

# BRUNSING ASSOCIATES, INC.

1607 Industrial Way, Belmont, CA 94002  
(415) 637-0170 FAX (415) 637-1196

92 JUL -8 11:55 AM

July 7, 1992

29.7

Normita Callison  
Gladding McBean  
P.O. Box 97  
Lincoln, CA 95648

STID 3826

RE: QUARTERLY GROUNDWATER MONITORING REPORT: MAY 1992  
PACIFIC SUPPLY COMPANY  
1735 24TH STREET  
OAKLAND, CALIFORNIA

94607 or ~~94623~~ (see file folder)

Dear Ms. Callison:

This report has been prepared to document groundwater sampling performed by Brunsing Associates, Inc. (BAI) at the Pacific Supply Company property located at 1735 24<sup>th</sup> Street, Oakland, California.

### Scope of Work

On-site monitoring wells MW-1 through MW-5 were tested for the existence of free product and groundwater samples were obtained on May 28, 1992. Off-site monitoring wells MW-6 and MW-7 were not sampled at this time. In addition, groundwater elevations were obtained for all seven monitoring wells and a groundwater gradient map was prepared.

Analytical data for the most recent sampling events are summarized on Table 1. Table 2 through Table 6 include all previous analytical data available for the wells.

On June 6, 1992 a vapor extraction well was installed at the site prior to the initiation of a pilot study for vapor extraction. The screened interval on this well is above the current groundwater table. The construction of this well is described in the Interim Remedial Action Workplan Prepared by BAI for the Pacific Supply Company site, dated January 6, 1992.

Pilot Study Results

Ms. Callison  
July 7, 1992  
Page 2

### Site Background

Monitoring wells MW-1 through MW-5 were constructed by BAI on Sept 13, 1988 as Phase I of a soil and groundwater investigation. Monitoring wells MW-6 and MW-7 were constructed by BAI on December 19, 1989 as Phase II of the same investigation. The construction and sampling of these wells are documented in the Report of Findings dated March 23, 1990.

### Groundwater Sampling and Sample Handling

Prior to well purging, the monitoring wells were tested for the presence of free product using petroleum indicating paste applied to a steel tape. Free product was not found in any of the on-site wells. Samples were collected using disposable polyethylene bailers to avoid cross contamination and sample water was placed in approved sample containers for transport in a cooler containing blue ice under chain of custody procedures to BACE Analytical and Field Services (BAFS). Copies of the chain-of-custody forms are enclosed. Groundwater samples were tested for petroleum hydrocarbons and lead using the following analytical methods:

- Total Petroleum Hydrocarbons (TPH) as gasoline  
-EPA Method 5030/GC/FID;
- Benzene, Toluene, Ethyl Benzene and Xylene (BTEX)  
-EPA Method 5030/8020;
- Total Lead  
-EPA Method 7421.

### Groundwater Analytical Results

Analytical data reports from BACE Analytical & Field Services for the May 1992 quarterly groundwater monitoring are summarized on Table 1. Copies of the Laboratory Data Sheets are enclosed.

Chemical concentrations of TPH as gasoline in samples of groundwater from MW-1, MW-3, MW-4 and MW-5 have shown successive decreases in the TPH as gasoline concentrations in the last three consecutive sampling events in 1988, 1989 and 1992 as indicated on Tables 2, 4, 5 and 6. TPH as gasoline concentrations from MW-2 have fluctuated over the last three sampling periods. The TPH as gasoline concentrations decreased from 11 to 4 mg/L between 1988 and 1989 but increased from 4 to 8.9 mg/L between 1989 and 1992.



BTEX components in groundwater samples from MW-1 and MW-5 have indicated decreases in concentrations to nondetectable levels between 1988 and 1992 as indicated in Tables 2 and 6. Concentrations of benzene and toluene have generally increased in wells MW-2, MW-3 and MW-4 over the same period. Concentrations of ethyl benzene and xylene have remained at relatively low to nondetectable.

Reported concentrations of lead have increased in groundwater samples from MW-1, MW-4 and MW-5. Groundwater samples obtained in May 1992 were analyzed for total lead and groundwater samples obtained in 1989 were analyzed for organic lead. The change in the analytical method between these events may have resulted in the increase in lead concentrations. Analyses of groundwater samples from MW-2 and MW-3 reported a decrease in concentration of lead between 1989 and May 1992. (Between the five on-site monitoring wells current total lead concentrations range from nondetect to 0.030 mg/L.) ✓

#### Groundwater Gradient

Depth to groundwater measurements were obtained on May 28, 1992 for MW-1 through MW-5 and MW-7. Groundwater elevation for MW-6 was obtained on June 6, 1992. The groundwater depths and elevations relative to mean sea level are summarized on Table 7. As shown in Figure 1, the groundwater gradient is generally to the north at two distinct magnitudes. The gradient component to the northwest is significantly steeper than the gradient component to the northeast.

#### Hydrocarbons Removed from Site

Based on the volume of purge water removed from the ground in the previous quarter and estimated concentrations of TPH as gasoline; negligible quantities hydrocarbons were removed from the ground. Purge water from the May 28, 1992 sampling remains on the site in appropriately labeled 55-gallon drums pending appropriate disposal.

#### Recommendations

Groundwater monitoring should continue on a quarterly schedule in monitoring wells MW-1 through MW-5 with analytical testing for TPH as gasoline, BTEX and Total Lead. The next groundwater monitoring will be completed during the week of August 27, 1992. The quarterly monitoring report will be submitted by 30 days after the completion of the groundwater monitoring.

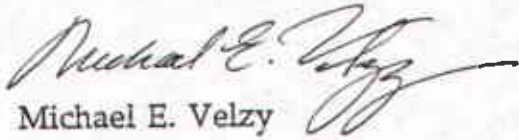




Ms. Callison  
July 7, 1992  
Page 4

If you have any questions please contact Mike Velzy at (415) 637-0170.

Sincerely,



Michael E. Velzy  
Regional Manager

JBB:jbb

Enclosures: Table 1 through Table 7  
Analytical Data Sheets

cc: Jennifer Eberly, Alameda County Health Care Services  
Jim Anderson, Pacific Supply Company  
Larry Halsey, Pacific Coast Building Products



TABLE 1  
**GROUNDWATER ANALYTICAL SUMMARY**  
 PACIFIC SUPPLY COMPANY

Descriptor	Sampling Date	TPH (gasoline) mg/L	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethyl Benzene $\mu\text{g/L}$	Xylene $\mu\text{g/L}$	Total Lead mg/L
MW-1	5/28/92	ND	ND	ND	ND	ND	0.003
MW-2	5/28/92	8.9	550	48	ND	13	ND
MW-3	5/28/92	ND	0.8	0.5	ND	ND	0.016
MW-4	5/28/92	0.27	8.8	1.0	ND	3.2	0.030
MW-5	5/28/92	ND	ND	ND	ND	ND	0.008



TABLE 2  
 HISTORICAL GROUNDWATER ANALYTICAL SUMMARY  
 MW-1  
 PACIFIC SUPPLY COMPANY

Sampling Date	TPH (gasoline) mg/L	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	Xylene µg/L	Lead mg/L
10/14/88	1.1	1.1	ND	-	ND	-
12/29/89	ND	ND	ND	ND	ND	ND (1)
5/28/92	ND	ND	ND	ND	ND	0.003(2)

- (1) Analysis Completed For Organic Lead  
 (2) Analysis Completed For Total Lead

TABLE 3  
 HISTORICAL GROUNDWATER ANALYTICAL SUMMARY  
 MW-2  
 PACIFIC SUPPLY COMPANY

Sampling Date	TPH (gasoline) mg/L	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	Xylene µg/L	Lead mg/L
10/14/88	11	23	20	-	16	-
12/29/89	4	200	6.7	ND	ND	0.22 (1)
5/28/92	8.9	550	48	ND	13	ND (2)

- (1) Analysis Completed For Organic Lead  
 (2) Analysis Completed For Total Lead

TABLE 4  
 HISTORICAL GROUNDWATER ANALYTICAL SUMMARY  
 MW-3  
 PACIFIC SUPPLY COMPANY

Sampling Date	TPH (gasoline) mg/L	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	Xylene µg/L	Lead mg/L
10/14/88	3.4	ND	ND	-	2.8	-
12/29/89	ND	ND	ND	ND	ND	205 (1)
5/28/92	ND	0.8	0.5	ND	ND	0.16 (2)

- (1) Analysis Completed For Organic Lead  
 (2) Analysis Completed For Total Lead



TABLE 5  
 HISTORICAL GROUNDWATER ANALYTICAL SUMMARY  
 MW-4  
 PACIFIC SUPPLY COMPANY

Sampling Date	TPH (gasoline) mg/L	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	Xylene µg/L	Lead mg/L
10/14/88	4.6	1.2	ND	—	2.2	—
12/29/89	0.5	0.7	ND	ND	ND	ND (1)
5/28/92	0.27	8.8	1	ND	3.2	.030 (2)

- (1) Analysis Completed For Organic Lead  
 (2) Analysis Completed For Total Lead

TABLE 6  
 HISTORICAL GROUNDWATER ANALYTICAL SUMMARY  
 MW-5  
 PACIFIC SUPPLY COMPANY

Sampling Date	TPH (gasoline) mg/L	Benzene µg/L	Toluene µg/L	Ethyl Benzene µg/L	Xylene µg/L	Lead mg/L
10/14/88	3.2	ND	ND	—	ND	—
12/29/89	ND	ND	ND	ND	ND	ND (1)
5/28/92	ND	ND	ND	ND	ND	.008 (2)

- (1) Analysis Completed For Organic Lead  
 (2) Analysis Completed For Total Lead

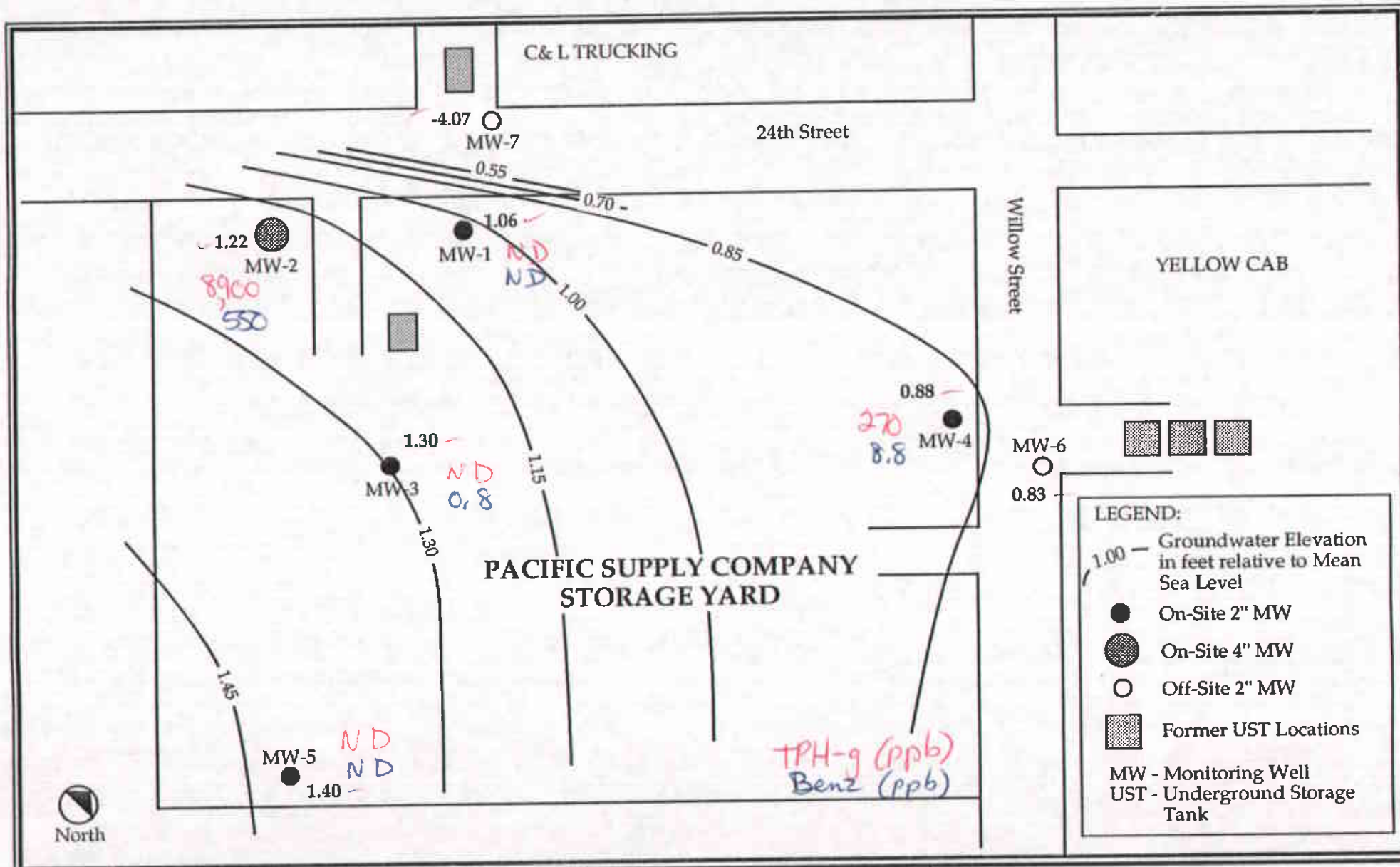


TABLE 7  
GROUNDWATER ELEVATION DATA  
PACIFIC SUPPLY COMPANY

Location	Date of Reading	Elevation of Casing (ft above MSL)	Depth to Water (ft)	Groundwater Elevation (ft above MSL)
MW-1	5/28/92	8.87	7.81	1.06
MW-2	5/28/92	8.14	6.92	1.22
MW-3	5/28/92	9.13	7.83	1.3
MW-4	5/28/92	9.07	8.19	0.88
MW-5	5/28/92	8.93	7.53	1.4
MW-6	6/6/92	6.13	5.30	0.83
MW-7	5/28/92	5.03	9.10	-4.07







PROJECT NUMBER: 29.7		
PACIFIC SUPPLY COMPANY		
OAKLAND, CALIFORNIA		
DRAWING NUMBER: 29.7-01		
DRAWN BY:	JBB	7/3/92
APPROVED BY:	MEV	7/3/92
SCALE: 1 Inch = 30 Feet		

**BRUNSG  
ASSOCIATES, INC.**

**FIGURE 1**  
MAY 1992 GROUNDWATER  
ELEVATION CONTOURS



**BACE Analytical & Field Services, Inc.**

P. O. Box 838, Windsor, CA 95492  
707-838-8338 FAX 707-838-4420

June 8, 1992  
Log No: 1510

Brunsing Associates, Inc.  
1607 Industrial Way  
Belmont, California 94002

ATTN: Joel Bruxvoort

RE: Results of the analyses of groundwater samples obtained for project number  
29.5 on May 28, 1992.

Dear Mr. Bruxvoort,

This letter serves to confirm the analytical results previously communicated to you.  
Should any questions arise concerning procedure or results, please feel free to  
contact us.

Sincerely,

William G. Rotz  
Director, Mobile Analytical Services

Tami Hucke Norgrove  
Staff Chemist

Client: Brunsing Associates, Inc.  
Client Contact: Joel Bruxvoort

Page: 1 of 3

Sample Date: 5/28/92  
Analysis Date: 6/4/92

BAFS Log No: 1510

METHOD: EPA 5030/8020

Matrix: Water

Parameter	Reporting Limit µg/L	Lab No: Descriptor:	Results - µg/L	
			1510-1 (MW - 1)	1510-2 (MW - 2)
Benzene	0.5		ND	550
Toluene	0.5		ND	48
Ethylbenzene	0.5		ND	ND
Xylene (total)	0.5		ND	13

Dilution Factor: 1 10

METHOD: 5030 / GC FID

Parameter	Reporting Limit mg/L	Lab No: Descriptor:	Results - mg/L	
			1510-1 (MW - 1)	1510-2 (MW - 2)
TPH - gasoline	0.05		ND	8.9

Dilution Factor: 1 10

NOTE: ND = not detected.  
nr = not requested.

BACE Analytical  
& Field Services, Inc.



Client: Brunsing Associates, Inc.  
Client Contact: Joel Bruxvoort

Page: 2 of 3

Sample Date: 5/28/92  
Analysis Date: 6/4/92

BAFS Log No: 1510

METHOD: EPA 5030/8020

Matrix: Water

Parameter	Reporting Limit µg/L	Lab No: Descriptor:	Results - µg/L	
			1510-3 (MW - 3)	1510-4 (MW - 4)
Benzene	0.5		0.8	8.8
Toluene	0.5		0.5	1.0
Ethylbenzene	0.5		ND	ND
Xylene (total)	0.5		ND	3.2

Dilution Factor: 1

METHOD: 5030 / GC FID

Parameter	Reporting Limit mg/L	Lab No: Descriptor:	Results - mg/L	
			1510-3 (MW - 3)	1510-4 (MW - 4)
TPH - gasoline	0.05		ND	0.27

Dilution Factor: 1

NOTE: ND = not detected.  
nr = not requested.

BACE Analytical  
& Field Services, Inc.





Client: Brunsing Associates, Inc.  
Client Contact: Joel Bruxvoort

Page: 3 of 3

Sample Date: 5/28/92  
Analysis Date: 6/4/92

BAFS Log No: 1510

METHOD: EPA 5030/8020

Matrix: Water

Parameter	Reporting Limit µg/L	Lab No: Descriptor:	Results - µg/L 1510-5 (MW - 5)
Benzene	0.5		ND
Toluene	0.5		ND
Ethylbenzene	0.5		ND
Xylene (total)	0.5		ND

Dilution Factor: 1

METHOD: 5030 / GC FID

Parameter	Reporting Limit mg/L	Lab No: Descriptor:	Results - mg/L 1510-5 (MW - 5)
TPH - gasoline	0.05		ND

Dilution Factor: 1

NOTE: ND = not detected.  
nr = not requested.

BACE Analytical  
& Field Services, Inc.



**SUMMARY OF  
LABORATORY RESULTS \***

**Pacific Supply - Project No. 29.5**

Sampling Date	Lab Number	Descriptor	TPH (gasoline) mg/L	Benzene ug/L	Toluene ug/L	Ethylbenzene ug/L	Xylene ug/L
5/28/92	1510-1	MW - 1	ND	ND	ND	ND	ND
5/28/92	1510-2	MW - 2	8.9	550	48	ND	13
5/28/92	1510-3	MW - 3	ND	0.8	0.5	ND	ND
5/28/92	1510-4	MW - 4	0.27	8.8	1.0	ND	3.2
5/28/92	1510-5	MW - 5	ND	ND	ND	ND	ND

*\* See original laboratory report dated 6/8/92  
for complete results.*

## QUALITY CONTROL SUMMARY

Client: Brunsing Associates, Inc.

BAFS Log No. : 1510

Client Contract: Joel Bruxvoort

Sample Date: 5/28/92

Analysis Date: 6/4/92

Parameter	% RECOVERY				
	CCV%*	Blank	Spike	Spike Dup	RPD
Gasoline	98	ND	104	102	2.0
Benzene	95	ND	92	96	4.3
Toluene	97	ND	92	95	3.6
Ethylbenzene	99	ND	94	98	4.3
Xylene	97	ND	93	97	3.5

\* Continuous Calibration Verification Standard

PROJ. NO. 29.5		PROJECT NAME Pacific Supply		NO. OF CONTAINERS	ANALYSIS TPH-925 BTEX										REMARKS							
L.P. NO.		SAMPLERS: (Signature) <i>[Signature]</i>																				
DATE	SAMPLE ID	TYPE																				
5-28-92	MW-1	water	3-40ml	X	X																1510-1	
	MW-1	water	1-1L																			-2
	MW-2	water	2-40ml	X	X																	
	MW-2	water	1-1L																			-3
	MW-3	water	3-40ml	X	X																	
	MW-3	water	1-1L																			-4
	MW-4	water	3-40ml	X	X																	
	MW-4	water	1-1L																			-5
	MW-5	water	3-40ml	X	X																	
	MW-5	water	1-1L																			
	Trip blank	water	1 40ml																			Ambers transferred to BAES Cap # 1294, taken to NET for Total Lead Analysis PRA

LABORATORY: **BAES**

Relinquished by: (Signature) <i>[Signature]</i>	Date/Time 5-28-92 2:30	Received by: (Signature) <i>Tom R Allen</i>	Remarks <i>Routine</i>
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time	Received for laboratory by: (Signature) ↓	

**BRUNSG ASSOCIATES, INC.**

**Main office:**  
P. O. Box 588  
Windsor, CA 95492  
707-838-3027

**Branch offices:**  
1607 Industrial Drive Belmont, Ca 94002 415-637-0170  
601 N. State Street Ukiah, CA 95482 707-468-7412



**BACE Analytical & Field Services, Inc.**  
P. O. Box 838 Windsor, CA 95492  
707-838-8338 FAX 707-838-4420

Receipt Number: 1510  
Date: 6/8/92  
Log Number: 1510

**Brunsing Associates, Inc.**  
1607 Industrial Way  
Belmont, California 94002

<u>Description</u>	<u>No.</u>	<u>Price Per Unit</u>	<u>Total</u>
8015/8020 - Gasoline with BTXE, Routine	5	\$90.00	\$450.00
		<b>Total</b>	<b>\$450.00</b>

---

Client Project Descriptor: 29.5  
Client Contact: Joel Bruxvoort

*For your records only. This not an invoice.  
You will receive a monthly invoice with a summary of the work performed.*



**BACE Analytical & Field Services, Inc.**

P. O. Box 838, Windsor, CA 95492  
707-838-8338 FAX 707-838-4420

June 22, 1992  
Log No: 1510

Brunsing Associates, Inc.  
1607 Industrial Way  
Belmont, California 94002

ATTN: Joel Bruxvoort

RE: **Results of the metals analyses of groundwater samples obtained for project number 29.5 on May 28, 1992.**

Dear Mr. Bruxvoort,

This letter serves to confirm the analytical results previously communicated to you. Should any questions arise concerning procedure or results, please feel free to contact us.

Sincerely,

William G. Rotz  
Director, Mobile Analytical Services

Tami Hucke Norgrove  
Staff Chemist



NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

NET Pacific, Inc.  
435 Tesconi Circle  
Santa Rosa, CA 95401  
Tel: (707) 526-7200  
Fax: (707) 526-9623

Dean Aaland  
BACE Geotechnical Inc.  
930 Shiloh Road Bldg 44  
PO Box 749  
Windsor, CA 95492

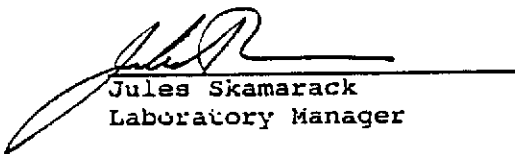
Date: 06/16/1992  
NET Client Acct No: 32500  
NET Pacific Job No: 92.3077  
Received: 06/03/1992

Client Reference Information

Project No. 29.5-1510

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

A handwritten signature in black ink, appearing to read "Jules Skamarack", is written over a horizontal line. Below the line, the name and title are printed.

Jules Skamarack  
Laboratory Manager

Enclosure(s)



NET Pacific, Inc

Client Acct: 32500  
Client Name: BACE Geotechnical Inc.  
NET Job No: 92.3077

Date: 06/16/1992  
Page: 2

Ref: Project No. 29.5-1510

ANALYTE: Lead (GFAA)  
METHOD: EPA 7421  
REPORTING LIMIT: 0.002 mg/L

Lab No.	Descriptor	Date Taken	Results	Units
124839	MW-1	05/28/1992	0.003	mg/L
124840	MW-2	05/28/1992	ND	mg/L
124841	MW-3	05/28/1992	0.016	mg/L
124842	MW-4	05/28/1992	0.030	mg/L
124843	MW-5	05/28/1992	0.008	mg/L





NET Pacific, Inc

Client Acct: 32500  
Client Name: BACE Geotechnical Inc.  
NET Job No: 92.3077

Date: 06/16/1992  
Page: 3

Ref: Project No. 29.5-1510

QUALITY CONTROL DATA

<u>Parameter</u>	<u>Reporting Limits</u>	<u>Units</u>	<u>Cal Verf Stand % Recovery</u>	<u>Blank Data</u>	<u>Spike % Recovery</u>	<u>Duplicate Spike % Recovery</u>	<u>RPD</u>
Lead	0.002	mg/L	99	ND	119	104	12



NET Pacific, Inc

## KEY TO ABBREVIATIONS and METHOD REFERENCES

- < : Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
- \* : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
- ICVS : Initial Calibration Verification Standard (External Standard).
- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference,  $100 \text{ (Value 1 - Value 2) / mean value}$ .
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

### Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

6726

No 1294

PROJ. NO. 29,5-1510		PROJECT NAME A-1510		NO. OF CONTAINERS	ANALYSIS Total Lead										REMARKS					
L.P. NO.		SAMPLERS: (Signature)																		
DATE	SAMPLE I.D.	TYPE																		
5-28-92	MW-1	water	1	*																transferred from <sup>BAT</sup> C of C # of 31 DRA
	MW-2	↓	1	↓																
	MW-3	↓	1	↓																
	MW-4	↓	1	↓																
	MW-5	↓	1	↓																

LABORATORY: NET

Relinquished by: (Signature) <i>Dean Kelly</i>	Date/Time 6-3-92   12:51	Received by: (Signature) <i>Mike Chertney</i>	Remarks Routine TAT
Relinquished by: (Signature) <i>Wade A. G...</i>	Date/Time 4/3/92   13:22	Received by: (Signature)	
Relinquished by: (Signature)	Date/Time 6/3/92   13:22	Received for Laboratory by: (Signature) <i>J. ...</i>	



**BACE ANALYTICAL AND FIELD SERVICES, INC.**

Main Office:

Branch Office:

P.O. Box 838  
Windsor CA 95492  
PH: 707-838-8338  
FAX: 707-838-4420

1607 Industrial Way  
Belmont, CA 94002  
Toll Free: 800-834-3353