 602154

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP ☐ °F ☐ °C	SPECIFIC CONDUCT	pH	DISS OXYGEN	TURBIDITY (NTUs)	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID) ORP	TDS
1227	INITIAL	21.7	1510	7.72			CL/TC/CL	466	1078
1228	2.0	22.4	1516	7.73			CL	0	1080
1229	4.0	22.5	1552	7.74			CL/CO	0	1108
1230	6.0	22.6	1506	7.75			CO	-73	1073

DEPTH TO WATER AFTER PURGING (TOC) FT. | SAMPLE FILTERED ☐ YES ☐ NO SIZE ____

NOTES:

SAMPLE TIME: 1235 ID# MW-6

DUPLICATE ☐ TIME: ID#:

EQUIP. BLANK: ☐ TIME: ID#:

PREPARED BY: C. MERRITT

PSI Rev. 12/95

[1] A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIP

APPENDIX C

LABORATORY REPORTS AND CHAIN-OF-CUSTODY FORMS

BASIC LABORATORY, INC.

Report To:	P.S.I. 4703 TIDEWATER AVE., STE.B OAKLAND, CA 94601	***Lab No:***	0212221
		Date:	12/19/02
		Phone:	(510) 434-9200
		Date Sampled:	12/05/02
Attention:	FRANK POSS	***Date Received:***	12/06/02
		Project No.:	2G007

Project Name: USPS OAKLAND

Sample Description: WATER TESTING

Test:	***TPH-Gas Range Organics***	***4-Bromofluorobenzene***	***Reporting Limit***	***Date Analyzed***
Method:	8015	*Surrogate*		
Units:	ug/l	%	ug/l	
Control Limit:		43-155		
Sample ID				
MW-1	1	n	69.4	50	12/18/02
MW-2	2	n	66.6	50	12/18/02
MW-3	3	n	74.2	50	12/17/02
MW-4	4	n	81.2	50	12/17/02
MW-6	5	n	76.6	50	12/17/02

Comments: California D.O.H.S. Cert. #1677.
n - Not detected at the reporting limit.

Reported by:

BASIC LABORATORY, INC.

Report To:	P.S.I.	*Lab No:*	0212221
	4703 TIDEWATER AVE., STE.B	*Date:*	12/19/02
	OAKLAND, CA 94601	*Phone:*	(510) 434-9200
		Date Sampled:	12/05/02
Attention:	FRANK POSS	*Date Received:*	12/06/02
		Date Extracted:	12/06/02
Project Name:	USPS OAKLAND	*Project No.:*	2G007
Sample Description:	WATER TESTING	*Page 2 of 12*	

Test:	*TPH-Diesel Range Organics*	*Triphenylphosphate*	*Reporting Limit:*	*Date Analyzed*
Method:	8015	Surrogate		
Units:	ug/l	%	ug/l	
Control Limit:		44-128		
Sample ID				
MW-1	261	85.8	50	12/16/02
MW-2	80.9*	94 6	50	12/16/02
MW-3	397	89.1	50	12/16/02
MW-4	513	71.1	50	12/16/02
MW-6	n	90.3	50	12/16/02

Comments: California D.O.H.S. Cert. #1677.
n - Not detected at the reporting limit.
*Non-typical diesel pattern.

Reported by:

BASIC LABORATORY, INC.

EPA METHOD 8260

Report To:	P.S.I.	***Lab Number:***	0212221-1
	4703 TIDEWATER AVE., STE.B	***Phone:***	(510) 434-9200
	OAKLAND, CA 94601		
		Date Sampled:	12/05/02
Attention:	FRANK POSS	***Date Received:***	12/06/02
		Date Analyzed:	12/17/02
Project Number:	USPS OAKLAND / 2G007	***Date Reported:***	12/19/02
Sampling Location:			
Sample ID:	MW-1		
Sample Matrix:	WATER		
Sample Collected By:	CHRIS MERRITT		

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	n	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/l	0.5
sec-Butylbenzene	n	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	1.4	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	n	ug/l	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

BASIC LABORATORY, INC.

EPA METHOD 8260

Report To: P.S.I. ***Lab Number:*** 0212221-1

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
1,3-Dichloropropane	n	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n	ug/l	0.5
1,4-Dioxane	n	ug/l	25
Ethyl Benzene	n	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	n	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	n	ug/l	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	1.2	ug/l	0.5
Napthalene	n	ug/l	0.5
n-Propylbenzene	n	ug/l	0.5
Styrene	n	ug/l	0.5
Tert-Amyl Methyl Ether (TAME)	n	ug/l	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1,1,2,2-Tetrachloroethane	n	ug/l	0.5
Tetrachloroethene	n	ug/l	0.5
Tetrahydrofuran	n	ug/l	5.0
tert - Butanol (TBA)	n	ug/l	50
Toluene	n	ug/l	0.5
1,2,3-Trichlorobenzene	n	ug/l	0.5
1,2,4-Trichlorobenzene	n	ug/l	0.5
1,1,1-Trichloroethane	n	ug/l	0.5
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5
Trichlorofluoromethane	n	ug/l	0.5
1,2,3-Trichloropropane	n	ug/l	0.5
1,2,4-Trimethylbenzene	n	ug/l	0.5
1,3,5-Trimethylbenzene	n	ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride	n	ug/l	0.5
Total Xylenes	n	ug/l	1.0
SURROGATES	**RECOVERY**	**%**	**CONTROL LIMITS (%)**
1,2-Dichloroethane-d4	68.4	%	28-145
Toluene-d8	78.4	%	52-150
4-Bromofluorobenzene	69.4	%	43-155

Comments:
Caifornia D.O.H.S Cert # 1677
n - Not detected at the quantitation limit.

Reported By

BASIC LABORATORY, INC.

EPA METHOD 8260

Report To:	P.S.I.	***Lab Number:***	0212221-2
	4703 TIDEWATER AVE., STE.B	***Phone:***	(510) 434-9200
	OAKLAND, CA 94601		
		Date Sampled:	12/05/02
Attention:	FRANK POSS	***Date Received:***	12/06/02
		Date Analyzed:	12/17/02
Project Number:	USPS OAKLAND / 2G007	***Date Reported:***	12/19/02
Sampling Location:			
Sample ID:	MW-2		
Sample Matrix:	WATER		
Sample Collected By:	CHRIS MERRITT		

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	n	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/l	0.5
sec-Butylbenzene	n	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	n	ug/l	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

BASIC LABORATORY, INC.

EPA METHOD 8260

Report To: P.S.I. ***Lab Number:*** 0212221-2

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
1,3-Dichloropropane	n	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n	ug/l	0.5
1,4-Dioxane	n	ug/l	25
Ethyl Benzene	n	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	n	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	n	ug/l	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	1.4	ug/l	0.5
Napthalene	n	ug/l	0.5
n-Propylbenzene	n	ug/l	0.5
Styrene	n	ug/l	0.5
Tert-Amyl Methyl Ether (TAME)	n	ug/l	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1,1,2,2-Tetrachloroethane	n	ug/l	0.5
Tetrachloroethene	n	ug/l	0.5
Tetrahydrofuran	n	ug/l	5.0
tert - Butanol (TBA)	n	ug/l	50
Toluene	n	ug/l	0.5
1,2,3-Trichlorobenzene	n	ug/l	0.5
1,2,4-Trichlorobenzene	n	ug/l	0.5
1,1,1-Trichloroethane	n	ug/l	0.5
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5
Trichlorofluoromethane	n	ug/l	0.5
1,2,3-Trichloropropane	n	ug/l	0.5
1,2,4-Trimethylbenzene	n	ug/l	0.5
1,3,5-Trimethylbenzene	n	ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride	n	ug/l	0.5
Total Xylenes	n	ug/l	1.0
SURROGATES	**RECOVERY**	**%**	**CONTROL LIMITS (%)**
1,2-Dichloroethane-d4	79.8	%	28-145
Toluene-d8	76.8	%	52-150
4-Bromofluorobenzene	66.6	%	43-155

Comments:
California D.O.H.S Cert # 1677
n - Not detected at the quantitation limit.

Reported By

BASIC LABORATORY, INC.

EPA METHOD 8260

Report To:	P.S.I.	***Lab Number:***	0212221-3
	4703 TIDEWATER AVE., STE.B	***Phone:***	(510) 434-9200
	OAKLAND, CA 94601		
		Date Sampled:	12/05/02
Attention:	FRANK POSS	***Date Received:***	12/06/02
		Date Analyzed:	12/17/02
Project Number:	USPS OAKLAND / 2G007	***Date Reported:***	12/19/02
Sampling Location:			
Sample ID:	MW-3		
Sample Matrix:	WATER		
Sample Collected By:	CHRIS MERRITT		

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	n	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/l	0.5
sec-Butylbenzene	n	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	2.2	ug/l	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

BASIC LABORATORY, INC.

EPA METHOD 8260

Report To: P.S.I. ***Lab Number:*** 0212221-3

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
1,3-Dichloropropane	n	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n	ug/l	0.5
1,4-Dioxane	n	ug/l	25
Ethyl Benzene	n	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	n	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	n	ug/l	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	5.4	ug/l	0.5
Napthalene	n	ug/l	0.5
n-Propylbenzene	n	ug/l	0.5
Styrene	n	ug/l	0.5
Tert-Amyl Methyl Ether (TAME)	n	ug/l	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1,1,2,2-Tetrachloroethane	n	ug/l	0.5
Tetrachloroethene	n	ug/l	0.5
Tetrahydrofuran	n	ug/l	5.0
tert - Butanol (TBA)	n	ug/l	50
Toluene	n	ug/l	0.5
1,2,3-Trichlorobenzene	n	ug/l	0.5
1,2,4-Trichlorobenzene	n	ug/l	0.5
1,1,1-Trichloroethane	n	ug/l	0.5
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5
Trichlorofluoromethane	n	ug/l	0.5
1,2,3-Trichloropropane	n	ug/l	0.5
1,2,4-Trimethylbenzene	n	ug/l	0.5
1,3,5-Trimethylbenzene	n	ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride	n	ug/l	0.5
Total Xylenes	n	ug/l	1.0
SURROGATES	**RECOVERY**	**%**	**CONTROL LIMITS (%)**
1,2-Dichloroethane-d4	94.0	%	28-145
Toluene-d8	85.2	%	52-150
4-Bromofluorobenzene	74.2	%	43-155

Comments:
California D.O.H.S Cert # 1677
n - Not detected at the quantitation limit.

Reported By

BASIC LABORATORY, INC.

EPA METHOD 8260

Report To:	P.S.I.	***Lab Number:***	0212221-4
	4703 TIDEWATER AVE., STE.B	***Phone:***	(510) 434-9200
	OAKLAND, CA 94601		
		Date Sampled:	12/05/02
Attention:	FRANK POSS	***Date Received:***	12/06/02
		Date Analyzed:	12/17/02
Project Number:	USPS OAKLAND / 2G007	***Date Reported:***	12/19/02
Sampling Location:			
Sample ID:	MW-4		
Sample Matrix:	WATER		
Sample Collected By:	CHRIS MERRITT		

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	n	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/l	0.5
sec-Butylbenzene	0.5	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	n	ug/l	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

BASIC LABORATORY, INC.

EPA METHOD 8260

Report To: P.S.I. ***Lab Number:*** 0212221-4

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
1,3-Dichloropropane	n	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n	ug/l	0.5
1,4-Dioxane	n	ug/l	25
Ethyl Benzene	n	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	n	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	n	ug/l	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	9.3	ug/l	0.5
Napthalene	n	ug/l	0.5
n-Propylbenzene	n	ug/l	0.5
Styrene	n	ug/l	0.5
Tert-Amyl Methyl Ether (TAME)	n	ug/l	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1,1,2,2-Tetrachloroethane	n	ug/l	0.5
Tetrachloroethene	n	ug/l	0.5
Tetrahydrofuran	n	ug/l	5.0
tert - Butanol (TBA)	n	ug/l	50
Toluene	n	ug/l	0.5
1,2,3-Trichlorobenzene	n	ug/l	0.5
1,2,4-Trichlorobenzene	n	ug/l	0.5
1,1,1-Trichloroethane	n	ug/l	0.5
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5
Trichlorofluoromethane	n	ug/l	0.5
1,2,3-Trichloropropane	n	ug/l	0.5
1,2,4-Trimethylbenzene	n	ug/l	0.5
1,3,5-Trimethylbenzene	n	ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride	n	ug/l	0.5
Total Xylenes	n	ug/l	1.0

SURROGATES	RECOVERY	%	CONTROL LIMITS (%)
1,2-Dichloroethane-d4	83.4	%	28-145
Toluene-d8	85.4	%	52-150
4-Bromofluorobenzene	81.2	%	43-155

Comments:
California D.O.H.S Cert # 1677
n - Not detected at the quantitation limit.

Reported By

BASIC LABORATORY, INC.

EPA METHOD 8260

Report To:	P.S.I.	***Lab Number:***	0212221-5
	4703 TIDEWATER AVE., STE.B	***Phone:***	(510) 434-9200
	OAKLAND, CA 94601		
		Date Sampled:	12/05/02
Attention:	FRANK POSS	***Date Received:***	12/06/02
		Date Analyzed:	12/17/02
Project Number:	USPS OAKLAND / 2G007	***Date Reported:***	12/19/02
Sampling Location:			
Sample ID:	MW-6		
Sample Matrix:	WATER	**AMENDED**	
Sample Collected By:	CHRIS MERRITT		

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
Acetone	n	ug/l	5.0
Acrylonitrile	n	ug/l	5.0
Benzene	n	ug/l	0.5
Bromobenzene	n	ug/l	0.5
Bromochloromethane	n	ug/l	0.5
Bromodichloromethane	n	ug/l	0.5
Bromoform	n	ug/l	0.5
Bromomethane	n	ug/l	0.5
2-Butanone (MEK)	n	ug/l	5.0
n-Butylbenzene	n	ug/l	0.5
sec-Butylbenzene	n	ug/l	0.5
tert-Butylbenzene	n	ug/l	0.5
Carbon Disulfide	n	ug/l	0.5
Carbon tetrachloride	n	ug/l	0.5
Chlorobenzene	n	ug/l	0.5
Chloroethane	n	ug/l	0.5
2-Chloroethylvinylether	n	ug/l	0.5
Chloroform	n	ug/l	0.5
Chloromethane	n	ug/l	0.5
2-Chlorotoluene	n	ug/l	0.5
4-Chlorotoluene	n	ug/l	0.5
Dibromochloromethane	n	ug/l	0.5
1,2-Dibromo-3-Chloropropane	n	ug/l	0.5
1,2-Dibromoethane	n	ug/l	0.5
Dibromomethane	n	ug/l	0.5
1,2-Dichlorobenzene	n	ug/l	0.5
1,3-Dichlorobenzene	n	ug/l	0.5
1,4-Dichlorobenzene	n	ug/l	0.5
Dichlorodifluoromethane	n	ug/l	0.5
1,1-Dichloroethane	n	ug/l	0.5
1,2-Dichloroethane	n	ug/l	0.5
1,1-Dichloroethene	n	ug/l	0.5
cis-1,2-Dichloroethene	n	ug/l	0.5
trans-1,2-Dichloroethene	n	ug/l	0.5
1,2-Dichloropropane	n	ug/l	0.5

BASIC LABORATORY, INC.

EPA METHOD 8260

Report To: P.S.I. ***Lab Number:*** 0212221-5

COMPOUND	RESULT	REPORTING UNITS	QUANTITATION LIMIT
1,3-Dichloropropane	n	ug/l	0.5
2,2-Dichloropropane	n	ug/l	0.5
1,1-Dichloropropene	n	ug/l	0.5
cis-1,3-Dichloropropene	n	ug/l	0.5
trans-1,3-Dichloropropene	n	ug/l	0.5
1,4-Dioxane	n	ug/l	25
Ethyl Benzene	n	ug/l	0.5
Ethyl-Tert-Butyl Ether (ETBE)	n	ug/l	0.5
Hexachlorobutadiene	n	ug/l	0.5
2-Hexanone (MBK)	n	ug/l	5.0
Isopropylbenzene	n	ug/l	0.5
Di-Isopropyl Ether (DIPE)	n	ug/l	0.5
p-Isopropyltoluene	n	ug/l	0.5
4-Methyl-2-Pentanone (MIBK)	n	ug/l	5.0
Methylene Chloride	n	ug/l	1.0
Methyl Tert-Butyl Ether (MTBE)	0.6	ug/l	0.5
Napthalene	n	ug/l	0.5
n-Propylbenzene	n	ug/l	0.5
Styrene	n	ug/l	0.5
Tert-Amyl Methyl Ether (TAME)	n	ug/l	0.5
1,1,1,2-Tetrachloroethane	n	ug/l	0.5
1,1,2,2-Tetrachloroethane	n	ug/l	0.5
Tetrachloroethene	n	ug/l	0.5
Tetrahydrofuran	n	ug/l	5.0
tert - Butanol (TBA)	n	ug/l	50
Toluene	n	ug/l	0.5
1,2,3-Trichlorobenzene	n	ug/l	0.5
1,2,4-Trichlorobenzene	n	ug/l	0.5
1,1,1-Trichloroethane	n	ug/l	0.5
1,1,2-Trichloroethane	n	ug/l	0.5
Trichloroethene	n	ug/l	0.5
1,1,2-Trichlorotrifluoroethane	n	ug/l	0.5
Trichlorofluoromethane	n	ug/l	0.5
1,2,3-Trichloropropane	n	ug/l	0.5
1,2,4-Trimethylbenzene	n	ug/l	0.5
1,3,5-Trimethylbenzene	n	ug/l	0.5
Vinyl Acetate	n	ug/l	0.5
Vinyl Chloride	n	ug/l	0.5
Total Xylenes	n	ug/l	1.0

SURROGATES	RECOVERY	%	CONTROL LIMITS (%)
1,2-Dichloroethane-d4	88.4	%	28-145
Toluene-d8	101	%	52-150
4-Bromofluorobenzene	76.6	%	43-155

Comments:
California D.O.H.S Cert # 1677
n - Not detected at the quantitation limit.

Reported By

BASIC LABORATORY CHAIN OF CUSTODY RECORD

2218 Railroad Avenue, Redding, CA 96001 (530) 243-7234 FAX 243-7494

CLIENT NAME: PSI

PROJECT NAME: USPS OAKLAND

PROJECT #: 2G007

LAB #: 0212221

ADDRESS: ON FILE

REQUESTED COMP. DATE: 12.20.02

SAMP: 5

TURN AROUND TIME: STD ☒ RUSH ☐

PAGE 1 OF 1

PROJECT MANAGER: FRANK POSS

ANALYSES REQUESTED

PHONE: 510 434 9200

FAX: 434-7676

E-MAIL:

INVOICE TO:

PO#:

SPECIAL MAIL ☐ E-MAIL ☐ FAX ☐

REP:

I.D.#

SYSTEM #:

CUST. SEAL

ICE

QC = 1 2 3 4

DATE	TIME	WATER	COMP	SOIL	SAMPLE DESCRIPTION	# OF BOTTLES	TPHG	TPHD	8260 w/OXYGENATES	LAB ID	REMARKS
12/5/02	1340	X			MW-1	5	X	X	X	1	
	1305	X			MW-2		X	X	X	2	
	1420	X			MW-3		X	X	X	3	
	1450	X			MW-4		X	X	X	4	
	1255	X			MW-6		X	X	X	5	

** MW-4 - 1 broken VOA - limited sample to three VOAs - NO - TBS

PRESERVATIONS HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ ZnAce/NaOH ☐ HCL ☐ Nathio ☐

SAMPLED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
CHRIS MERRITT	12/5/02 THURSDAY	CHRIS MERRITT	12/5/02 1630
RECEIVED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
RECEIVED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
RECEIVED BY LAB: Michelle M Knowlton 12.6.02	DATE/TIME: 7:30	SAMPLE SHIPPED VIA: UPS POST BUS FED-EX OTHER _____	

INSTRUCTIONS, TERMS, CONDITIONS ON BACK.