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June 25, 1997

Mr. Scott Seery, CHMM
Environmental Protection Division, Suite 250
Alameda County Environmental Health Department
1131 Harbor Bay Parkway
Alameda, California 94502

Dear Mr. Seery:

On behalf of the Ingersoll-Rand Equipment Sales, Capsule Environmental Engineering, Inc., and our project partner, Braun Intertec Corporation, would like to submit the enclosed report, Quarterly Report January 1997 (Quarterly Report). This report is part of Ingersoll-Rand's corrective action activities to address the underground storage tank leak at 1944 Marina Boulevard, San Leandro.

The Quarterly Report was prepared to summarize the monitoring and corrective action activities for the period from November through January. It contains the results of both the January 1997 sampling events.

If you have any questions, comments, or need additional information cited in the report, please contact John McDermott at (800) 328-8246.

Sincerely,

John McDermott
Hydrogeologist
Capsule Environmental Engineering, Inc.

Gerald E. Stuth, P.E.
Senior Project Manager
Braun Intertec Corporation

JJM:cek
cc/enc: Kevin Graves/ Regional Water Quality Control Board, Oakland, CA
Robert Heindl/Ingersoll-Rand Equipment Sales, Bethlehem, PA (2 copies)
Tim Tinsley/Ingersoll-Rand Equipment Sales, San Leandro, CA (2 copies)
Michael Bakaldin/San Leandro Fire Department, San Leandro, CA

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Quarterly Report
January 1997

Prepared For:

Ingersoll-Rand
Equipment Sales
San Leandro, California

June 25, 1997

CAPSULE
ENVIRONMENTAL ENGINEERING, INC

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QUARTERLY REPORT
JANUARY 1997

Prepared For:

Ingersoll-Rand Equipment Sales
1944 Marina Boulevard
San Leandro, California 94577

June 25, 1997

Prepared By:

CAPSULE
ENVIRONMENTAL ENGINEERING INC
1970 Oakcrest Avenue, Suite 215
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TABLE OF CONTENTS

TABLE OF CONTENTS

APPENDICES

TABLES

FIGURES

1.0 INTRODUCTION

Ingersoll-Rand Company (I-R) has contracted with Capsule Environmental Engineering, Inc. (Capsule) to complete the implementation of the final corrective action design and related underground storage tank (UST) response activities for its equipment sales and maintenance facility at 1944 Marina Boulevard in San Leandro, California.

As part of these activities, Capsule prepares quarterly activities reports for the facility. The objectives of these reports are to:

- Provide a summary of corrective action activities including such work as the construction, sampling, and maintenance being conducted at the facility during the quarter
- Provide a benchmark of data and interpretation to evaluate the performance of corrective action activities
- Comply with Alameda County and city of San Leandro reporting requirements

The Quarterly Report January 1997 (January 1997 Report) provides the data and summary from the quarterly ground water monitoring event that was performed in January 20, 1997. Additionally, the January 1997 Report provides a brief summary of the continued operation of the redesigned soil vapor extraction (SVE) system, which was placed in service in early October 1995. The SVE system summary is for the period through January 1997.

1.1 SITE DESCRIPTION

I-R operates a construction equipment sales and maintenance facility at 1944 Marina Boulevard, San Leandro, Alameda County, California (see Figure 1). The eastern shore of San Francisco Bay is approximately 1.25 miles west of the facility. The local topography around the facility is fairly flat, sloping gently toward the bay. Facility land surface elevations range from 25 to 30 feet above sea level.

The facility is situated in an area of industrial and commercial development. It is bounded on the north by Southern Pacific railroad tracks and on the south by Marina Boulevard. Immediately to the west of the facility is a manufacturer of packaging materials. To the east is a closed office filing equipment manufacturer. The facility has perimeter fencing.

Until the first half of 1996, the property's building had two tenants. An office filing equipment manufacturer occupied the eastern portion of the building. The equipment manufacturer stopped operations in mid-1996. I-R occupies the western portion of the building, which consists of an office and parts distribution area attached to a large bayed service area. To the north and west of the building is an outdoor equipment storage yard. The stored equipment includes both new and used construction machinery. Drilling rigs,

compressors, compactors, and other construction equipment are commonly stored in this area while being readied for sale, repair, rental, and salvage.

1.2 UST ACTIVITIES CHRONOLOGY

A detailed UST chronology is provided in the Quarterly Report April 1995.

Generally, corrective action activities began with the submittal of a UST release report to the San Leandro Fire Department in 1989. Site investigation activities since 1989 include monitoring well and boring installation, ground water and soil sampling, and reporting.

In 1992, an SVE system consisting of one regenerative vacuum blower and four vent wells VW-1 through VW-4 were installed and operated for several months. System operation was discontinued when water levels rose and the system collected condensate. It is reported that 800 pounds of product was removed from vent well VW-3 during initial operation.

In late 1994, five additional SVE vent wells VW-5 through VW-9 were installed. These vent wells were installed to provide the SVE system with flexibility in vacuum configuration over a larger area including the downgradient property boundary.

Ground water sampling of monitoring wells was performed in November 1989. A sample was taken from MW-4 in November 1990. Since June 1994, quarterly sampling has occurred in select facility monitoring wells. The results indicated and confirmed the presence of gasoline-related volatile organic compounds (VOCs) and several chlorinated VOCs in low concentrations in site monitoring wells.

In March 1995, Alameda County directed I-R to conduct additional ground water assessment work as part of remedial activities. The additional assessment work was conducted in June and July 1995. The work included push probe-type borings and groundwater sampling. The assessment findings were reported in the October 1995 Quarterly Report.

In May 1995, SVE testing was conducted on all vent wells except VW-2. The testing results were used as the basis for a redesign of the SVE system. Construction of the redesigned system began in mid-September and was completed in early October. The original regenerative vacuum blower, which is connected to vent wells VW-1, VW-4, VW-5, VW-9, and three carbon vessels, described the new system.

The redesigned SVE system became operational during October 1995. The system is generally operated during the normal work week when facility personnel are available to perform permit-required daily air monitoring.

The facility received a December 8, 1995, letter from the State Water Resources Control Board, regarding interim guidance, in light of the October 1995 Lawrence Livermore National Laboratory report on leaking USTs. Additional supplemental instructions, prepared by the

San Francisco Bay Region, California Water Quality Control Board, to the December 8 letter were received by the facility on March 15, 1996.

In the spring of 1996, rainfall and high water levels adversely effected the operation of the SVE system. The high water levels rise into an area containing residual gasoline concentrations. The water partially obstructs air from moving through this area as long as the water table remains high. As a result, daily air monitoring showed lower influent concentrations. Additionally, more water collected in the system and had to be handled.

On October 16, 1996 the system operation was inspected and an air sample taken for laboratory analysis.

2.0 GROUND WATER DATA SUMMARY

The January 1997 ground water sampling event (January 1997 event) included monitoring wells MW-3, MW-4, and vent well VW-8. The January 1997 event was performed on January 20, 1997. Additionally, water levels were measured during the event in MW-1, MW-2, and VW-6. Figure 2 provides an overall site plan and sampling point locations.

The analytical results, the chain of custody forms, and stabilization tests can be found in Appendix A.

The June and October 1994 and the January 1995 sampling events included upgradient wells MW-1 and MW-2. During a March 2, 1995, telephone conference with Alameda County Health Care Services, it was agreed that no additional quarterly sampling of MW-1 and MW-2 would be necessary. VW-8 sampling was added to the sampling schedule during the June 1995 event to provide additional data on ground water conditions downgradient of the facility.

2.1 GROUND WATER LEVEL DATA

Depth-to-water measurements were collected as part of the January 1997 event. Field measurements recorded during the stabilization tests are attached in Appendix A. A summary of all water level data from wells and measuring point elevations is provided in Table 1.

During the January 1997 event, water level elevations beneath the facility ranged between 12.57 to 15.00 feet above sea level. Four of the six water level elevations are period of record highs. Water level elevation hydrographs for the four monitoring wells are presented in Figure 3. Overall, water level elevations across the facility were up 1.92 to 3.51 feet from the October 1996 measurements. Water level elevations were approximately 0.5 to 1.0 feet higher than the January 1996 elevations.

As can be seen in Figure 1, water level fluctuations are seasonal. Water levels rise during the wetter winter months and decline through the rest of the year.

During the period of record, the water levels have generally fluctuated from 3 to 5 feet.

Rainfall at the nearby San Leandro Marina rainfall gauge has varied from a low of 10.13 inches in the 1989 to 1990 water year to a high of 19.33 inches during the 1994 and 1995 water year (Alameda County, 1995). The October, November, December, 1996 and January, 1997 rainfall was 0.47, 1.93, 4.57, and 4.68 inches, respectively.

2.1.1 Ground Water Gradient

The shallow ground water in the area of the facility responds directly to seasonal rainfall. Water levels rise in response to higher rainfall in the late winter and early spring and decline through the lower rainfall periods of summer and fall.

As Figure 3 indicates, water level elevations in individual wells respond fairly uniformly. This uniform fluctuation results in generally consistent hydraulic gradients and ground water flows direction with time.

The general ground water flow direction remains to the southwest. Ground water contours for the January 1997 event are shown in Figure 4. A flexure developed within the ground water contours. The flexure is a trough-like feature in the contours, trending generally northeast to southwest. This feature is a seasonal phenomenon. It was also observed during the late 1994/early 1995 and during late 1995/early 1996. The feature has been reported and discussed in previous quarterly reports. The flexure is likely due to the water level rising into an area of higher permeability. In 1995 and 1996, the flexure dissipated as water levels declined throughout the late spring and early summer.

Overall, it is generally acknowledged that because of the interlayered nature of the shallow subsurface, it is likely contours are not as uniform as portrayed. Variations in soil particle size and permeability can cause local variations in flow direction.

2.1.2 Ground Water Flow Velocity

Ground water generally flows beneath the facility in a southwesterly direction. A ground water flow velocity estimate can be calculated from:

$$v = ki/n$$

where, v = ground water flow velocity (ft/day)
k = hydraulic conductivity (ft/day)
i = hydraulic gradient (ft/ft)
n = porosity (dimensionless)

The following list summarizes the variables and the information sources for an estimate of the variable value.

Variable	Estimate	Data Source
hydraulic conductivity (k)	9.0 ft/day[1]	IT Corporation, Data Summary Report, 1990
hydraulic gradient (I)	0.008	Capsule, Quarterly Monitoring Report, January 1997
porosity (n)	0.30 [2]	Freeze and Cherry (1979), Table 2.4

(1) From pumping test performed on MW-4

(2) The cited porosity range for sand was 25% to 40%. Based upon the silty and clay nature of the site's sand, 30% was selected.

A ground water velocity of 0.24 feet per day, or 88 feet per year was calculated from these estimates. This velocity is considered low. Appendix B presents the velocity calculations. For comparison purposes, the velocity estimate from the January 1996 measurements was 0.22 feet per day or 77 feet per year.

2.2 GROUND WATER ANALYTICAL DATA

The January 1997 event water samples were analyzed using United States Environmental Protection Agency (EPA) Methods 8015, 8020, and 8260. The analytical results are presented in Table 2.

In the monitoring wells, no new aromatic or chlorinated VOCs were detected during the January 1997 event. Both MW-3 and MW-4 concentrations were generally lower than results from January 1996 event. An exception was benzene in MW-4 which was similar to slightly higher during the January 1997 event. The sample collected from VW-8 detected lower concentrations of gasoline constituents than January 1996.

The January 1997 analytical results for MW-4 reported elevated detections limits due to a necessary dilution. (See February 7, 1997 Clayton letter in Appendix A.) This dilution resulted in detections limits that are two times higher than previous detection limits.

During the April 1996 event the laboratory added methyl-tert-butyl ether (MTBE) to the EPA 8260 compound list. This compound was not detected in the January 1997 samples.

Additional discussion is provided below on individual chlorinated and aromatic organic compounds.

In most instances, the laboratory-reported concentrations of the benzene, ethylbenzene, toluene, xylene (BETX) compounds are different, but similar, for EPA methods 8020 and 8260. This is due to different analytical procedures as well as the reproducibility of results. For comparison and graphing purposes, the higher of the two values is used.

While the water samples were not collected from a public water source, the California maximum contaminant levels (MCLs) are presented for comparison purposes with the detected concentrations. The list of MCLs comes from the EPA, Region IX's publication Drinking Water Standards and Health Advisories Table, dated December 1995.

2.2.1 Chlorinated Organics

Chlorinated VOC detections have been found in monitoring wells.

2.2.1.1 Trichloroethene (TCE)

Throughout the MW-1 and MW-2 period of record, 1989 through 1994, these two upgradient wells have consistently shown TCE detections ranging from 5 to 29 micrograms/liter (μg/l).

Department of Toxic Substance Control information indicates that TCE is a widely occurring VOC found in the shallow ground water in the San Leandro area (WCC, 1993). Given this information and the occurrences in upgradient wells, it likely that the TCE-impacted ground water detected in MW-1 and MW-2 is flowing onto the facility from an upgradient source.

By agreement with Alameda County, these wells have not been sampled since the January 1995 event.

TCE was not detected in MW-4.

Prior TCE detections in MW-4 were intermittent, ranging from nondetect to 27 μg/l. MW-4 is on the downgradient side of the facility. No TCE was detected in the sampling of MW-3 or VW-8.

The California MCL for trichloroethene is 0.005 milligrams/liter (mg/l) or 5 μg/l.

2.2.1.2 1,2-Dichloroethene

No cis-1,2-dichloroethene was detected during the January 1997 event.

Over the period of record, cis-1,2-dichloroethene has been detected in OB-1. Detections in OB-1 ranged from 6.7 to 12 μg/l. Potential sources of these low concentrations include breakdown products of TCE and as a manufacturing artifact of TCE.

Cis-1,2-dichloroethene was also detected in VW-9 at 6 μg/l during the June 1995 sampling event.

The California MCL for cis-1,2-dichloroethylene is 0.006 mg/l or 6 μg/l.

No trans-1,2-dichloroethene was detected during the January 1997 event.

Over the period of record, trans-1,2-dichloroethene has been intermittently detected in MW-4 and OB-1. Previous MW-4 concentrations range from nondetect to 16 μg/l. Past detections in OB-1 ranged from

10 to 15 μg/l. Potential sources of these concentrations include breakdown products of TCE and as a manufacturing artifact of TCE.

The California MCL for trans-1,2-dichloroethylene is 0.010 mg/l or 10 μg/l.

2.2.1.3 Chlorobenzene

During the January 1997, chlorobenzene was not detected. In previous sampling events, chlorobenzene results in MW-3 ranged from nondetect to 19 μg/l. Typical uses for the compound are as a solvent, in heat transfer, and in the production of pesticides. (Sax and Lewis, 1987).

The California MCL for monochlorobenzene (chlorobenzene) is 0.070 mg/l or 70 μg/l.

2.2.1.4 Dichlorobenzene Isomers

The three isomers of dichlorobenzene were not detected in MW-3 during the January 1997 event. For the period of record the individual concentrations have ranged from 5 to 69 μg/l. The three isomers, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene have a wide variety of uses including use as a solvent, in dye manufacturing, insecticides, and industrial odor control. The isomers 1,3- and 1,4-dichlorobenzene are generally used in fumigants and insecticides. (Sax and Lewis, 1987).

During the January 1997 event, 1,4-dichlorobenzene was not detected in MW-3. Previous detections ranged from 11 to 18 μg/l. Isomer 1,3-dichlorobenzene was not detected. Previous detections ranged from 5 to 9 μg/l. Isomer 1,2-dichlorobenzene was not detected in MW-3. Previous detections ranged from 42 to 64 μg/l.

Isomer 1,4-dichlorobenzene has a California MCL, which is .005 mg/l or 5 μg/l and 1,2-dichlorobenzene has a California MCL, which is 0.6 mg/l or 600 μg/l. There is no California MCL for 1,3-dichlorobenzene. There is a California action level of 130 μg/l for a single isomer of either 1,2 or 1,3. There is also a California action level of 130 μg/l for a sum of these two isomers.

2.2.1.5 1,2 Dichloroethane

During the January 1997 event, 1,2 dichloroethane was not detected. Previously there have been two occurrences in MW-4, one during June 1994 and the other during June 1995. Both results were 11 μg/l.

As a note of clarification, reports prior to the January 1996 quarterly report mistakenly stated that the 1,2 dichloroethane detections were in MW-3, when they were actually from MW-4.

Typical uses for the compound include use as a solvent and as a lead scavenger in anti-knock gasoline.

During the January 1997 event, 1,2 dichloroethane was not detected in a ground water sample collected from VW-8. The June 1995 event indicated 6 μg/l. Since the June 1995 result, six successive quarterly results have not detected 1,2 dichloroethane.

The California MCL for 1,2 dichloroethane is 0.0005 mg/l or 0.5 μg/l.

2.2.2 Aromatic Organics

During the January 1997 event, several gasoline component VOCs continued to be detected in samples from monitoring wells MW-3, MW-4, and VW-8. Each detected VOC is discussed in the following sections. Most concentrations were markedly lower than those for the previous January events.

2.2.2.1 Benzene

During the January 1997 event, benzene was detected in MW-3 at 180 μg/l. This concentration compares to the 290 μg/l detected in January 1996. Previous benzene concentrations ranged from 9 μg/l in October 1994 to 1,200 μg/l in April 1995.

Benzene concentration increases have occurred between October and January in 1995, 1996 and 1997. Overall, the increases are attributed to increased precipitation, a higher late winter water table, and the accompanying flushing of residual gasoline constituents from soils in the area of MW-3, which is near the former gasoline UST site.

Benzene was detected in MW-4 at 250 μg/l. This is comparable to slightly higher than the January 1996 concentration of 180 μg/l. Concentrations for the period of record ranged from 180 to 600 μg/l. A questionable sample from late 1990 reported 1,500 μg/l.

Benzene was detected in VW-8 at 14 μg/l. This value is comparable to the January 1996 concentration of 18 μg/l.

The California MCL for benzene is 0.001 mg/l or 1 μg/l.

2.2.2.2 Ethylbenzene

Ethylbenzene is another gasoline constituent detected in MW-3, MW-4, and VW-8. During the January 1997 sampling event, concentrations ranged from 58 to 270 μg/l.

The ethylbenzene concentration detected in MW-3 was 17 μg/l. This is the period of record low concentration for MW-3. During the January 1996 event, 160 μg/l was detected. For the period of record, MW-3 ethylbenzene concentrations ranged from 17 to 720 μg/l. During the January 1997 sampling event, the ethylbenzene concentration in MW-4 was 410 μg/l. For the January 1996 event the concentration was 310 μg/l. Previous detections ranged from 230 to 720 μg/l.

Ethylbenzene was also detected in VW-8 at a concentration of 30 μg/l. The January 1996 concentration was 7.2 μg/l . As a note, the January 1996 result was questionable because of a sample heterogeneity issue, which was discussed in the January 1996 Quarterly Report.

The California MCL for ethylbenzene is 0.7 mg/l or 700 μg/l.

2.2.2.3 Toluene

Toluene detections in MW-3, MW-4, and VW-8 were 9, 2.8, and 7 μg/l, respectively.

Previous detections in MW-3 have ranged from 4 to 1,700 μg/l. The January 1997 concentration of 9 μg/l compares with the January 1996 result of 48 μg/l. As with other BETX compounds, toluene concentrations fluctuate seasonally.

Previous MW-4 toluene concentrations range from 6 to 110 μg/l. The 2.8 μg/l detected during the January 1997 event was the lowest observed in the period of record.

The VW-8 toluene concentration was 7 μg/l. VW-8 toluene concentrations have ranged from 0.3 to 570 μg/l for the period of record, which began in June 1995.

The California MCL for toluene is 0.150 mg/l or 150 μg/l.

2.2.2.4 Isomers of Xylene

All three isomers of xylene were detected in MW-3, MW-4, and VW-8 during the January 1997 sampling event.

O-xylene was detected at 250 μg/l in MW-3. Previous MW-3 concentrations of o-xylene ranged from 24 to 940 μg/l with the lowest value occurring during the October 1996 sampling event. P and m-xylenes were detected at 99 μg/l in MW-3. Previous MW-3 concentrations of p and m-xylenes ranged from 41 to 2,100 μg/l.

In MW-4 o-xylene was detected 10 μg/l. Previous MW-4 concentrations ranged from 9.3 to 320 μg/l for o-xylene. P and m-xylenes were detected at 210 μg/l. Previous MW-4 concentrations ranged from 170 to 730 μg/l. The o-xylene concentration was an order of magnitude lower than detected during the January 1996 sampling event.

Xylene isomers were also detected in VW-8. O-xylene was detected in VW-8 at 15 μg/l.

O-xylene concentrations have ranged from <0.4 to 130 μg/l for the period of record, which began in June 1995. P and m-xylenes were detected in VW-8 at 42 μg/l. P and m-xylene concentrations ranged from <0.4 to 210 μg/l for the period of record, which began in June 1995.

The California MCL for xylenes is 1.75 mg/l or 1,750 μg/l, for either a single isomer or the sum of the isomers.

2.2.2.5 Napthalene

During the January 1997 event, naphthalene was detected in MW-3, MW-4, and VW-8.

Naphthalene was detected at 28 μg/l in MW-3. Previous MW-3 concentrations ranged from 6 to 150 μg/l. The January 1996 concentration was 85 μg/l. Throughout the period of record the higher concentrations correlate with wetter periods. As with the BETX compounds, the naphthalene concentration appears associated with flushing of residual gasoline in the MW-3 area.

The MW-4 concentration was 70 μg/l. Previous MW-4 concentrations range from 32 to 120 μg/l.

Naphthalene was detected in VW-8 at 6 μg/l. Previous results ranged from <5 and 46 μg/l for the sampling period which began in June 1995.

There is no California MCL for napthalene.

2.2.2.6 Trimethylbenzene

Both 1,2,4 and 1,3,5 trimethylbenzene were detected in MW-3, MW-4, and VW-8.

The compound 1,2,4 trimethylbenzene was detected at 68 μg/l in MW-3 during the January 1997 event. Previous MW-3 concentrations range from 54 to 650 μg/l. The January 1996 concentration was 390. 1,3,5 trimethylbenzene was detected at 10 μg/l in MW-3. The January 1996 concentration was 110 μg/l. Previous MW-3 concentrations range from 22 to 160 μg/l. As with the BETX compounds, the fluctuating trimethylbenzene concentrations appear to be the response to residual gasoline constituent flushing from the soil near the MW-3 area.

During the January 1997 event, 1,2,4 trimethylbenzene was detected at 500 μg/l in MW-4. Previous MW-4 concentrations range from 180 to 600 μg/l. In MW-4, 1,3,5 trimethylbenzene was detected at 90 μg/l. Previous MW-4 concentrations range from 44 to 130 μg/l.

During the January 1997 event, 1,2,4 trimethylbenzene was detected in VW-8 at 29μg/l. Previous concentrations ranged from <5 to 270 μg/l. 1,3,5 trimethylbenzene was detected at 9 μg/l. Previous concentrations ranged from <5 to 61 μg/l.

There is no California MCL for trimethylbenzene.

2.2.2.7 Other Gasoline Components

Throughout the period of record, a number of other gasoline-related VOCs have also been detected in MW-3, MW-4, and OB-1. Concentrations of n-butylbenzene, isopropylbenzene (cumene), sec-butylbenzene, and n-propylbenzene have been detected during sampling events.

During the January 1997 1996 event, these VOCs were detected in concentrations similar to those of previous sampling. Individual concentrations were generally less than 50 μg/l with several previously detected compounds being not detected during the January 1997 event.

2.2.2.8 Total Petroleum Hydrocarbons (TPH) as Gasoline

TPH, as gasoline, was detected at 1,200 μg/l in MW-3 during the January 1997 event. This was a period of record low for MW-3. Previous detections ranged from 1,600 to 14,000 μg/l. Fluctuating TPH concentrations in MW-3 appear to be seasonally related. Higher concentrations appear in the wetter months.

MW-3 is located near the former tank area.

The TPH concentration in MW-4 was 6,400 μg/l. For the period of record, MW-4 concentrations ranged from 5,900 to 9,700 μg/l.

The VW-8 concentration was 620 μg/l. Previous results ranged from <5 to 5,300 μg/l for the period of record that began in June 1995. (The <5 μg/l value is from the January 1996 sample. As previously discussed in the January 1996 quarterly report, there is a laboratory-described "heterogeneity" with this sample.)

3.0 SOIL VAPOR EXTRACTION SYSTEM ACTIVITY SUMMARY

This portion of the January 1997 Report summarizes the activities and status of the SVE system operation.

3.1 SVE System Background

A SVE system was originally installed in 1992. Operational difficulties due to high water levels limited the effectiveness of the system. During late 1994 additional SVE vents were installed. In early 1995 the system was redesigned. Construction of the redesigned SVE system was accomplished during September 1995.

Startup and operation of the redesigned SVE system began the week of October 2, 1995. Vent wells VW-1, VW-4, VW-5, and VW-9 are the currently used extraction points. Extracted air passes through three carbon vessels in series to remove the volatile organic compounds from the SVE system discharge.

On October 3, 1995, a 4-liter charcoal tube air sample was collected from the blower discharge prior to the first carbon vessel. The sample was submitted to the laboratory for chemical analysis of BETX and total hydrocarbons (THC) as gasoline. Based upon a THC (as gasoline) result of 880,000 $\mu g/m^3$ and a blower discharge of 118 cubic feet per minute, the mass removal rate of the system on October 3 was calculated to be 1.58 gallons of gasoline per day.

The SVE system operates continuously during the normal, five day work week. The SVE system is typically not operated on weekends. The air permit requires daily air discharge monitoring. The facility is closed on weekends, so personnel are not available to perform the required air monitoring.

3.2 SVE System Operations During the Quarter

From November 1 thru January 31, 1997, the SVE system was operated 37 days. There were 62 weekdays available for operation for the period. Major limiting factors in operation were weather conditions, an electrical problem and maintenance on the photoionization detector.

As an air permit condition, daily readings are taken from the system with a photoionization detection meter (PID). Table 3 provides a summary of the daily PID readings from the SVE system. Figure 5 shows the time series of OVM readings.

4.0 CONCLUSIONS

The conclusions combine observations, data, and evaluation for the January 1997 sampling event and past site work. Publicly available hydrogeologic and ground water contamination studies were also used in the evaluation. The conclusions also draw upon the SVE system operational data.

The shallow geologic setting beneath the facility is a sequence of fill, silts, clays, and sands that have been mapped as fluvial deposits. The depth to ground water varies seasonally. Over the last seven quarters of monitoring, the water table has fluctuated approximately 3 feet. During this period, water levels were at their highest in early 1995.

Water levels were at period of record highs during the January 1997 event.

The shallow ground water flows through a sequence of saturated sands, silts, and clays. During the January 1997 event, the ground water gradient was 0.008. Across the site the water table elevation varied from 12.71 to 15.00 feet above sea level and its velocity is estimated at 88 feet per year. Ground water flow is to the southwest.

The January ground water levels are typical of the facility monitoring wells that show a seasonal trend with higher late winter and early spring elevations.

Seasonally, ground water levels in individual facility monitoring wells respond fairly uniformly.

Gasoline constituent and some chlorinated VOCs continue to be detected in monitoring wells.

Gasoline constituents were detected in three ground water sampling points downgradient of the facility.

Gasoline constituent VOCs continue to be detected in the MW-4 near the facility's downgradient boundary. Generally, gasoline constituent VOC concentrations continue to decline in MW-4.

BETX constituent concentrations from the monitoring well MW-3, near the former UST, continued to decline.

Daily SVE influent monitoring shows declining concentrations from the October 1995 startup of the redesigned system to present.

5.0 ACTIVITIES STATUS SUMMARY

The following corrective action activities are either in progress or planned for the coming months.

- Continue to operate, monitor, and maintain the SVE system.
- Collect SVE system air samples for analysis and mass removal calculations.
- Continue ground water monitoring.

6.0 RECOMMENDATIONS

6.1 RECOMMENDATION 1

The SVE system should continue to operate to maximize the removal of remaining gasoline constituents from the soil. Continued daily air monitoring will provide another quarter to observe the asymptotic trend that appears to be developing.

The system should be operated as much as possible, recognizing the operational constraints of the air permit conditions, including the requirement to do daily monitoring of the system effluent. This requirement limits system operation to the business work week.

6.2 RECOMMENDATION 2

Use the January 12, 1996 Supplemental Instructions, issued by the San Francisco Bay Region of the California Regional Water Quality Control Board, to develop a technical case for the site as a low risk ground water site.

7.0 REFERENCES

Alameda County, 1995, faxed precipitation data from the Alameda County Flood Control and Water Conservation District, Water Resources Section, Oakland, California.

Hickenbottom, K. and Muir, K., Geohydrology and Ground water-Quality Overview of the East Bay Plain Area, Alameda County, California 2005 (j) Report, Alameda County Flood Control and Water Conservation District, Oakland, California.

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IT Environmental Services, 1989, Problem Assessment Report, prepared for: Ingersoll-Rand Incorporated, Martinez, California.

Sax, N.I, and R. J. Lewis, 1987, Hawley's Condensed Chemical Dictionary, Van Nostrand Reinhold, New York.

Woodward-Clyde Consultants, 1993, Hydrogeology of Central San Leandro and Remedial Investigation of Regional Ground water Contamination San Leandro Plume, San Leandro, California, prepared for the California Environmental Protection Agency, Oakland, California.

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

February 12, 1997

Mr. John J. McDermott
Hydrogeologist
Capsule Environmental Engineering, Inc.
1970 Oakcrest Avenue, Suite 215
St. Paul, Minnesota 55113-2624

Clayton Project No. 97182.00

Subject: Analytical Reports for Groundwater Monitoring and Sampling at the Ingersoll-Rand Facility in San Leandro, California

Dear Mr. McDermott:

Clayton Environmental Consultants, Inc. is pleased to transmit the attached analytical reports for the groundwater samples collected on January 20, 1997 at the Ingersoll-Rand facility located at 1944 Marina Boulevard in San Leandro, California.

Upon arrival at the site on January 20, 1997, Clayton measured the depth to groundwater in monitoring wells MW-1 through MW-4 and VW-6 and VW-8. Stagnant water in the monitoring wells MW-3, MW-4, and VW-8 was purged using a 2-inch submersible pump. Approximately four to five times the well volume was pumped from each well to ensure water representative of the aquifer was present in the wells. Well volumes were calculated using depth to groundwater and total well depth measurements which were recorded to the nearest 0.01 foot upon arrival at the site. The purging was continued until sufficient volume of water had been purged for pH, temperature, and electrical conductivity to stabilize.

The following parameters were noted during the sampling activities:

- Monitoring well identification
- Static water level
- Well depth
- Condition of water before purging (e.g., amount of free product)
- Purge rate and volume
- pH, temperature, and conductivity during purging
- Time purged
- Time of sample collection
- Sampling method
- Name of sampler
- Climatic conditions

The water sample was collected using a new disposable bailer. All other equipment coming into contact with groundwater was thoroughly cleaned and decontaminated before use. Details of the groundwater monitoring and sampling event are, including depth to water measurements, provided in the water sampling field survey forms (Appendix A).

Groundwater samples were transferred into clean laboratory-supplied containers that were closed, labeled, placed immediately into an ice chest, and transported to Clayton's state-certified laboratory for analysis. In addition one trip blank and one trip blank was furnished in accordance with your quality assurance/quality control (QA/QC) program.

Groundwater samples were collected in such a manner to minimize the volatilization of a sample due to agitation and/or transfer from bailer to sample container. To document and trace samples from time of collection, a signed chain-of-custody record was completed by the sampler and accompanied the samples through the laboratory analyses. The completed chain-of-custody was included with the analytical report from the laboratory.

The groundwater generated during the sampling activities was placed in a Department of Transportation (DOT) approved 55-gallon drum. This drum was labeled and was left onsite.

The groundwater samples were analyzed using the following United States Environmental Protection Agency (USEPA) methods:

- USEPA Method 8015-M for total petroleum hydrocarbons as gasoline (TPH-G)
- USEPA Method 8020 for benzene, toluene, ethylbenzene and xylenes (BTEX)
- USEPA Method 8260 for volatile organic compounds (VOCs)

The analytical reports are included as Appendix B to this report.

According to Clayton's laboratory, reporting levels for monitoring well MW-4 for EPA Method 8260A was elevated due to high levels of contaminants. The samples had to be diluted for quantitation thus elevating the reporting levels in the report.

Should you have any questions regarding the sampling event, please contact us at (510) 426-2600.

Sincerely,

Richard J. Silva, R.E.A.
Geologist

RJS/rs
Enclosures

APPENDIX B

ANALYTICAL REPORTS

San Francisco Regional Office

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

February 07, 1997

Mr. Richard Silva
CLAYTON ENVIRONMENTAL CONSULTANTS, INC.
1252 Quarry Lane
Pleasanton, CA 94566

Client Reference: 97182.00
Clayton Project No.: SF9701211

Dear Mr. Silva:

Attached is our analytical laboratory report for the samples received on January 20, 1997. Also enclosed is a copy of the Chain-of-Custody record acknowledging receipt of these samples.

Detection limits are elevated for sample MW-4 for EPA Method 8260A due to dilution necessary for quantitation. The Gas/BTEX results for sample Trip Blank come from an analysis with headspace due to limited sample volume and should be considered estimated concentrations. Please note that the recoveries for the EPA Method 8260A surrogate Bromofluorobenzene are based on a single point calibration from the blank.

Please note that any unused portion of the samples will be discarded 30 days from the date of this letter, unless you have requested otherwise.

We appreciate the opportunity to assist you. If you have questions regarding this report, please contact Suzanne Haus, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Andrew Bradleen for

Harriotte A. Hurley, CIH
Director, Laboratory Services
San Francisco Regional Office

HAH/tjb

Attachments

California DHS ELAP Certification Number 1196

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	MW-3	Project ID:	SF9701211
Sample Number:	SF9701211-1	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
8260, Volatile Organics				
Acetone	67-64-1	ND	ug/L	20
Benzene	71-43-2	180	ug/L	5
Bromobenzene	108-86-1	ND	ug/L	5
Bromochloromethane	74-97-5	ND	ug/L	5
Bromodichloromethane	75-27-4	ND	ug/L	5
Bromoform	75-25-2	ND	ug/L	5
Bromomethane	74-83-9	ND	ug/L	5
2-Butanone	78-93-3	ND	ug/L	20
tert-Butylbenzene	98-08-6	ND	ug/L	5
sec-Butylbenzene	135-98-8	ND	ug/L	5
n-Butylbenzene	104-51-8	ND	ug/L	5
Carbon Disulfide	75-15-0	ND	ug/L	5
Carbon tetrachloride	56-23-5	ND	ug/L	5
Chlorobenzene	108-90-7	ND	ug/L	5
Chloroethane	75-00-3	ND	ug/L	5
2-Chloroethylvinyl ether	110-75-8	ND	ug/L	5
Chloroform	67-66-3	ND	ug/L	5
Chloromethane	74-87-3	ND	ug/L	5
4-Chlorotoluene	106-43-4	ND	ug/L	5
2-Chlorotoluene	95-49-8	ND	ug/L	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	ug/L	5
Dibromochloromethane	124-48-1	ND	ug/L	5
1,2-Dibromoethane	106-93-4	ND	ug/L	5
Dibromomethane	74-95-3	ND	ug/L	5
1,4-Dichlorobenzene	106-46-7	ND	ug/L	5
1,3-Dichlorobenzene	541-73-1	ND	ug/L	5
1,2-Dichlorobenzene	95-50-1	ND	ug/L	5
Dichlorodifluoromethane	75-71-8	ND	ug/L	5
1,2-Dichloroethane	107-06-2	ND	ug/L	5
1,1-Dichloroethane	75-34-3	ND	ug/L	5
trans-1,2-Dichloroethene	156-60-5	ND	ug/L	5
cis-1,2-Dichloroethene	156-59-2	ND	ug/L	5
1,1-Dichloroethene	75-35-4	ND	ug/L	5
2,2-Dichloropropane	594-20-7	ND	ug/L	5
1,3-Dichloropropane	142-28-9	ND	ug/L	5
1,2-Dichloropropane	78-87-5	ND	ug/L	5
trans-1,3-Dichloropropene	10061-02-6	ND	ug/L	5
cis-1,3-Dichloropropene	10061-01-5	ND	ug/L	5

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	MW-3	Project ID:	SF9701211
Sample Number:	SF9701211-1	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
1,1-Dichloropropene	563-58-6	ND	ug/L	5
Ethylbenzene	100-41-4	17.	ug/L	5
Freon 113	76-13-1	ND	ug/L	5
Hexachlorobutadiene	87-68-3	ND	ug/L	5
2-Hexanone	591-78-6	ND	ug/L	20
Isopropylbenzene	98-82-8	ND	ug/L	5
p-Isopropyltoluene	99-87-6	ND	ug/L	5
MTBE	1634-04-4	ND	ug/L	5
4-Methyl-2-Pentanone	108-10-1	ND	ug/L	20
Methylene chloride	75-09-2	ND	ug/L	5
Naphthalene	91-20-3	28.	ug/L	5
n-Propylbenzene	103-65-1	ND	ug/L	5
Styrene	100-42-5	ND	ug/L	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	ug/L	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	ug/L	5
Tetrachloroethene	127-18-4	ND	ug/L	5
Toluene	108-88-3	9.	ug/L	5
1,2,4-Trichlorobenzene	120-82-1	ND	ug/L	5
1,2,3-Trichlorobenzene	87-61-6	ND	ug/L	5
1,1,2-Trichloroethane	79-00-5	ND	ug/L	5
1,1,1-Trichloroethane	71-55-6	ND	ug/L	5
Trichloroethene	79-01-6	ND	ug/L	5
Trichlorofluoromethane	75-69-4	ND	ug/L	5
1,2,3-Trichloropropane	96-18-4	ND	ug/L	5
1,3,5-Trimethylbenzene	108-67-8	10.	ug/L	5
1,2,4-Trimethylbenzene	95-63-6	68.	ug/L	5
Vinyl Acetate	108-05-4	ND	ug/L	10
Vinyl chloride	75-01-4	ND	ug/L	5
o-Xylene	95-47-6	250	ug/L	5
m,p-Xylenes	--	99.	ug/L	5
Surrogates		**Recovery**		**QC Limits**
4-Bromofluorobenzene	460-00-4	98	%	86 - 115
Dibromofluoromethane	1868-53-7	96	%	86 - 118
1,2-Dichloroethane-d4	17060-07-0	103	%	80 - 120
Toluene-d8	2037-26-5	100	%	88 - 110

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	MW-3	Project ID:	SF9701211
Sample Number:	SF9701211-1	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	01/22/97
Analytical Method:	8015/8020	Date Analyzed:	01/22/97

BTEX & TPH-Gasoline

Analyte	CAS Number	Results	Units	RL
BTEX & TPH-Gasoline				
Benzene	71-43-2	160	ug/L	0.4
Ethylbenzene	100-41-4	13.	ug/L	0.3
TPH Gasoline	--	1200	ug/L	50
Toluene	108-88-3	7.3	ug/L	0.3
o-Xylene	95-47-6	240	ug/L	0.4
m,p-Xylenes	--	82.	ug/L	0.4
Surrogates		Recovery		QC Limits
a,a,a-Trifluorotoluene	98-08-8	103	%	50 - 150

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	MW-4	Project ID:	SF9701211
Sample Number:	SF9701211-2	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
8260, Volatile Organics				
Acetone	67-64-1	ND	ug/L	40
Benzene	71-43-2	250	ug/L	10
Bromobenzene	108-86-1	ND	ug/L	10
Bromochloromethane	74-97-5	ND	ug/L	10
Bromodichloromethane	75-27-4	ND	ug/L	10
Bromoform	75-25-2	ND	ug/L	10
Bromomethane	74-83-9	ND	ug/L	10
2-Butanone	78-93-3	ND	ug/L	40
tert-Butylbenzene	98-08-6	ND	ug/L	10
sec-Butylbenzene	135-98-8	10	ug/L	10
n-Butylbenzene	104-51-8	ND	ug/L	10
Carbon Disulfide	75-15-0	ND	ug/L	10
Carbon tetrachloride	56-23-5	ND	ug/L	10
Chlorobenzene	108-90-7	ND	ug/L	10
Chloroethane	75-00-3	ND	ug/L	10
2-Chloroethylvinyl ether	110-75-8	ND	ug/L	10
Chloroform	67-66-3	ND	ug/L	10
Chloromethane	74-87-3	ND	ug/L	10
4-Chlorotoluene	106-43-4	ND	ug/L	10
2-Chlorotoluene	95-49-8	ND	ug/L	10
1,2-Dibromo-3-chloropropane	96-12-8	ND	ug/L	10
Dibromochloromethane	124-48-1	ND	ug/L	10
1,2-Dibromoethane	106-93-4	ND	ug/L	10
Dibromomethane	74-95-3	ND	ug/L	10
1,4-Dichlorobenzene	106-46-7	ND	ug/L	10
1,3-Dichlorobenzene	541-73-1	ND	ug/L	10
1,2-Dichlorobenzene	95-50-1	ND	ug/L	10
Dichlorodifluoromethane	75-71-8	ND	ug/L	10
1,2-Dichloroethane	107-06-2	ND	ug/L	10
1,1-Dichloroethane	75-34-3	ND	ug/L	10
trans-1,2-Dichloroethene	156-60-5	ND	ug/L	10
cis-1,2-Dichloroethene	156-59-2	ND	ug/L	10
1,1-Dichloroethene	75-35-4	ND	ug/L	10
2,2-Dichloropropane	594-20-7	ND	ug/L	10
1,3-Dichloropropane	142-28-9	ND	ug/L	10
1,2-Dichloropropane	78-87-5	ND	ug/L	10
trans-1,3-Dichloropropene	10061-02-6	ND	ug/L	10
cis-1,3-Dichloropropene	10061-01-5	ND	ug/L	10

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	MW-4	Project ID:	SF9701211
Sample Number:	SF9701211-2	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
1,1-Dichloropropene	563-58-6	ND	ug/L	10
Ethylbenzene	100-41-4	410	ug/L	10
Freon 113	76-13-1	ND	ug/L	10
Hexachlorobutadiene	87-68-3	ND	ug/L	10
2-Hexanone	591-78-6	ND	ug/L	40
Isopropylbenzene	98-82-8	50	ug/L	10
p-Isopropyltoluene	99-87-6	ND	ug/L	10
MTBE	1634-04-4	ND	ug/L	10
4-Methyl-2-Pentanone	108-10-1	ND	ug/L	40
Methylene chloride	75-09-2	ND	ug/L	10
Naphthalene	91-20-3	70	ug/L	10
n-Propylbenzene	103-65-1	110	ug/L	10
Styrene	100-42-5	ND	ug/L	10
1,1,2,2-Tetrachloroethane	79-34-5	ND	ug/L	10
1,1,1,2-Tetrachloroethane	630-20-6	ND	ug/L	10
Tetrachloroethene	127-18-4	ND	ug/L	10
Toluene	108-88-3	ND	ug/L	10
1,2,4-Trichlorobenzene	120-82-1	ND	ug/L	10
1,2,3-Trichlorobenzene	87-61-6	ND	ug/L	10
1,1,2-Trichloroethane	79-00-5	ND	ug/L	10
1,1,1-Trichloroethane	71-55-6	ND	ug/L	10
Trichloroethene	79-01-6	ND	ug/L	10
Trichlorofluoromethane	75-69-4	ND	ug/L	10
1,2,3-Trichloropropane	96-18-4	ND	ug/L	10
1,3,5-Trimethylbenzene	108-67-8	90	ug/L	10
1,2,4-Trimethylbenzene	95-63-6	500	ug/L	10
Vinyl Acetate	108-05-4	ND	ug/L	20
Vinyl chloride	75-01-4	ND	ug/L	10
o-Xylene	95-47-6	10	ug/L	10
m,p-Xylenes	--	180	ug/L	10
Surrogates		**Recovery**		**QC Limits**
4-Bromofluorobenzene	460-00-4	98	%	86 - 115
Dibromofluoromethane	1868-53-7	95	%	86 - 118
1,2-Dichloroethane-d4	17060-07-0	101	%	80 - 120
Toluene-d8	2037-26-5	99	%	88 - 110

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	MW-4	Project ID:	SF9701211
Sample Number:	SF9701211-2	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	01/22/97
Analytical Method:	8015/8020	Date Analyzed:	01/22/97

BTEX & TPH-Gasoline

Analyte	CAS Number	Results	Units	RL
BTEX & TPH-Gasoline				
Benzene	71-43-2	220	ug/L	0.4
Ethylbenzene	100-41-4	340	ug/L	0.3
TPH Gasoline	--	6400	ug/L	50
Toluene	108-88-3	2.8	ug/L	0.3
o-Xylene	95-47-6	10.	ug/L	0.4
m,p-Xylenes	--	210	ug/L	0.4
Surrogates		Recovery		QC Limits
a,a,a-Trifluorotoluene	98-08-8	115	%	50 - 150

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	VW-8	Project ID:	SF9701211
Sample Number:	SF9701211-3	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
8260, Volatile Organics				
Acetone	67-64-1	ND	ug/L	20
Benzene	71-43-2	14.	ug/L	5
Bromobenzene	108-86-1	ND	ug/L	5
Bromochloromethane	74-97-5	ND	ug/L	5
Bromodichloromethane	75-27-4	ND	ug/L	5
Bromoform	75-25-2	ND	ug/L	5
Bromomethane	74-83-9	ND	ug/L	5
2-Butanone	78-93-3	ND	ug/L	20
tert-Butylbenzene	98-08-6	ND	ug/L	5
sec-Butylbenzene	135-98-8	ND	ug/L	5
n-Butylbenzene	104-51-8	ND	ug/L	5
Carbon Disulfide	75-15-0	ND	ug/L	5
Carbon tetrachloride	56-23-5	ND	ug/L	5
Chlorobenzene	108-90-7	ND	ug/L	5
Chloroethane	75-00-3	ND	ug/L	5
2-Chloroethylvinyl ether	110-75-8	ND	ug/L	5
Chloroform	67-66-3	ND	ug/L	5
Chloromethane	74-87-3	ND	ug/L	5
4-Chlorotoluene	106-43-4	ND	ug/L	5
2-Chlorotoluene	95-49-8	ND	ug/L	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	ug/L	5
Dibromochloromethane	124-48-1	ND	ug/L	5
1,2-Dibromoethane	106-93-4	ND	ug/L	5
Dibromomethane	74-95-3	ND	ug/L	5
1,4-Dichlorobenzene	106-46-7	ND	ug/L	5
1,3-Dichlorobenzene	541-73-1	ND	ug/L	5
1,2-Dichlorobenzene	95-50-1	ND	ug/L	5
Dichlorodifluoromethane	75-71-8	ND	ug/L	5
1,2-Dichloroethane	107-06-2	ND	ug/L	5
1,1-Dichloroethane	75-34-3	ND	ug/L	5
trans-1,2-Dichloroethene	156-60-5	ND	ug/L	5
cis-1,2-Dichloroethene	156-59-2	ND	ug/L	5
1,1-Dichloroethene	75-35-4	ND	ug/L	5
2,2-Dichloropropane	594-20-7	ND	ug/L	5
1,3-Dichloropropane	142-28-9	ND	ug/L	5
1,2-Dichloropropane	78-87-5	ND	ug/L	5
trans-1,3-Dichloropropene	10061-02-6	ND	ug/L	5
cis-1,3-Dichloropropene	10061-01-5	ND	ug/L	5

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	VW-8	Project ID:	SF9701211
Sample Number:	SF9701211-3	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
1,1-Dichloropropene	563-58-6	ND	ug/L	5
Ethylbenzene	100-41-4	29.	ug/L	5
Freon 113	76-13-1	ND	ug/L	5
Hexachlorobutadiene	87-68-3	ND	ug/L	5
2-Hexanone	591-78-6	ND	ug/L	20
Isopropylbenzene	98-82-8	ND	ug/L	5
p-Isopropyltoluene	99-87-6	ND	ug/L	5
MTBE	1634-04-4	ND	ug/L	5
4-Methyl-2-Pentanone	108-10-1	ND	ug/L	20
Methylene chloride	75-09-2	ND	ug/L	5
Naphthalene	91-20-3	5.	ug/L	5
n-Propylbenzene	103-65-1	9.	ug/L	5
Styrene	100-42-5	ND	ug/L	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	ug/L	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	ug/L	5
Tetrachloroethene	127-18-4	ND	ug/L	5
Toluene	108-88-3	7.	ug/L	5
1,2,4-Trichlorobenzene	120-82-1	ND	ug/L	5
1,2,3-Trichlorobenzene	87-61-6	ND	ug/L	5
1,1,2-Trichloroethane	79-00-5	ND	ug/L	5
1,1,1-Trichloroethane	71-55-6	ND	ug/L	5
Trichloroethene	79-01-6	ND	ug/L	5
Trichlorofluoromethane	75-69-4	ND	ug/L	5
1,2,3-Trichloropropane	96-18-4	ND	ug/L	5
1,3,5-Trimethylbenzene	108-67-8	9.	ug/L	5
1,2,4-Trimethylbenzene	95-63-6	29.	ug/L	5
Vinyl Acetate	108-05-4	ND	ug/L	10
Vinyl chloride	75-01-4	ND	ug/L	5
o-Xylene	95-47-6	14.	ug/L	5
m,p-Xylenes	--	41.	ug/L	5
Surrogates		**Recovery**		**QC Limits**
4-Bromofluorobenzene	460-00-4	95	%	86 - 115
Dibromofluoromethane	1868-53-7	96	%	86 - 118
1,2-Dichloroethane-d4	17060-07-0	100	%	80 - 120
Toluene-d8	2037-26-5	102	%	88 - 110

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	VW-8	Project ID:	SF9701211
Sample Number:	SF9701211-3	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	01/22/97
Analytical Method:	8015/8020	Date Analyzed:	01/22/97

BTEX & TPH-Gasoline

Analyte	CAS Number	Results	Units	RL
BTEX & TPH-Gasoline				
Benzene	71-43-2	16.	ug/L	0.4
Ethylbenzene	100-41-4	30.	ug/L	0.3
TPH Gasoline	--	620	ug/L	50
Toluene	108-88-3	6.8	ug/L	0.3
o-Xylene	95-47-6	15.	ug/L	0.4
m,p-Xylenes	--	42.	ug/L	0.4
Surrogates		Recovery		QC Limits
a,a,a-Trifluorotoluene	98-08-8	105	%	50 - 150

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	FIELD BLANKS	Project ID:	SF9701211
Sample Number:	SF9701211-4	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
8260, Volatile Organics				
Acetone	67-64-1	ND	ug/L	20
Benzene	71-43-2	ND	ug/L	5
Bromobenzene	108-86-1	ND	ug/L	5
Bromochloromethane	74-97-5	ND	ug/L	5
Bromodichloromethane	75-27-4	ND	ug/L	5
Bromoform	75-25-2	ND	ug/L	5
Bromomethane	74-83-9	ND	ug/L	5
2-Butanone	78-93-3	ND	ug/L	20
tert-Butylbenzene	98-08-6	ND	ug/L	5
sec-Butylbenzene	135-98-8	ND	ug/L	5
n-Butylbenzene	104-51-8	ND	ug/L	5
Carbon Disulfide	75-15-0	ND	ug/L	5
Carbon tetrachloride	56-23-5	ND	ug/L	5
Chlorobenzene	108-90-7	ND	ug/L	5
Chloroethane	75-00-3	ND	ug/L	5
2-Chloroethylvinyl ether	110-75-8	ND	ug/L	5
Chloroform	67-66-3	ND	ug/L	5
Chloromethane	74-87-3	ND	ug/L	5
4-Chlorotoluene	106-43-4	ND	ug/L	5
2-Chlorotoluene	95-49-8	ND	ug/L	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	ug/L	5
Dibromochloromethane	124-48-1	ND	ug/L	5
1,2-Dibromoethane	106-93-4	ND	ug/L	5
Dibromomethane	74-95-3	ND	ug/L	5
1,4-Dichlorobenzene	106-46-7	ND	ug/L	5
1,3-Dichlorobenzene	541-73-1	ND	ug/L	5
1,2-Dichlorobenzene	95-50-1	ND	ug/L	5
Dichlorodifluoromethane	75-71-8	ND	ug/L	5
1,2-Dichloroethane	107-06-2	ND	ug/L	5
1,1-Dichloroethane	75-34-3	ND	ug/L	5
trans-1,2-Dichloroethene	156-60-5	ND	ug/L	5
cis-1,2-Dichloroethene	156-59-2	ND	ug/L	5
1,1-Dichloroethene	75-35-4	ND	ug/L	5
2,2-Dichloropropane	594-20-7	ND	ug/L	5
1,3-Dichloropropane	142-28-9	ND	ug/L	5
1,2-Dichloropropane	78-87-5	ND	ug/L	5
trans-1,3-Dichloropropene	10061-02-6	ND	ug/L	5
cis-1,3-Dichloropropene	10061-01-5	ND	ug/L	5

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	FIELD BLANKS	Project ID:	SF9701211
Sample Number:	SF9701211-4	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
1,1-Dichloropropene	563-58-6	ND	ug/L	5
Ethylbenzene	100-41-4	ND	ug/L	5
Freon 113	76-13-1	ND	ug/L	5
Hexachlorobutadiene	87-68-3	ND	ug/L	5
2-Hexanone	591-78-6	ND	ug/L	20
Isopropylbenzene	98-82-8	ND	ug/L	5
p-Isopropyltoluene	99-87-6	ND	ug/L	5
MTBE	1634-04-4	ND	ug/L	5
4-Methyl-2-Pentanone	108-10-1	ND	ug/L	20
Methylene chloride	75-09-2	ND	ug/L	5
Naphthalene	91-20-3	ND	ug/L	5
n-Propylbenzene	103-65-1	ND	ug/L	5
Styrene	100-42-5	ND	ug/L	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	ug/L	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	ug/L	5
Tetrachloroethene	127-18-4	ND	ug/L	5
Toluene	108-88-3	ND	ug/L	5
1,2,4-Trichlorobenzene	120-82-1	ND	ug/L	5
1,2,3-Trichlorobenzene	87-61-6	ND	ug/L	5
1,1,2-Trichloroethane	79-00-5	ND	ug/L	5
1,1,1-Trichloroethane	71-55-6	ND	ug/L	5
Trichloroethene	79-01-6	ND	ug/L	5
Trichlorofluoromethane	75-69-4	ND	ug/L	5
1,2,3-Trichloropropane	96-18-4	ND	ug/L	5
1,3,5-Trimethylbenzene	108-67-8	ND	ug/L	5
1,2,4-Trimethylbenzene	95-63-6	ND	ug/L	5
Vinyl Acetate	108-05-4	ND	ug/L	10
Vinyl chloride	75-01-4	ND	ug/L	5
o-Xylene	95-47-6	ND	ug/L	5
m,p-Xylenes	--	ND	ug/L	5
Surrogates		**Recovery**		**QC Limits**
4-Bromofluorobenzene	460-00-4	92	%	86 - 115
Dibromofluoromethane	1868-53-7	95	%	86 - 118
1,2-Dichloroethane-d4	17060-07-0	101	%	80 - 120
Toluene-d8	2037-26-5	99	%	88 - 110

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	FIELD BLANKS	Project ID:	SF9701211
Sample Number:	SF9701211-4	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	01/22/97
Analytical Method:	8015/8020	Date Analyzed:	01/22/97

BTEX & TPH-Gasoline

Analyte	CAS Number	Results	Units	RL
BTEX & TPH-Gasoline				
Benzene	71-43-2	ND	ug/L	0.4
Ethylbenzene	100-41-4	ND	ug/L	0.3
TPH Gasoline	--	ND	ug/L	50
Toluene	108-88-3	ND	ug/L	0.3
o-Xylene	95-47-6	ND	ug/L	0.4
m,p-Xylenes	--	ND	ug/L	0.4
Surrogates		Recovery		QC Limits
a,a,a-Trifluorotoluene	98-08-8	102	%	50 - 150

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	TRIP BLANKS #0110196	Project ID:	SF9701211
Sample Number:	SF9701211-5	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
8260, Volatile Organics				
Acetone	67-64-1	ND	ug/L	20
Benzene	71-43-2	ND	ug/L	5
Bromobenzene	108-86-1	ND	ug/L	5
Bromochloromethane	74-97-5	ND	ug/L	5
Bromodichloromethane	75-27-4	ND	ug/L	5
Bromoform	75-25-2	ND	ug/L	5
Bromomethane	74-83-9	ND	ug/L	5
2-Butanone	78-93-3	ND	ug/L	20
tert-Butylbenzene	98-08-6	ND	ug/L	5
sec-Butylbenzene	135-98-8	ND	ug/L	5
n-Butylbenzene	104-51-8	ND	ug/L	5
Carbon Disulfide	75-15-0	ND	ug/L	5
Carbon tetrachloride	56-23-5	ND	ug/L	5
Chlorobenzene	108-90-7	ND	ug/L	5
Chloroethane	75-00-3	ND	ug/L	5
2-Chloroethylvinyl ether	110-75-8	ND	ug/L	5
Chloroform	67-66-3	ND	ug/L	5
Chloromethane	74-87-3	ND	ug/L	5
4-Chlorotoluene	106-43-4	ND	ug/L	5
2-Chlorotoluene	95-49-8	ND	ug/L	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	ug/L	5
Dibromochloromethane	124-48-1	ND	ug/L	5
1,2-Dibromoethane	106-93-4	ND	ug/L	5
Dibromomethane	74-95-3	ND	ug/L	5
1,4-Dichlorobenzene	106-46-7	ND	ug/L	5
1,3-Dichlorobenzene	541-73-1	ND	ug/L	5
1,2-Dichlorobenzene	95-50-1	ND	ug/L	5
Dichlorodifluoromethane	75-71-8	ND	ug/L	5
1,2-Dichloroethane	107-06-2	ND	ug/L	5
1,1-Dichloroethane	75-34-3	ND	ug/L	5
trans-1,2-Dichloroethene	156-60-5	ND	ug/L	5
cis-1,2-Dichloroethene	156-59-2	ND	ug/L	5
1,1-Dichloroethene	75-35-4	ND	ug/L	5
2,2-Dichloropropane	594-20-7	ND	ug/L	5
1,3-Dichloropropane	142-28-9	ND	ug/L	5
1,2-Dichloropropane	78-87-5	ND	ug/L	5
trans-1,3-Dichloropropene	10061-02-6	ND	ug/L	5
cis-1,3-Dichloropropene	10061-01-5	ND	ug/L	5

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	TRIP BLANKS #0110196	Project ID:	SF9701211
Sample Number:	SF9701211-5	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
1,1-Dichloropropene	563-58-6	ND	ug/L	5
Ethylbenzene	100-41-4	ND	ug/L	5
Freon 113	76-13-1	ND	ug/L	5
Hexachlorobutadiene	87-68-3	ND	ug/L	5
2-Hexanone	591-78-6	ND	ug/L	20
Isopropylbenzene	98-82-8	ND	ug/L	5
p-Isopropyltoluene	99-87-6	ND	ug/L	5
MTBE	1634-04-4	ND	ug/L	5
4-Methyl-2-Pentanone	108-10-1	ND	ug/L	20
Methylene chloride	75-09-2	ND	ug/L	5
Naphthalene	91-20-3	ND	ug/L	5
n-Propylbenzene	103-65-1	ND	ug/L	5
Styrene	100-42-5	ND	ug/L	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	ug/L	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	ug/L	5
Tetrachloroethene	127-18-4	ND	ug/L	5
Toluene	108-88-3	ND	ug/L	5
1,2,4-Trichlorobenzene	120-82-1	ND	ug/L	5
1,2,3-Trichlorobenzene	87-61-6	ND	ug/L	5
1,1,2-Trichloroethane	79-00-5	ND	ug/L	5
1,1,1-Trichloroethane	71-55-6	ND	ug/L	5
Trichloroethene	79-01-6	ND	ug/L	5
Trichlorofluoromethane	75-69-4	ND	ug/L	5
1,2,3-Trichloropropane	96-18-4	ND	ug/L	5
1,3,5-Trimethylbenzene	108-67-8	ND	ug/L	5
1,2,4-Trimethylbenzene	95-63-6	ND	ug/L	5
Vinyl Acetate	108-05-4	ND	ug/L	10
Vinyl chloride	75-01-4	ND	ug/L	5
o-Xylene	95-47-6	ND	ug/L	5
m,p-Xylenes	--	ND	ug/L	5
Surrogates		**Recovery**		**QC Limits**
4-Bromofluorobenzene	460-00-4	94	%	86 - 115
Dibromofluoromethane	1868-53-7	98	%	86 - 118
1,2-Dichloroethane-d4	17060-07-0	101	%	80 - 120
Toluene-d8	2037-26-5	100	%	88 - 110

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	TRIP BLANKS #0110196	Project ID:	SF9701211
Sample Number:	SF9701211-5	Date Sampled:	01/20/97
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/02/97
Analytical Method:	8015/8020	Date Analyzed:	02/02/97

BTEX & TPH-Gasoline

Analyte	CAS Number	Results	Units	RL
BTEX & TPH-Gasoline				
Benzene	71-43-2	ND	ug/L	0.4
Ethylbenzene	100-41-4	ND	ug/L	0.3
TPH Gasoline	--	ND	ug/L	50
Toluene	108-88-3	ND	ug/L	0.3
o-Xylene	95-47-6	ND	ug/L	0.4
m,p-Xylenes	--	ND	ug/L	0.4
Surrogates		Recovery		QC Limits
a,a,a-Trifluorotoluene	98-08-8	96	%	50 - 150

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	METHOD BLANK	Project ID:	SF9701211
Sample Number:	SF9701211-6	Date Sampled:	
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
8260, Volatile Organics				
Acetone	67-64-1	ND	ug/L	20
Benzene	71-43-2	ND	ug/L	5
Bromobenzene	108-86-1	ND	ug/L	5
Bromochloromethane	74-97-5	ND	ug/L	5
Bromodichloromethane	75-27-4	ND	ug/L	5
Bromoform	75-25-2	ND	ug/L	5
Bromomethane	74-83-9	ND	ug/L	5
2-Butanone	78-93-3	ND	ug/L	20
tert-Butylbenzene	98-08-6	ND	ug/L	5
sec-Butylbenzene	135-98-8	ND	ug/L	5
n-Butylbenzene	104-51-8	ND	ug/L	5
Carbon Disulfide	75-15-0	ND	ug/L	5
Carbon tetrachloride	56-23-5	ND	ug/L	5
Chlorobenzene	108-90-7	ND	ug/L	5
Chloroethane	75-00-3	ND	ug/L	5
2-Chloroethylvinyl ether	110-75-8	ND	ug/L	5
Chloroform	67-66-3	ND	ug/L	5
Chloromethane	74-87-3	ND	ug/L	5
4-Chlorotoluene	106-43-4	ND	ug/L	5
2-Chlorotoluene	95-49-8	ND	ug/L	5
1,2-Dibromo-3-chloropropane	96-12-8	ND	ug/L	5
Dibromochloromethane	124-48-1	ND	ug/L	5
1,2-Dibromoethane	106-93-4	ND	ug/L	5
Dibromomethane	74-95-3	ND	ug/L	5
1,4-Dichlorobenzene	106-46-7	ND	ug/L	5
1,3-Dichlorobenzene	541-73-1	ND	ug/L	5
1,2-Dichlorobenzene	95-50-1	ND	ug/L	5
Dichlorodifluoromethane	75-71-8	ND	ug/L	5
1,2-Dichloroethane	107-06-2	ND	ug/L	5
1,1-Dichloroethane	75-34-3	ND	ug/L	5
trans-1,2-Dichloroethene	156-60-5	ND	ug/L	5
cis-1,2-Dichloroethene	156-59-2	ND	ug/L	5
1,1-Dichloroethene	75-35-4	ND	ug/L	5
2,2-Dichloropropane	594-20-7	ND	ug/L	5
1,3-Dichloropropane	142-28-9	ND	ug/L	5
1,2-Dichloropropane	78-87-5	ND	ug/L	5
trans-1,3-Dichloropropene	10061-02-6	ND	ug/L	5
cis-1,3-Dichloropropene	10061-01-5	ND	ug/L	5

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	METHOD BLANK	Project ID:	SF9701211
Sample Number:	SF9701211-6	Date Sampled:	
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	02/01/97
Analytical Method:	8260A	Date Analyzed:	02/01/97

8260, Volatile Organics

Analyte	CAS Number	Results	Units	RL
1,1-Dichloropropene	563-58-6	ND	ug/L	5
Ethylbenzene	100-41-4	ND	ug/L	5
Freon 113	76-13-1	ND	ug/L	5
Hexachlorobutadiene	87-68-3	ND	ug/L	5
2-Hexanone	591-78-6	ND	ug/L	20
Isopropylbenzene	98-82-8	ND	ug/L	5
p-Isopropyltoluene	99-87-6	ND	ug/L	5
MTBE	1634-04-4	ND	ug/L	5
4-Methyl-2-Pentanone	108-10-1	ND	ug/L	20
Methylene chloride	75-09-2	ND	ug/L	5
Naphthalene	91-20-3	ND	ug/L	5
n-Propylbenzene	103-65-1	ND	ug/L	5
Styrene	100-42-5	ND	ug/L	5
1,1,2,2-Tetrachloroethane	79-34-5	ND	ug/L	5
1,1,1,2-Tetrachloroethane	630-20-6	ND	ug/L	5
Tetrachloroethene	127-18-4	ND	ug/L	5
Toluene	108-88-3	ND	ug/L	5
1,2,4-Trichlorobenzene	120-82-1	ND	ug/L	5
1,2,3-Trichlorobenzene	87-61-6	ND	ug/L	5
1,1,2-Trichloroethane	79-00-5	ND	ug/L	5
1,1,1-Trichloroethane	71-55-6	ND	ug/L	5
Trichloroethene	79-01-6	ND	ug/L	5
Trichlorofluoromethane	75-69-4	ND	ug/L	5
1,2,3-Trichloropropane	96-18-4	ND	ug/L	5
1,3,5-Trimethylbenzene	108-67-8	ND	ug/L	5
1,2,4-Trimethylbenzene	95-63-6	ND	ug/L	5
Vinyl Acetate	108-05-4	ND	ug/L	10
Vinyl chloride	75-01-4	ND	ug/L	5
o-Xylene	95-47-6	ND	ug/L	5
m,p-Xylenes	--	ND	ug/L	5
Surrogates		**Recovery**		**QC Limits**
4-Bromofluorobenzene	460-00-4	94	%	86 - 115
Dibromofluoromethane	1868-53-7	96	%	86 - 118
1,2-Dichloroethane-d4	17060-07-0	101	%	80 - 120
Toluene-d8	2037-26-5	101	%	88 - 110

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

CLAYTON ENVIRONMENTAL CONSULTANTS
Analytical Report
for
Clayton Environmental Consultants, Inc.

Sample Name:	METHOD BLANK	Project ID:	SF9701211
Sample Number:	SF9701211-6	Date Sampled:	
Sample Matrix:	Ground Water	Date Received:	01/20/97
Prep Method:	5030	Date Prepared:	01/22/97
Analytical Method:	8015/8020	Date Analyzed:	01/22/97

BTEX & TPH-Gasoline

Analyte	CAS Number	Results	Units	RL
BTEX & TPH-Gasoline				
Benzene	71-43-2	ND	ug/L	0.4
Ethylbenzene	100-41-4	ND	ug/L	0.3
TPH Gasoline	--	ND	ug/L	50
Toluene	108-88-3	ND	ug/L	0.3
o-Xylene	95-47-6	ND	ug/L	0.4
m,p-Xylenes	--	ND	ug/L	0.4
Surrogates		Recovery		QC Limits
a,a,a-Trifluorotoluene	98-08-8	105	%	50 - 150

ND: Not detected at or above reporting limit
--: Information not available or not applicable

RL : Reporting limit

Clayton
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REQUEST FOR LABORATORY ANALYTICAL SERVICES

IMPORTANT
Date Results Requested: STANDARD TAT
Rush Charges Authorized? ☐ Yes ☒ No
☐ Phone or ☐ Fax Results

For Clayton Use Only
Clayton Lab Project No.
9701211

REPORT RESULTS TO
Name RICHARD SILVA | Client Job No. 97182.00
Company CLAYTON | Dept.
Mailing Address
City, State, Zip
Telephone No. | FAX No.

SEND INVOICE TO
Purchase Order No.
Name
Company INGERSOLL-RAND | Dept.
Address
City, State, Zip

Special instructions and/or specific regulatory requirements:
(method, limit of detection, etc.)

* Explanation of Preservative: P = HCl

Samples are: (check if applicable)
☐ Drinking Water
☒ Groundwater
☐ Wastewater

ANALYSIS REQUESTED
(Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added.*)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	TPH-GRO/BTEX	EPA-8260	FOR LAB USE ONLY
MW-3	1-20-97	1330	H_2O	40 mLs	2	XP		01
MW-3	1-20-97	1330		40 mLs	2		XP	
MW-4		1200		40 mLs	2	XP		02
MW-4		1200		40 mLs	2		XP	
VW-8		1240		40 mLs	2	XP		03
VW-8		1240		40 mLs	2		XP	
FIELD BLANKS		1350		40 mLs	2	XP		04
FIELD BLANKS		1350		40 mLs	2		XP	
TRIP BLANKS #0110196				40 mLs	1	XP	XP	05

CHAIN OF CUSTODY
Collected by: RICHARD SILVA (print) | Collector's Signature: Richard Silva
Relinquished by: Richard Silva | Date/Time 1-20-97 5:15pm | Received by: | Date/Time
Relinquished by: | Date/Time | Received by: | Date/Time
Method of Shipment: | Received at Lab by: Renee Straw | Date/Time 1/20/97 5:15
Authorized by: _____ Date _____ (Client Signature **MUST** Accompany Request) | Sample Condition Upon Receipt: ☒ Acceptable ☐ Other (explain)

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

Detroit Regional Lab
22345 Roethel Drive
Novi, MI 48375
(800) 806-5887
(810) 344-1770
FAX (810) 344-2655

Atlanta Regional Lab
400 Chastain Center Blvd., N.W., Suite 490
Kennesaw, GA 30144
(800) 252-9919
(770) 499-7500
FAX (770) 423-4990

San Francisco Regional Lab
1252 Quarry Lane
Pleasanton, CA 94566
(800) 294-1755
(510) 426-2657
FAX (510) 426-0106

Seattle Regional Lab
4636 E. Marginal Way S., Suite 215
Seattle, WA 98134
(800) 568-7755
(206) 763-7364
FAX (206) 763-4189

DISTRIBUTION:
White = Clayton Laboratory
Yellow = Clayton Accounting
Pink = Client Copy

11/95 20K

APPENDIX A

FIELD SURVEY FORMS

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job #: 97182.00 Site: INGERSOLL-RAND Date: JAN. 20, 1997

Well #: MW-1 Sampling Team: R. SILVA

Sampling Method: _____

Field Conditions: CLOUDY, COOL, SLIGHT BREEZE, ~50°F

Describe Equipment D-Con Before Sampling This Well: _____

Total Depth of Well: _____ feet Time: 1045 Depth to Water Before Pumping: 9.95 feet

Volume Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Purge Factor	
_____ feet	*	.16	(.65)	= _____ gal	* _____	= _____ To Purge

Depth Purging From: _____ feet Time Surging Begins: _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(continued)

Time Field Parameter Measurement Begins:_____

	REP #1	REP #2	REP #3	REP #4
pH				
Conductivity				
T°C				

Pre-Sample Collection Gallons Purged:_____

Time Sample Collection Begins:_____

Time Sample Collection Ends:_____

Total Gallons Purged:_____

Comments:_____

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job #: 97182.00 Site: INGERSOLL-RAND Date: JAN. 20, 1997

Well #: MW-2 Sampling Team: R. SILVA

Sampling Method: _____

Field Conditions: CLOUDY, COOL, WINDY, ~50 °F

Describe Equipment D-Con Before Sampling This Well: _____

Total Depth of Well: _____ feet Time: 1040 Depth to Water Before Pumping: 12.11 feet

Volume Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		To Purge
_____ feet	*	.16	(.65)	=	_____ gal	*	_____	=	_____

Depth Purging From: _____ feet Time Surging Begins: _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(continued)

Time Field Parameter Measurement Begins:_____

	REP #1	REP #2	REP #3	REP #4
pH				
Conductivity				
T°C				

Pre-Sample Collection Gallons Purged:_____

Time Sample Collection Begins:_____

Time Sample Collection Ends:_____

Total Gallons Purged:_____

Comments:_____

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job #: 97182.00 Site: INGERSOLL-RAND Date: JAN. 20, 1997

Well #: MW-3 Sampling Team: R. SILVA

Sampling Method: DISPOSABLE BAILER

Field Conditions: PARTLY CLOUDY, COOL, SLIGHT BREEZE, ~55°F.

Describe Equipment D-Con Before Sampling This Well:

Total Depth of Well: 20.26 feet Time: 1103 Depth to Water Before Pumping: 14.08 feet

Volume Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		To Purge
6.18	feet *	.16	(.65)	=	4.02	gal *	4	=	16.08

Depth Purging From: 20 feet Time Surging Begins: 1302

Notes on Initial Discharge: CLEAR

Time	Volume Purged	pH	Conductivity	T	Notes
1304	4-GAL	9.4	748	17.1	CLEAR
1306	8-GAL	9.3	761	17.2	CLEAR
1308	12-GAL	9.3	794	17.3	CLEAR
1310	16-GAL	9.1	833	17.3	CLEAR

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(continued)

Time Field Parameter Measurement Begins: 1320

	REP #1	REP #2	REP #3	REP #4
pH	9.2	9.2	9.1	9.0
Conductivity	766	761	757	771
T°C	17.0	17.0	17.1	17.1

Pre-Sample Collection Gallons Purged: 16

Time Sample Collection Begins: 1324

Time Sample Collection Ends: 1329

Total Gallons Purged: 17

Comments:

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job #: 97182.00 Site: INGERSOLL-RAND Date: JAN. 29, 1997

Well #: MW-4 Sampling Team: R. SILVA

Sampling Method: DISPOSABLE BAILER

Field Conditions: CLOUDY, COOL, WINDY, ~50°F

Describe Equipment D-Con Before Sampling This Well:

Total Depth of Well: 27.94 feet Time: 1054 Depth to Water Before Pumping: 15.98 feet

Volume Height of Water Column		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		To Purge
11.96 feet	*	.16	(.65)	=	7.77 gal	*	4	=	31.08

Depth Purging From: 27 feet Time Surging Begins: 1124

Notes on Initial Discharge: CLEAR

Time	Volume Purged	pH	Conductivity	T	Notes
1128	10-GAL	10.9	739	17.2	CLEAR
1132	20-GAL	11.0	823	17.1	CLEAR
1135	25-GAL	11.0	839	16.8	CLEAR
1138	32-GAL	11.1	865	16.7	CLEAR

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(continued)

Time Field Parameter Measurement Begins: 1150

	REP #1	REP #2	REP #3	REP #4
pH	11.0	10.9	10.8	10.8
Conductivity	885	794	834	851
T°C	17.2	17.2	17.3	17.3

Pre-Sample Collection Gallons Purged: 32

Time Sample Collection Begins: 1155

Time Sample Collection Ends: 1200

Total Gallons Purged: 33

Comments:

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job #: 97182.00 Site: INGERSOLL-RAND Date: JAN. 20, 1997

Well #: VW-6 Sampling Team: R. SILVA

Sampling Method: _____

Field Conditions: CLOUDY, COOL, WINDY, ~50°F

Describe Equipment D-Con Before Sampling This Well: _____

Total Depth of Well: _____ feet Time: 1058 Depth to Water Before Pumping: 19.21 feet

Volume Height of Water Column:		Diameter 2-inch	Diameter 4-inch		Purge Factor	
_____ feet	*	.16	(.65)	= _____ gal	* _____	= To Purge _____

Depth Purging From: _____ feet Time Surging Begins: _____

Notes on Initial Discharge: _____

Time	Volume Purged	pH	Conductivity	T	Notes

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(continued)

Time Field Parameter Measurement Begins:_____

	REP #1	REP #2	REP #3	REP #4
pH				
Conductivity				
T°C				

Pre-Sample Collection Gallons Purged:_____

Time Sample Collection Begins:_____

Time Sample Collection Ends:_____

Total Gallons Purged:_____

Comments:_____

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM

Job #: 97182.00 Site: INGERSOLL-RAND Date: JAN. 20, 1997

Well #: VW-8 Sampling Team: R. SILVA

Sampling Method: DISPOSABLE BAILER

Field Conditions: PARTLY CLOUDY, COOL, WINDY, ~55°F

Describe Equipment D-Con Before Sampling This Well:

Total Depth of Well: 25.33 feet Time: 1050 Depth to Water Before Pumping: 20.67 feet

Volume Height of Water Column		Diameter 2-inch	Diameter 4-inch		Volume		Purge Factor		To Purge
4.66 feet	*	.16	(.65)	=	3.03 gal	*	4	=	12.12

Depth Purging From: 25 feet Time Surging Begins: 1214

Notes on Initial Discharge: CLEAR

Time	Volume Purged	pH	Conductivity	T	Notes
1216	3-GAL	10.3	355	17.7	CLEAR
1218	6-GAL	10.1	351	18.3	CLEAR
1220	9-GAL	9.9	347	18.5	CLEAR
1222	12-GAL	9.7	370	18.4	CLEAR

CLAYTON ENVIRONMENTAL CONSULTANTS, INC.

WATER SAMPLING FIELD SURVEY FORM
(continued)

Time Field Parameter Measurement Begins: 1230

	REP #1	REP #2	REP #3	REP #4
pH	9.7	9.6	9.6	9.5
Conductivity	397	383	386	394
T°C	17.9	18.0	18.0	18.1

Pre-Sample Collection Gallons Purged: 12

Time Sample Collection Begins: 1234

Time Sample Collection Ends: 1239

Total Gallons Purged: 13

Comments:

CAPSULE
ENVIRONMENTAL ENGINEERING INC.

PROJECT CALCULATION SHEET

Project Name: San Leandro, CA
Project Number: 001-327
Task Number: 510
Re: GW Flow Velocity Calculations

By: John M.
Date: 6/2/97
Page: ___ of ___
cc: ___

Calculate the estimate of groundwater flow velocity for Ingersoll Rand facility, San Leandro by using the January 1997 data for water levels

$$V = \frac{Ki}{n}$$

V = gw flow velocity
K = hydraulic conductivity
i = hydraulic gradient
n = porosity

Estimate of:

K = 9 ft/day (from pumping test)

$i = \left(\frac{14.5\ ft - 13.5\ ft}{127.5\ ft}\right) = 0.008$

n = 30% or 0.30 (from literature)

$$V = \frac{(9\ ft/day) \times (.008)}{.30}$$

$$= 0.24\ ft/day$$

$$= 88\ ft/yr.$$

V = 0.24 ft/day or 88 ft/yr

Checked by: ___
Date: ___

Table 1
Water Level Summary Table

Project: Ingersoll-Rand Company, San Leandro, CA water level data
Date prepared: April 15, 1995
Latest update: March 27, 1997
Prepared by: JJM

Well	Date of measurement	Measuring point elevation (feet)	Depth to water (feet)	Water level elevation (feet)
MW-1	13-Dec-89	24.78	14.01	10.77
	16-Nov-90	24.97	14.84	10.13
	03-Apr-92	24.97	12.10	12.87
	21-Jun-94	24.95	12.98	11.97
	20-Oct-94	24.95	13.84	11.11
	25-Jan-95	24.95	10.32	14.63
	25-Apr-95	24.95	10.82	14.13
	30-Jun-95	24.95	11.92	13.03
	18-Oct-95	24.95	13.22	11.73
	30-Jan-96	24.95	10.99	13.96
	26-Apr-96	24.95	11.18	13.77
	25-Jul-96	24.95	12.61	12.34
	22-Oct-96	24.95	13.46	11.49
	20-Jan-97	24.95	9.95	15.00
MW-2	13-Dec-89	24.70	14.57	10.13
	16-Nov-90	24.64	15.05	9.59
	03-Apr-92	24.64	13.60	11.04
	21-Jun-94	24.68	13.86	10.82
	20-Oct-94	24.68	14.31	10.37
	25-Jan-95	24.68	12.01	12.67
	25-Apr-95	24.68	12.54	12.14
	30-Jun-95	24.68	13.22	11.46
	18-Oct-95	24.68	13.86	10.82
	30-Jan-96	24.68	12.49	12.19
	26-Apr-96	24.68	12.76	11.92
	25-Jul-96	24.68	13.59	11.09
	22-Oct-96	24.68	14.03	10.65
	20-Jan-97	24.68	12.11	12.57
MW-3	13-Dec-89	27.33	17.13	10.20
	16-Nov-90	27.51	17.67	9.84
	03-Apr-92	27.57	15.90	11.67
	21-Jun-94	27.51	16.28	11.23
	20-Oct-94	27.51	16.82	10.69
	25-Jan-95	27.51	14.25	13.26
	25-Apr-95	27.51	14.60	12.91
	30-Jun-95	27.51	15.44	12.07
	18-Oct-95	27.51	16.33	11.18
	30-Jan-96	27.51	14.81	12.70
	26-Apr-96	27.51	14.90	12.61
	25-Jul-96	27.51	15.94	11.57
	22-Oct-96	27.51	16.51	11.00
	20-Jan-97	27.51	14.08	13.43

Table 1 (continued)
Water Level Summary Table

Project: Ingersoll-Rand Company, San Leandro, CA water level data
Date prepared: April 15, 1995
Latest update: March 27, 1997
Prepared by: JJM

Well	Date of measurement	Measuring point elevation (feet)	Depth to water (feet)	Water level elevation (feet)
MW-4	16-Nov-90	28.92	20.28	8.64
	03-Apr-92	28.92	18.25	10.67
	21-Jun-94	28.92	18.46	10.46
	20-Oct-94	28.92	19.20	9.72
	25-Jan-95	28.92	15.94	12.98
	25-Apr-95	28.92	16.52	12.40
	30-Jun-95	28.92	17.53	11.39
	18-Oct-95	28.92	18.63	10.29
	30-Jan-96	28.92	16.67	12.25
	26-Apr-96	28.92	16.79	12.13
	25-Jul-96	28.92	18.13	10.79
	22-Oct-96	28.92	18.86	10.06
	20-Jan-97	28.92	15.98	12.94
OB-1	21-Jun-94	30.28	19.56	10.72
	20-Oct-94	30.28	20.28	10.00
	25-Jan-95	30.28	16.95	13.33
	25-Apr-95	30.28	17.53	12.75
	30-Jun-95	30.28	18.57	11.71
VW-5	30-Jun-95	33.16	21.65	11.51
VW-6	30-Jun-95	31.92	20.62	11.30
	18-Oct-95	31.92	21.61	10.31
	30-Jan-96	31.92	19.79	12.13
	26-Apr-96	31.92	19.98	11.94
	25-Jul-96	31.92	21.17	10.75
	22-Oct-96	31.92	21.83	10.09
	20-Jan-97	31.92	19.21	12.71
VW-8	30-Jun-95	33.78	22.32	11.46
	18-Oct-95	33.78	23.45	10.33
	30-Jan-96	33.78	21.38	12.40
	26-Apr-96	33.78	21.53	12.25
	25-Jul-96	33.78	22.97	10.81
	22-Oct-96	33.78	23.67	10.11
	20-Jan-97	33.78	20.67	13.11
VW-9	30-Jun-95	34.58	22.98	11.60

Notes:

water level elevations in feet above sea level
elev.source for December 13, 1989: PAR, 1989
elev. source for Nov. 16, 1990: ELG Surveying letter, 11/21/90
elev. source for April 3, 1992: Report on Further Delineation, June 1992
elev. source for June 21, 1994 and later dates: Moran Engineering map, 6/94
elev. source for vent wells: Moran Engineering map,7/95
OB-1 measurements discontinued following June 30, 1995 measurement

FILE: H:\SLWATLEV.WB1

Table 2: San Leandro Groundwater Analytical Data Summary

Well	Date Collected	Sample collection by	Lab	EPA Method	acetone (ug/l)	benzene (ug/l)	bromo-benzene (ug/l)	bromo-chloro methane (ug/l)	bromo dichloro-methane (ug/l)	bromo-form (ug/l)	bromo-methane (ug/l)	2-butanone (ug/l)	n-butyl-benzene (ug/l)	carbon disulfide (ug/l)	carbon tetra-chloride (ug/l)	chloro-benzene (ug/l)	chloro-ethane (ug/l)	chloro-form (ug/l)	chloro-methane (ug/l)	2-chloro-toluene (ug/l)	4-chloro-toluene (ug/l)	dibromo-chloro-methane (ug/l)	1,2-dibromo-3-chloro-propane (ug/l)	1,2 di-bromo-ethane (ug/l)	dibromo-methane (ug/l)	1,2-di-chloro-benzene (ug/l)	1,3-di-chloro-benzene (ug/l)	1,4-di-chloro-benzene (ug/l)	dichloro-difluoro-methane (ug/l)	1,1-di-chloro-ethane (ug/l)	1,2-di-chloro-ethane (ug/l)	1,1-di-chloro-ethene (ug/l)	cis-1,2-dichloro-ethene (ug/l)	trans-1,2-dichloro-ethene (ug/l)	1,2-dichloro-propane (ug/l)	1,3-dichloro-propane (ug/l)	2,2-dichloro-propane (ug/l)	1,1-dichloro-propene (ug/l)
MW-1	17-Nov-89	IT	PAL	8010/8020		ND																																
	21-Jun-94	CEC	ARC	8260		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
	21-Jun-94	CEC	ARC	8015																									<1.0									<1.0
	21-Jun-94	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	21-Jun-94	CEC	CEC	8015																																		
	20-Oct-94	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	20-Oct-94	CEC	CEC	8015/8020		<0.4																																
	25-Jan-95	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	25-Jan-95	CEC	CEC	8015/8020		<0.4																																
MW-2	17-Nov-89	IT	PAL	8010/8020		ND																																
	21-Jun-94	CEC	ARC	8260		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
	21-Jun-94	CEC	ARC	8015																																		
	21-Jun-94	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	21-Jun-94	CEC	CEC	8015																																		
	20-Oct-94	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	20-Oct-94	CEC	CEC	8015/8020		<0.4																																
	25-Jan-95	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	25-Jan-95	CEC	CEC	8015/8020		<0.4																																
MW-3	17-Nov-89	IT	PAL																																			
	21-Jun-94	CEC	ARC	8260		27	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	17	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	42	6.6	13	<1.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	<1.0
	21-Jun-94	CEC	ARC	8015																																		
	21-Jun-94	CEC	CEC	8260	<20	34	<5	<5	<5	<5	<5	<20	7	<5	<5	19	<5	<5	<5	<5	<5	<5	<5	<5	<5	45	7	14	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	21-Jun-94	CEC	CEC	8015																																		
	20-Oct-94	CEC	CEC	8260	50	9	<5	<5	<5	<5	<5	<20	13	<5	<5	19	<5	<5	<5	<5	<5	<5	<5	<5	<5	64	9	18	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	20-Oct-94	CEC	CEC	8015/8020		8.9																																
	25-Jan-95	CEC	CEC	8260	<100	970	<30	<30	<30	<30	<30	<100	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
	25-Jan-95	CEC	CEC	8015/8020		950																																
	26-Apr-95	CEC	CEC	8260	<20	1100	<5	<5	<5	<5	<5	<20	<5	<5	<5	15	<5	<5	<5	<5	<5	<5	<5	<5	<5	43	6	11	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	26-Apr-95	CEC	CEC	8015/8020		1200																																
	30-Jun-95	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	58	9	17	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jun-95	CEC	CEC	8015/8020		16																																
	18-Oct-95	CEC	CEC	8260	<20	11	<5	<5	<5	<5	<5	<20	<5	<5	<5	15	<5	<5	<5	<5	<5	<5	<5	<5	<5	64	9	16	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	18-Oct-95	CEC	CEC	8015/8020		12																																
	30-Jan-96	CEC	CEC	8260	<20	260	<5	<5	<5	<5	<5	<20	20	<5	<5	14	<5	<5	<5	<5	<5	<5	<5	<5	<5	42	5	11	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jan-96	CEC	CEC	8015/8020		290																																
	26-Apr-96	CEC	CEC	8260	<20	330	<5	<5	<5	<5	<5	<20	22	<5	<5	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	57	7	14	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	26-Apr-96	CEC	CEC	8015/8020		210																																
	25-Jul-96	CEC	CEC	8260	<20	10	<5	<5	<5	<5	<5	<20	13	<5	<5	11	<5	<5	<5	<5	<5	<5	<5	<5	<5	62	7	15	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	25-Jul-96	CEC	CEC	8015/8020		9																																
	22-Oct-96	CEC	CEC	8260	<200	<50	<50	<50	<50	<50	<50	<200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	60	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	22-Oct-96	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	10	<5	<5	12	<5	<5	<5	<5	<5	<5	<5	<5	<5	69	6	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	22-Oct-96	CEC	CEC	8015/8020		3.1																																
	20-Jan-97	CEC	CEC	8260	<20	180	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	20-Jan-97	CEC	CEC	8015/8020		160																																
MW-4	16-Nov-90	IT	MCL	5030		1500																																
	21-Jun-94	CEC	ARC	8260		370	<1.0	<1.0	<1.0	<1.0	<1.0		19		<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	11	<1.0	>1.0 & <5.0	16	<1.0	<1.0	>1.0 & <5.0	<1.0
	21-Jun-94	CEC	ARC	8015																																		
	21-Jun-94	CEC	CEC	8260	<100	470	<30	<30	<30	<30	<30	<100	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
	21-Jun-94	CEC	CEC	8015																																		
	20-Oct-94	CEC	CEC	8260	160	260	<5	<5	<5	<5	<5	<20	17	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	7	<5	<5	<5	<5	<5	<5	<5	12	<5	<5	<5	<5
	20-Oct-94	CEC	CEC	8015/8020		360																																
	25-Jan-95	CEC	CEC	8260	<100	400	<30	<30	<30	<30	<30	<100	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30
	25-Jan-95	CEC	CEC	8015/8020		470																																
	26-Apr-95	CEC	CEC	8260	<20	470	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	8	<5	<5	<5	<5
	26-Apr-95	CEC	CEC	8015/8020		500																																
	30-Jun-95	CEC	CEC	8260	<20	600	<5	<5	<5	<5	<5	<20	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	11	<5	<5	<5	<5	<5	<5	<5
	30-Jun-95	CEC	CEC	8015/8020		390																																
	18-Oct-95	CEC	CEC	8260	<20	400	<5	<5	<5	<5	<5	<20	12	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	18-Oct-95	CEC	CEC	8015/8020		280																																
	30-Jan-96	CEC	CEC	8260	<20	180	<5	<5	<5	<5	<5	<20	22	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jan-96	CEC	CEC	8015/8020		170																																
	26-Apr-96	CEC	CEC	8260	<20	160	<5	<5	<5	<5	<5	<20	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	26-Apr-96	CEC	CEC	8015/8020		190																																
	25-Jul-96	CEC	CEC	8260	<20	110	<5	<5	<5	<5	<5	<20	8	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	11	<5	<5	<5	<5
	25-Jul-96	CEC	CEC	8015/8020		110																																
	22-Oct-96	CEC	CEC	8260	300	210	<50	<50	<50	<50	<50	<200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	22-Oct-96	CEC	CEC	8260	<20	130	<5	<5	<5	<5	<5	<20	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	10	<5	<5	<5	<5
	22-Oct-96	CEC	CEC	8015/8020		140																																
	20-Jan-97	CEC	CEC	8260	<40	250	<10	<10	<10	<10	<10	<40	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
	20-Jan-97	CEC	CEC	8015/8020		210																																
OB-1	21-Jun-94	CEC	ARC	8260		83	<1.0	<1.0	<1.0	<1.0	<1.0		>1.0 & <5.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	6.7	12	<1.0	<1.0	<1.0	<1.0
	21-Jun-94	CEC	ARC	8015																																		
	21-Jun-94	CEC	CEC	8260	<20	130	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	9	14	<5	<5	<5	<5
	21-Jun-94	CEC	CEC	8015																																		
	20-Oct-94	CEC	CEC	8260	120	48	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	9	10	<5	<5	<5	<5
	20-Oct-94	CEC	CEC	8015/8020		48																																
	25-Jan-95	CEC	CEC	8260	<20	180	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	8	10	<5	<5	<5	<5
	25-Jan-95	CEC	CEC	8015/8020		280																																
	26-Apr-95	CEC	CEC	8260	<20	190	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	7	15	<5	<5	<5	<5
	26-Apr-95	CEC	CEC	8015/8020		200																																
	30-Jun-95	CEC	CEC	8260	<20	160	[illegible]	<5	[illegible]	[illegible]	<5	<20	<5	<5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	<5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	30-Jun-95	CEC	CEC	8015/8020		140																																

ARC Aspen Research Laboratories
CEC Clayton Environmental Consultants
IT International Technology Corporation

MCL Mobile Chem Labs Inc
PAL Precision Analytical Laboratory Inc

FILE H:\QUATTRO\SL\WATNEW.WB
prepared by [illegible] 1/95
Updated 3/97

Table 2: San Leandro Groundwater Analytical Data Summary

Well	Date Collected	Sample collection by	Lab	EPA Method	cis-1,3-dichloropropene (ug/l)	trans-1,3-dichloropropene (ug/l)	ethylbenzene (ug/l)	freon 113 (ug/l)	hexachlorobutadiene (ug/l)	2-hexanone (ug/l)	isopropylbenzene (ug/l)	p-isopropyltoluene (ug/l)	methylene chloride (ug/l)	4-methyl-2-pentanone (ug/l)	MTBE (ug/l)	naphthalene (ug/l)	n-propylbenzene (ug/l)	sec-butylbenzene (ug/l)	styrene (ug/l)	tert-butylbenzene (ug/l)	1,1,1,2-tetrachloroethane (ug/l)	1,1,2,2-tetrachloroethane (ug/l)	tetrachloroethene (ug/l)	toluene (ug/l)	1,2,3-trichlorobenzene (ug/l)	1,2,4-trichlorobenzene (ug/l)	1,1,1-trichloroethane (ug/l)	1,1,2-trichloroethane (ug/l)	trichloroethene (ug/l)	trichlorofluoromethane (ug/l)	1,2,3-trichloropropane (ug/l)	1,2,4-trimethylbenzene (ug/l)	1,3,5-trimethylbenzene (ug/l)	vinyl acetate (ug/l)	vinyl chloride (ug/l)	xylenes (ug/l)	o-xylene (ug/l)	p,m xylenes (ug/l)	TPH gasoline (ug/l)	TPH EPA 8015 gasoline (ug/l)
MW-1	17-Nov-89	IT	PAL	8010/8020			ND																	ND														ND	
	21-Jun-94	CEC	ARC	8260	<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	<1.0	18	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<1.0		
	21-Jun-94	CEC	ARC	8015																																				<50
	21-Jun-94	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	20	<5	<5	<5	<5	<10	<5		<5	<5		
	21-Jun-94	CEC	CEC	8015																																				<50
	20-Oct-94	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	11	<5	<5	<5	<5	<10	<5		<5	<5		
	20-Oct-94	CEC	CEC	8015/8020			<0.3																	<0.3													<0.4	<0.4		<50
	25-Jan-95	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	16	<5	<5	<5	<5	<10	<5		<5	<5		
	25-Jan-95	CEC	CEC	8015/8020			<0.3																	<0.3													<0.4	<0.4		<50
MW-2	17-Nov-89	IT	PAL	8010/8020			ND																	ND					10							ND			
	21-Jun-94	CEC	ARC	8260	<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	<1.0		
	21-Jun-94	CEC	ARC	8015																																				<50
	21-Jun-94	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	<5	<5	<5	<10	<5		<5	<5		
	21-Jun-94	CEC	CEC	8015																																				<50
	20-Oct-94	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	<5	<5	<5	<10	<5		<5	<5		
	20-Oct-94	CEC	CEC	8015/8020			<0.3																	<0.3													<0.4	<0.4		<50
	25-Jan-95	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	<5	<5	<5	<10	<5		<5	<5		
	25-Jan-95	CEC	CEC	8015/8020			<0.3																	<0.3													<0.4	<0.4		<50
MW-3	17-Nov-89																																							
	21-Jun-94	CEC	ARC	8260	<1.0	<1.0	120		<1.0		13	>1.0 & <5.0	<1.0			18	33	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	63		<1.0		31	100		
	21-Jun-94	CEC	ARC	8015																																				2700
	21-Jun-94	CEC	CEC	8260	<5	<5	170	<5	<5	<20	17	<5	<5	<5		<5	43	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	22	<5	<5	120	22	<10	<5		40	150		
	21-Jun-94	CEC	CEC	8015																																				2900
	20-Oct-94	CEC	CEC	8260	<5	<5	90	<5	<5	<20	20	<5	<5	<5		29	43	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	22	<5	<5	150	46	<10	<5		68	140		
	20-Oct-94	CEC	CEC	8015/8020			96																	4.4													69	160		2600
	25-Jan-95	CEC	CEC	8260	<30	<30	80	<30	<30	<100	<30	<30	<30	<100		100	<30	<30	<30	<30	<30	<30	<30	410	<30	<30	<30	<30	<30	<30	<30	<30	<30		820	1000		
	25-Jan-95	CEC	CEC	8015/8020			86																	340													780	1100		7100
	26-Apr-95	CEC	CEC	8260	<5	<5	640	<5	<5	<20	29	<5	<5	<20		150	33	5	<5	62	<5	<5	<5	1600	<5	<5	<5	<5	<5	<5	<5	650	160	<10	<5		900	2100		
	26-Apr-95	CEC	CEC	8015/8020			720																	1700													940	1500		14000
	30-Jun-95	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5		14	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	54	40	<10	<5		26	41		
	30-Jun-95	CEC	CEC	8015/8020			20																	1.7													33	99		1600
	18-Oct-95	CEC	CEC	8260	<5	<5	46	<5	<5	<20	9	<5	<5	<5		14	23	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	110	28	<10	<5		23	77		
	18-Oct-95	CEC	CEC	8015/8020			46																	1.5													24	83		2000
	30-Jan-96	CEC	CEC	8260	<5	<5	160	<5	<5	<20	17	<5	<5	<20		35	57	5	<5	<5	<5	<5	<5	46	<5	<5	<5	<5	<5	<5	<5	390	110	<10	<5		570	530		
	30-Jan-96	CEC	CEC	8015/8020			150																	48													590	740		6400
	26-Apr-96	CEC	CEC	8260	<5	<5	270	<5	<5	<20	19	<5	<5	<20	<5	89	65	7	<5	<5	<5	<5	<5	140	<5	<5	<5	<5	<5	<5	<5	440	110	<10	<5		600	1200		
	26-Apr-96	CEC	CEC	8015/8020			170																	100													320	540		5200
	25-Jul-96	CEC	CEC	8260	<5	<5	35	<5	<5	<20	7	<5	<5	<20	<5	10	26	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	140	35	<10	<5		7	36		
	25-Jul-96	CEC	CEC	8015/8020			27																	<0.3													7.8	30		2100
	22-Oct-96	CEC	CEC	8260	<50	<50	<50	<50	<50	<200	<50	<50	<50	<200		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	90	<50	<100	<50	<50		<50	<50		
	22-Oct-96	CEC	CEC	8015/8020			13	<5	<5	<20	<5	<5	<5	<20		9	18	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	95	23		<5			<5	14		
	22-Oct-96	CEC	CEC	8015/8020			13																	<0.5													4.0	16		1800
	20-Jan-97	CEC	CEC	8260	<5	<5	17	<5	<5	<5	<5	<5	<5	<20	<5	28	<5	<5	<5	<5	<5	<5	<5	9	<5	<5	<5	<5	<5	<5	<5	68	10	<10	<5		250	99		
	20-Jan-97	CEC	CEC	8015/8020			13																	7.3													240	82		1200
MW-4	16-Nov-90	IT	MCL	5030			720																	2000												27000			32000	
	21-Jun-94	CEC	ARC	8260	<1.0	<1.0	230		<1.0		43	>1.0 & <5.0	<1.0			46	54	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	<1.0	19	<1.0	<1.0	<1.0	<1.0	15	<1.0	<1.0	<1.0	110		>1.0 & <5.0		44	270		
	21-Jun-94	CEC	ARC	8015																																				8000
	21-Jun-94	CEC	CEC	8260	<30	<30	360	<30	<30	<100	50	<30	<30	<100		<30	50	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	<30	530	110	<50	<30		50	530		
	21-Jun-94	CEC	CEC	8015																																				7600
	20-Oct-94	CEC	CEC	8260	<5	<5	240	<5	<5	<5	66	<5	<5	<20		98	78	8	<5	<5	<5	<5	<5	34	<5	<5	<5	<5	27	<5	<5	300	100	<10	<5		110	330		
	20-Oct-94	CEC	CEC	8015/8020			270																	33													120	520		7800
	25-Jan-95	CEC	CEC	8260	<30	<30	420	<30	<30	<30	<100	40	<30	<30		120	100	<30	<30	<30	<30	<30	<30	90	<30	<30	<30	<30	<30	<30	<30	500	120	<50	<30		310	550		
	25-Jan-95	CEC	CEC	8015/8020			520																	110													320	730		9700
	26-Apr-95	CEC	CEC	8260	<5	<5	390	<5	<5	<20	51	<5	<5	<20		54	61	5	<5	<5	<5	<5	<5	17	<5	<5	<5	<5	14	<5	<5	490	81	<10	<5		60	430		
	26-Apr-95	CEC	CEC	8015/8020			250																	11													24	210		6100
	30-Jun-95	CEC	CEC	8260	<5	<5	570	<5	<5	<5	60	<5	<5	<20		38	110	10	<5	<5	<5	<5	<5	19	<5	<5	<5	<5	8	<5	<5	690	130	<10	<5		74	520		
	30-Jun-95	CEC	CEC	8015/8020			380																	18													53	400		7900
	18-Oct-95	CEC	CEC	8260	<5	<5	490	<5	<5	<5	53	<5	<5	<20		65	110	13	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	530	91	<10	<5		17	250		
	18-Oct-95	CEC	CEC	8015/8020			330																	5.4													10	190		5900
	30-Jan-96	CEC	CEC	8260	<5	<5	280	<5	<5	<5	34		<5	<20		85	89	10	<5	<5	<5	<5	<5	12	<5	<5	<5	<5	<5	<5	<5	500	120	<10	<5		110	330		
	30-Jan-96	CEC	CEC	8015/8020			310																	12													110	380		5900
	26-Apr-96	CEC	CEC	8260	<5	<5	240	<5	<5	<5	56	<5	<5	<20	<5	45	51	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	15	<5	<5	270	69	<10	<5		15	160		
	26-Apr-96	CEC	CEC	8015/8020			230																	3.6													17	170		5400
	25-Jul-96	CEC	CEC	8260	<5	<5	170	<5	<5	<5	53	<5	<5	<20	<5	32	39	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	22	<5	<5	180	44	<10	<5		11	110		
	25-Jul-96	CEC	CEC	8015/8020			170																	9.6													12	95		4300
	22-Oct-96	CEC	CEC	8260	<50	<50	240	<50	<50	<200	<50	<50	<50	<200		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	340	50	<100	<50	<50		<50	170		
	22-Oct-96	CEC	CEC	8260	<5	<5	200	<5	<5	<5	56	<5	<5	<20		36	36	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	22	<5	<5	220	47	<5	<5		6	140		
	22-Oct-96	CEC	CEC	8015/8020			220																	12													9.3	170		4800
	20-Jan-97	CEC	CEC	8260	<10	<10	410	<10		<40	50	<10	<10	<40	<10	70	110	15	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	500	90	<10	<10		10	180		
	20-Jan-97	CEC	CEC	8015/8020			340																	2.8													10	210		6400
OB-1	21-Jun-94	CEC	ARC	8260	<1.0	<1.0	10		<1.0		28	<1.0	<1.0			>1.0 & <5.0	5.4	<1.0 & >5.0	<1.0	<1.0	<1.0	<1.0	<1.0	>1.0 & <5.0	<1.0	<1.0	<1.0	<1.0	31	<1.0	<1.0	>1.0 & <5.0	<1.0		<1.0		>1.0 & <5.0	6.6		
	21-Jun-94	CEC	ARC	8015																																				2800
	21-Jun-94	CEC	CEC	8260	<5	<5	10	<5	<5	<20	39	<5	<5	<20		<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	42	<5	<5	<5	<5	<10	<5		<5	7		
	21-Jun-94	CEC	CEC	8015																																				1600
	20-Oct-94	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	30	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	86	<5	<5	<5	<5	<10	<5		<5	<5		
	20-Oct-94	CEC	CEC	8015/8020			5.2																	3.3													0.91	5		2600
	25-Jan-95	CEC	CEC	8260	<5	<5	32	<5	<5	<20	30	44	<5	<20		<5	11	<5	<5	<5	<5	<5	<5	39	<5	33	<5	<5	27	<5	<5	<5	<5	<10	<5		21	45		
	25-Jan-95	CEC	CEC	8015/8020			24																	2.9													15	35		3900
	26-Apr-95	CEC	CEC	8260	<5	<5	10	<5	<5	<20	38	<5	<5	<20		<5	8	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	57	<5	<5	5	<5	<10	<5		<5	8		
	26-Apr-95	CEC	CEC	8015/8020			7.4																	3.4													2	5.2		2400
	30-Jun-95	CEC	CEC	8260	<5	<5	17	<5	<5	<20	48	<5	<5	<20		<5	11	<5	<5	<5	<5	<5	<5	7	<5	<5	<5	<5	55	<5	<5	8	<5	<10	<5		3.1	15		
	30-Jun-95	CEC	CEC	8015/8020			15																	7													3.1	13		2500

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PAL - Precision Analytical Laboratory, Inc.

Table 2: San Leandro Groundwater Analytical Data Summary

Well	Date Collected	Sample collection by	Lab	EPA Method	acetone (ug/l)	benzene (ug/l)	bromo-benzene (ug/l)	bromo-chloro methane (ug/l)	bromo dichloro-methane (ug/l)	bromo-form (ug/l)	bromo-methane (ug/l)	2-buta-none (ug/l)	n-butyl-benzene (ug/l)	carbon disulfide (ug/l)	carbon tetra-chloride (ug/l)	chloro-benzene (ug/l)	chloro-ethane (ug/l)	chloro-form (ug/l)	chloro-methane (ug/l)	2-chloro-toluene (ug/l)	4-chloro-toluene (ug/l)	dibromo-chloro-methane (ug/l)	1,2-dibromo-3-chloro-propane (ug/l)	1,2-di-bromo methane (ug/l)	dibromo-methane (ug/l)	1,2-di-chloro-benzene (ug/l)	1,3-di-chloro-benzene (ug/l)	1,4-di-chloro-benzene (ug/l)	dichloro-difluoro-methane (ug/l)	1,1-di-chloro-ethane (ug/l)	1,2-di-chloro-ethane (ug/l)	1,1-di-chloro-ethene (ug/l)	cis-1,2-dichloro-ethene (ug/l)	trans-1,2-dichloro-ethene (ug/l)	1,2-dichloro-propane (ug/l)	1,3-dichloro-propane (ug/l)	2,2-dichloro-propane (ug/l)	1,1-dichloro-propene (ug/l)
VW-5	30-Jun-95	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jun-95	CEC	CEC	8015/8020		<0.4																																
VW-6	30-Jun-95	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jun-95	CEC	CEC	8015/8020		<0.4																																
VW-8	28-Jul-95	CEC	CEC	8260	<20	250	<5	<5	<5	<5	<5	<5	<20	9	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5	<5
	28-Jul-95	CEC	CEC	8015/8020		280																																
	18-Oct-95	CEC	CEC	8260	<20	290	<5	<5	<5	<5	<5	<5	<20	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	18-Oct-95	CEC	CEC	8015/8020		15																																
	30-Jan-96	CEC	CEC	8260	<20	<5	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	30-Jan-96	CEC	CEC	8015/8020		18																																
	26-Apr-96	CEC	CEC	8260	<20	41	<5	<5	<5	<5	<5	<5	<20	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	26-Apr-96	CEC	CEC	8015/8020		34																																
	25-Jul-96	CEC	CEC	8260	<20	72	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	25-Jul-96	CEC	CEC	8015/8020		74																																
	22-Oct-96	CEC	CEC	8260	<200	170	<50	<50	<50	<50	<50	<200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
	22-Oct-96	CEC	CEC	8260	<20	170	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	22-Oct-96	CEC	CEC	8015/8020		180																																
	20-Jan-97	CEC	CEC	8260	<20	14	<5	<5	<5	<5	<5	<5	<20	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
	20-Jan-97	CEC	CEC	8015/8020		16																																
VW-9	28-Jul-95	CEC	CEC	8260	<20	5600	<5	<5	<5	<5	<5	<5	<20	131	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	33	<5	6	<5	<5	<5	<5
	28-Jul-95	CEC	CEC	8015/8020		7500																																

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PAL - Precision Analytical Laboratory, Inc.

FILE: H:\QUATTRO\SLWATNEW.WB1
prepared by: JJM, 1/95
updated: 3/97

Table 2: San Leandro Groundwater Analytical Data Summary

Well	Date Collected	Sample collection by	Lab	EPA Method	cis-1,3-dichloropropene ug/l	trans-1,3-dichloropropene (ug/l)	ethylbenzene (ug/l)	freon 113 (ug/l)	hexachlorobutadiene (ug/l)	2-hexanone (ug/l)	isopropylbenzene (ug/l)	p-isopropyltoluene (ug/l)	methylene chloride (ug/l)	4-methyl-2-pentanone (ug/l)	MTBE (ug/l)	naphthalene (ug/l)	n-propylbenzene (ug/l)	sec-butylbenzene (ug/l)	styrene (ug/l)	tert-butylbenzene (ug/l)	1,1,1,2-tetrachloroethane (ug/l)	1,1,2,2-tetrachloroethane (ug/l)	tetrachloroethene ug/l	toluene (ug/l)	1,2,3-trichlorobenzene (ug/l)	1,2,4-trichlorobenzene (ug/l)	1,1,1-trichloroethane (ug/l)	1,1,2-trichloroethane (ug/l)	trichloroethene (ug/l)	trichlorofluoromethane (ug/l)	1,2,3-trichloropropane (ug/l)	1,2,4-trimethylbenzene (ug/l)	1,3,5-trimethylbenzene (ug/l)	vinyl acetate (ug/l)	vinyl chloride (ug/l)	xylenes (ug/l)	o-xylene ug/l)	p,m xylenes (ug/l)	TPH gasoline (ug/l)	TPH EPA 8015 gasoline (ug/l)
VW-5	30-Jun-95	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5		<5	<5		
	30-Jun-95	CEC	CEC	8015/8020			<0.3																	<0.3													<0.4	<0.4		<50
VW-6	30-Jun-95	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<10	<5		<5	<5		
	30-Jun-95	CEC	CEC	8015/8020			<0.3																	<0.3													<0.4	<0.4		<50
VW-8	28-Jul-95	CEC	CEC	8260	<5	<5	210	<5	<5	<20	21	<5	<5	<20		46	57	5	<5	<5	<5	<5	<5	44	<5	<5	<5	<5	<5	<5	<5	270	61	<10	<5		130	210		
	28-Jul-95	CEC	CEC	8015/8020			230																	570													39	180		5300
	18-Oct-95	CEC	CEC	8260	<5	<5	200	<5	<5	<20	17	<5	<5	<20		32	45	<5	<5	<5	<5	<5	<5	11	<5	<5	<5	<5	<5	<5	<5	170	21	<10	<5		31	59		
	18-Oct-95	CEC	CEC	8015/8020			0.6																	0.3													<0.4	<0.4		500
	30-Jan-96	CEC	CEC	8260	<5	<5	<5	<5	<5	<20	<5	<5	<5	<20		<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5				<5	<5		
	30-Jan-96	CEC	CEC	8015/8020			7.2																	1.5													2.6	2.9		50
	26-Apr-96	CEC	CEC	8260	<5	<5	91	<5		<20	9	<5	<5	<20	<30	18	35	<5	<5	<5	<5	<5	<5	41	<5	<5	<5	<5	<5	<5	<5	91	93	<10	<5		49	120		
	26-Apr-96	CEC	CEC	8015/8020			58																	31													35	80		1400
	25-Jul-96	CEC	CEC	8260	<5	<5	50	<5	<5	<20	<5	<5	<5	<20	<5	<5	10	<5	<5	<5	<5	<5	<5	<5	<5	10	<5	<5	<5	<5	<5	<5	<5	<10			<5	<5		
	25-Jul-96	CEC	CEC	8015/8020			46																	3													0.9	3.6		800
	22-Oct-96	CEC	CEC	8260	<50	<50	160	<50	<50	<200	<50	<50	<50	<200	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<100	<50		<50	<50		
	22-Oct-96	CEC	CEC	8260	<5	<5	190	<5	<5	<20	11	<5	<5	<20		5	35	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5		<5	<5		
	22-Oct-96	CEC	CEC	8015/8020			190																	3.9													1.0	6.8		2300
	20-Jan-97	CEC	CEC	8260	<5	<5	29	<5	<5	<20	<5	<5	<5	<20	<5	5	9	<5	<5	<5	<5	<5	<5	7	<5	<5	<5	<5	<5	<5	<5	29	9	<5	<5		14	41		
	20-Jan-97	CEC	CEC	8015/8020			30																	6.8													15	42		920
VW-9	28-Jul-95	CEC	CEC	8260	<5	<5	970	<5	<5	<20	48	<5	<5	<20		240	120	9	<5	<5	<5	<5	<5	2600	<5	<5	<5	<5	<5	<5	<5	650	190	<10	<5		1100	1900		
	28-Jul-95	CEC	CEC	8015/8020			1100																	3500													1200	2400		32000

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FILE: H:\QUATTRO\SLWATNEW\WB1
prepared by: JJM, 1/95
updated 12/96

TABLE 3

Note: Photoionization detection (PID) readings, in ppm, using OVM 580M

Date	Time	Blower/ Vessel #1	Vessel #1/ Vessel #2	Vessel #2/ Vessel #3	Vessel #3/ Exhaust	Comments
10/5/95	4:00 PM	177.0	1.1	0.3	0.0	
10/6/95	3:30 PM	172.0	1.1	0.0	0.0	
10/9/95	3:00 PM	158.0	1.9	0.3	0.0	
10/10/95	6:00 AM	165.0	1.9	0.3	0.0	
10/11/95	8:00 AM	158.0	1.9	0.3	0.0	
10/12/95	5:00 PM	154.0	1.1	0.3	0.0	
10/13/95	4:45 PM	152.0	1.9	0.3	0.0	
10/14/95	11:00 AM	148.0	1.9	0.3	0.0	
10/16/95	12:00 PM	148.0	1.9	0.3	0.0	
10/17/95	1:25 PM	147.0	1.3	0.3	0.0	
10/18/95	12:00 PM	146.0	1.2	0.3	0.0	
10/19/95	5:00 PM	126.0	1.9	0.3	0.0	
10/20/95	5:00 PM	130.0	1.9	0.4	0.0	
10/21/95	7:39 AM	132.0	1.5	0.4	0.0	
10/22/95						Sunday off
10/23/95	8:25 AM	125.0	2.3	0.3	0.0	
10/24/95	12:00 PM	115.0	1.9	0.2	0.0	
10/25/95	5:00 PM	112.0	2.3	0.1	0.0	
10/26/95	12:00 PM	110.0	2.4	2.2	1.2	
10/27/95	12:00 PM	111.0	2.3	2.2	1.2	
10/28/95	3:30 PM	109.0	2.7	2.2	1.7	
10/30/95	5:00 PM	101.0	2.6	3.1	3.0	
10/31/95	1:00 PM	103.0	2.6	3.5	2.6	
11/1/95						
11/7/95		89.0	2.0	0.2	0.0	with Toxi RAE
11/7/95		101.0	2.7	2.6	1.0	with Toxi RAE
11/8/95		109.0	2.8	0.5	3.0	with Toxi RAE
11/9/95						Shut down 11-9 to 11-14 to test meter
11/14/95		69.0	0.8	0.2	0.2	with Mini RAE
11/15/95		68.2	0.6	0.4	0.2	with Mini RAE
11/16/95		69.1	0.8	0.4	0.2	outside = 12.0
11/17/95						shut down 11-17 to 11-22 to test meters
11/22/95		70.2	0.7	0.4	0.2	outside = 2.0
11/23/95						shut off 11-23 to 11-27 for holiday
11/27/95	3:00 PM	71.5	0.8	0.6	0.3	outside = 2.1
11/28/95	5:00 PM	72.0	0.7	0.4	0.2	outside = 2.0
11/29/95	8:25 AM	71.1	0.8	0.4	0.2	outside = 2.1
11/30/95	4:15 PM	70.2	0.8	0.5	0.1	outside = 2.0
12/1/95	5:25 PM	69.8	0.6	0.4	0.2	outside = 2.1
12/2/95	1:52 PM	70.2	0.8	0.4	0.1	outside = 2.0
12/4/95	4:00 PM	70.2	0.9	0.5	0.2	outside = 2.5
12/5/95	5:00 PM	69.5	0.8	0.6	0.2	outside = 2.6
12/6/95	5:00 PM	70.5	0.7	0.4	0.2	outside = 2.4
12/7/95	12:50 PM	69.8	0.8	0.5	0.1	outside = 2.5
12/8/95	5:00 PM	70.2	0.7	0.4	0.2	outside = 2.4
12/13/95	12:25 PM	69.2	0.9	0.6	0.2	outside = 2.6
12/14/95	5:00 PM	70.3	0.8	0.4	0.2	outside = 2.5
12/15/95	5:00 PM	70.5	0.9	0.6	0.3	outside = 2.2
12/18/95	5:00 PM	69.8	1.7	0.3	0.0	
12/19/95	4:30 PM	68.8	1.6	0.2	0.0	
12/20/95	12:25 PM	67.0	1.3	0.5	0.0	
12/21/95	11:30 AM	69.8	1.7	0.7	0.1	
12/22/95	2:30 PM	67.0	2.3	0.2	0.0	
12/26/95	3:35 PM	63.2	1.3	0.1	0.0	
12/27/95	4:10 PM	59.9	0.8	0.1	0.0	
12/28/95	5:00 PM	58.7	0.6	0.0	0.0	
12/29/95	5:10 PM	58.3	0.4	0.0	0.0	
12/30/95						Shut down 12-30 to 1-9 no one to monitor

Record of Daily Monitoring Soil Vapor Extraction System IRES/San Leandro, California

Date	Time	Blower/ Vessel #1	Vessel #1/ Vessel #2	Vessel #2/ Vessel #3	Vessel #3/ Exhaust	Comments
1/9/96		58.8	0.8	0.1	0.0	
1/10/96		56.8	0.6	0.1	0.0	
1/11/96		55.9	0.5	0.1	0 0	
1/12/96		55.2	0.5	0.1	0.0	
1/13/96		52.5	0 3	0.0	0.0	
1/14/96		51.6	0.3	0.0	0.0	
1/15/96		50.1	0.3	0.0	0.0	
1/22/96		51.6	0.3	0.0	0.0	
1/23/96		50.1	0.3	0.0	0.0	
1/24/96		49.2	0.3	0.0	0.0	
1/25/96		49.0	0.3	0.0	0.0	
1/26/96		48.7	0.2	0.0	0.0	
1/29/96		48.6	0 2	0.0	0.0	
1/30/96		47 9	0.2	0.0	0.0	
1/31/96						unit shut off for quarterly sampling
2/1/96		48.2	0 2	0.0	0.0	
2/2/96		48.7	0.2	0.0	0.0	
2/5/96		49.1	0.2	0 0	0.0	
2/6/96		48.7	0.2	0.0	0.0	
2/9/96						not reading
2/20/96						drained 18 gal.of water
2/21/96						water being exited out of exhaust
2/21/96		3.0	0.0	0.0	0.0	
2/22/96		3.0	0.0	0 0	0.0	
2/23/96		2.8	0.0	0 0	0.0	
2/24/96		2.6	0.0	0.0	0.0	
2/26/96		2.7	0.0	0.0	0.0	
2/27/96		2 9	0.0	0.0	0.0	
2/28/96		2.6	0.0	0.0	0.0	
2/29/96						drained water; tank 1/2 full.
3/1/96		2.4	0.0	0.0	0.0	
3/4/96		1.9	0.0	0 0	0.0	
3/5/96		2.0	0.0	0.0	0.0	
3/6/96		1.8	0.0	0.0	0.0	
3/7/96						drained water, tank 1/3 full
3/20/96		0.0	0.0	0.0	0.0	
3/21/96						no reading, drained water, 1/3 full
3/22/96		1.5	0.0	0 0	0.0	drained water
3/26/96		1.6	0.0	0.0	0.0	
3/27/96		1.7	0 0	0.0	0.0	
4/3/96		1.2	0.0	0.0	0.0	
4/4/96		1.4	0.0	0.0	0.0	
4/8/96		1.6	0.0	0.0	0.0	
4/9/96		2.8	0.0	0.0	0.0	
4/10/96		2.6	0.0	0.0	0.0	
4/11/96		2 9	0.0	0.0	0.0	
4/12/96		2.7	0.0	0.0	0 0	
4/15/96						system off, no readings
4/16/96						system off; no readings
4/17/96						system off; no readings
4/18/96						system off; no readings
4/19/96		6.9	0.0	0.0	0.0	
4/22/96		7.6	0.0	0.0	0.0	
4/23/96		8.4	0.0	0.0	0.0	
4/24/96		8.2	0.0	0.0	0.0	
4/25/96		7.6	0.0	0.0	0.0	drained water; 1/3 tank of water
4/26/96		7.1	0.0	0.0	0.0	
4/29/96		9.1	0.0	0.0	0.0	
4/30/96		9.1	0.0	0.0	0.0	
5/1/96		9.8	0.0	0.0	0.0	
5/2/96		9.6	0.0	0.0	0.0	
5/3/96		10.2	0.0	0.0	0.0	
5/6/96						system off, no readings
5/7/96		13.6	0.0	0.0		

Record of Daily Monitoring Soil Vapor Extraction System IRES/San Leandro, California

Date	Time	Blower/ Vessel #1	Vessel #1/ Vessel #2	Vessel #2/ Vessel #3	Vessel #3/ Exhaust	Comments
5/8/96		14.4	0.0	0.0	0.0	
5/9/96		14.3	0.0	0.0	0.0	
5/10/96		14.4	0.0	0.0	0.0	
5/13/96						system off, no readings
5/14/96						system off, no readings
5/15/96		11.1	0.0	0.0	0.0	raining
5/16/96		10.4	0.0	0.0	0.0	raining
5/17/96						no readings
5/20/96						no readings
5/21/96						no readings
5/22/96						no readings
5/23/96						no readings
5/24/96						no readings
5/27/96						no readings
5/28/96						no readings
5/29/96						no readings
5/30/96						no readings
5/31/96						no readings
6/3/96		13.2	0.0	0.0	0.0	
6/4/96		13.6	0.0	0.0	0.0	
6/5/96		13.0	0 0	0.0	0 0	
6/6/96		13.5	0.0	0.0	0.0	
6/7/96		13.4	0.0	0.0	0.0	
6/10/96		15.5	0.0	0.0	0.0	
6/11/96		15.3	0.0	0.0	0.0	
6/12/96		16.0	0.0	0.0	0.0	
6/13/96		15.3	0.0	0.0	0 0	
6/14/96		15.1	0.0	0.0	0.0	
6/17/96		10.2	0.0	0.0	0.0	
6/18/96		12.5	0.0	0.0	0.0	
6/19/96		16.6	0 0	0.0	0 0	
6/20/96		17.2	0.0	0.0	0.0	
6/21/96		17.2	0.0	0 0	0.0	
6/24/96		19.1	0.0	0.0	0.0	
6/25/96		18.2	0.0	0.0	0.0	
6/26/96		17.2	0.0	0.0	0.0	
6/27/96		16.6	0.0	0.0	0.0	
6/28/96		16.1	0.0	0.0	0 0	
7/1/96		15.1	0.0	0.0	0.0	
7/2/96		16.9	0.0	0 0	0.0	
7/3/96		17.1	0.0	0.0	0.0	
7/8/96		18.6	0.0	0.0	0.0	
7/9/96		17.9	0.0	0.0	0.0	
7/10/96		19.1	0.0	0.0	0.0	
7/11/96		16.9	0.0	0 0	0.0	
7/12/96		16.9	0.0	0.0	0.0	
7/15/96		17.4	0.0	0.0	0.0	
7/16/96		16.4	0.0	0.0	0 0	
7/17/96		16.6	0.0	0.0	0.0	
7/18/96		17.2	0.0	0.0	0.0	
7/19/96		16.6	0.0	0.0	0.0	
7/22/96		14.3	0.0	0.0	0.0	
7/23/96		13.6	0.0	0.0	0.0	
7/24/96		13.2	0.0	0.0	0.0	
7/25/96		16.2	0.0	0.0	0.0	
7/26/96		15.1	0.0	0.0	0.0	
7/29/96		14.7	0 0	0.0	0.0	
7/30/96		14.3	0.0	0.0	0.0	
7/31/96		13.7	0.0	0.0	0.0	
8/1/96		14.5	0.0	0.0	0.0	
8/2/96		13.2	0.0	0.0	0.0	
8/5/96		14.5	0.0	0.0	0.0	
8/6/96		11.4	0.0	0.0	0.0	

Record of Daily Monitoring Soil Vapor Extraction System IRES/San Leandro, California

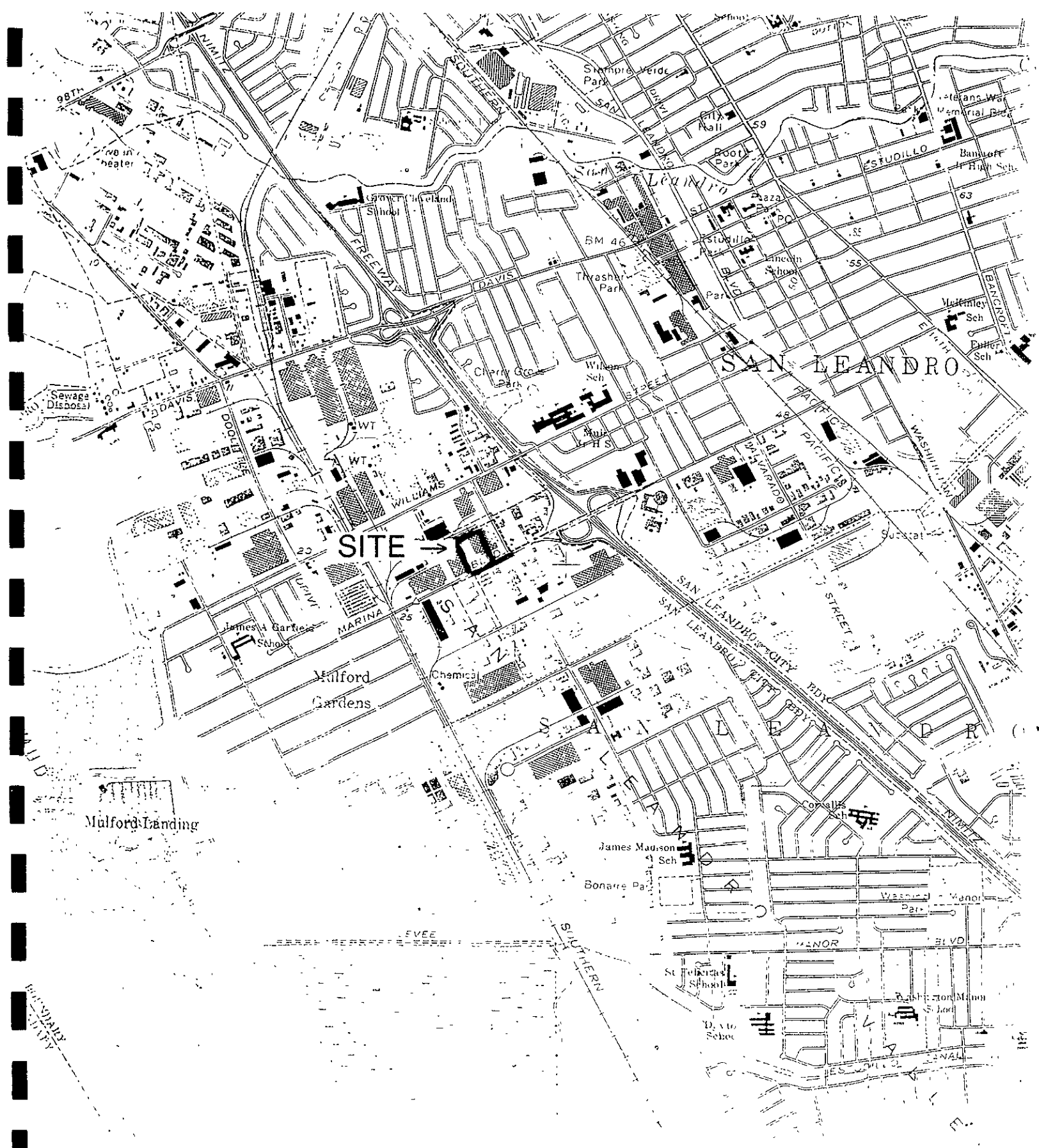
Date	Time	Blower/ Vessel #1	Vessel #1/ Vessel #2	Vessel #2/ Vessel #3	Vessel #3/ Exhaust	Comments
8/7/96		8.0	0.0	0 0	0 0	
8/8/96		9.7	0.0	0.0	0.0	
8/9/96		11.0	0.0	0.0	0.0	
8/12/96		10.6	0.0	0.0	0.0	
8/13/96		10.4	0.0	0 0	0.0	
8/14/96		10.1	0.0	0.0	0.0	
8/15/96		10.2	0.0	0.0	0.0	
8/16/96		10 3	0 0	0.0	0.0	
8/19/96		9.7	0.0	0.0	0.0	
8/20/96		9.3	0.0	0.0	0.0	
8/21/96		9.4	0.0	0.0	0.0	
8/22/96		8.6	0.0	0.0	0.0	
8/23/96		8.8	0.0	0.0	0.0	
8/26/96		2.7	0.0	0.0	0.0	
8/27/96		0.1	0.0	0.0	0.0	
8/28/96		3 1	0.0	0.0	0.0	
8/29/96		2.1	0.0	0.0	0.0	
8/30/96		2.5	0.0	0.0	0.0	
9/2/96		3.9	0.0	0.0	0.0	
9/3/96		3.8	0.0	0.0	0.0	
9/4/96		4.2	0.0	0.0	0.0	
9/5/96		4.7	0.0	0.0	0.0	
9/6/96		4.5	0 0	0.0	0.0	
9/7/96						no reading (weekend)
9/8/96						no reading (weekend)
9/9/96		3.8	0.0	0.0	0.0	
9/10/96		3.9	0.0	0.0	0.0	
9/11/96		4.2	0.0	0.0	0.0	
9/12/96		4.8	0.0	0.0	0 0	
9/13/96		3.7	0.0	0.0	0.0	
9/16/96		3.7	0.0	0.0	0.0	
9/17/96		4.3	0.0	0.0	0.0	
9/18/96		3.1	0.0	0 0	0.0	
9/19/96		4.2	0 0	0 0	0.0	
9/20/96		3.6	0.0	0.0	0.0	
9/23/96		4.0	0.0	0.0	0.0	
9/24/96		4.8	0.0	0.0	0.0	
9/25/96		4.6	0.0	0.0	0.0	
9/26/96		3.8	0.0	0.0	0.0	
9/27/96		3.8	0.0	0.0	0.0	
9/30/96		4.5	0.0	0.0	0 0	
10/1/96		4.3	0.0	0.0	0 0	
10/2/96		3.6	0.0	0.0	0.0	
10/3/96		3.8	0.0	0 0	0.0	
10/4/96		2.7	0.0	0.0	0.0	
10/7/96		2.5	0.0	0.0	0.0	
10/8/96		3.6	0.0	0.0	0.0	
10/9/96		3.8	0 0	0.0	0.0	
10/10/96		4.5	0.0	0.0	0.0	
10/11/96		4.3	0.0	0.0	0.0	
10/14/96		4.2	0.0	0.0	0 0	
10/15/96		3.8	0.0	0.0	0.0	
10/16/96		3.4	0.0	0.0	0.0	
10/17/96		3.9	0 0	0.0	0.0	
10/18/96		3.7	0.0	0.0	0.0	
10/21/96		3.1	0.0	0.0	0.0	
10/22/96		2.4	0.0	0 0	0.0	
10/23/96		2.5	0.0	0.0	0.0	
10/24/96		1.7	0.0	0.0	0.0	
10/25/96		1.9	0.0	0.0	0.0	
10/28/96		2.8	0.0	0.0	0.0	
10/29/96		2.7	0.0	0.0	0.0	Rainy Day
10/30/96		2.3	0 0	0.0	0.0	Rainy Day
10/31/96		1.9	0.0	0.0	0 0	

Record of Daily Monitoring Soil Vapor Extraction System IRES/San Leandro, California

Date	Time	Blower/ Vessel #1	Vessel #1/ Vessel #2	Vessel #2/ Vessel #3	Vessel #3/ Exhaust	Comments
11/1/96		1.6	0.0	0.0	0.0	
11/4/96						OVM meter broken
11/5/96						OVM meter broken
11/6/96						OVM meter broken
11/7/96		0.0	0.3	0.0	0.0	
11/8/96		0.0	0.0	0.0	0.0	
11/11/96		0.0	0.0	0.0	0.0	
11/12/96		0 0	0.0	0.0	0 0	
11/13/96		0.0	0.0	0.0	0.0	
11/14/96		0.0	0.0	0.0	0 0	
11/15/96		0.0	0.0	0.0	0 0	
11/18/96						No reading -- raining
11/19/96						No reading -- raining
11/20/96		0.0	0.0	0.0	0.0	
11/21/96						No reading -- raining
11/22/96		0.0	0.0	0.0	0.0	
11/25/96		0.0	0.0	0.0	0.0	
11/26/96		0.0	0.0	0.0	0.0	
11/27/96						Thanksgiving holiday -- no reading
12/2/96		0.0	0.0	0.0	0.0	
12/3/96		0.0	0.0	0.0	0.0	Drained tank (~2/3 full)
12/4/96						No reading -- raining
12/5/96		0.0	0 0	0.0	0.0	Drained tank (~1/4 full)
12/6/96		0.0	0.0	0.0	0.0	
12/9/96		0 0	0.0	0.0	0.0	
12/10/96		0.0	0.0	0.0	0.0	
12/11/96		0.0	0.0	0.0	0.0	
12/12/96		0 0	0.0	0.0	0.0	
12/13/96		0.0	0.0	0.0	0.0	
12/16/96		0.0	0.0	0.0	0 0	
12/17/96		0.0	0.0	0.0	0 0	
12/18/96		0.0	0.0	0.0	0.0	
12/19/96		0.0	0.0	0.0	0.0	
12/20/96		0.0	0.0	0.0	0.0	
12/23/96		0.0	0.0	0.0	0.0	Drained tank (~1/2)
12/24/96		0.0	0.0	0.0	0.0	
12/25/96						Christmas holiday -- no reading
12/26/96		0.0	0.0	0.0	0.0	
12/27/96		0.0	0.0	0.0	0.0	
12/30/96		0.0	0.0	0.0	0.0	
12/31/96						No reading -- raining
1/1/97						New Year's Day holiday -- no reading
1/2/97						No reading -- raining
1/3/97						No reading - raining
1/6/97		0.0	0.0	0.0	0.0	Drained tank (~1/4)
1/7/97		0.0	0.0	0.0	0.0	
1/8/97		0.0	0.0	0.0	0.0	
1/9/97		0.0	0.0	0.0	0.0	
1/10/97		0.0	0.0	0.0	0.0	
1/13/97						No reading -- unit off for 2 weeks (drained tank ~1/4)
CLOSED/TURNED OFF FROM 1/14/97 to 2/5/97 DUE TO RAIN, TESTING AND ELECTRICAL PROBLEMS						
2/6/97		0.0	0.0	0 0	0.0	
2/7/97		0.0	0.0	0.0	0.0	
2/10/97		0.0	0.0	0.0	0.0	
2/11/97		0.0	0.0	0.0	0.0	

Prepared by: John McDermott, Feb 1996
Updated by: Julie Theisen, June 1997

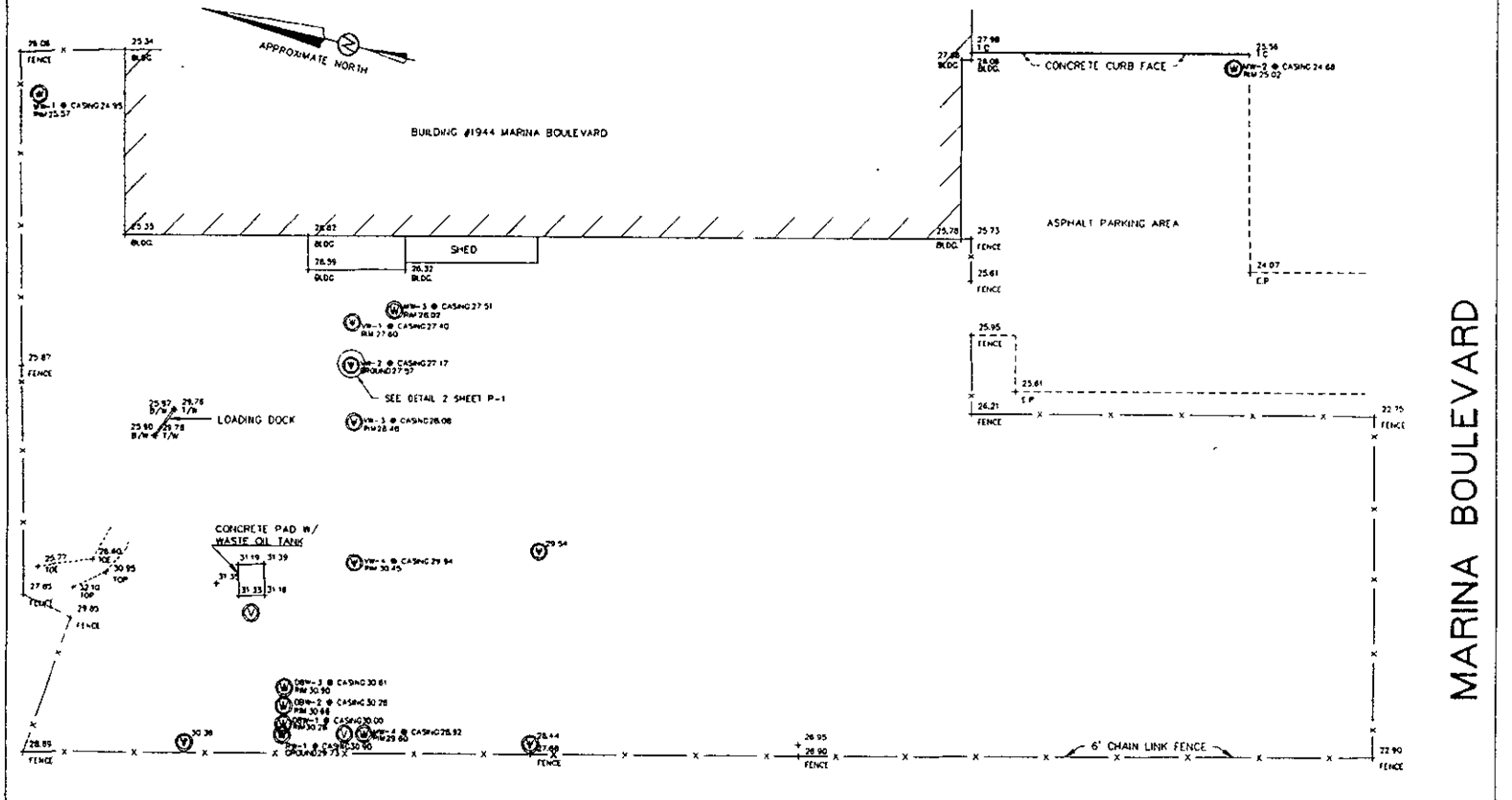
Location : \final96\RM\Reports\Sanlean xls**SVE_DATA.XLS**



Source: San Leandro, California
7 ½ minute Quadrangle
U.S. Geological Survey
Photo revised 1980

Figure 1 - Site Location Map
San Leandro, California

FIGURE 2



LEGEND	
T.C	TOP OF CURB
⌒	BUILDING LINE
T/W	TOP OF WALL
B/W	BASE OF WALL
-x-	FENCE LINE
Ⓦ	WELL EXISTING
Ⓥ	SOIL VAPOR VENT
E.P.	EDGE OF PAVEMENT
TOP	TOP OF BANK
TOE	TOE OF SLOPE

BASIS OF ELEVATIONS: CITY OF SAN LEANDRO BENCHMARK CINCH NAIL ON TOP OF CURB AT STORM WATER INLET SOUTHEAST CORNER OF THE INTERSECTION OF MARINA BOULEVARD AND MERCED STREET ELEVATION = 22.98'

ALL CASING ELEVATIONS WERE TAKEN AT THE SOUTHWEST EDGE OF PVC PIPING

ALL RIM ELEVATIONS WERE TAKEN AT THE SOUTHWEST EDGE OF STEEL RIM UNLESS OTHERWISE NOTED

* DENOTES APPROXIMATE LOCATION OF VW - 5 THRU 9

REVISION	DATE	DESCRIPTION

CAPSULE
ENVIRONMENTAL ENGINEERING, INC
1979 OAKCREST AVE. SUITE 216
ST. PAUL, MINNESOTA 55113
(651) 638-2644

TITLE SITE MAP

INGERSOLL-RAND CORPORATION
SAN LEANDRO CALIFORNIA

SCALE	DRAWN BY	CHECKED BY	DATE	PROJECT NO.	DRAWING NO.	SHEET
NTS	MEC		02/16/94	001-142	FIG 2	OF

Water Level Elevations

San Leandro, California

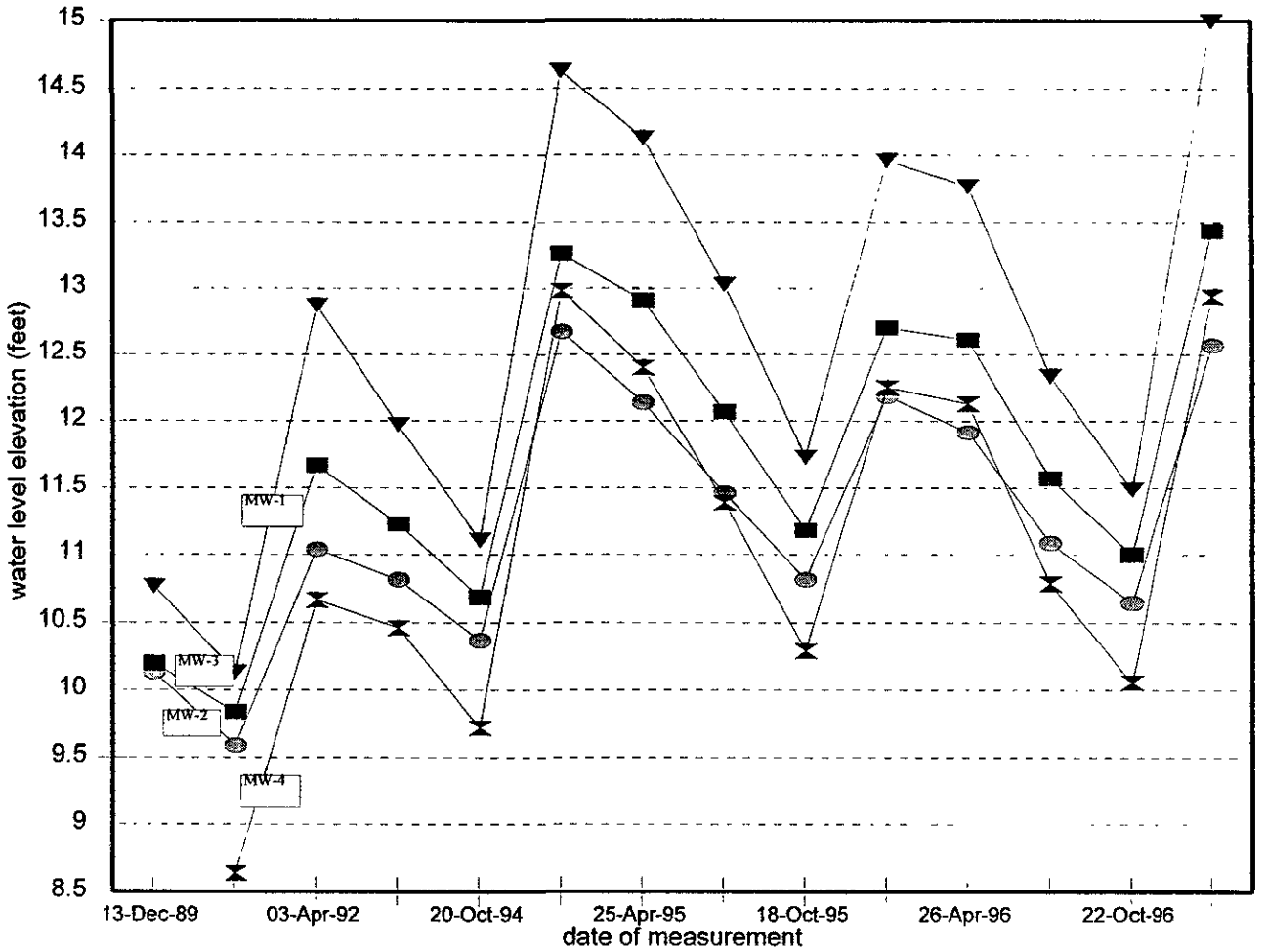
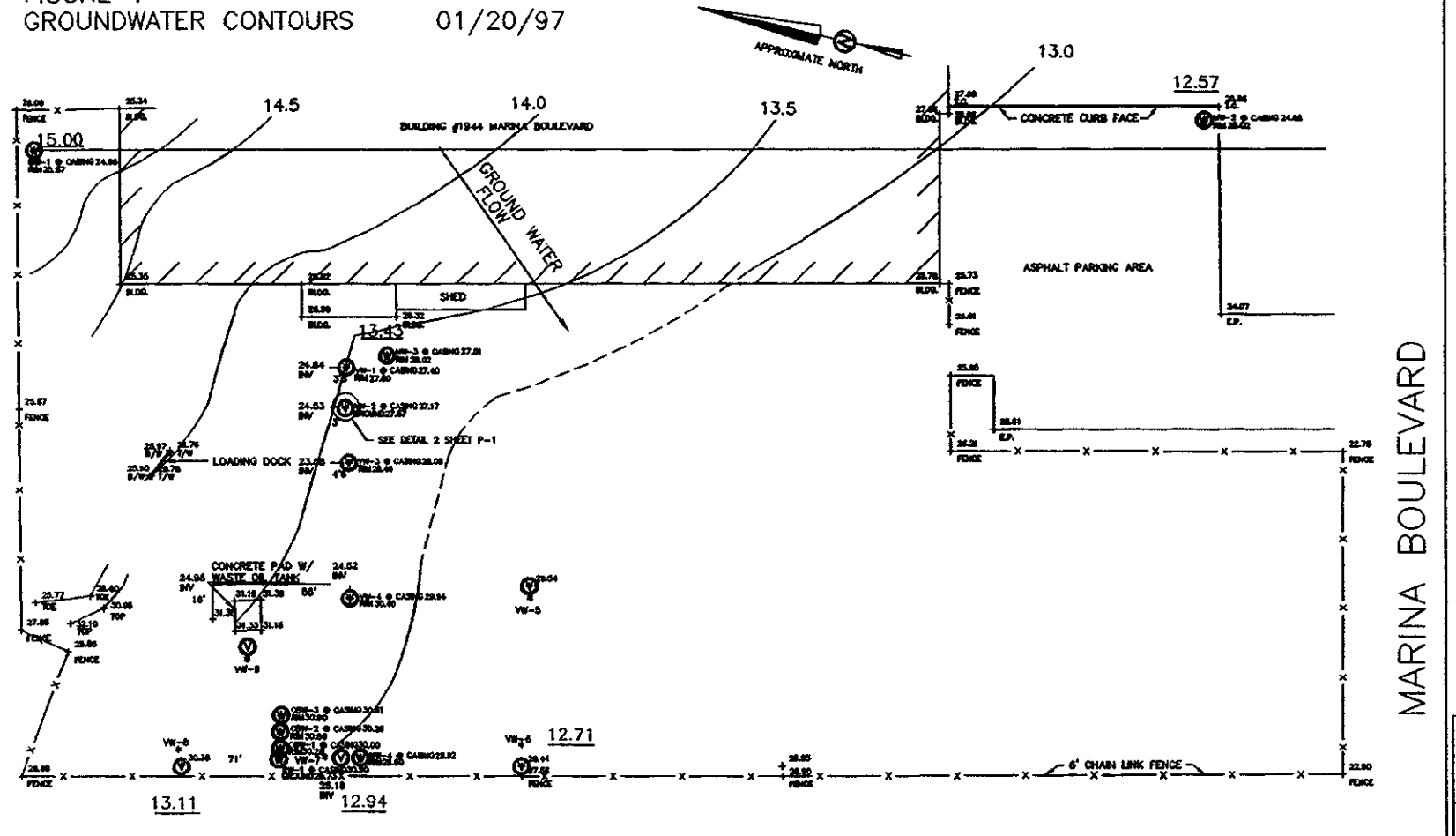


Figure 3

File H:\QUATTRO\SLWATLEV WB1 Graph1

FIGURE 4
GROUNDWATER CONTOURS 01/20/97



LEGEND	
T.C.	TOP OF CURB
	BUILDING LINE
T/W	TOP OF WALL
B/W	BASE OF WALL
-x-	FENCE LINE
	WELL EXISTING
	SOIL VAPOR VENT
E.P.	EDGE OF PAVEMENT
TOP	TOP OF BANK
TOE	TOE OF SLOPE

10.06 GROUND WATER ELEVATION. (FEET ABOVE SEA LEVEL)

10.50 GROUND WATER CONTOUR (FEET ABOVE SEA LEVEL)

BASIS OF ELEVATIONS: CITY OF SAN LEANDRO BENCHMARK. CHISM NAIL ON TOP OF CURB AT STORM WATER INLET SOUTHEAST CORNER OF THE INTERSECTION OF MARINA BOULEVARD AND MERCED STREET, ELEVATION = 22.06'.

ALL CASING ELEVATIONS WERE TAKEN AT THE SOUTHWEST EDGE OF PVC PIPING.

ALL RIM ELEVATIONS WERE TAKEN AT THE SOUTHWEST EDGE OF STEEL RIM UNLESS OTHERWISE NOTED.

* DENOTES APPROXIMATE LOCATION OF VW - 5 THRU 9.

Approximate Scale: 1" = 85'

WELL LOCATION SURVEY
INGERSOLL-RAND EQUIPMENT CORPORATION
LOCATED AT 1944 MARINA BOULEVARD
CITY OF SAN LEANDRO, COUNTY OF ALAMEDA, CALIFORNIA
JUNE 1994

MORAN ENGINEERING
CIVIL ENGINEERS & LAND SURVEYORS
463 ASHBURY AVENUE
BERKELEY, CALIFORNIA
94707
(510) 527-7744

CAPSULE
ENVIRONMENTAL ENGINEERING, INC.
1970 OAKCREST AVE., SUITE 214
ST. PAUL, MINNESOTA 55113
(612) 636-8044

TITLE GROUND WATER CONTOUR MAP 1/20/97
INGERSOLL-RAND CORPORATION
SAN LEANDRO, CALIFORNIA

REVISION	DATE	DESCRIPTION

SCALE	DRAWN BY	CHECKED BY	DATE	PROJECT NO.	DRAWING NO.	Sheet
NTS	REC/LM		05/14/97	001-327		OF

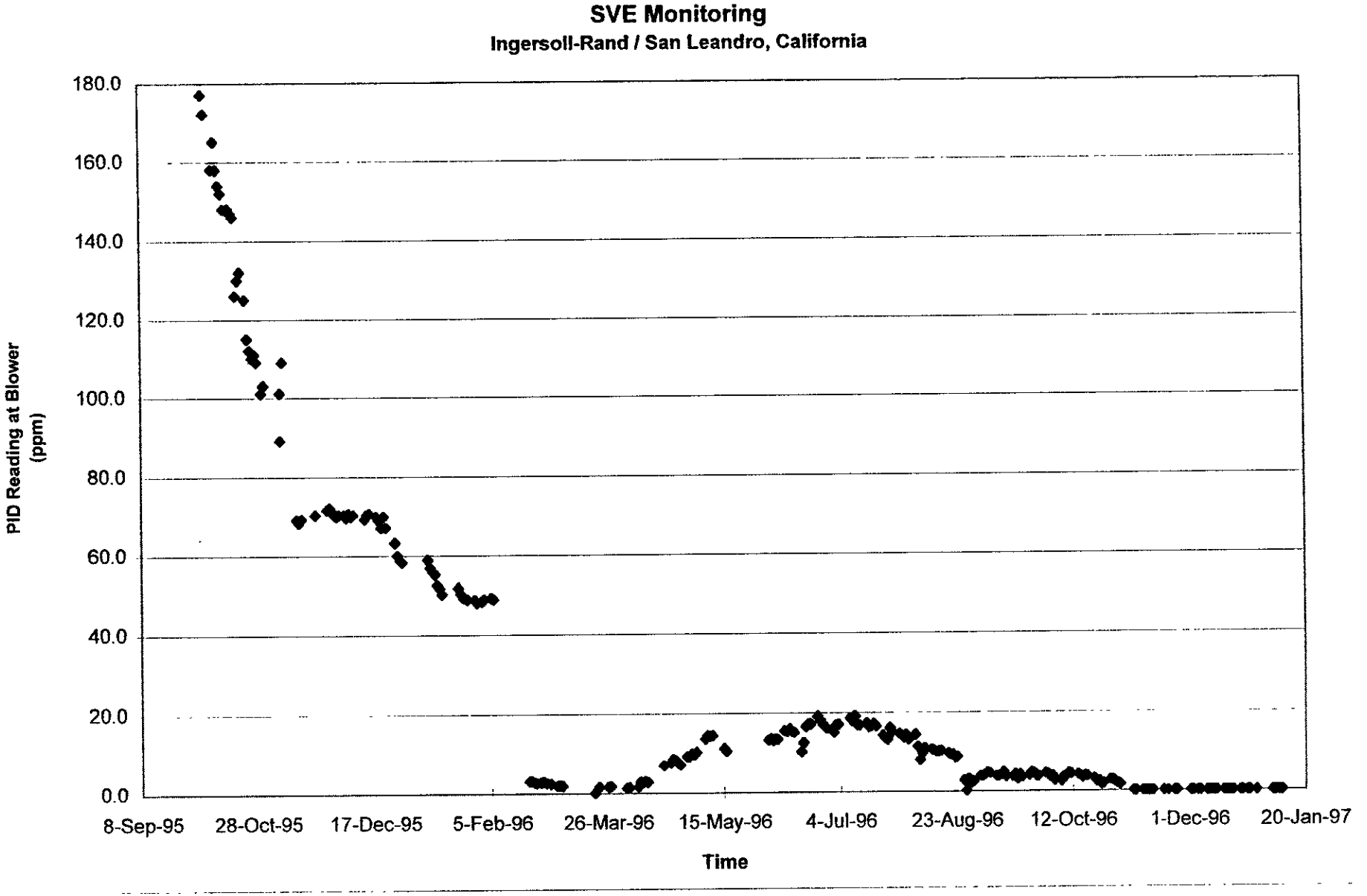

SVE Monitoring
Ingersoll-Rand / San Leandro, California
PID Reading at Blower (ppm)
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
8-Sep-95
28-Oct-95
17-Dec-95
5-Feb-96
26-Mar-96
15-May-96
4-Jul-96
23-Aug-96
12-Oct-96
1-Dec-96
20-Jan-97
Time

FIGURE 5