

Canonie Environmental

90117-1 10:01

March 31, 1993

Canonie Environmental Services Corp.
7901 Stoneridge Drive
Suite 100
Pleasanton, California 94588
Phone: 510-463-9117
FAX: 510-463-2981
91-153-06

Mr. Scott Seery
Senior Hazardous Materials Specialist
Alameda County Health Care Services Agency
Department of Environmental Health
Hazardous Materials Program
80 Swan Way, Room 200
Oakland, CA 94621

Ground Water Monitoring Report
First Quarter 1993
Garcia Enterprises, Inc. Site
16211 East 14th Street
San Leandro, California

Dear Mr. Seery:

This Ground Water Monitoring Report has been prepared by Canonie Environmental Services Corp. (Canonie) for the Garcia Enterprises, Inc. site located at 16211 East 14th Street in San Leandro, California. This report presents the results of ground water monitoring for the first quarter of 1993 as requested by the Alameda County Health Care Services Agency, Department of Environmental Health (County) in a letter dated November 16, 1992. Ground water monitoring is being performed to collect data to evaluate the potential impact to shallow ground water from petroleum hydrocarbons associated with two underground storage tanks (USTs) formerly located at the site.

Introduction and Background

The Garcia Enterprises, Inc. site is located in San Leandro near the intersection of East 14th Street and 162nd Avenue (Figure 1). The current tenant of the property is Town and Country Liquors. The property was the former location of a car wash at which fuel was dispensed. Canonie performed removal of the underground storage tanks in July 1991 and preliminary site assessment activities in September 1992. A summary of remedial activities performed at the site may be referenced in a report entitled "Preliminary Site Assessment Report" (Canonie, November, 1992).

During the preliminary site assessment activities in September, three ground water monitoring wells were constructed to monitor the former tank area (Figure 2). Continued ground water monitoring was requested by the County in their formal response to the Preliminary Site Assessment report in a letter dated November 16, 1993.

Ground Water Monitoring Activities

This report presents the first round of the quarterly monitoring program. Sampling of the site's three ground water monitoring wells was performed on March 4, 1993.

Piezometric Surface Monitoring

Prior to sampling, water levels were measured using a battery powered sounder. A summary of water levels and measuring point elevations is given in Table 1. The measurements recorded in March indicate a gradient toward the north-northwest (Figure 2). However, the original measurement of water levels in September 1992 indicated a southwesterly gradient. The recent ground water gradient indicates about a ninety degree shift in the direction of ground water flow. The March water level measurements also indicated an increase in elevations of up to two feet as compared to the September measurements. This is likely attributable to recent precipitation events.

Chemical Monitoring


Following measurement of water levels, the wells were purged to prepare for sample collection. While purging, a minimum of three consecutive measurements of the indicator parameters pH, temperature, and conductivity were recorded immediately prior to sample collection. Three casing volumes were purged prior to sampling. A total of approximately 15 gallons of purge water was removed and placed in 55-gallon drums for temporary storage. The drums have been labeled nonhazardous, and the water is planned to be recycled through Gibson-Pilot in Redwood City.

Water samples were collected in triplicate in 40-milliliter volatile organic analysis (VOA) bottles and one-liter amber glass containers for analysis for total petroleum hydrocarbons - gasoline range (TPH-G), total petroleum hydrocarbons - diesel range (TPH-D), and benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Methods 8015 modified and 602. Samples were labeled with the sample identification number, date, time, job number, and sampler's initials. Each sample was recorded on a chain-of-custody form which remained with the samples. The samples were placed immediately in an iced cooler and transported the same day to Sequoia Analytical in Redwood City for analysis.

A summary of the ground water analyses is given in Table 2. As shown in the table, only minor concentrations of TPH-G and TPH-D were detected: 0.170 and 0.110 parts per million (ppm), respectively, for Monitoring Well MW-1 and 0.140 and 0.085 ppm for Monitoring Well MW-3. TPH-G and TPH-D concentrations were nondetectable for MW-2, and BTEX concentrations were nondetectable for all wells. The travel blank shipped with the samples indicated a TPH-G concentration of 0.090 ppm. Certified analytical results are attached.

No significant trends were noted. If you have any questions concerning this ground water monitoring report, please contact me or David Poole at (510) 463-9117.

Respectfully submitted,


James W. Babcock, Ph.D.
Project Manager

JWB/hmt

Attachments

cc: A. Garcia, Garcia Enterprises, Inc.

TABLE 1

**GROUND WATER ELEVATIONS
GARCIA ENTERPRISES, INC. SITE**

Well Number	Date Sampled	Units in Feet		
		Well Elevation TOC (NGVD)	Depth-to-Ground Water From TOC	Ground Water Elevation
MW-1	09/11/92	34.75	8.58	26.17
	03/04/93		6.90	27.85
MW-2	09/11/92	35.26	9.13	26.13
	03/04/93		7.27	27.99
MW-3	09/11/92	35.19	9.04	26.15
	03/04/93		7.03	28.16

Notes:

TOC denotes top of casing.
NGVD denotes National Geodetic Vertical Datum.

TABLE 2

SUMMARY OF CHEMICAL ANALYSES
GARCIA ENTERPRISES, INC. SITE

Sample I.D.	Date Sampled	Units in Parts Per Million (ppm)					
		TPH-D	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes
MW-1	09/11/92	ND	ND	0.0026	ND	ND	ND
MW-1	03/04/93	0.110	0.170	ND	ND	ND	ND
MW-2	09/11/92	ND	ND	ND	ND	ND	ND
MW-2	03/04/93	ND	ND	ND	ND	ND	ND
MW-3	09/11/92	ND	0.055	0.0029	ND	ND	ND
MW-3	03/04/93	0.085	0.14	ND	ND	ND	ND

Notes:

ND indicates none detected at method detection limits.
 NT denotes not tested.
 TPH-D denotes total petroleum hydrocarbons - diesel range.
 TPH-G denotes total petroleum hydrocarbons - gasoline range.

DRAWING NUMBER 91-153-A1

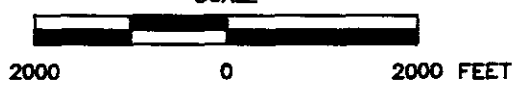


CALIFORNIA



QUADRANGLE LOCATION

SCALE



REFERENCES:

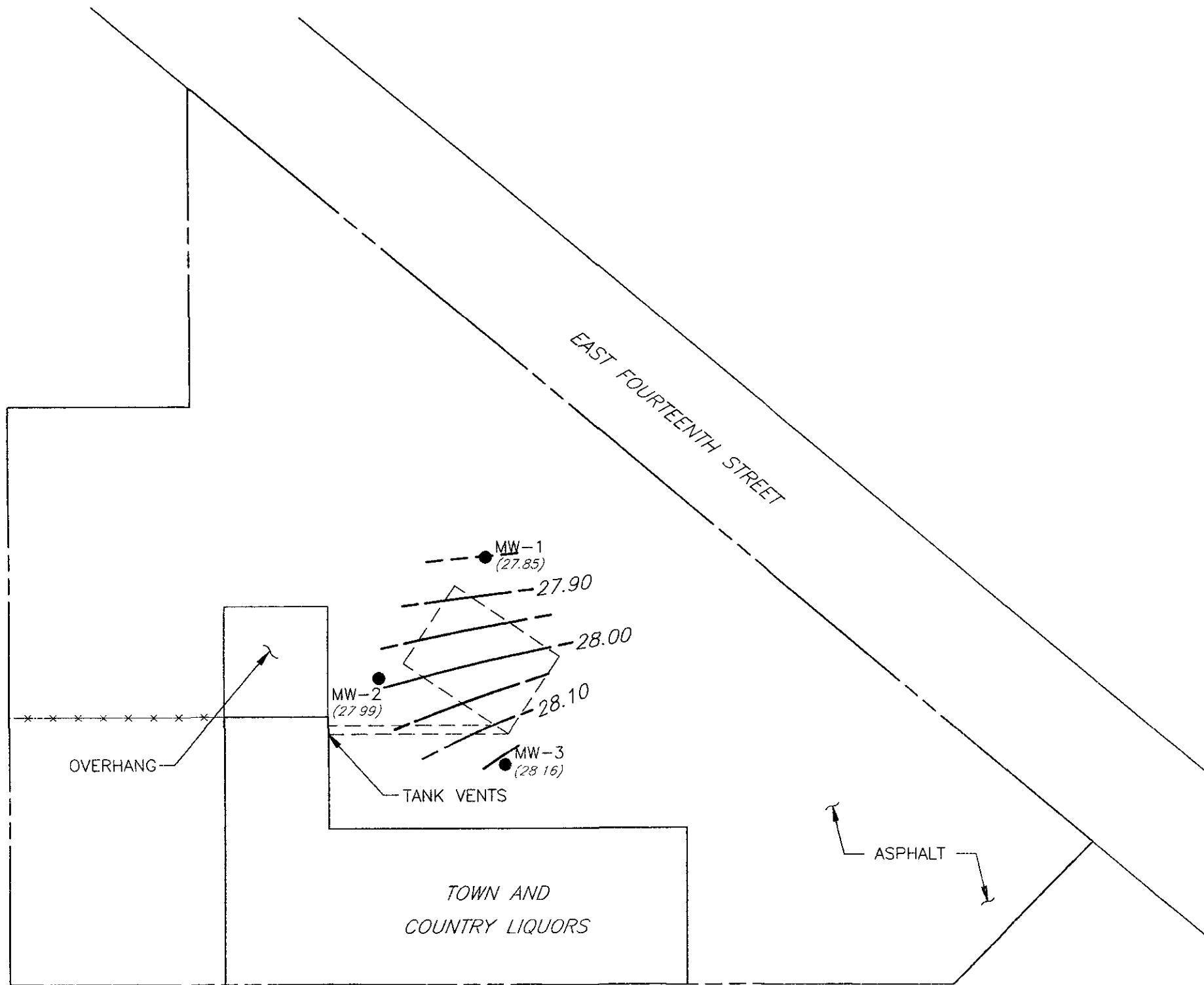
USGS 7.5 MIN TOPOGRAPHIC MAP
 TITLED: HAYWARD & SAN LEANDRO, CALIFORNIA
 DATED: 1959 (REV. 1980)

**SITE LOCATION MAP
 GARCIA ENTERPRISES SITE
 SAN LEANDRO, CALIFORNIA**

PREPARED FOR
**GARCIA ENTERPRISES, INC.
 SAN LEANDRO, CALIFORNIA**

Canonie Environmental

10-22-82	ISSUED FOR REPORT	VZC	<i>[Signature]</i>	DATE: 6-24-91	FIGURE 1	DRAWING NUMBER 91-153-A1
No.	DATE	ISSUE / REVISION	DRAWN BY	CK'D BY	AP'D BY	SCALE: AS SHOWN

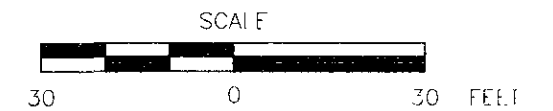


LEGEND:

- PROPERTY LINE
- - - - - APPROXIMATE LIMITS OF FORMER TANK EXCAVATION
- MW-1 MONITORING WELL LOCATION
- 27.90 — GROUND WATER CONTOUR, FEET ABOVE MEAN SEA LEVEL (MSL)

NOTES:

1. GROUND WATER CONTOURS ARE DASHED WHERE INFERRED.
2. GROUND WATER MEASUREMENTS TAKEN ON MARCH 4, 1993.



MONITORING WELL LOCATIONS
 GARCIA ENTERPRISES SITE
 SAN LEANDRO, CALIFORNIA
 PREPARED FOR
 GARCIA ENTERPRISES, INC.
 SAN LEANDRO, CALIFORNIA

Canonie Environmental

3-26-93	ISSUED FOR REPORT	VZC	
No	DATE	ISSUE / REVISION	DWN BY CK'D BY AP'D BY

DATE 3-19-93	FIGURE 2	DRAWING NUMBER 91-153-B8
SCALE AS SHOWN		

ATTACHMENT

CERTIFIED ANALYTICAL REPORTS



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

REC'D
MAR 18 1993
David Poole

Canonie Environmental 7901 Stoneridge Drive, Suite 100 Pleasanton, CA 94578 Attention: Dave Poole	Client Project ID: 90-153-05, Garcia-San Leandro Sample Matrix: Water Analysis Method: EPA 5030/8015/8020 First Sample #: 3C23501	Sampled: Mar 4, 1993 Received: Mar 4, 1993 Reported: Mar 15, 1993
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TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 3C23501 MW-1	Sample I.D. 3C23502 MW-2	Sample I.D. 3C23503 MW-3	Sample I.D. 3C23504 211
Purgeable Hydrocarbons	50	170	N.D.	140	90
Benzene	0.50	N.D.	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.
Chromatogram Pattern:		Non-Gas Discrete Peaks	--	Non-Gas Discrete Peaks	Non-Gas > C9

Quality Control Data

Report Limit				
Multiplication Factor:	1.0	1.0	1.0	1.0
Date Analyzed:	3/10/93	3/10/93	3/10/93	3/10/93
Instrument Identification:	GCHP-1	GCHP-1	GCHP-1	GCHP-1
Surrogate Recovery, %: (QC Limits = 70-130%)	95	95	95	95

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Nokowhat D. Herrera
Project Manager



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Canonie Environmental 7901 Stoneridge Drive, Suite 100 Pleasanton, CA 94578 Attention: Dave Poole	Client Project ID: 90-153-05, Garcia-San Leandro Sample Matrix: Water Analysis Method: EPA 3510/3520/8015 First Sample #: 3C23501	Sampled: Mar 4, 1993 Received: Mar 4, 1993 Reported: Mar 15, 1993
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TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 3C23501 MW-1	Sample I.D. 3C23501 MW-2	Sample I.D. 3C23501 MW-3
Extractable Hydrocarbons	50	110	N.D.	85
Chromatogram Pattern:		Discrete Peaks	--	Discrete Peaks

Quality Control Data

Report Limit			
Multiplication Factor:	1.0	1.0	1.0
Date Extracted:	3/9/93	3/9/93	3/9/93
Date Analyzed:	3/10/93	3/10/93	3/10/93
Instrument Identification:	GCHP-5	GCHP-5	GCHP-5

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Nokowhat D. Herrera
Project Manager



SEQUOIA ANALYTICAL

680 Chesapeake Drive • Redwood City, CA 94063
(415) 364-9600 • FAX (415) 364-9233

Canonie Environmental
7901 Stoneridge Drive, Suite 100
Pleasanton, CA 94578
Attention: Dave Poole

Client Project ID: 90-153-05, Garcia-San Leandro

QC Sample Group: 3C23501-04

Reported: Mar 15, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl-Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	T. Mascarenas	T. Mascarenas	T. Mascarenas	T. Mascarenas
Reporting Units:	µg/L	µg/L	µg/L	µg/L
Date Analyzed:	Mar 10, 1993	Mar 10, 1993	Mar 10, 1993	Mar 10, 1993
QC Sample #:	MB031093	MB031093	MB031093	MB031093
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10	10	10	15
Conc. Matrix Spike:	8.4	9.1	8.7	15
Matrix Spike % Recovery:	84	91	87	97
Conc. Matrix Spike Dup.:	8.0	8.2	8.1	13
Matrix Spike Duplicate % Recovery:	80	82	81	85
Relative % Difference:	5.0	10	7.0	13

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Nokowhat D. Herrera
Project Manager

% Recovery:	$\frac{\text{Conc. of M.S.} - \text{Conc. of Sample}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Conc. of M.S.} - \text{Conc. of M.S.D.}}{(\text{Conc. of M.S.} + \text{Conc. of M.S.D.}) / 2} \times 100$



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Canonie Environmental
7901 Stoneridge Drive, Suite 100
Pleasanton, CA 94578
Attention: Dave Poole

Client Project ID: 90-153-05, Garcia-San Leandro
Matrix: Water

QC Sample Group: 3C23501-03

Reported: Mar 15, 1993

QUALITY CONTROL DATA REPORT

ANALYTE	Extractable Hydrocarbons
Method:	EPA 8015
Analyst:	C. Lee
Concentration Spiked:	300
LCS Batch#:	DBLK030993
Date Prepared:	3/9/93
Date Analyzed	3/10/93
Instrument I.D.#:	GCHP-5
LCS % Recovery:	83
Control Limits:	50-150

BS/BSD
Batch #: DBLK030993

Date Prepared: 3/9/93
Date Analyzed 3/10/93
Instrument I.D.#: GCHP-5

Matrix Spike
% Recovery: 83

Matrix Spike
Duplicate %
Recovery: 80

Relative %
Difference: 4.1

Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

SEQUOIA ANALYTICAL

Nokowhat D. Herrera
Project Manager

CANONIE ENVIRONMENTAL CHAIN-OF-CUSTODY RECORD

LAB PROJECT NO. _____

(See Reverse for Instructions)

PROJECT NAME GARCIA SAN LEANDRO SAMPLERS P. Lewis
 PROJECT NUMBER 90-153-05 Phil Lewis
 RECORDER _____
 (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES	SAMPLE DESCRIPTION CODES	TAT CODES
A. 40-ml VOA Vial B. Glass Liter C. Plastic 500-ml D. Plastic Liter E. Brass Tube F. Other _____	A. Ground Water B. Surface Water C. Leachate D. Rinseate E. Soil/Sediment F. Oil G. Waste H. Blank/Spike I. Other _____	1. Standard 2. 48 Hour 3. 24 Hour 4. Other _____

DATE	TIME	SAMPLE ID	Sample Container (code)	Sample Description (code)	UNCONTAMINATED	HCL	PRESERVATION	Flask Material (code)	ANALYSIS REQUESTED				TAT Requested (code)	Maximum Holding Time for Analyte Preparation	Storage Method at 4°C (code)	Notes	LABORATORY USE ONLY			
									TPH-G	TPH-D	TPH-E	TPH-F					ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT	NOTES	
3-4-93	1045	MW-1	A	A		3			X	X				14 DAY	XX	9303235-01				
	↓		B	A		3			X	X				7 DAY	ET		1			
	1116	MW-2	A	A		3			X	X				14 DAY	X		02			
	↓		B	A		3			X	X				7 DAY	ET		1			
	1150	MW-3	A	A		3			X	X				14 DAY	X		03			
	↓		B	VI		3			X	X				7 DAY	ET	1				
	↓	2-11	A	A		3			X	X				14 DAY	X	04				

NOTES / MISCELLANEOUS	Relinquished by: (Signature) <u>Phil Lewis</u>	Received By: (Signature)	Date	Time
	Relinquished By: (Signature)	Received By: (Signature)	Date	Time
	Relinquished By: (Signature)	Received By: (Signature)	Date	Time

Method of Shipment <u>HAND Delivery</u>	Description of Transport Container <u>Egloo Cooler</u>	Other Chains-Of-Custody Transported with this Chain (by Serial No.) <u>NONE</u>	Dispatched By: (Signature) <u>Phil Lewis</u>	Date <u>3-4-93</u>	Time <u>1318</u>	Received for lab By: (Signature) <u>Phil Lewis</u>	Date <u>3/11/93</u>	Time <u>1315</u>
--	---	--	---	-----------------------	---------------------	---	------------------------	---------------------

Send Lab Results to (Name): DAVE POOLE (Check Office Below) Verbal Requested: Yes No

- | | | | | | |
|--|--|--|--|---|--|
| <input type="checkbox"/> ATLANTA
TEL (404) 951-0055
FAX (404) 956-9364 | <input type="checkbox"/> DENVER
TEL (303) 790-1747
FAX (303) 799-0188 | <input type="checkbox"/> IRVINE
TEL (714) 757-1755
FAX (714) 757-0960 | <input type="checkbox"/> MT. VIEW
TEL (415) 960-1640
FAX (415) 960-0739 | <input type="checkbox"/> PORTER
TEL (219) 926-8651
FAX (219) 926-7169 | <input type="checkbox"/> OTHER _____
TEL _____
FAX _____ |
| <input type="checkbox"/> BOZEMAN
TEL (406) 586-9496
FAX (406) 586-9724 | <input type="checkbox"/> HOUSTON
TEL (713) 556-1666
FAX (713) 556-0868 | <input type="checkbox"/> KING OF PRUSSIA
TEL (215) 337-2551
FAX (215) 337-0560 | <input checked="" type="checkbox"/> PLEASANTON
TEL (510) 463-9117
FAX (510) 463-2981 | <input type="checkbox"/> PORTLAND
TEL (503) 241-0282
FAX (503) 241-0486 | <input type="checkbox"/> OTHER _____
TEL _____
FAX _____ |