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LETTER OF TRANSMITTAL

To: Alameda County Dept
of Env Health
1131 Harbor Bay Pky
Oakland, CA 94502
ATTN: Ms. Juliet Shin


Date: May 16, 1995
Project: Joe Sio Chevrolet
SIO101/12104.2001

- 1) For Review and Comment ()
- 2) For Approval ()
- 3) As Requested ()
- 4) For Your Use (x)

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Comments:

By: David C. Tight


**QUARTERLY GROUNDWATER
MONITORING REPORT
Second Quarter 1995**

**JOE SIO CHEVROLET
914-916 San Pablo Avenue
Albany, California
STID-3808**

May 15, 1995

Prepared for:

**MS. FLORENCE ANN CONNORS
Executor for the Estate of Josephine A. Dibble
1658 Del Dayo Drive
Carmichael, California 95608**

Prepared by:

**PHILIP ENVIRONMENTAL SERVICES CORP.
5901 Christie Avenue, Suite 501
Emeryville, California 94608**

SIO101/12104

May 15, 1995
SIO101/12104

Ms. Florence Ann Connors
Executor for the Estate of Josephine A. Dibble
1658 Del Dayo Drive
Carmichael, California 95608

Subject: QUARTERLY GROUNDWATER MONITORING REPORT
Second Quarter 1995
Joe Sio Chevrolet
914-916 San Pablo Avenue, Albany, California

Dear Ms. Connors:

Philip Environmental Services Corp. (Philip), formerly Burlington Environmental Inc., is pleased to submit the following quarterly groundwater monitoring report for Joe Sio Chevrolet, located at 914-916 San Pablo Avenue in Albany, California (see Figure 1). The groundwater monitoring and sampling was conducted by Philip in April 1995.

BACKGROUND

Two 550-gallon underground storage tanks (USTs) were removed from the site on March 20, 1989 by Petroleum Engineering, Inc. One UST contained gasoline and was located under the sidewalk between the former building and San Pablo Avenue. The other UST contained waste oil and was located adjacent to the southwest corner of the former building (see Figure 2). Soil samples collected from beneath the former gasoline UST contained concentrations of total petroleum hydrocarbons (TPH) ranging between 270 and 1,300 milligrams per kilogram (mg/kg). As a result of the TPH in the soil samples from beneath the former gasoline UST, Alameda County Department of Environmental Health (ACDEH) requested that additional excavation be conducted in the vicinity of the former gasoline UST, and groundwater monitoring wells be installed and sampled to determine groundwater quality, flow direction, and gradient.

On July 24 and 25, 1991, Aqua Terra Technologies (ATT) of Walnut Creek, California, installed three groundwater monitoring wells (MW-1, MW-2, and MW-3) at the site (see Figure 2). The three groundwater monitoring wells were developed on July 31, 1991 and sampled on August 7, 1991. Elevated concentrations of TPH and benzene, toluene, ethylbenzene and total xylenes (BTEX) were found in the groundwater sample collected from well MW-1 (see Table 1). At the time the wells were sampled,

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ATT determined that the groundwater flow direction was to the west-northwest with an approximate hydraulic gradient of 0.01 feet/foot.

In a letter dated November 9, 1993, Ms. Juliet Shin (ACDEH) directed that quarterly groundwater monitoring be resumed at the site. In April 1994, Philip received authority to proceed with quarterly groundwater monitoring at the site.

MONITORING ACTIVITIES

The second quarter 1995 monitoring event was conducted on April 19, 1995. In each well, the depth to groundwater and the presence or absence of phase-separated hydrocarbons (PSH) were determined. Groundwater samples were collected and analyzed according to U. S. Environmental Protection Agency (EPA) guidelines to determine the concentrations of TPH as gasoline (TPHg), BTEX, and total lead. In addition, groundwater from monitoring well MW-3 was analyzed for cadmium, chromium, zinc, and nickel. The groundwater sample for MW-3 was not field filtered as in the previous monitoring event due to problems with the field equipment.

The ground water sample from well MW-2 was also analyzed for halogenated volatile organics in response to matrix interference observed during the 3rd and 4th quarter 1994 monitoring events, per the request of Ms. Juliet Shin (ACDEH) in her November 2, 1994 correspondence to you.

The monitoring and sampling procedures are presented in Appendix A. Field data sheets are presented in Appendix B. Western Environmental Science & Technology, located in Davis, California, performed the analysis. The analytical results and detection limits are presented in Table 1.

RESULTS

The groundwater elevation in the monitoring wells beneath the site on April 19, 1995 ranged from 32.87 to 34.74 feet above mean sea level (see Table 2). A contour map of these data is presented in Figure 3. The approximate groundwater flow direction based on the April data is to the southeast with an approximate hydraulic gradient of 0.013 feet/foot. This flow direction is inconsistent with the flow directions seen during the past two monitoring events (to the west during fourth quarter 1994 and to the northeast during first quarter 1995). The anticipated groundwater flow direction, based on topography and proximity to the San Francisco Bay, is to the west. It is possible that the flow reversals seen in the first and second quarter 1995 are manifestations of an unusually wet winter.

The results of the chemical analyses are presented in Table 1. No PSH were detected in any of the groundwater monitoring wells. No detectable concentrations of TPHg or

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Ms. Florence Ann Connors
May 15, 1995
Page 3

BTEX were found in the groundwater samples collected from well MW-2 or MW-3. Concentrations of petroleum hydrocarbons were found in the groundwater sample collected from well MW-1, including 210 micrograms per liter ($\mu\text{g/L}$) of TPHg and 69 $\mu\text{g/L}$ of benzene. These levels are the lowest levels recorded for those analytes in well MW-1 since monitoring resumed at the site in April 1994.

The groundwater sample collected from well MW-3 contained trace levels of cadmium, chromium, nickel and zinc that are below their respective California primary maximum contaminant level (MCL), as shown in Table 1. The samples also contained 0.068 mg/L, which is slightly above the MCL for lead of 0.05 mg/L. This elevated level of lead in the MW-3 sample likely occurred because the sample was not field filtered prior to sampling. A trace lead concentration was also detected in the groundwater sample from MW-1. The lead level in MW-1 is below the MCL and is not considered to be of concern.

Elevated concentrations of tetrachloroethene (PCE) continue to be found in the groundwater sample from well MW-2, at 76 $\mu\text{g/L}$. In addition, levels of carbon tetrachloride were found slightly above the MCL of 5 $\mu\text{g/L}$ in the sample. Although the PCE level exceeds its 5 $\mu\text{g/L}$ MCL, there is no known source of PCE onsite, and an offsite source for the halogenated hydrocarbons is likely.

Chain-of-custody documentation and certified analytical results are presented in Appendix C. Purge and rinsate water was stored on the site in 55-gallon drums. The drums were labeled by the field sampling technician. Purge and rinsate water disposal will be arranged in the future.

CONCLUSIONS

The recurrence of TPHg and BTEX in the groundwater samples collected from well MW-1 suggests that the groundwater below the former gasoline UST continues to be impacted. Due to the abundance of utilities present beneath the sidewalk overlying the former tank location, as documented in my correspondence to you date May 5, 1995, no corrective action is proposed at this time.

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Ms. Florence Ann Connors
May 15, 1995
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The next quarterly groundwater monitoring event is scheduled for July 1995. Philip appreciates the opportunity to provide you with quality consulting and environmental services. Please feel free to contact me if I can provide further assistance.

Sincerely,

PHILIP ENVIRONMENTAL SERVICES CORP.



David C. Tight, R.G. No. 4603
Investigation/Remediation Manager
Attachments:

Figure 1 - Site Location Map
Figure 2 - Site Plan
Figure 3 - Groundwater Elevation Contours

Table 1 - Groundwater Analytical Data-Petroleum Hydrocarbons Fuel Analysis
Table 1a - Groundwater Analytical Data-Chlorinated Hydrocarbons Analysis
Table 2 - Groundwater Elevation Data

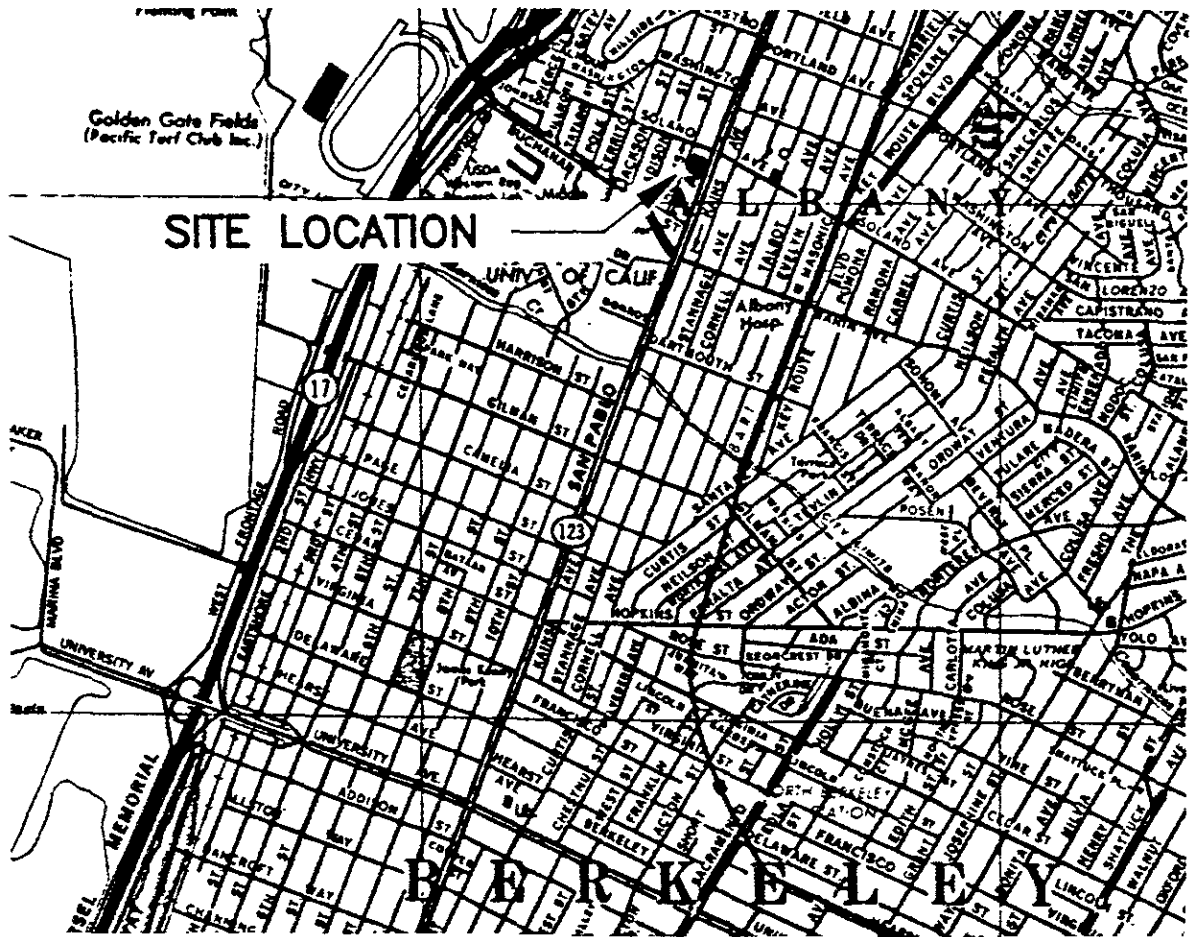
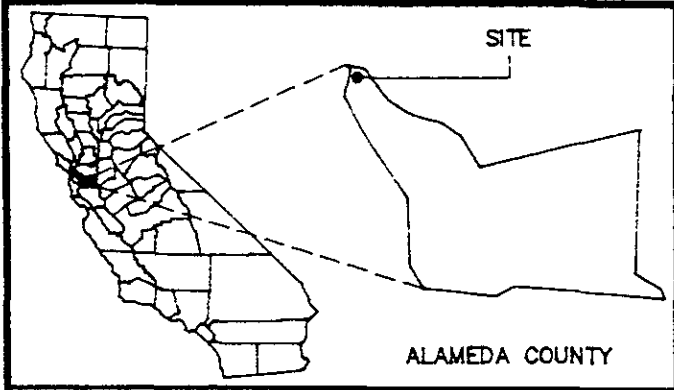
Appendix A - Groundwater Sampling and Analysis Procedures
Appendix B - Water Sample Field Data Sheets
Appendix C - Chain-of-Custody Records and Certified Analytical Reports

cc: Ms. Juliet Shin (ACDEH)

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FIGURES 1 - 3



SITE LOCATION MAP

Joe Sio Chevrolet
914 - 916 San Pablo Avenue
Albany, California

Reviewed By : _____ Date : _____

Figure 1

Project No. 12104

Drawn By SBW Date 5/12/95

Drawing No. ASI00109

SOLANO AVENUE

SIDEWALK

OTHER STRUCTURES
AND BUILDINGS

MW-2

(SERVICE AREA)

BUILDING AT
914-916 SAN PABLO AVENUE
ALBANY, CALIFORNIA
(SHOW ROOM)

ADAMS STREET

SIDEWALK

PARKING

SIDEWALK

SAN PABLO AVENUE

MW-1

FORMER GASOLINE TANK

FORMER WASTE OIL TANK
MW-3

EXPLANATION

⊕ MONITORING WELL LOCATION



0 20 40
SCALE (feet)

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SITE PLAN

Joe Sio Chevrolet
914 - 916 San Pablo Avenue
Albany, California

Figure 2

Project No. 12104

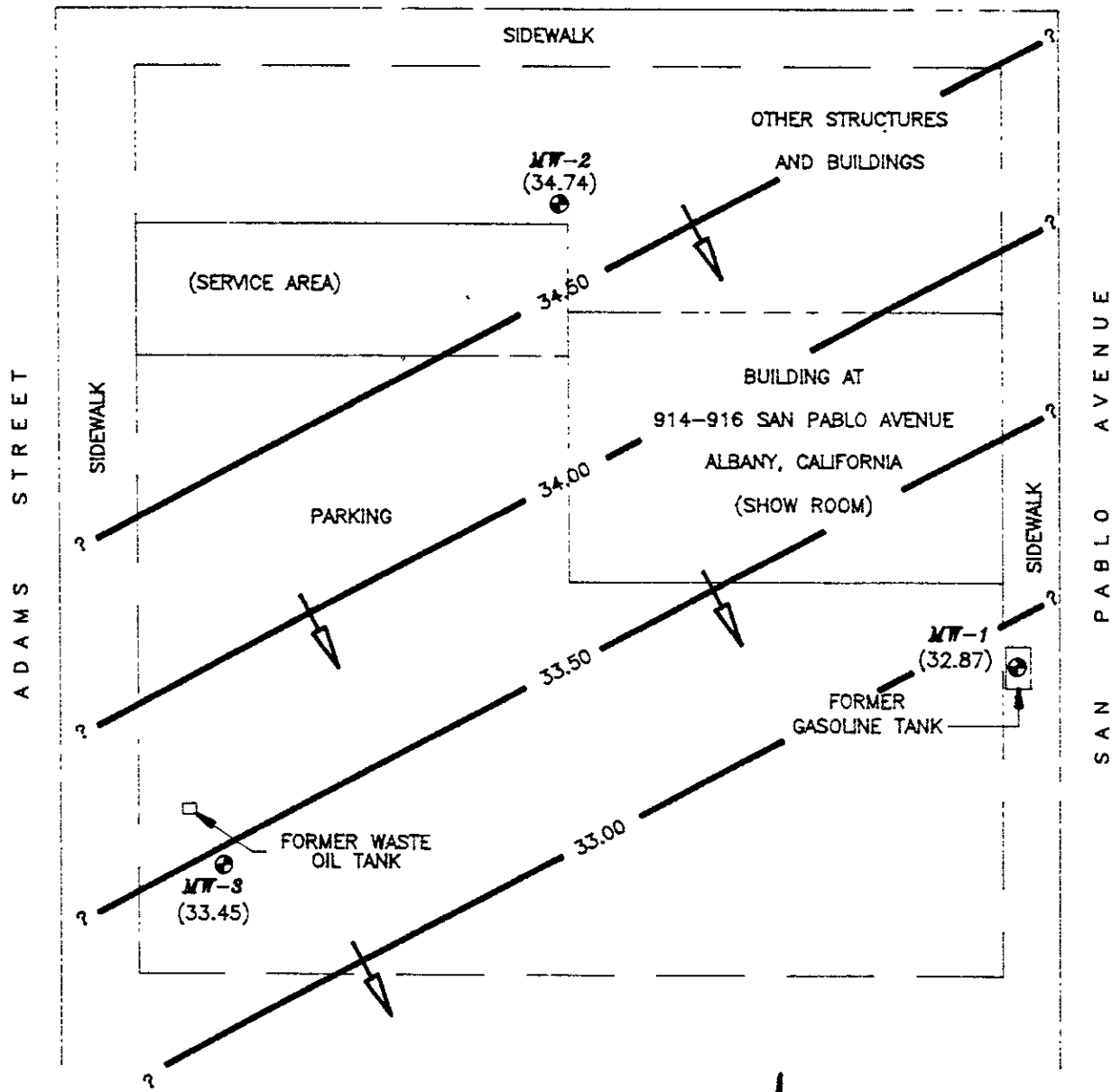
Drawn By S8W Date 5/12/95

Reviewed By :

Date :

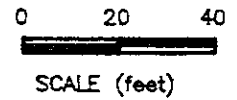
Drawing No. ASI00102

SOLANO AVENUE



EXPLANATION

- ⊙ MONITORING WELL LOCATION
- (32.87) GROUNDWATER ELEVATION (FT-MSL)
MEASURED ON: APRIL 19, 1995
- 34.00 — GROUNDWATER ELEVATION CONTOUR (FT-MSL)
CONTOUR INTERVAL = 0.50'
- (FT-MSL) FEET ABOVE MEAN SEA LEVEL
- APPROXIMATE GROUNDWATER FLOW DIRECTION



SECOND QUARTER 1995

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GROUNDWATER ELEVATION CONTOURS

Joe Sio Chevrolet
914 - 916 San Pablo Avenue
Albany, California

Figure 3

Project No. 12104

Drawn By SBW Date 5/12/95

Reviewed By :

Date :

Drawing No. ASI00108

TABLES 1 - 2

TABLE 1
GROUNDWATER ANALYTICAL DATA
PETROLEUM HYDROCARBONS FUEL ANALYSIS

Joe Sio Chevrolet
914-916 San Pablo Avenue, Albany, California

| Monitoring Well No. | Date Sampled | Sample No. | TPH Gasoline (ug/L) | Benzene (ug/L) | Toluene (ug/L) | Ethylbenzene (ug/L) | Total Xylenes (ug/L) | Total Oil and Grease (mg/L) | Cadmium (mg/L) | Chromium (mg/L) | Lead (mg/L) | Nickel (mg/L) | Zinc (mg/L) |
|------------------------------|------------------------|-------------|---------------------|----------------|----------------|---------------------|----------------------|-----------------------------|----------------|-----------------|-------------|---------------|-------------|
| | EPA Analytical Method: | | 8015m | 602 | 602 | 602 | 602 | 9070 | AA | AA | AA | AA | AA |
| Groundwater Analyses: | | | | | | | | | | | | | |
| MW-1 | 8/7/91 | MW-1 | 110 | 16 | 2 | 0.7 | 15 | NA | NA | NA | NA | NA | NA |
| | 4/16/94 | MW01-041594 | 2,500 | 880 | 22 | 79 | 47 | NA | NA | NA | 0.0093 | NA | NA |
| | 7/14/94 | MW01-071494 | 470 | 110 | 22 | 21 | 87 | NA | NA | NA | 0.0059 | NA | NA |
| | 10/14/94 | MW01-101494 | 380 | 86 | 17 | 24 | 77 | NA | NA | NA | 0.008 | NA | NA |
| | 1/17/95 | MW01-011795 | 600 | 250 | 11 | 5.3 | 56 | NA | NA | NA | 0.0096 | NA | NA |
| | 4/19/95 | MW01 041995 | 210 | 69 | 3.7 | 3.7 | 12 | NA | NA | NA | 0.018 | NA | NA |
| MW-2 | 8/7/91 | MW-2 | NA(<50) | ND(<0.50) | ND(<0.50) | ND(<0.50) | ND(<0.50) | NA | NA | NA | NA | NA | NA |
| | 4/16/94 | MW02-041494 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | NA | NA | 0.022 | NA | NA |
| | 7/14/94 | MW02-071494 | ND(<50) * | ND(<0.30) * | 0.73 * | ND(<0.30) * | 0.71 * | NA | NA | NA | 0.023 | NA | NA |
| | 10/14/94 | MW02-101494 | ND(<50) * | ND(<0.30) * | ND(<0.30) * | ND(<0.30) * | ND(<0.50) * | NA | NA | NA | 0.021 | NA | NA |
| | 1/17/95 | MW02-011795 | ND(<50) * | ND(<0.30) * | ND(<0.30) * | ND(<0.30) * | ND(<0.50) * | NA | NA | NA | 0.031 | NA | NA |
| | 4/19/95 | MW02 041995 | ND(<50) * | ND(<0.30) * | ND(<0.30) * | ND(<0.30) * | ND(<0.50) * | NA | NA | NA | ND(<0.003) | NA | NA |
| MW-3 | 8/7/91 | MW-3 | NA(<50) | ND(<0.50) | ND(<0.50) | ND(<0.50) | ND(<0.50) | ND(<5) | NA | NA | NA | NA | NA |
| | 4/16/94 | MW03-041594 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | 0.012 | 0.25 | 0.22 | 0.34 | 0.49 |
| | 4/16/94 d | DW01-041494 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | NA | NA | NA | NA | NA |
| | 7/14/94 | MW03-071494 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | 0.50 | NA | 0.017 | 0.55 | 0.22 | 0.73 | 0.84 |
| | 7/14/94 d | DW01-071494 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | 0.53 | NA | NA | NA | NA | NA | NA |
| | 10/14/94 | MW03-101494 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | 0.019 | 0.64 | 0.14 | 0.86 | 0.90 b |
| | 10/14/94 d | DW01-101494 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | NA | NA | NA | NA | NA |
| | 1/17/95 | MW03-011795 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | ND(<0.004) | 0.0088 | ND(<0.003) | ND(<0.015) | 0.022 |
| | 1/17/95 d | DW03-011795 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | NA | NA | NA | NA | NA |
| | 4/19/95 | MW03 041995 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | 0.0091 | 0.019 | 0.068 | 0.067 | 1.3 |
| | 4/19/95 d | DW03 041995 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | NA | NA | NA | NA | NA |
| Rinseate Analyses: | | | | | | | | | | | | | |
| | 4/16/94 | RS01-041594 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | NA | NA | NA | NA | NA |
| | 7/14/94 | RS01-071494 | ND(<50) | ND(<0.30) | 0.33 | ND(<0.30) | 0.65 | NA | NA | NA | NA | NA | NA |
| | 10/14/94 | RS01-101494 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | NA | NA | NA | NA | NA |
| | 1/17/95 | RS01-011795 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | NA | NA | NA | NA | NA |
| | 4/19/95 | RS01 041995 | ND(<50) | ND(<0.30) | ND(<0.30) | ND(<0.30) | ND(<0.50) | NA | NA | NA | NA | NA | NA |

TABLE 1
GROUNDWATER ANALYTICAL DATA
PETROLEUM HYDROCARBONS FUEL ANALYSIS
(continued)

Joe Sio Chevrolet
914-916 San Pablo Avenue, Albany, California

| Monitoring Well No. | Date Sampled | Sample No. | TPH Gasoline (ug/L) | Benzene (ug/L) | Toluene (ug/L) | Ethyl-benzene (ug/L) | Total Xylenes (ug/L) | Total Oil and Grease (mg/L) | Cadmium (mg/L) | Chromium (mg/L) | Lead (mg/L) | Nickel (mg/L) | Zinc (mg/L) |
|-----------------------------|--------------|------------------------|---------------------|----------------|----------------|----------------------|----------------------|-----------------------------|----------------|-----------------|-------------|---------------|-------------|
| | | EPA Analytical Method: | 8015m | 602 | 602 | 602 | 602 | 9070 | AA | AA | AA | AA | AA |
| Trip Blank Analyses: | | | | | | | | | | | | | |
| | 4/15/94 | TB01-041694 | ND(< 50) | ND(< 0.30) | ND(< 0.30) | ND(< 0.30) | ND(< 0.50) | NA | NA | NA | NA | NA | NA |
| | 7/14/94 | TB01-071494 | ND(< 50) | ND(< 0.30) | ND(< 0.30) | ND(< 0.30) | ND(< 0.50) | NA | NA | NA | NA | NA | NA |
| | 10/14/94 | TB01-101494 | ND(< 50) | ND(< 0.30) | ND(< 0.30) | ND(< 0.30) | ND(< 0.50) | NA | NA | NA | NA | NA | NA |
| | 1/17/95 | TB01-011795 | ND(< 50) | ND(< 0.30) | ND(< 0.30) | ND(< 0.30) | ND(< 0.50) | NA | NA | NA | NA | NA | NA |
| DRINKING WATER STANDARDS: | | | | | | | | | | | | | |
| California Primary | | | | | | | | | | | | | |
| Maximum Contaminant Levels: | | | - | 1 | - | 680 | 1750 | - | 0.01 | 0.05 | 0.05 | - | 5 |

Results above detection limit are bolded for emphasis.

- * An external standard quantitation was used on this sample due to matrix interference
- b Analyte found in method blank
- d Duplicate sample
- mg/L Milligrams per liter (parts per million)
- NA Not analyzed
- ND Concentration below detection limit presented in parentheses
- ug/L Micrograms per liter (parts per billion)

TABLE 1a
GROUNDWATER ANALYTICAL DATA
CHLORINATED HYDROCARBONS ANALYSIS

Joe Sio Chevrolet
914-916 San Pablo Avenue, Albany, California

| Monitoring Well No. | Date Sampled | Sample No. | Chloro-methane | Carbon Tetra-chloride | Trichloro-ethene | cis-1,2-Dichloro-ethene | Tetrachloro-ethene |
|-----------------------------|------------------------|-------------|----------------|-----------------------|------------------|-------------------------|--------------------|
| | EPA Analytical Method: | | 601 | 601 | 601 | 601 | 601 |
| MW-2 | 1/17/95 | MW02-011795 | 0.94 | 0.98 | 0.58 | 0.51 | 100 |
| | 4/19/95 | MW02 041995 | ND(<0.50) | 0.83 | ND(<0.50) | ND(<0.50) | 76 |
| DRINKING WATER STANDARDS: | | | | | | | |
| California Primary | | | | | | | |
| Maximum Contaminant Levels. | | | | | | | |
| | | | - | 0.5 | 5 | 6 | 5 |

Results above detection limit are bolded for emphasis.
All results presented in micrograms per liter (ug/L)
601 analytes not listed are all below method detection limits

**TABLE 2
GROUNDWATER ELEVATION DATA**

Joe Sio Chevrolet
914-916 San Pablo Avenue, Albany, California

| Monitoring Well No. | Date Measured | Total Depth (ft-BTOC) | TOC Elevation (ft-MSL) | Depth to Water (ft-BTOC) | Water Elevation (ft-MSL) |
|----------------------------|----------------------|------------------------------|-------------------------------|---------------------------------|---------------------------------|
| MW-1 | 8/7/91 | NM | 42.61 | 10.49 | 32.12 |
| | 8/12/91 | NM | 42.61 | 10.37 | 32.24 |
| | 4/15/94 | 29.80 | 42.61 | 10.60 | 32.01 |
| | 7/14/94 | 29.70 | 42.61 | 10.55 | 32.06 |
| | 10/14/94 | 29.75 | 42.61 | 10.88 | 31.73 |
| | 1/17/95 | 29.75 | 42.61 | 9.97 | 32.64 |
| | 4/19/95 | 29.62 | 42.61 | 9.74 | 32.87 |
| MW-2 | 8/7/91 | NM | 42.73 | 11.64 | 31.09 |
| | 8/12/91 | NM | 42.73 | 11.69 | 31.04 |
| | 4/15/94 | 26.88 | 42.73 | 10.16 | 32.57 |
| | 7/14/94 | 26.85 | 42.73 | 10.91 | 31.82 |
| | 10/14/94 | 26.88 | 42.73 | 12.10 | 30.63 |
| | 1/17/95 | 26.87 | 42.73 | 9.54 | 33.19 |
| | 4/19/95 | 26.71 | 42.73 | 7.99 | 34.74 |
| MW-3 | 8/7/91 | NM | 39.44 | 8.94 | 30.50 |
| | 8/12/91 | NM | 39.44 | 8.94 | 30.50 |
| | 4/15/94 | 25.58 | 39.44 | 7.68 | 31.76 |
| | 7/14/94 | 25.62 | 39.44 | 8.40 | 31.04 |
| | 10/14/94 | 25.61 | 39.44 | 9.31 | 30.13 |
| | 1/17/95 | 25.79 | 39.44 | 5.44 | 34.00 |
| | 4/19/95 | 25.65 | 39.44 | 5.99 | 33.45 |

Water levels measured on 8/7/91 and 8/12/91 by Aqua Terra Technologies (ATT) of Walnut Creek, California.

TOC elevations obtained from survey data provided in the ATT Groundwater Monitoring Report dated 11/11/91.

ft-BTOC Feet below top of casing
ft-MSL Feet above mean sea level
NM Not measured
TOC Top of casing

APPENDIX A

**Groundwater Sampling and
Analysis Procedures**

APPENDIX A

Groundwater Sampling and Analysis Procedures

INTRODUCTION

The sampling and analysis procedures for water-quality monitoring programs are contained in this Appendix. These procedures ensure that consistent and reproducible sampling methods are used, proper analytical methods are applied, analytical results are accurate, precise, and complete, and the overall objectives of the monitoring program are achieved.

SAMPLE COLLECTION

Sample collection procedures include equipment cleaning, water-level and total well-depth measurements, and well purging and sampling.

Equipment Cleaning

Sample bottles, caps, and septa were precleaned and provided by a DHS-certified laboratory. All sampling containers were used only once and discarded after analysis was complete.

Before starting the sampling event, all equipment to be placed in the well or come in contact with groundwater was disassembled and cleaned thoroughly with detergent water, then steam cleaned with tap water, and rinsed with distilled water. Any parts that may absorb contaminants, such as plastic pump valves or bladders, were cleaned as described above or replaced.

During the sampling event all equipment used in the well was washed with detergent, steam-cleaned, and rinsed with distilled water before purging or sampling the next well. The rinsate water was contained for temporary storage in 55-gallon drums and disposal

will be arranged by the client. The 55-gallon drums were stored onsite and labeled by the field technician.

Quality Assurance Samples

A trip blank was analyzed to insure contamination did not result from travel exposure.

WATER-LEVEL, FLOATING-HYDROCARBON, AND TOTAL WELL-DEPTH MEASUREMENTS

Before purging and sampling, the depth to water, floating hydrocarbon thickness, and the well total depth were measured using an oil water interface probe and an electric sounder. The electric sounder, manufactured by Slope-Indicator, Inc., is a transistorized instrument that uses a reel-mounted, two conductor, coaxial cable that connects the control panel to the sensor. Cable markings are stamped at 1-foot intervals. An engineers rule was used to measure the depths to the closest 0.01 foot. The water level was measured by lowering the sensor into the monitoring well. A low current circuit is completed when the sensor contacts the water, which serves as a conductor. The current is amplified and fed across an indicator light and audible buzzer, signaling when water has been contacted. A sensitivity control compensates for very saline or conductive water. The oil water interface probe signals with a solid sound when it contacts phase-separated hydrocarbons. When the probe detects water, the sound changes to a beeping sound.

No phase-separated hydrocarbons were detected in any of the monitoring wells. When PSH is detected at greater than 1/32-inch in thickness, a sample is not collected.

All liquid measurements were recorded to the nearest 0.01 foot in the field logbook. The groundwater elevation at each monitoring well was calculated by subtracting the measured depth to water from the surveyed well-casing elevation. Well total depth was then measured by lowering the sensor to the bottom of the well. Well total depth, used to calculate purge volumes and to determine whether the well screen is partially obstructed by silt, was recorded to the nearest 0.01 foot in the field log book.

WELL PURGING

Before sampling, standing water in the casing was purged from the monitoring wells using a PVC hand bailer. Samples were collected from the monitoring wells after a minimum of four casing volumes had been evacuated or the pH, electrical conductivity, and temperature had stabilized. In the case that the monitoring well was purged until dry, the well was allowed to recover to within 80% of its static water level and sampled.

The pH, electrical conductivity, and temperature meter were calibrated each day before beginning field activities. After every well volume of groundwater removed from the monitoring well, field measurements were taken. The data is presented on the water sample field data sheets. The calibration was checked once each day to verify meter performance. All field meter calibrations were recorded in the field log book.

Groundwater generated from well-purging operations were contained for temporary storage in 55-gallon drums. All drums were labeled and stored onsite. The sampler recorded on the drum label for each drum generated:

- drum content (i.e., groundwater)
- source (i.e., well identification code)
- date generated
- client contact
- project number
- name of sampler.

The purge water will be disposed of by the client.

WELL SAMPLING

A Teflon bailer was used for well sampling. Glass bottles of at least 40 milliliters volume and fitted with Teflon-lined septa were used in sampling for volatile organics. These bottles were filled completely to prevent air from remaining in the bottle. A positive meniscus forms when the bottle is completely full. A convex Teflon septum is placed over the meniscus to eliminate air. After capping, the bottle was inverted and tapped to verify that it did not contain air bubbles. The sample containers for other parameters were filled, and capped.

SAMPLE HANDLING AND DOCUMENTATION

The following section specifies the procedures and documentation used during sample handling.

Sample Handling

All sample containers were labeled immediately following sample collection. Samples were kept cool with ice cubes until received by the laboratory. At the time of sampling, each sample was logged on a chain-of-custody record which accompanied the sample to the Western Environmental, Science, and Technology.

Sample Documentation

The following procedures were used during sampling and analysis to provide chain-of-custody control during sample handling from collection through storage. Sample documentation included:

- field log books to document sampling activities in the field
- labels to identify individual samples; and

- chain-of-custody record sheets for documenting possession and transfer of samples.

Field Log Book

In the field, the sampler recorded on the Water Sample Field Data Sheet for each sample collected:

- project number
- client name
- location
- name of sampler
- date and time
- pertinent well data (e.g., casing diameter, depth to water, well depth)
- calculated and actual purge volumes
- purging equipment used
- sampling equipment used
- appearance of each sample (e.g., color, turbidity, sediment)
- results of field analyses (i.e., temperature, pH, electrical conductivity)
- general comments

The field logbooks were signed by the sampler.

Labels

Sample labels contained:

- project number
- sample number (i.e., well designation)
- sampler's initials
- date and time of collection
- type of preservative used (if any)

Sampling and Analysis Chain-of-Custody Record

The Sampling and Analysis Chain-of-Custody record, initiated at the time of sampling, contains, but is not limited to, the well number, sample type, analytical request, date of sampling, and the name of the sampler. The record sheet was signed, timed, and dated by the sampler when transferring the samples. The number of custodians in the chain of possessions were kept to a minimum. A copy of the Sampling and Analysis Chain-of-Custody record is included in Appendix C.

APPENDIX B

Water Sample Field Data Sheets

WATER DATA SHEET

PROJECT NO.: 12104

SAMPLE ID.: MW01-041995

LOCATION: _____

DATE: 4/19/95

STATION NO.: _____

WELL/SAMPLE

SAMPLER: W BARNWILL

POINT DESIGNATION: MW01

SAMPLING

DEVELOPING

BAILING FLOATING PRODUCT

Casing Diameter:

Screened Int. (ft.): _____

Calc. Casing Vol. (gal.): 3.38

2 inch

(2" = .17) (3" = .35) (4" = .69) (6" = 1.5)

3 inch _____

1002 Initial DTW (ft.): 9.74

Calc. Purge Vol. (gal.): 13.5

4 inch _____

6 inch _____

Initial TD (ft.): 29.62

Final DTW (ft.): _____

other _____

Casing Elev. (ft.): _____

Water Column Height (ft.): 19.88

Final TD (ft.): _____

TD (Actual) (ft.): _____

80 % Recovery (ft.): 13.72

Product Bailed (gal.): _____

FIELD MEASUREMENTS

| TIME | VOLUME (gal.) | pH (units) | TEMP. (degrees F) | E.C. (umhos/cm) | COLOR | DTW (ft dry) |
|-------------|------------------|---------------|----------------------|--------------------|-------------------------|-----------------|
| <u>1148</u> | <u>3</u> | <u>7.10</u> | <u>66.6</u> | <u>5.51 X 100</u> | <u>CLEAR - LT BROWN</u> | _____ |
| <u>1153</u> | <u>7</u> | <u>7.19</u> | <u>65.3</u> | <u>5.64 X 100</u> | <u>LT BROWN</u> | _____ |
| <u>1156</u> | <u>10</u> | <u>7.20</u> | <u>65.5</u> | <u>5.79 X 100</u> | <u>LT BROWN</u> | _____ |
| <u>1159</u> | <u>13.5</u> | <u>7.29</u> | <u>65.6</u> | <u>5.85 X 100</u> | <u>LT BROWN</u> | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ |

Odor? SLIGHT - BURNT RUBBER

Actual Purge Vol. (gal.): 13.5 gal

PURGE METHOD:

- Bailor (Teflon)
- Bailor (PVC)
- Well Wizard
- Dedicated Bailor
- Other _____

SAMPLE METHOD:

- Bailor (Teflon)
- Bailor (PVC)
- Dedicated Bailor
- Other _____

REMARKS: SAMPLES TAKEN @ 1210, 1215 PM

WEATHER: CLEAR, SUNNY, 70°

WATER DATA SHEET

PROJECT NO.: 12104
 LOCATION: _____
 STATION NO.: _____
 SAMPLER: W. Bapewick

SAMPLE ID.: MW2-041995
 DATE: 4/19/95
 WELL/SAMPLE _____
 POINT DESIGNATION: MW2

SAMPLING DEVELOPING BAILING FLOATING PRODUCT

Casing Diameter: _____ Screened Int. (ft.): _____ Calc. Casing Vol. (gal.): 3.18
 2 inch X _____ 1023 Initial DTW (ft.): 7.99 (2" = .17) (3" = .38) (4" = .66) (5" = 1.5)
 3 inch _____ Initial TD (ft.): 26.71 Calc. Purge Vol. (gal.): 13.0
 4 inch _____ Water Column Height (ft.): 13.72 Final DTW (ft.): _____
 6 inch _____ Final TD (ft.): _____
 other _____ TD (Actual) (ft.): _____ 80 % Recovery (ft.): 11.73 Product Bailed (gal.): _____
 Casing Elev. (ft.): _____

FIELD MEASUREMENTS

| TIME | VOLUME (gal.) | pH (units) | TEMP. (degrees F) | E.C. (umhos/cm) | COLOR | DTW (ft. dry) |
|-------------|---------------|-------------|-------------------|------------------|-----------------|---------------|
| <u>1247</u> | <u>3.25</u> | <u>7.58</u> | <u>69.6</u> | <u>5.65 X100</u> | <u>LT BROWN</u> | _____ |
| <u>1251</u> | <u>6.50</u> | <u>7.34</u> | <u>65.8</u> | <u>5.82 X100</u> | <u>LT BROWN</u> | _____ |
| <u>1254</u> | <u>9.75</u> | <u>7.43</u> | <u>65.5</u> | <u>6.06 X100</u> | <u>LT BROWN</u> | _____ |
| <u>1257</u> | <u>13.0</u> | <u>7.37</u> | <u>63.7</u> | <u>6.06 X100</u> | <u>LT BROWN</u> | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ |

Odor? NONE

Actual Purge Vol. (gal.): 13.0

PURGE METHOD:
 Bailer (Teflon)
 Bailer (PVC)
 Well Wizard
 Dedicated Bailer
 Other _____

SAMPLE METHOD:
 Bailer (Teflon)
 Bailer (PVC)
 Dedicated Bailer
 Other LUFT METALS FILTERED IN FIELD

REMARKS: Sample Taken @ 13:00, 13:12

WEATHER: _____

WATER DATA SHEET

PROJECT NO.: 12104

SAMPLE ID.: MW03-041995

LOCATION: Top Sic Chevy

DATE: 4/19/95

STATION NO.: _____

WELL/SAMPLE

SAMPLER: W. Brown, u

POINT DESIGNATION: MW03

SAMPLING DEVELOPING BAILING FLOATING PRODUCT

Casing Diameter: Screened Int. (ft.): _____ Calc. Casing Vol. (gal.): 3.34
 2 inch X 952 Initial DTW (ft.): 5.99 (2" = .17) (3" = .36) (4" = .66) (6" = 1.5)
 3 inch _____ Initial TD (ft.): 25.65 Calc. Purge Vol. (gal.): 14.0
 4 inch _____ Water Column Height (ft.): 19.66 Final DTW (ft.): _____
 6 inch _____ Final TD (ft.): _____
 other _____ TD (Actual) (ft.): _____ 80 % Recovery (ft.): 9.92 Product Bailed (gal.): _____

FIELD MEASUREMENTS

| TIME | VOLUME (gal.) | pH (units) | TEMP. (degrees F) | E.C. (umhos/cm) | COLOR | DTW (ft dry) |
|-------------|------------------|---------------|----------------------|--------------------|-----------------|-----------------|
| <u>1056</u> | <u>3.5</u> | <u>6.52</u> | <u>60.7</u> | <u>6.14 X100</u> | <u>LT BROWN</u> | _____ |
| <u>1058</u> | <u>7.0</u> | <u>6.90</u> | <u>61.7</u> | <u>5.01 X100</u> | <u>LT BROWN</u> | _____ |
| <u>1101</u> | <u>10.5</u> | <u>7.11</u> | <u>60.3</u> | <u>4.69 X100</u> | <u>LT BROWN</u> | _____ |
| <u>1103</u> | <u>14.0</u> | <u>7.07</u> | <u>62.0</u> | <u>5.21 X100</u> | <u>LT BROWN</u> | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ | _____ | _____ |

Odor? None

Actual Purge Vol. (gal.): 14.0

PURGE METHOD:
 Bailer (Teflon)
 Bailer (PVC)
 Well Wizard
 Dedicated Bailer
 Other _____

SAMPLE METHOD:
 Bailer (Teflon)
 Bailer (PVC)
 Dedicated Bailer
 Other _____

REMARKS: TOOK SAMPLE FROM 101

WEATHER: SEUNY, FAIR, 70'

APPENDIX C

**Chain-of-Custody Records
and
Certified Analytical Data**

Sample: MW01 041995

From : Joe Sio Chevrolet (Proj. # 12104)

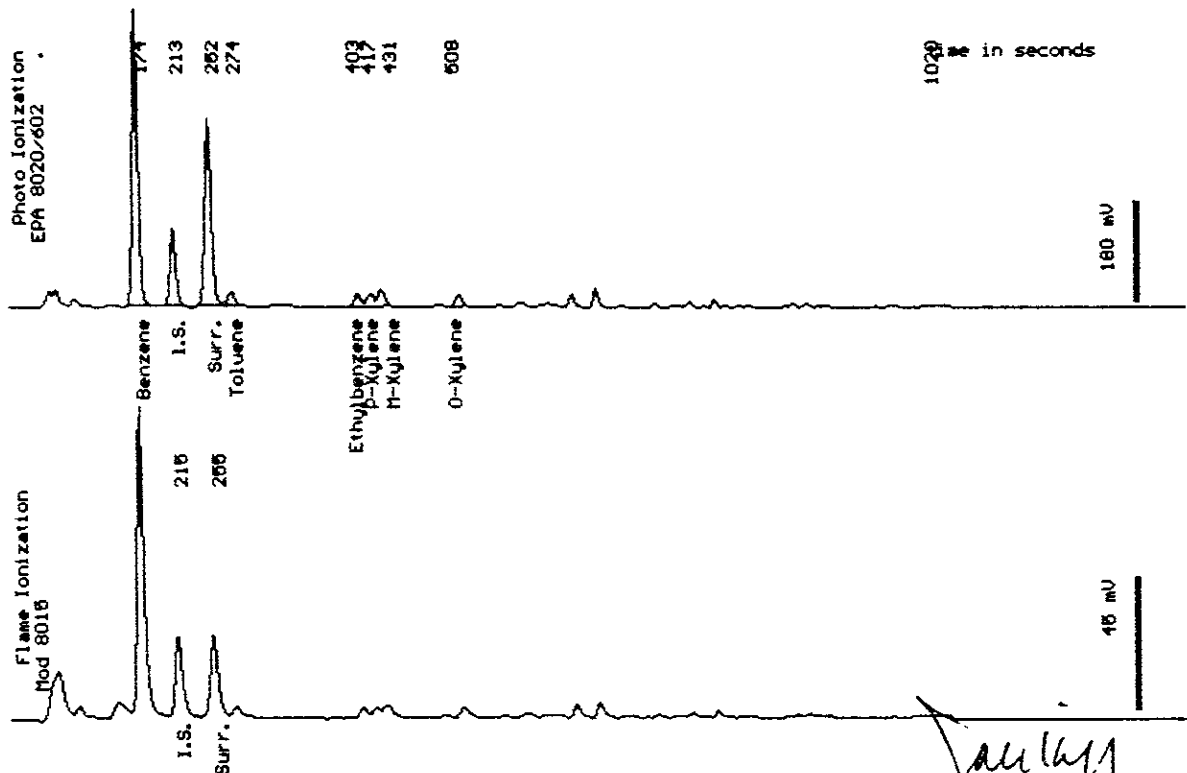
Sampled : 04/19/95

Dilution : 1:1

QC Batch : 2118V

Matrix : Water

| Parameter | (MRL) ug/L | Measured Value ug/L |
|--------------------|------------|---------------------|
| Benzene | (.30) | 69 |
| Toluene | (.30) | 3.7 |
| Ethylbenzene | (.30) | 3.7 |
| Total Xylenes | (.50) | 12 |
| TPH as Gasoline | (50) | 210 |
| Surrogate Recovery | | 101 % |



April 25, 1995
Sample Log 11788

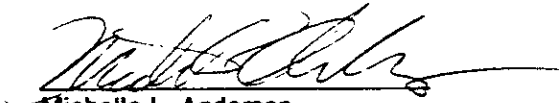
From : Joe Sio Chevrolet (Project # 12104)
Date Sampled : 04/19/95
Matrix : Water

Date Received : 04/19/95
Units : (mg/L)

Dissolved Lead by GFAA by SW-846 Method 7421

| <u>WEST ID</u> | <u>Sample ID</u> | <u>Result</u> | <u>MRL</u> | <u>Date Digested</u> | <u>Date Analyzed</u> |
|----------------|------------------|---------------|------------|----------------------|----------------------|
| 11788-02 | MW01 041995 | 0.018 | 0.003 | 04/24/95 | 04/25/95 |
| 11788-03 | MW02 041995 | <0.003 | 0.003 | 04/24/95 | 04/25/95 |

MRL = Method Reporting Limit


Michelle L. Anderson
Inorganics Supervisor

Sample: MW02 041995

From : Joe Sio Chevrolet (Proj. # 12104)

Sampled : 04/19/95

Dilution : 1:1

Matrix : Water

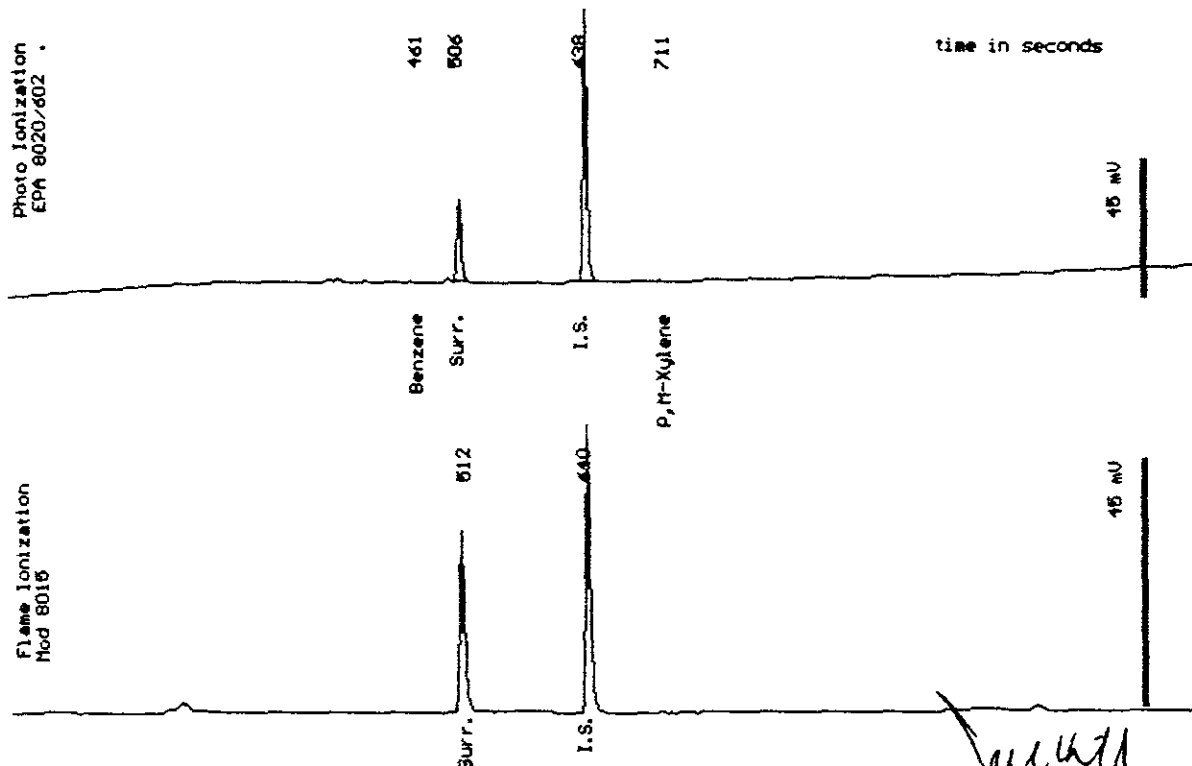
QC Batch : 6145S

| Parameter | (MRL) ug/L | Measured Value ug/L |
|-----------------|------------|---------------------|
| Benzene | (.30) | <.30 |
| Toluene | (.30) | <.30 |
| Ethylbenzene | (.30) | <.30 |
| Total Xylenes | (.50) | <.50 |
| TPH as Gasoline | (50) | <50 |

Surrogate Recovery

93 * %

* External standardization was used due to matrix interference.



Date Analyzed: 04-21-95
Column : 0.45mm ID X 75m DBURX (J&W Scientific)

Mitra Sarkhosh
Senior Chemist

Volatile Halocarbons

Sample Name : MW02 041995

Project Name : Joe Sio Chevrolet
Project Number : 12104
Sample Date : 04/19/95
Date Analyzed : 04/21/95
Analysis Method : EPA 601

Date Received : 04/19/95
Dilution : 1:1
Sample Matrix : Water
Lab Number : 11788-03

| Parameter | MRL | Measured Conc. | Units |
|---------------------------|------|----------------|------------|
| Chloromethane | 0.50 | < 0.50 | ug/L |
| Vinyl Chloride | 0.50 | < 0.50 | ug/L |
| Bromomethane | 0.50 | < 0.50 | ug/L |
| Chloroethane | 0.50 | < 0.50 | ug/L |
| Trichlorofluoromethane | 0.50 | < 0.50 | ug/L |
| 1,1-Dichloroethene | 0.50 | < 0.50 | ug/L |
| Dichloromethane | 0.50 | < 0.50 | ug/L |
| t-1,2-Dichloroethene | 0.50 | < 0.50 | ug/L |
| 1,1-Dichloroethane | 0.50 | < 0.50 | ug/L |
| c-1,2-Dichloroethene | 0.50 | < 0.50 | ug/L |
| Chloroform | 0.50 | < 0.50 | ug/L |
| 1,1,1-Trichloroethane | 0.50 | < 0.50 | ug/L |
| Carbon Tetrachloride | 0.50 | 0.83 | ug/L |
| 1,2-Dichloroethane | 0.50 | < 0.50 | ug/L |
| Trichloroethene | 0.50 | < 0.50 | ug/L |
| 1,2-Dichloropropane | 0.50 | < 0.50 | ug/L |
| Bromodichloromethane | 0.50 | < 0.50 | ug/L |
| c-1,3-Dichloropropene | 0.50 | < 0.50 | ug/L |
| t-1,3-Dichloropropene | 0.50 | < 0.50 | ug/L |
| 1,1,2-trichloroethane | 0.50 | < 0.50 | ug/L |
| Tetrachloroethene | 0.50 | 76 | ug/L |
| Dibromochloromethane | 0.50 | < 0.50 | ug/L |
| Chlorobenzene | 0.50 | < 0.50 | ug/L |
| Bromoform | 0.50 | < 0.50 | ug/L |
| 1,1,2,2-Tetrachloroethane | 0.50 | < 0.50 | ug/L |
| 1,3-Dichlorobenzene | 0.50 | < 0.50 | ug/L |
| 1,4-Dichlorobenzene | 0.50 | < 0.50 | ug/L |
| 1,2-Dichlorobenzene | 0.50 | < 0.50 | ug/L |
| 2-Chlorotoluene (Surr.) | | 98.7 | % Recovery |

MRL = Method Reporting Limit

Conc. = Concentration

Approved By :


Joe L. Kiff

Sample: MW03 041995

From : Joe Sio Chevrolet (Proj. # 12104)

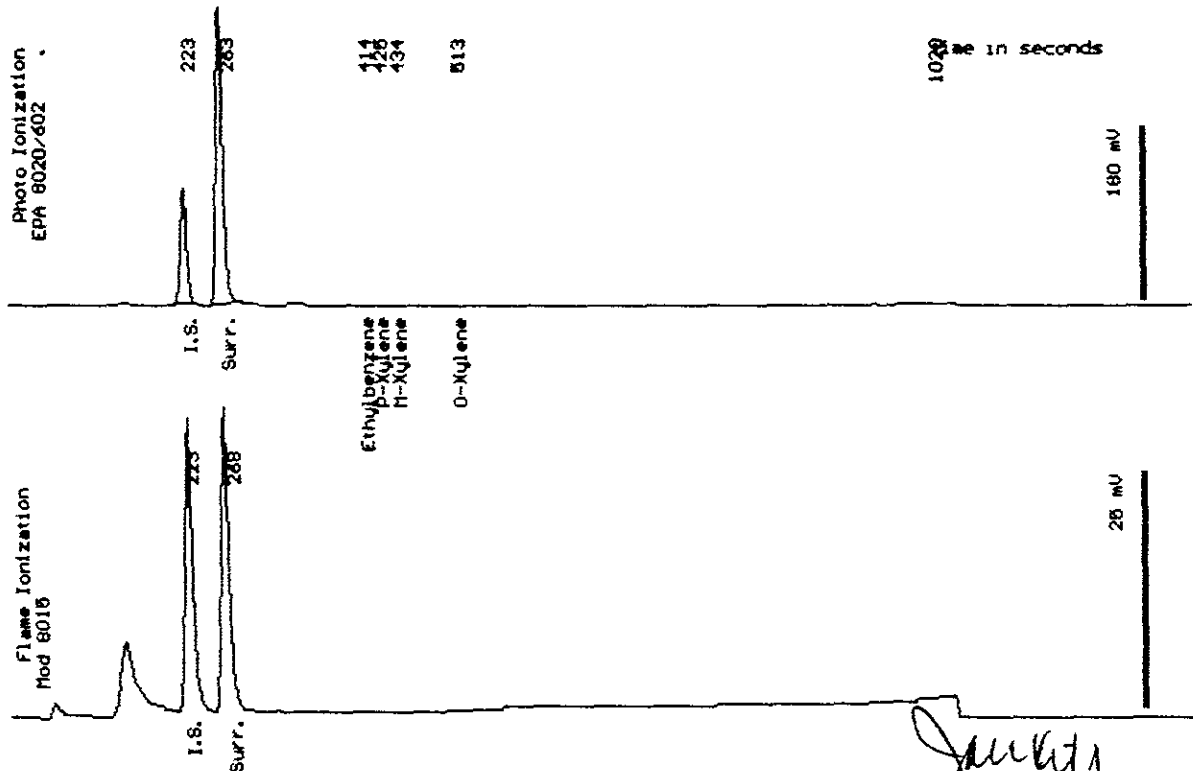
Sampled : 04/19/95

Dilution : 1:1

QC Batch : 2118V

Matrix : Water

| Parameter | (MRL) $\mu\text{g/L}$ | Measured Value $\mu\text{g/L}$ |
|--------------------|-----------------------|--------------------------------|
| Benzene | (.30) | <.30 |
| Toluene | (.30) | <.30 |
| Ethylbenzene | (.30) | <.30 |
| Total Xylenes | (.50) | <.50 |
| TPH as Gasoline | (50) | <50 |
| Surrogate Recovery | | 103 % |



Date Analyzed: 04-21-95
 Column : 0.53mm ID X 30m DBWAX (J&W Scientific)

Sarkhosh
 Mitra Sarkhosh
 Senior Chemist

April 25, 1995
Sample Log 11788-04

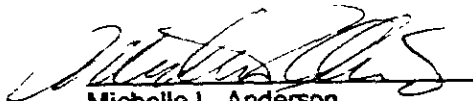
Sample : MW03 041995
From : Joe Sio Chevrolet (Project # 12104)
Matrix : Water

Date Sampled : 04/19/95
Date Received : 04/19/95
Units : (mg/L)

Dissolved Metals Analyses by ICP and GFAA by SW-846
5 LUFT : "Waste Oil" Metals

| <u>Analyte</u> | <u>Result</u> | <u>MRL</u> | <u>EPA Method</u> | <u>Date Digested</u> | <u>Date Analyzed</u> |
|----------------|---------------|------------|-------------------|----------------------|----------------------|
| Cadmium (Cd) | 0.0091 | 0.004 | 6010 | 04/24/95 | 04/25/95 |
| Chromium (Cr) | 0.019 | 0.007 | 6010 | 04/24/95 | 04/25/95 |
| Lead (Pb) | 0.068 | 0.006 | 7421 | 04/24/95 | 04/25/95 |
| Nickel (Ni) | 0.067 | 0.015 | 6010 | 04/24/95 | 04/25/95 |
| Zinc (Zn) | 1.3 | 0.010 | 6010 | 04/24/95 | 04/25/95 |

MRL = Method Reporting Limit



Michelle L. Anderson
Inorganics Supervisor

Sample: DW03 041995

From : Joe Sio Chevrolet (Proj. # 12104)

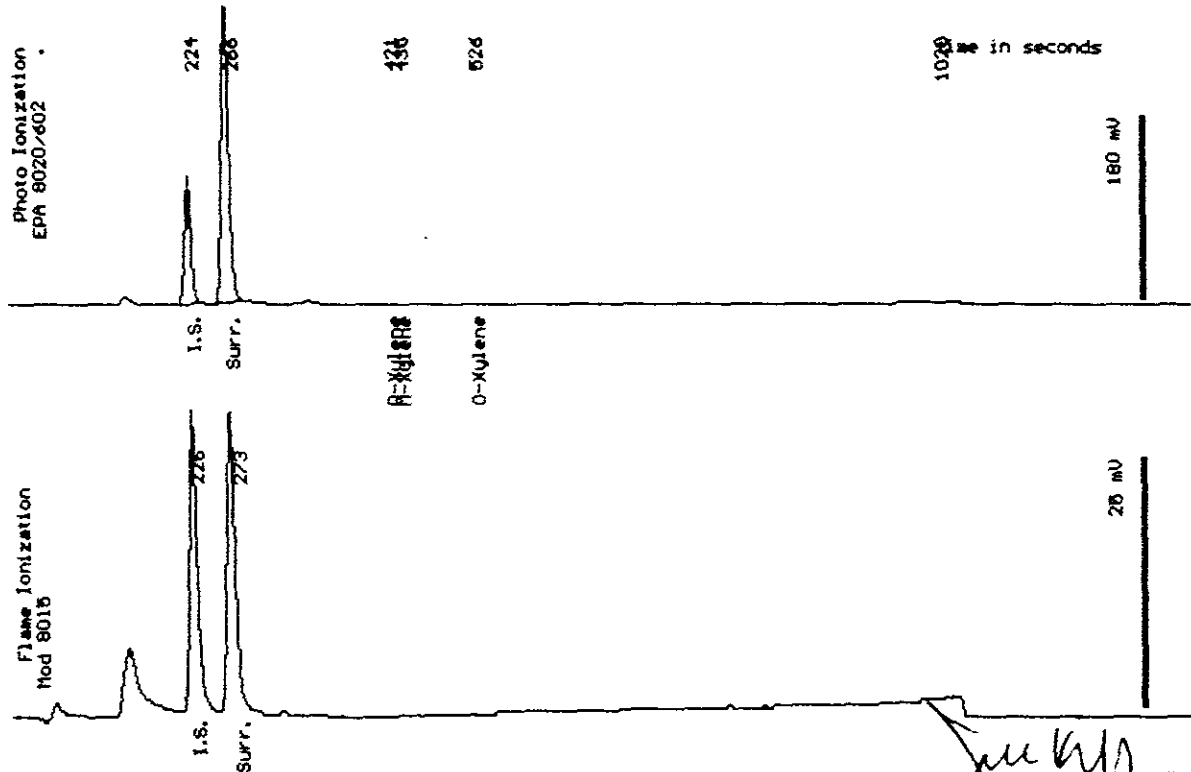
Sampled : 04/19/95

Dilution : 1:1

QC Batch : 2118V

Matrix : Water

| Parameter | (MRL) ug/L | Measured Value ug/L |
|--------------------|------------|---------------------|
| Benzene | (.30) | <.30 |
| Toluene | (.30) | <.30 |
| Ethylbenzene | (.30) | <.30 |
| Total Xylenes | (.50) | <.50 |
| TPH as Gasoline | (50) | <50 |
| Surrogate Recovery | | 102 % |



Sample: RS01 041995

From : Joe Sio Chevrolet (Proj. # 12104)

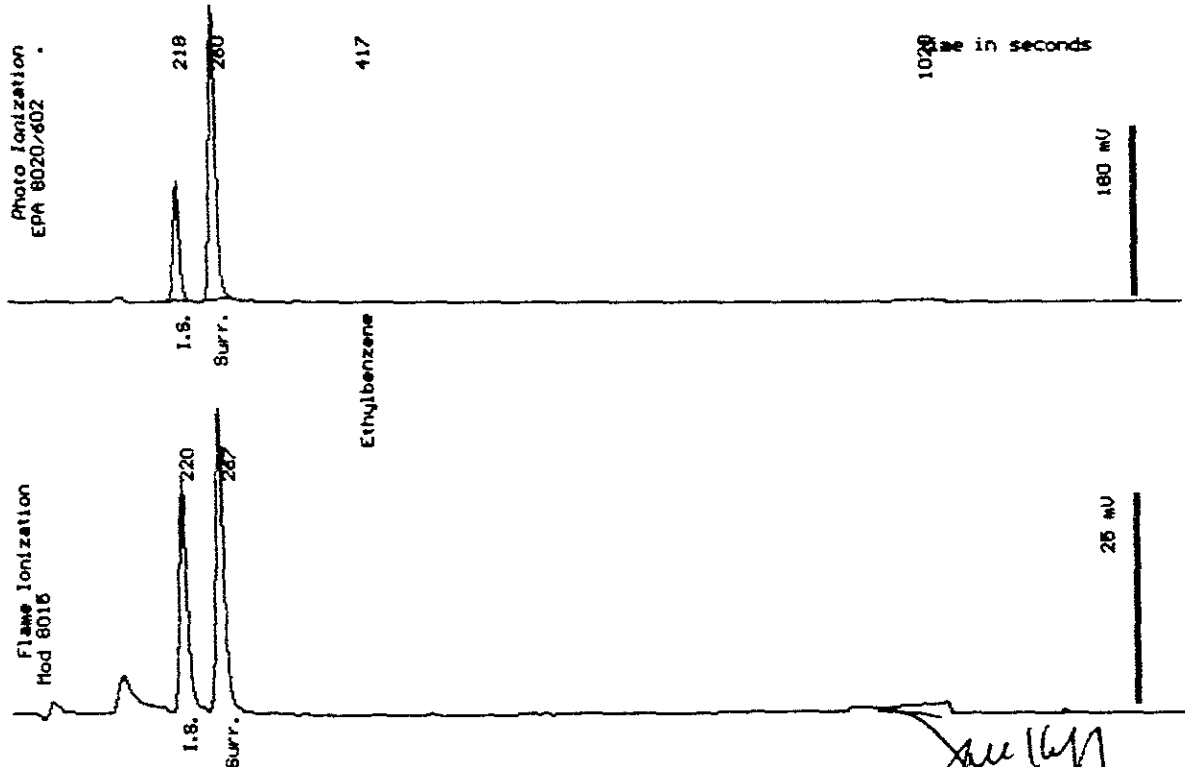
Sampled : 04/19/95

Dilution : 1:1

QC Batch : 2118V

Matrix : Water

| Parameter | (MRL) ug/L | Measured Value ug/L |
|--------------------|------------|---------------------|
| Benzene | (.30) | <.30 |
| Toluene | (.30) | <.30 |
| Ethylbenzene | (.30) | <.30 |
| Total Xylenes | (.50) | <.50 |
| TPH as Gasoline | (50) | <50 |
| Surrogate Recovery | | 99 % |




Project Name : Joe Sio Chevrolet
 Matrix : Water

Project Number : 12104

| Parameter | Analysis Method | Date Prep | Blank Conc. | Conc. Units | Spiked Sample | Un-Spiked Sample Conc. | MS Spiked Conc. | MS Meas. Conc. | MS % Recov. | MSD Spiked Conc. | MSD Meas. Conc. | MSD % Recov. | MS Recov. Limit | MS/MSD RPD | RPD Limit |
|---------------------------|-----------------|-----------|-------------|-------------|---------------|------------------------|-----------------|----------------|-------------|------------------|-----------------|--------------|-----------------|------------|-----------|
| Chloromethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| Vinyl Chloride | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| Bromomethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| Chloroethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| Trichlorofluoromethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| 1,1-Dichloroethene | EPA 601 | 04/20/95 | < 0.50 | ug/L | 11785-01 | < 0.50 | 20 | 19.5 | 97.5 | 20 | 20.3 | 102 | 70-130 | 4.51 | 20 |
| Dichloromethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| t-1,2-Dichloroethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| 1,1-Dichloroethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| c-1,2-Dichloroethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| Chloroform | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| 1,1,1-Trichloroethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| Carbon Tetrachloride | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| 1,2-Dichloroethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| Trichloroethene | EPA 601 | 04/20/95 | < 0.50 | ug/L | 11785-01 | < 0.50 | 20 | 20.3 | 102 | 20 | 20.4 | 102 | 70-130 | 0.000 | 20 |
| 1,2-Dichloropropane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| Bromodichloromethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| c-1,3-Dichloropropene | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| t-1,3-Dichloropropene | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| 1,1,2-trichloroethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| Tetrachloroethene | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| Dibromochloromethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| Chlorobenzene | EPA 601 | 04/20/95 | < 0.50 | ug/L | 11785-01 | < 0.50 | 20 | 18.7 | 93.5 | 20 | 18.9 | 94.5 | 70-130 | 1.06 | 20 |
| Bromoform | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| 1,1,2,2-Tetrachloroethane | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| 2-Chlorotoluene (Surr) | EPA 601 | 04/20/95 | 108 | % | | | | | | | | | | | |
| 1,3-Dichlorobenzene | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| 1,4-Dichlorobenzene | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |
| 1,2-Dichlorobenzene | EPA 601 | 04/20/95 | < 0.50 | ug/L | | | | | | | | | | | |

Conc. = Concentration

Approved By : 
 Joel L. King

April 25, 1995

Metals QC Report for Sample Log 11788

From : Joe Sio Chevrolet (Project # 12104)

Matrix : Water

Sample Spiked for MS/MSD : 11788-04

Units : (mg/L)

Method Blank

| Analyte | Result | MRL | EPA Method | Date Digested | Date Analyzed |
|-----------|--------|-------|------------|---------------|---------------|
| Lead (Pb) | <0.003 | 0.003 | 7421 | 04/24/95 | 04/25/95 |

MRL = Method Reporting Limit

Laboratory Control Sample (LCS)

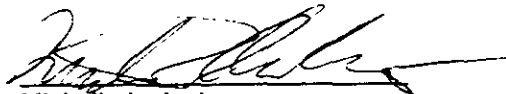
| Analyte | % Recovery | EPA Method | Date Digested | Date Analyzed |
|-----------|------------|------------|---------------|---------------|
| Lead (Pb) | 94 | 7421 | 04/24/95 | 04/25/95 |

LCS Limits are 85 - 115%.

Matrix Spikes

| Analyte | MS % Recov | MSD % Recov | RPD | EPA Method | Date Digested | Date Analyzed |
|-----------|------------|-------------|-----|------------|---------------|---------------|
| Lead (Pb) | 96 | 106 | 10 | 7421 | 04/24/95 | 04/25/95 |

MS = Matrix Spike MSD = Matrix Spike Duplicate RPD = Relative Percent Difference
Spike Recovery Limits for Matrix Spikes are 75 - 125%. The RPD Limits are $\pm 20\%$.



Michelle L. Anderson
Inorganics Supervisor

April 25, 1995

Metals QC Report for Sample Log 11788

From : Joe Sio Chevrolet (Project # 12104)

Matrix : Water

Units : (mg/L)

Method Blank

| Analyte | Result | MRL | EPA Method | Date Digested | Date Analyzed |
|---------------|--------|-------|------------|---------------|---------------|
| Cadmium (Cd) | <0.004 | 0.004 | 6010 | 04/24/95 | 04/25/95 |
| Chromium (Cr) | <0.007 | 0.007 | 6010 | 04/24/95 | 04/25/95 |
| Lead (Pb) | <0.003 | 0.003 | 7421 | 04/24/95 | 04/25/95 |
| Nickel (Ni) | <0.015 | 0.015 | 6010 | 04/24/95 | 04/25/95 |
| Zinc (Zn) | <0.010 | 0.010 | 6010 | 04/24/95 | 04/25/95 |

MRL = Method Reporting Limit

Blank Filtered on 4/20/95

| Analyte | Result | MRL | EPA Method | Date Digested | Date Analyzed |
|---------------|--------|-------|------------|---------------|---------------|
| Cadmium (Cd) | <0.004 | 0.004 | 6010 | 04/24/95 | 04/25/95 |
| Chromium (Cr) | <0.007 | 0.007 | 6010 | 04/24/95 | 04/25/95 |
| Lead (Pb) | <0.003 | 0.003 | 7421 | 04/24/95 | 04/25/95 |
| Nickel (Ni) | <0.015 | 0.015 | 6010 | 04/24/95 | 04/25/95 |
| Zinc (Zn) | <0.010 | 0.010 | 6010 | 04/24/95 | 04/25/95 |

MRL = Method Reporting Limit

Laboratory Control Sample (LCS)

| Analyte | % Recovery | EPA Method | Date Digested | Date Analyzed |
|---------------|------------|------------|---------------|---------------|
| Cadmium (Cd) | 115 | 6010 | 04/24/95 | 04/25/95 |
| Chromium (Cr) | 99 | 6010 | 04/24/95 | 04/25/95 |
| Lead (Pb) | 94 | 7421 | 04/24/95 | 04/25/95 |
| Nickel (Ni) | 103 | 6010 | 04/24/95 | 04/25/95 |
| Zinc (Zn) | 107 | 6010 | 04/24/95 | 04/25/95 |

LCS Limits are 85 - 115%.



Michelle L. Anderson
Inorganics Supervisor

April 25, 1995

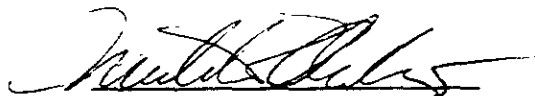
Metals QC Report for Sample Log 11788 (cont'd)

From : Joe Sio Chevrolet (Project # 12104)
Sample Spiked for MS/MSD : 11788-04 (ICP, GFAA)

Matrix Spikes

| Analyte | MS % Recov | MSD % Recov | RPD | EPA Method | Date Digested | Date Analyzed |
|---------------|---------------|----------------|-----|------------|------------------|------------------|
| Cadmium (Cd) | 114 | 114 | 0 | 6010 | 04/24/95 | 04/25/95 |
| Chromium (Cr) | 98 | 100 | 2 | 6010 | 04/24/95 | 04/25/95 |
| Lead (Pb) | 96 | 106 | 10 | 7421 | 04/24/95 | 04/25/95 |
| Nickel (Ni) | 101 | 102 | 1 | 6010 | 04/24/95 | 04/25/95 |
| Zinc (Zn) | 105 | 107 | 2 | 6010 | 04/24/95 | 04/25/95 |

MS = Matrix Spike MSD = Matrix Spike Duplicate RPD = Relative Percent Difference
Spike Recovery Limits for Matrix Spikes are 75 - 125%. RPD Limits are \pm 20%.


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Inorganics Supervisor

