REPORT

June 1997 Ground-Water Monitoring Results UPS Oakland Center

United Parcel Service
Oakland, California

July 1997

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

#583

Transmitted Via U.S. Mail

July 21, 1997

Mr. Barney M. Chan
Hazardous Materials Specialist
Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Pkwy., #250
Alameda, CA 94502-6577

Re: June 1997 Ground-Water Monitoring Results
United Parcel Service Center
8400 Pardee Drive
Oakland, California
Project #: 36768.01

Dear Mr. Chan:

Enclosed is a letter report describing the results of Blasland, Bouck & Lee, Inc.'s June 1997 ground-water sampling at the United Parcel Service Center in Oakland, California. A meeting to discuss the results presented in this report and a request for case closure has been scheduled for 11:00 a.m. on July 29, 1997 at your office. We look forward to meeting with you at this time.

If there are questions concerning the enclosed document, I can be reached at (707) 773-4270.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

R. Bruce Scheibach

R. Bruce Scheibach, R.G.
Associate Hydrogeologist

Enclosure

797COVLT.WPD

June 1997 Ground-Water Monitoring Results UPS Oakland Center

July 1997

BBL
BLASLAND, BOUCK & LEE, INC.
engineers & scientists

715 Southpoint Boulevard, Suite A7
Petaluma, CA 949454
(707) 773-4270

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July 21, 1997

Mr. Barney M. Chan
Hazardous Materials Specialist
Alameda County Health Care Services
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1131 Harbor Bay Pkwy., #250
Alameda, CA 94502-6577

Re: June 1997 Ground-Water Monitoring Results
United Parcel Service
UPS Oakland Center
8400 Pardee Drive, Oakland, California
Project #: 36768.01

Dear Mr. Chan:

In November 1996, Blasland, Bouck & Lee, Inc. (BBL) proposed installing an oxygen releasing compound developed by REGENESIS in three monitoring wells and one piezometer adjacent to the United Parcel Service southern fuel island. The ORC was installed in each monitoring point in December 1996 and removed on June 4, 1997. The following sections provide a discussion of background conditions, results of the June ground-water sampling, conclusions and a recommendation for case closure of this site.

Background

The site is situated in a commercial area at the intersection of Pardee Drive and Swan Way. The property is owned by the Port of Oakland and leased by United Parcel Service (UPS). The facility has two fueling systems, one each on the northern and southern portions of the property; this investigation was limited to the southern fuel system. The investigation also included a portion of property owned by the Port of Oakland adjacent to the southern UPS fuel system. This adjacent property is currently undeveloped.

Geraghty & Miller performed quarterly sampling of the monitoring wells near the southern fuel system from August 1990 through December 1995. The December 1995 sampling results detected Total Petroleum Hydrocarbons as diesel (TPHd) at concentrations ranging between 2,800 micrograms per liter (µg/l) in monitoring well MW-2 to a concentration of 15,000 mg/l in monitoring well MW-1. TPHd concentration reported throughout the five-year monitoring period fluctuated at each monitoring point.

On February 28, 1996, BBL performed a preliminary site assessment, the results of which were summarized in BBL's March 28, 1996 Work Plan. An aerial photograph review revealed that the site was a tidal marsh before 1968, when the site was raised above sea level with imported fill. No structures appeared on the property until 1975 when the UPS facility was constructed. A regulatory file review indicated that the underground storage tanks (USTs) at the southern fueling island were installed between 1975 and 1985.

Ground-water monitoring performed between 1990 and 1995 detected TPHd in shallow ground water adjacent to the southern fuel island at the Oakland UPS facility. Discussions held during 1996 with Mr. Barney M. Chan, the Alameda County Department of Environmental Health Services (ACDEHS) case worker for the site, indicated that the site would be considered for closure as a low risk site if:

- the release had stopped and free product was removed or remediated,
- the site has been adequately characterized,
- dissolved hydrocarbons are not migrating,
- no water well, deeper drinking water aquifers, surface water, or sensitive receptors are likely to be impacted, and
- the site presents no significant risk to human health or the environment.

A work plan to address these issues was submitted by BBL on March 28, 1996 and approved by ACDEHS on May 8, 1996. On June 12, 1996, BBL began a subsurface investigation by installing 12 temporary well points near the southern fuel system. Ground-water samples were collected from each of the well points for laboratory analysis and/or visual observation, with six of the ground-water samples submitted for laboratory analysis. Figure 1 depicts the location of these sampling points relative to the southern fueling island. The results of this investigation were submitted to the ACDEHS on September 6, 1996.

Results of the June 12, 1996 subsurface investigation indicated that the horizontal extent of dissolved hydrocarbons in ground-water near the southern fuel system was limited and that the hydrocarbons detected were a heavier hydrocarbon that did not match the diesel standard. The heavier hydrocarbons may be associated with the backfill used to bring the property to the existing grade in the late 1960's. The heavy hydrocarbons detected may also be related to mosquito abatement activities before development of the subject site; historically, mosquito abatement activities in the bay area consisted of spraying hydrocarbon mixtures onto marsh areas to smother mosquito larvae. There was no indication that dissolved hydrocarbons were migrating away from the southern fuel island. A small amount of a free product was observed in monitoring well MW-2 and laboratory analysis of this material indicated that it resembled diesel. **The heavier hydrocarbons detected appeared to be unrelated to UPS operations. BBL proposed installation of "socks" containing an oxygen releasing compound (ORC) in the monitoring wells and piezometer, followed by their removal and ground water sampling six months later.**

The ACDEH responded to BBL's September 6, 1996 report in a letter dated November 19, 1996, and concurred with BBL's proposal for installation of ORC in the wells. Since a small amount of product was observed in monitoring well MW-2, the ACDEHS requested that a sample from this well be analyzed using EPA Test Method 8100 during the next sampling event. In addition, the ACDEHS requested that BBL perform a historic review of the area to document former land uses at the property. On December 4, 1996, BBL responded to the ACDEHS request in a letter describing the previous land use. ORC "socks" were installed in the wells on December 11, 1996 and were removed on June 4, 1997, prior to sampling.

Ground-Water Sampling

Depth to ground water could not be measured in each well before removal of the ORC "socks" because of limited space in the well casing and was therefore measured after their removal using a water level meter graduated in hundredths of a foot. No floating product was observed in monitoring well MW-2, however approximately 1 millimeter of a floating material was observed in piezometer OW-1. This piezometer is believed to be completed in the UST backfill material. Appendix A contains the laboratory analytical reports.

Ground-water elevations are presented in Table 1 and Figure 1 provides a graphical presentation of ground-water elevations for June 4, 1997. Ground-water elevations show that the ground-water flow

direction is toward the southwest. The southwestern ground-water gradient measured in June 1997 is consistent with the gradients recorded between 1990 and 1995. However, the gradient measured is relatively steep toward well MW-2. The presence of ORC "socks" in each well displaced ground water. The water level in each well decreased after removal of the socks, and the water level in monitoring well MW-2 had not fully recovered when depth to water was measured. The observed slow recovery of well MW-2 is indicative of low permeability sediments that are found at the UPS facility. These low permeability sediments limit ground water flow velocity and transport of any petroleum hydrocarbons that may be present.

After recording depth to water, each monitoring well was purged of at least three well volumes using a disposable PVC bailer and dropline. Field parameters (temperature, specific conductance, pH, and turbidity) were monitored during purging and recorded on ground-water sampling forms (Attachment 1). Dissolved oxygen (DO) was also measured in each well during this sampling event to assess DO levels after removal of the ORC.

A ground-water sample was collected from each well after purging and stabilization of field measurements. Samples were placed in laboratory supplied bottles, stored on ice, and delivered under chain of custody to Columbia Analytical Services, Inc. (Columbia), in San Jose, California for analysis. Columbia analyzed the ground-water samples for TPHd using EPA Test Method 8015-Modified. The sample from MW-2 was also analyzed for polynuclear aromatic hydrocarbons (PAHs) using EPA Test method 8100. Ground-water analytical results are summarized in Table 2.

Ground-Water Analytical Results

Ground-water analytical results are summarized on Table 2 and presented graphically on Figure 2. Minute floating black globules (less than 0.5 mm in diameter) were observed in the purge water from monitoring well MW-2. Similar black floating globules were observed in grab ground water samples collected upgradient of the southern fueling system during the field investigation performed in June 1996. These floating globules further support the conclusion reached by BBL that fill material or mosquito abatement practices are the source of petroleum hydrocarbons detected in samples collected upgradient of the southern fuel island. Therefore, background samples analyzed contain detectable concentrations of petroleum hydrocarbons that are unrelated to the southern fuel island. The results of ground-water analysis using EPA Test method 8015-Modified, revealed TPHd concentrations of 28,000 µg/l, 3,300 µg/l, and 34,000 µg/l for monitoring wells MW-1, MW-2, and MW-3, respectively. The reported TPHd concentrations for June 1997 are consistent with those detected since monitoring began in 1990.

Laboratory analysis using EPA Test Method 8100 of ground water from well MW-2, detected acenapthylene, fluorene, and phenanthrene at concentrations of 10 µg/l, 17 µg/l, and 10 µg/l, respectively.

Dissolved oxygen (DO) concentrations measured in the field ranged from 0.52 to 0.84 milligrams per liter (mg/l). The relatively low DO concentrations recorded indicate that the oxygen released by the ORC "socks" was utilized within the six-month period before sampling was performed.

Conclusions

Results of the subsurface investigation performed in June 1996 indicate that the horizontal extent of dissolved hydrocarbons possibly originating from the southern fuel island is limited. The hydrocarbons detected during the 1996 investigation typically did not match the diesel standard and appeared to be a heavier hydrocarbon than diesel. An aerial photographic review of historic land use for the property leased by UPS did not reveal any indication that the property had been used by other tenants, besides UPS.

Inspection of the aerial photographs did not identify a source for the heavy hydrocarbons found upgradient of the southern fuel island. Therefore the source of heavy hydrocarbons is believed to be the backfill material used to bring the property to the existing grade in the late 1960's or historic mosquito abatement activities prior to site development. Historically, mosquito abatement activities in the bay area consisted of spraying hydrocarbon mixtures onto marsh areas to smother mosquito larvae.

Recommendations

BBL believes that the five items identified by the ACDEHS as a prerequisite for consideration of site closure have been addressed. BBL recommends that the UPS southern fuel system be closed as a low risk site by ACDEHS and ground water sampling be eliminated for the following reasons:

- The site has been adequately characterized to determine that a dissolved hydrocarbon plume has not migrated away from the southern fuel system,
- Background samples analyzed indicate that heavy petroleum hydrocarbons unrelated to the southern fuel island are present in the vicinity,
- All but a small amount of product has been removed from OW-1 and product in MW-2 has been eliminated,
- The high specific conductance historically reported in previous monitoring reports indicates that the ground water has a high total dissolved solids content rendering the water non-potable,
- Analysis of ground water from MW-2 did not reveal the presence of significant concentrations of PNA's as would be expected for a recent release, and
- Concentrations reported from this monitoring event are within the range of concentrations previously reported.

If you have any questions or require additional information please contact us at (707) 773-4270.

Sincerely,

BLASLAND, BOUCK & LEE, INC.

Gabriel V. Stivala, R.E.A.
Project Geologist

R. Bruce Scheibach, R.G.
Associate Hydrogeologist

REGISTERED GEOLOGIST
R. BRUCE SCHEIBACH
No. 5062
EXP. 11/98
STATE OF CALIFORNIA

cc: Linda Lyons, United Parcel Service
Caroline Erlich, United Parcel Service
Hugh Devery, Blasland, Bouck & Lee, Inc.

797RPT.WPD

Table 1. Ground Water Elevations and Free Phase Product Measurements
June 1997 Ground Water Sampling
United Parcel Service
8400 Pardee Drive, Oakland, California

Well	Date of Measurement	Top of Casing Elevation (feet MSL)	Depth to Product (feet)	Depth to Ground-Water (feet)	Ground-Water Elevation (feet MSL)	Product Thickness (feet)
MW-1	6/4/97	7.43	-	3.16	4.27	-
MW-2	6/4/97	7.15	-	6.02	1.13	-
MW-3	6/4/97	7.42	-	3.20	4.22	-
OW-1	6/4/97	-	7.22	7.22	-	< 0.01

Table 2. Ground-Water Sample Analytical Results
June 1997 Ground Water Sampling Results
United Parcel Service
8400 Pardee Drive
Oakland, California

Well	Date	TPH as Diesel (µg/L)	Detected PAHs Acenaphthylene (µg/L)	Fluorene (µg/L)	Phenanthrene (µg/L)
MW-1	6/4/97	28,000	NA	NA	NA
MW-2	6/4/97	3,300	10	17	10
MW-3	6/4/97	34,000	NA	NA	NA

NA = not analyzed

SWAN WAY

PARDEE DRIVE

MAIN
U.P.S.
BUILDING

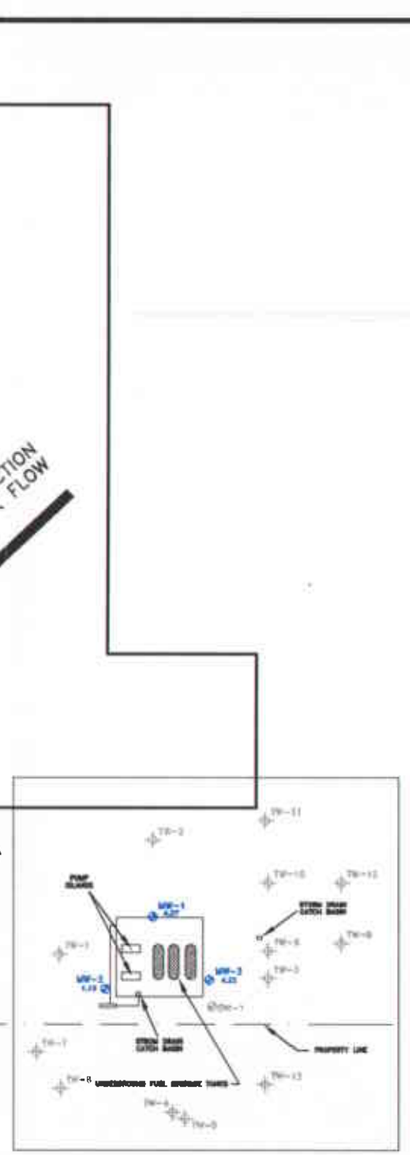
APPROXIMATE DIRECTION
OF GROUNDWATER FLOW

BUILDING OUTLINE

SEE DETAIL A

PROPERTY LINE

VACANT PROPERTY
(PORT OF OAKLAND)



LEGEND

MW-3 4.22 — EXISTING GROUND-WATER MONITORING WELLS INSTALLED BY GERAGHTY & MILLER WITH GROUNDWATER TABLE ELEVATION IN FEET ABOVE MEAN SEA LEVEL

TW-1 — TEMPORARY GROUND-WATER SAMPLING LOCATION

BUILDNG OUTLINE

0 100' 200'
GRAPHIC SCALE

L: ON= OFF=REF
P: STD-PDF/BL
7/8/97 WW-54-JMS
3676801R/3676SSM1.DWG

NOTE:

1. MEASURED 6/4/97

UNITED PARCEL SERVICE, INC.
8400 PARDEE DRIVE
OAKLAND, CALIFORNIA

GROUND-WATER ELEVATIONS
JUNE 1997

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

FIGURE
1

SWAN WAY

PARDEE DRIVE

MAIN
U.P.S.
BUILDING

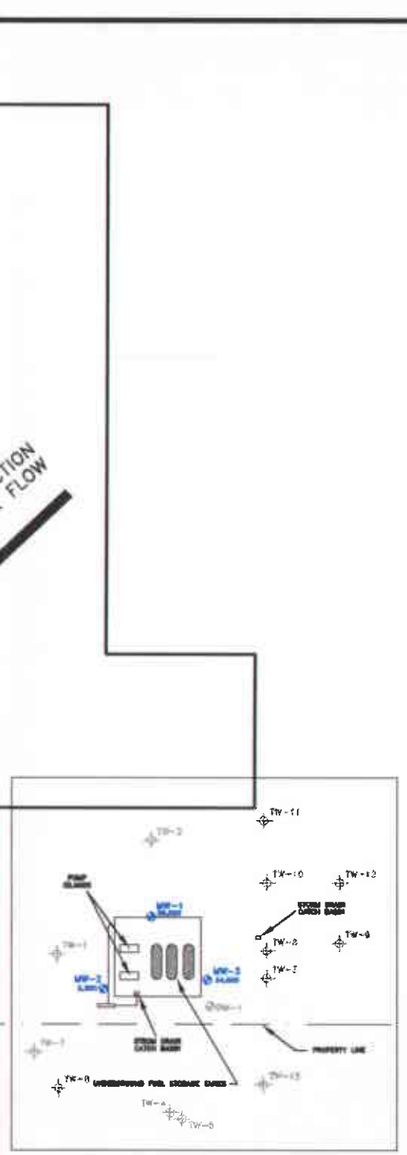
APPROXIMATE DIRECTION OF GROUNDWATER FLOW

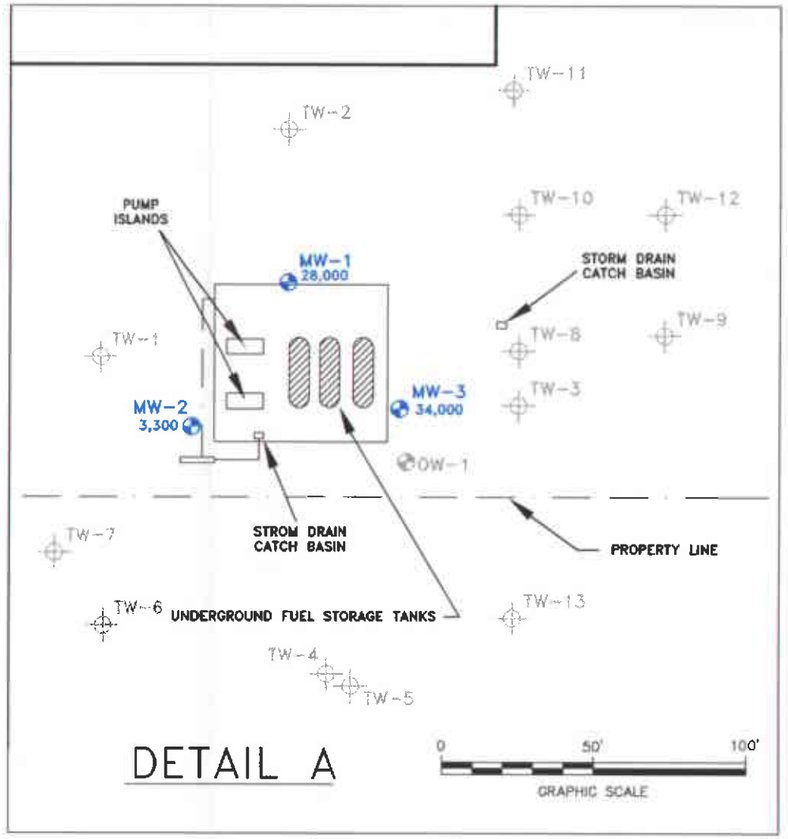
BUILDING OUTLINE

SEE DETAIL A

PROPERTY LINE

VACANT PROPERTY
(PORT OF OAKLAND)





DETAIL A

LEGEND

MW-3 34,000 — EXISTING GROUND-WATER MONITORING WELLS INSTALLED BY GERAGHTY & MILLER WITH TPHd CONCENTRATION (PPB)

TW-1 — TEMPORARY GROUND-WATER SAMPLING LOCATION

BUILIDNG OUTLINE

PPB = PARTS PER BILLION

TPHd = TOTAL PETROLEUM HYDROCARBONS AS DIESEL

0 100' 200'
GRAPHIC SCALE

NOTE:

1. SAMPLED 6/4/97

L: ON=● OFF=REF
P: STD-PDF/BL
7/8/97 IRV-54-JMS
3976801R/3976SSM2.DWG

UNITED PARCEL SERVICE, INC.
8400 PARDEE DRIVE
OAKLAND, CALIFORNIA

GROUND-WATER QUALITY RESULTS JUNE 1997

BLASLAND, BOUCK & LEE, INC.
engineers & scientists

FIGURE 2

Columbia Analytical Services, Inc.

June 25, 1997 Service Request No.: S9701074

R.B. Scheibach
Blasland, Bouck & Lee
715 Southpoint Blvd.
Suite 7A
Petaluma, CA 94954

RE: UPS-Oakland/36768.01

Dear Mr. Scheibach:

The following pages contain analytical results for sample(s) received by the laboratory on June 5, 1997. Results of sample analyses are followed by Appendix A which contains sample custody documentation and quality assurance deliverables requested for this project. The work requested has been assigned the Service Request No. listed above. To help expedite our service, please refer to this number when contacting the laboratory.

Analytical results were produced by procedures consistent with Columbia Analytical Services' (CAS) Quality Assurance Manual (with any deviations noted). Signature of this CAS Analytical Report below confirms that pages 2 through 8, following, have been thoroughly reviewed and approved for release in accord with CAS Standard Operating Procedure ADM-DatRev3.

Please feel welcome to contact me should you have questions or further needs.

Sincerely,

Bernadette T. Cox

Bernadette T. Cox
Project Chemist

COLUMBIA ANALYTICAL SERVICES, Inc.
Acronyms

A2LA	American Association for Laboratory Accreditation
ASTM	American Society for Testing and Materials
BOD	Biochemical Oxygen Demand
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
CAM	California Assessment Metals
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
COD	Chemical Oxygen Demand
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DLCS	Duplicate Laboratory Control Sample
DMS	Duplicate Matrix Spike
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
IC	Ion Chromatography
ICB	Initial Calibration Blank sample
ICP	Inductively Coupled Plasma atomic emission spectrometry
ICV	Initial Calibration Verification sample
J	Estimated concentration. The value is less than the MRL, but greater than or equal to the MDL. If the value is equal to the MRL, the result is actually <MRL before rounding.
LCS	Laboratory Control Sample
LUFT	Leaking Underground Fuel Tank
M	Modified
MBAS	Methylene Blue Active Substances
MCL	Maximum Contaminant Level. The highest permissible concentration of a substance allowed in drinking water as established by the U. S. EPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
MS	Matrix Spike
MTBE	Methyl tert-Butyl Ether
NA	Not Applicable
NAN	Not Analyzed
NC	Not Calculated
NCASI	National Council of the paper industry for Air and Stream Improvement
ND	Not Detected at or above the method reporting/detection limit (MRL/MDL)
NIOSH	National Institute for Occupational Safety and Health
NTU	Nephelometric Turbidity Units
ppb	Parts Per Billion
ppm	Parts Per Million
PQL	Practical Quantitation Limit
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RPD	Relative Percent Difference
SIM	Selected Ion Monitoring
SM	Standard Methods for the Examination of Water and Wastewater, 18th Ed., 1992
STLC	Solubility Threshold Limit Concentration
SW	Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Ed., 1986 and as amended by Updates I, II, IIA, and IIB.
TCLP	Toxicity Characteristic Leaching Procedure
TDS	Total Dissolved Solids
TPH	Total Petroleum Hydrocarbons
tr	Trace level. The concentration of an analyte that is less than the PQL but greater than or equal to the MDL. If the value is equal to the PQL, the result is actually <PQL before rounding.
TRPH	Total Recoverable Petroleum Hydrocarbons
TSS	Total Suspended Solids
TTLC	Total Threshold Limit Concentration
VOA	Volatile Organic Analyte(s)

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Blasland, Bouck & Lee
Project: UPS-Oakland/36768.01
Sample Matrix: Water

Service Request: K9703859
Date Collected: 6/4/97
Date Received: 6/6/97
Date Extracted: 6/10/97

Polynuclear Aromatic Hydrocarbons
EPA Methods 3510/8100
Units: µg/L (ppb)

	Sample Name:	**MW-2**	**Method Blank**
	Lab Code:	K9703859-001	K970610-MB
	Date Analyzed:	6/15/97	6/15/97
Analyte	**MRL**		
Naphthalene	5	ND	ND
Acenaphthylene	5	10	ND
Acenaphthene	5	ND	ND
Fluorene	5	17	ND
Phenanthrene	5	10	ND
Anthracene	5	ND	ND
Fluoranthene	5	ND	ND
Pyrene	5	ND	ND
Benz(a)anthracene	5	ND	ND
Chrysene	5	ND	ND
Benzo(b+k)fluoranthene*	10	ND	ND
Benzo(a)pyrene	5	ND	ND
Indeno(1,2,3-cd)pyrene and Dibenz(a,h)anthracene*	10	ND	ND
Benzo(g,h,i)perylene	5	ND	ND

* These compounds coelute; therefore, the results are reported as the combined concentration.

COLUMBIA ANALYTICAL SERVICES, INC.

Analytical Report

Client: Blasland, Bouck & Lee
Project: UPS-Oakland/36768.01
Sample Matrix: Water

Service Request: S9701074
Date Collected: 6/4/97
Date Received: 6/5/97

TPH as Diesel

Prep Method: EPA 3510
Analysis Method: CA/LUFT
Test Notes:

Units: ug/L (ppb)
Basis: NA

Sample Name	Lab Code	MRL	Dilution Factor	Date Extracted	Date Analyzed	Result	Result Notes
MW-1	S9701074-001	50	1	6/6/97	6/9/97	28000	
MW-2	S9701074-002	50	1	6/6/97	6/6/97	3300	
MW-3	S9701074-003	50	1	6/6/97	6/9/97	34000	
Fld Blk	S9701074-004	50	1	6/6/97	6/18/97	ND	
Method Blank	S970606-MB	50	1	6/6/97	6/9/97	ND	

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client:	Blasland, Bouck & Lee	**Service Request:**	S9701074
Project:	UPS-Oakland/36768.01	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Extracted:	NA
		Date Analyzed:	NA

Surrogate Recovery Summary
TPH as Diesel

Prep Method:	EPA 3510	Units:	PERCENT
Analysis Method:	CA/LUFT	Basis:	NA

Sample Name	Lab Code	Test Notes	Percent Recovery p-Terphenyl
MW-1	S9701074-001		102
MW-2	S9701074-002		102
MW-3	S9701074-003		101
Fld Blk	S9701074-004		86
Method Blank	S970606-MB		87

CAS Acceptance Limits: 50-140

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Blasland, Bouck & Lee
Project: UPS-Oakland/36768.01
Sample Matrix: Water

Service Request: K9703859
Date Collected: 6/4/97
Date Received: 6/6/97
Date Extracted: 6/10/97
Date Analyzed: 6/15/97

Surrogate Recovery Summary
Polynuclear Aromatic Hydrocarbons
EPA Methods 3510/8100

Sample Name	Lab Code	Percent Recovery *p*-Terphenyl
MW-2	K9703859-001	46
Lab Control Sample	K970610-LCS	63
Lab Control Sample	K970610-DLCS	75
Method Blank	K970610-MB	73

CAS Acceptance Limits: 31-162

COLUMBIA ANALYTICAL SERVICES, INC.

QA/QC Report

Client: Blasland, Bouck & Lee
Project: UPS-Oakland/36768.01
LCS Matrix: Water

Service Request: K9703859
Date Collected: NA
Date Received: NA
Date Extracted: 6/10/97
Date Analyzed: 6/15/97

Laboratory Control Sample/Duplicate Laboratory Control Sample Summary
Polynuclear Aromatic Hydrocarbons
EPA Methods 3510/8100
Units: µg/L (ppb)

	True Value		Result		Percent Recovery			
Analyte	LCS	DLCS	LCS	DLCS	LCS	DLCS	CAS Acceptance Limits	**Relative Percent Difference**
Acenaphthene	52	52	42	51	81	98	24-122	10
Fluoranthene	52	52	47	55	90	106	61-127	8
Benzo(a)pyrene	52	52	50	58	96	112	50-133	8

EXT SUB F

CHAIN OF CUSTODY / LABORATORY ANALYSIS REPORT FORM

Columbia Analytical Services, Inc.
2059 Junction Avenue • San Jose, CA 95131 • (408) 437-2400 • FAX (408) 437-9356

SERVICE REQUEST NO. S9701074 P.O.# _____ PAGE _____ OF _____

PROJECT NAME UPS-OAKLAND # 3676.01
PROJECT MGR. R. B. Scheibach
COMPANY BLASLAND BOUCK & LEE
ADDRESS 715 SOUTHPOINT BLVD, A7
PETALUMA, CA 94954 PHONE 707 773-2270
FAX 707 773-4270
SAMPLER'S SIGNATURE _____

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	NUMBER OF CONTAINERS	PRESERVATIVE	HCl	HCl	HCl	NP	NP	NP	HCl	HCl	HNO_3	NP	H_2SO_4	H_2SO_4	H_2SO_4	NaOH				REMARKS
						Volatile Organics GC/MS 624/8240/8260	Halogenated or Aromatic Volatiles 601/8010 ☐ 602/8020 ☐	TPH as Gas/BTEX MTBE ☐ DHS LUFT / 8020	TPH as Diesel/HBHC DHS LUFT	Base/Neu/Acid Organics GC/MS 625/8270	Pesticides / PCBs 608/8080	TRPH - 418.1	Oil and Grease Method ____	Metals (total or dissolved) List Below	pH, Cond, Cl, SO_4, F, TDS, TSS Alk, NO_3, NO_2 (circle)	NH_3-N, COD, Total-P, TKN, NO_3 / NO_2 (circle)	Total Organic Carbon TOC	Total Phenols	Cyanide	7420				
MW-1	6-4		1	WATER	1				X															
MW-2	6-4		2	WATER	2				X											X				
MW-3	6-4		3	WATER	1				X															
FLD BLK	6-4		4	WATER	1				X															

RELINQUISHED BY:
Signature _____
Printed Name GABE STIVALA
Firm BSL
Date/Time 6/5 1165

RECEIVED BY:
Signature _____
Printed Name BRAD BATHGATE
Firm CAS
Date/Time 6/5/97 1165

RELINQUISHED BY:
Signature _____
Printed Name _____
Firm _____
Date/Time _____

RECEIVED BY:
Signature _____
Printed Name _____
Firm _____
Date/Time _____

RELINQUISHED BY:
Signature _____
Printed Name _____
Firm _____
Date/Time _____

RECEIVED BY:
Signature _____
Printed Name _____
Firm _____
Date/Time _____

Shipped Via/Tracking # _____

TURNAROUND REQUIREMENTS
___ 1 day ___ 2 day ___ 3 day
___ 5 day ___ Other 15 DAY
X Standard (10 working days)
Results Due 6/26/97

REPORT REQUIREMENTS
___ I. Routine Report
___ II. Report (includes MS. MSD, as required, may be charged as samples)
___ III. Data Validation Report (includes All Raw Data)
___ MDLs/PQLs/Trace #
___ Electronic Data Deliverables

SAMPLE RECEIPT: Condition _____ Custody Seals _____

SPECIAL INSTRUCTIONS/COMMENTS:
Circle which metals are to be analyzed:
Metals: Al Sb Ba Be B Cd Ca Cr Co Cu Fe Mg Mn Mo Ni K Ag Na Sn V Zn
As Pb Se Tl Hg

- 3 week TAT ok per client 06/06/97 BTC

Storage: R20 / S148

DISTRIBUTION: WHITE - return to originator; YELLOW - lab; PINK - retained by originator

400-5