



**Chevron U.S.A. Products Company**

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500  
Mail Address PO Box 5004, San Ramon, CA 94583-0804

May 5, 1993

*W.O. UST*

Ms. Jennifer Eberle  
Alameda County Health Care Services  
Department of Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94621

**Re: Former Gulf Service Station #0006  
460 Grand Avenue, Oakland, CA**

Dear Ms. Eberle:

Per our recent phone conversation, I have enclosed a copy of the laboratory data documenting soil samples taken during recent overexcavation activities at the above referenced site. Four discreet soil samples [WN, WE, WS, WW] and one composite soil sample [SP-1(a-d)] were collected at this time.

Soil samples WW and WE were analyzed for total petroleum hydrocarbons as gasoline (TPH-G), total petroleum hydrocarbons as diesel (TPH-D), BTEX, total oil and grease (TOG), EPA Methods 8010 and 8270 constituents, and metals. This full scan of analyses was run due to the existing retaining wall and building limiting excavation activities in these directions. Soil sample WS was analyzed for TPH-G, TPH-D, BTEX, and TOG with the anticipation that excavation may be complete in this direction. Soil sample WN was analyzed for TOG only as it was apparent from field observations that excavation would need to continue in this direction. Soil results are given in the enclosed laboratory reports.

As we have discussed, ~~excavation activities have been halted as the property owner is currently deliberating on future uses for the property and facilities.~~ The excavation has been temporarily filled with crushed rock. Chevron's consultant, Pacific Environmental Group, is currently obtaining depth to ground water measurements from the onsite wells to accurately determine ground water flow direction and evaluate whether another monitor well is necessary immediately downgradient of the waste oil tank area. ~~If such a well is deemed necessary, it will be installed in conjunction with the proposed offsite well.~~ All wells will be placed on a quarterly monitoring schedule following the additional well installation.

*not yet installed*

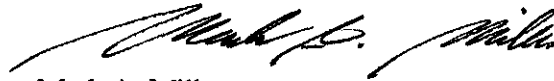
*results?*

This summary is not intended to be a final report on soils remediation activities. Chevron will strive to keep Alameda County Health Care Services apprised of changes and/or additions to the soils remediation activities as more information is obtained from both the property owner and field investigations. A formal report will be submitted following the completion of soils remediation activities.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

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May 5, 1993  
Fomer Gulf #0006

Very truly yours,  
CHEVRON U.S.A. PRODUCTS COMPANY



Mark A. Miller  
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Rich Hiatt, RWQCB - Bay Area  
Jon Robbins - CHVPKV/V1156

Mr. John C. Gibson  
Adams, Gibson & MacPhee  
100 Pine Street, 21st Floor  
San Francisco, CA 94111

Philip T. Tringale  
Treadwell & Rollo, Inc.  
353 Sacramento Street, Suite 800  
San Francisco, CA 94111

File (GULF6 DATA1)





# Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE DEVELOPMENTS  
Attn: JEFF MONROE

Project 0006-1  
Reported 29-March-1993

## HALONATED VOLATILE ORGANICS

Sample preparation by Purge and Trap (EPA SW-846 Method 5030) and  
Chromatographic analysis using an electrolytic conductivity detector  
(EPA SW-846 Method 8010)

Chronology

Laboratory Number 89121

| Identification | Sampled  | Received | Extracted | Analyzed | Run # | Lab # |
|----------------|----------|----------|-----------|----------|-------|-------|
| WW             | 03/19/93 | 03/22/93 | / /       | 03/24/93 |       | 2     |
| WE             | 03/19/93 | 03/22/93 | / /       | 03/24/93 |       | 3     |
| SP-1(a-d)      | 03/19/93 | 03/22/93 | / /       | 03/24/93 |       | 5     |



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Attn: JEFF MONROE

Project 0006-1  
Reported 29-March-1993

## HALOGATED VOLATILE ORGANICS 8010

| Laboratory Number | Sample Identification | Matrix |
|-------------------|-----------------------|--------|
| 88121 2           | WW                    | Soil   |
| 88121- 3          | WE                    | Soil   |
| 88121- 5          | SP-1(a-d)             | Soil   |

### WE SP-1 RESULTS OF ANALYSIS

Laboratory Number: 88121 2 88121 3 88121- 5

|                         |       |        |       |
|-------------------------|-------|--------|-------|
| Chloromethane/Vinyl Ch: | ND<10 | ND<100 | ND<10 |
| Bromomethane:           | ND<5  | ND<50  | ND<5  |
| Chloroethane:           | ND<5  | ND<50  | ND<5  |
| Trichlorofluoromethane: | ND<5  | ND<50  | ND<5  |
| 1,1-Dichloroethane:     | ND<5  | ND<50  | ND<5  |
| Dichloromethane:        | ND<5  | ND<50  | ND<5  |
| t 1,2 Dichloroethane:   | ND<5  | ND<50  | ND<5  |
| 1,1-Dichloroethane:     | ND<5  | ND<50  | ND<5  |
| c-1,2-Dichloroethane:   | ND<5  | ND<50  | ND<5  |
| Chloroform:             | ND<5  | ND<50  | ND<5  |
| 1,1,1-Trichloroethane:  | ND<5  | 320    | 13    |
| Carbon tetrachloride:   | ND<5  | ND<50  | ND<5  |
| 1,2-Dichloroethane:     | ND<5  | ND<50  | ND<5  |
| Trichloroethane:        | ND<5  | ND<50  | ND<5  |
| c-1,3-Dichloropropene:  | ND<5  | ND<50  | ND<5  |
| 1,2 Dichloropropene:    | ND<5  | ND<50  | ND<5  |
| t-1,3-Dichloropropene:  | ND<5  | ND<50  | ND<5  |
| Bromodichloromethane:   | ND<5  | ND<50  | ND<5  |
| 1,1,2 Trichloroethane:  | ND<5  | ND<50  | ND<5  |
| Tetrachloroethane:      | ND<5  | 610    | 110   |
| Dibromochloromethane:   | ND<5  | ND<50  | ND<5  |
| Chlorobenzene:          | ND<5  | ND<50  | ND<5  |
| Bromoform:              | ND<5  | ND<50  | ND<5  |
| 1,1,2,2-Tetrachloroeth: | ND<5  | ND<50  | ND<5  |
| 1,3 Dichlorobenzene:    | ND<5  | ND<50  | ND<5  |
| 1,2-Dichlorobenzene:    | ND<5  | 65     | 25    |
| 1,4-Dichlorobenzene:    | ND<5  | ND<50  | ND<5  |
| Concentration:          | ug/Kg | ug/Kg  | ug/Kg |



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## HALOGATED VOLATILE ORGANICS Quality Assurance and Control Data - Soil

Laboratory Number 88121

| Compound                | Method           |                | Average<br>Spike<br>Recovery<br>(%) | Limits<br>(%) | RPD<br>(%) |
|-------------------------|------------------|----------------|-------------------------------------|---------------|------------|
|                         | Blank<br>(ug/Kg) | PQL<br>(ug/Kg) |                                     |               |            |
| Chloromethane/Vinyl Ch: | ND<10            | 10             |                                     |               |            |
| Bromomethane:           | ND<5             | 5              |                                     |               |            |
| Chloroethane:           | ND<5             | 5              |                                     |               |            |
| Trichlorofluoromethane: | ND<5             | 5              |                                     |               |            |
| 1,1-Dichloroethene:     | ND<5             | 5              | 109%                                | 75-125        | 5%         |
| Dichloromethane:        | ND<5             | 5              |                                     |               |            |
| t-1,2-Dichloroethene:   | ND<5             | 5              |                                     |               |            |
| 1,1-Dichloroethane:     | ND<5             | 5              |                                     |               |            |
| c-1,2-Dichloroethene:   | ND<5             | 5              |                                     |               |            |
| Chloroform:             | ND<5             | 5              |                                     |               |            |
| 1,1,1-Trichloroethane:  | ND<5             | 5              |                                     |               |            |
| Carbon tetrachloride:   | ND<5             | 5              |                                     |               |            |
| 1,2-Dichloroethane:     | ND<5             | 5              |                                     |               |            |
| Trichloroethene:        | ND<5             | 5              | 92%                                 | 75-125        | 4%         |
| c-1,3-Dichloropropene:  | ND<5             | 5              |                                     |               |            |
| 1,2-Dichloropropane:    | ND<5             | 5              |                                     |               |            |
| t-1,3-Dichloropropene:  | ND<5             | 5              |                                     |               |            |
| Bromodichloromethane:   | ND<5             | 5              |                                     |               |            |
| 1,1,2-Trichloroethane:  | ND<5             | 5              |                                     |               |            |
| Tetrachloroethene:      | ND<5             | 5              |                                     |               |            |
| Dibromochloromethane:   | ND<5             | 5              |                                     |               |            |
| Chlorobenzene:          | ND<5             | 5              | 117%                                | 75-125        | 3%         |
| Bromoform:              | ND<5             | 5              |                                     |               |            |
| 1,1,2,2-Tetrachloroeth: | ND<5             | 5              |                                     |               |            |
| 1,3-Dichlorobenzene:    | ND<5             | 5              |                                     |               |            |
| 1,2-Dichlorobenzene:    | ND<5             | 5              |                                     |               |            |
| 1,4-Dichlorobenzene:    | ND<5             | 5              |                                     |               |            |

### Definitions:

ND = Not Detected

PQL = Practical Quantitation Limit

QC File No. 88121

RPD - Relative Percent Difference

*Atsueh Salunje*  
Senior Analyst



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## C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 88121-5

DATE RECEIVED: 03/22/93

CLIENT: TOUCHSTONE DEVELOPMENTS

DATE REPORTED: 03/29/93

CLIENT JOB NO.: 0006-1

DATE SAMPLED: 03/19/93

ANALYSIS FOR ARSENIC, BARIUM, COBALT, COPPER & MERCURY  
by EPA SW-846 Method 6010 & 7000 Series

| IAR<br># | Sample Identification | Concentration (mg/kg) |        |        |        |         |
|----------|-----------------------|-----------------------|--------|--------|--------|---------|
|          |                       | Arsenic               | Barium | Cobalt | Copper | Mercury |
| 5        | SP-1(a-d)             | ND                    | 100    | ND     | 33     | ND      |

Method Detection Limit for Arsenic in Soil: 1 mg/kg

Method Detection Limit for Barium in Soil: 5 mg/kg

Method Detection Limit for Cobalt in Soil: 10 mg/kg

Method Detection Limit for Copper in Soil: 10 mg/kg

Method Detection Limit for Mercury in Soil: 0.05 mg/kg

QA/QC Summary: MS/MSD Average Recovery : 96%

Duplicate RPD : 1

*why these 5?*

*what about Cd, Cr, Pb,  
Ni + Zn?*

Richard Srna, Ph.D.

*Atsana Saluniga*  
Laboratory Manager



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## C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 98121  
 CLIENT: TOUCHSTONE DEVELOPMENTS  
 CLIENT JOB NO.: 0006-1

DATE RECEIVED: 03/22/93  
 DATE REPORTED: 03/29/93  
 DATE SAMPLED: 03/19/93

ANALYSIS FOR CADMIUM, CHROMIUM, LEAD, ZINC & NICKEL  
 by EPA SW-846 Method 6010

| LAB #                                       | Sample Identification | Concentration (mg/kg) <i>total</i> |          |          |            |           |
|---|-----------------------|------------------------------------|----------|----------|------------|-----------|
|   |                       | Cadmium                            | Chromium | Lead     | Zinc       | Nickel    |
| 2   | WW                    | ND                                 | 17       | ND       | 33         | 26        |
| 3   | WE                    | ND                                 | 20       | 14       | 35         | 29        |
| 5   | SP-1 (a-d)            | ND                                 | 23       | 42       | 96         | 33        |
| mg/kg- parts per million (PPM) <i>SPC 1</i> |                       |                                    | <i>5</i> | <i>5</i> | <i>250</i> | <i>20</i> |

Method Detection Limit for Cadmium in Soil: 1 mg/kg  
 Method Detection Limit for Chromium in Soil: 5 mg/kg  
 Method Detection Limit for Lead in Soil: 5 mg/kg  
 Method Detection Limit for Zinc in Soil: 20 mg/kg  
 Method Detection Limit for Nickel in Soil: 10 mg/kg

*all  
OK*

QAQC Summary: MS/MSD Average Recovery : 96%  
 Duplicate RPD : 2%

Richard Srna, Ph.D.

*Afsaneh Salehpour*  
 Laboratory Manager





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TOUCHSTONE DEVELOPMENTS  
Attn: JEFF MONROE

Project 0006-1  
Reported 03/29/93

## TOTAL PETROLEUM HYDROCARBONS

| Lab #    | Sample Identification | Sampled  | Analyzed Matrix |
|----------|-----------------------|----------|-----------------|
| 88121- 1 | WS                    | 03/19/93 | 03/27/93 Soil   |
| 88121- 2 | WW                    | 03/19/93 | 03/27/93 Soil   |
| 00121- 3 | WE                    | 03/19/93 | 03/27/93 Soil   |
| 88121- 4 | WN                    | 03/19/93 | 03/24/93 Soil   |
| 88121- 5 | SP-1 (a-d)            | 03/19/93 | 03/27/93 Soil   |

Laboratory Number: <sup>WS</sup> 00121- 1    <sup>WW</sup> RESULTS OF ANALYSIS 00121- 2    <sup>WE</sup> 88121- 3    <sup>WN</sup> 88121- 4    <sup>SP-1</sup> 88121- 5

|                 |         |       |       |       |       |
|-----------------|---------|-------|-------|-------|-------|
| Gasoline:       | ND<1    | 34    | 730   | NA    | 32    |
| Benzene:        | 0.008   | 0.081 | 2.1   | NA    | 0.044 |
| Toluene:        | ND<.003 | 0.32  | 5.4   | NA    | 0.34  |
| Ethyl Benzene:  | ND<.003 | 0.25  | 11    | NA    | 0.41  |
| Xylenes:        | ND<.009 | 1.8   | 64    | NA    | 2.4   |
| Oil and Grease: | ND<50   | 1600  | 21000 | 270   | 2500  |
| Diesel:         | 1       | 440*  | 3200* | NA    | 1500* |
| Concentration:  | mg/Kg   | mg/Kg | mg/Kg | mg/Kg | mg/Kg |

\* Diesel range concentration reported. The pattern of peaks observed in the chromatogram shows hydrocarbons heavier than diesel.

NA bec. they know they'll have to continue excavating.



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## C E R T I F I C A T E O F A N A L Y S I S

### ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2  
QA/QC INFORMATION  
SET: 88121

NA = ANALYSIS NOT REQUESTED  
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT  
mg/kg = parts per million (ppm)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:  
Minimum Detection Limit in Soil: 50mg/kg

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:  
Minimum Quantitation Limit for Diesel in Soil: 1mg/kg

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:  
Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE  
Minimum Quantitation Limit in Soil: 0.005mg/kg

| ANALYTE         | MS/MSD RECOVERY | RPD | CONTROL LIMIT |
|-----------------|-----------------|-----|---------------|
| Gasoline:       | 72/74           | 3%  | 70-130        |
| Benzene:        | 110/107         | 3%  | 70-130        |
| Toluene:        | 101/99          | 2%  | 70-130        |
| Ethyl Benzene:  | 102/101         | 1%  | 70-130        |
| Xylenes:        | 104/103         | 1%  | 70-130        |
| Oil and Grease: | 84/82           | 2%  | 56-106        |
| Diesel:         | 117/123         | 5%  | 75-125        |

Richard Srna, Ph.D.

*Richard Srna*  
Laboratory Director

Fax copy of Lab Report and COC to Chevron Contact:  Yes  No

01001C  
8252

00101  
Chain-of-Custody-Rec

Chevron U.S.A. Inc.  
P.O. BOX 5004  
San Ramon, CA 94583  
FAX (415)842-9591

Chevron Facility Number Former Gulf 0006  
 Facility Address 460 Grand Ave Oakland  
 Consultant Project Number 006-1  
 Consultant Name Touchstone Developments  
 Address PO Box 2554 Santa Rosa 95404  
 Project Contact (Name) Jeff Monroe  
 (Phone) 705388818 Fax Number 5388812

Chevron Contact (Name) Mark Miller  
 (Phone) 510 842 8137  
 Laboratory Name Superior  
 Laboratory Release Number 8499660  
 Samples Collected by (Name) Jeff Monroe  
 Collection Date 3-19-93  
 Signature Jeff Monroe

| Sample Number | Lab Sample Number | Number of Containers | Matrix<br>S = Soil<br>W = Water<br>A = Air<br>C = Charcoal | Type<br>G = Grab<br>C = Composite<br>D = Discrete | Time  | Sample Preservation | Iced (Yes or No) | Analyses To Be Performed     |                   |                       |                              |                            |                           |                             |  |  |                 | Remarks |
|---------------|-------------------|----------------------|--|---|-------|---------------------|------------------|------------------------------|-------------------|-----------------------|------------------------------|----------------------------|---------------------------|-----------------------------|--|--|-----------------|---------|
|               |                   |                      |  |   |       |                     |                  | BTEX + TPH GAS (8020 + 8015) | TPH Diesel (8015) | Oil and Grease (5520) | Purgeable Halocarbons (8010) | Purgeable Aromatics (8020) | Purgeable Organics (8240) | Extractable Organics (8270) | Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA) | TLCL<br>As, Ba, Co, Cr, Cu, Fe, Ni, Pb, Se, Zn | Other Bio Assay |         |
| WS            | 1                 | 1                    | S  | D   | 11:40 |                     | Yes              | X                            | X                 | X                     | X                            | X                          | X                         | X                           | X                                      | X  | X               |         |
| WW            | 2                 | 1                    |  | D   | 16:30 |                     |                  | X                            | X                 | X                     | X                            | X                          | X                         | X                           | X                                      | X  | X               |         |
| WE            | 3                 | 1                    |  | D   | 16:33 |                     |                  | X                            | X                 | X                     | X                            | X                          | X                         | X                           | X                                      | X  | X               |         |
| WN            | 4                 | 1                    |  | D   | 16:40 |                     |                  | X                            | X                 | X                     | X                            | X                          | X                         | X                           | X                                      | X  | X               |         |
| SP-6-d        | 5                 | 4                    | V  | C   | 14:50 |                     |                  | X                            | X                 | X                     | X                            | X                          | X                         | X                           | X                                      | X  | X               |         |

Please Initial: \_\_\_\_\_  
 Samples Stored in ice. \_\_\_\_\_  
 Appropriate containers \_\_\_\_\_  
 Samples preserved \_\_\_\_\_  
 VOA's without headspace \_\_\_\_\_  
 Comments: \_\_\_\_\_

|  |                          |                          |   |                          |                          |                                  |
|--|--------------------------|--------------------------|---|--------------------------|--------------------------|----------------------------------|
| Relinquished By (Signature) <u>[Signature]</u> | Organization <u>T.D.</u> | Date/Time <u>3-22-93</u> | Received By (Signature) <u>Rita Walker</u>                | Organization <u>Aero</u> | Date/Time <u>3-22-93</u> | Turn Around Time (Circle Choice) |
| Relinquished By (Signature) <u>[Signature]</u> | Organization <u>ARVO</u> | Date/Time <u>3-22-93</u> | Received By (Signature) _____                             | Organization _____       | Date/Time _____          | 14 Hrs.                          |
| Relinquished By (Signature) _____              | Organization _____       | Date/Time _____          | Received For Laboratory By (Signature) <u>[Signature]</u> | Organization _____       | Date/Time <u>3/22/93</u> | 48 Hrs.                          |
|  |                          |                          |   |                          |                          | 5 Days                           |
|  |                          |                          |   |                          |                          | 10 Days                          |
|  |                          |                          |   |                          |                          | As Contracted                    |

COC-1.DWG/03 01/1993