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Monitoring and Data Analysis for the Vadose Zone Monitoring System (VZMS), McClellan AFB

Quarterly Status Report (5/15/97–8/15/97)

P.T. Zawislanski, R. Salve, B.M. Freifeld,
H.S. Mountford, R. Dahlquist, S.J. Rodriguez,
and B. Faybishenko

Earth Sciences Division

August 1997

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1.0 INTRODUCTION

This report contains information on field and laboratory work performed between May 15th and August 15th 1997 at site S-7 in IC 34, at McClellan AFB. At this location, a Vadose Zone Monitoring System (VZMS) (LBNL, 1996) is currently being used to collect subsurface data including hydraulic potential, soil gas pressure, moisture content, water chemistry, gas chemistry, and temperature.

This report describes:

- re-calibration of pressure transducers
- moisture content changes, based on neutron logging
- gas-phase VOC concentrations
- aqueous-phase VOC concentrations
- temperature profiles
- pressure readings

2.0 PRESSURE TRANSDUCER RE-CALIBRATION

Data gathered prior to this period indicated that the calibration curves for some of the pressure transducers were inaccurate. Therefore, all of the transducers were re-calibrated using the setup described below.

CALIBRATION LAYOUT FOR PRESSURE TRANSDUCERS

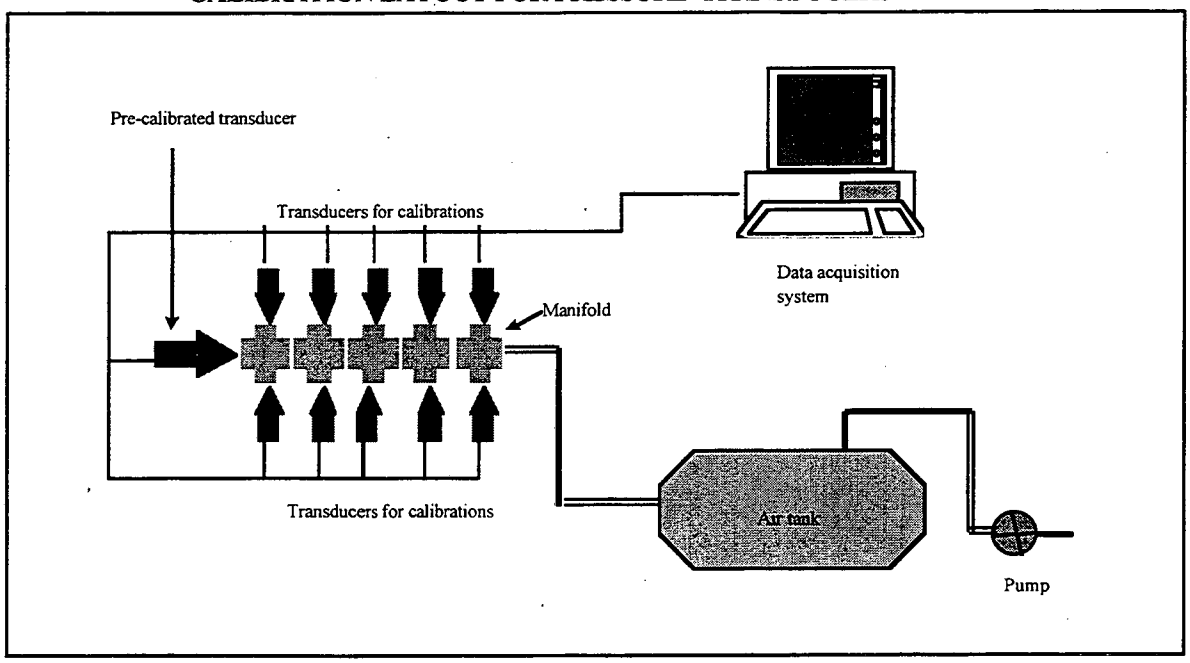

Figure 1

Figure 1. Layout for the calibration of pressure transducers.

There are 80 transducers being used at the site, 52 for tensiometers, 26 for gas samplers and 2 for measuring atmospheric pressure. Each transducer was calibrated against two other transducers which were calibrated in the Standards and Calibration Laboratory, Bechtel Nevada.

In the calibration process, pressure transducers were connected to a manifold, along with a reference pre-calibrated transducer. The manifold was connected to an air-tank fitted with a vacuum pump (Figure 1). The voltage output associated with pressures ranging from 1-15 psi was documented for each of the transducers. A linear regression was then used to determine the calibration constants (i.e. slope and intercept). The new calibration coefficients determined for the transducers are summarized in Table 1.

Table 1. Calibration of transducers to convert voltage output to pressure head in meters.

Location	**A-Ten-U-Pr-L1**	**A-Ten-L-Pr-L1**	**A-Gas-Pr-L1**	**B-Ten-U-Pr-L1**	**B-Ten-L-Pr-L1**	**B-Gas-Pr-L1**
Slope	5.25	5.26	5.25	5.25	5.23	5.23
Intercept	-2.72	-2.68	-2.69	-2.70	-2.67	-2.67
Location	**A-Ten-U-Pr-L2**	**A-Ten-L-Pr-L2**	**A-Gas-Pr-L2**	**B-Ten-U-Pr-L2**	**B-Ten-L-Pr-L2**	**B-Gas-Pr-L2**
Slope	5.27	5.27	5.27	527.00	5.30	5.25
Intercept	-2.69	-2.78	-2.66	-2.69	-2.71	-2.64
Location	**A-Ten-U-Pr-L3**	**A-Ten-L-Pr-L3**	**A-Gas-Pr-L3**	**B-Ten-U-Pr-L3**	**B-Ten-L-Pr-L3**	**B-Gas-Pr-L3**
Slope	5.24	5.24	5.27	5.23	5.30	5.25
Intercept	-2.73	-2.71	-2.75	-2.59	-2.70	-2.65
Location	**A-Ten-U-Pr-L4**	**A-Ten-L-Pr-L4**	**A-Gas-Pr-L4**	**B-Ten-U-Pr-L4**	**B-Ten-L-Pr-L4**	**B-Gas-Pr-L4**
Slope	5.27	5.26	5.24	5.26	5.23	5.26
Intercept	-2.67	-2.69	-2.68	-2.69	-2.67	-2.72
Location	**A-Ten-U-Pr-L5**	**A-Ten-L-Pr-L5**	**A-Gas-Pr-L5**	**B-Ten-U-Pr-L5**	**B-Ten-L-Pr-L5**	**B-Gas-Pr-L5**
Slope	5.25	5.25	5.30	5.26	5.29	5.21
Intercept	-2.59	-2.70	-2.73	-2.62	-2.75	-2.57
Location	**A-Ten-U-Pr-L6**	**A-Ten-L-Pr-L6**	**A-Gas-Pr-L6**	**B-Ten-U-Pr-L6**	**B-Ten-L-Pr-L6**	**B-Gas-Pr-L6**
Slope	5.28	5.26	5.23	5.28	5.26	5.17
Intercept	-2.76	-2.70	-2.68	-2.75	-2.69	-2.62
Location	**A-Ten-U-Pr-L7**	**A-Ten-L-Pr-L7**	**A-Gas-Pr-L7**	**B-Ten-U-Pr-L7**	**B-Ten-L-Pr-L7**	**B-Gas-Pr-L7**
Slope	5.32	5.29	5.25	5.28	5.29	5.26
Intercept	-2.91	-2.74	-2.63	-2.62	-2.72	-2.63
Location	**A-Ten-U-Pr-L8**	**A-Ten-L-Pr-L8**	**A-Gas-Pr-L8**	**B-Ten-U-Pr-L8**	**B-Ten-L-Pr-L8**	**B-Gas-Pr-L8**
Slope	5.26	5.27	5.27	5.31	5.32	5.31
Intercept	-2.63	-2.70	-2.61	-2.72	-2.56	-2.65
Location	**A-Ten-U-Pr-L9**	**A-Ten-L-Pr-L9**	**A-Gas-Pr-L9**	**B-Ten-U-Pr-L9**	**B-Ten-L-Pr-L9**	**B-Gas-Pr-L9**
Slope	5.24	5.27	5.31	5.27	5.30	5.25
Intercept	-2.66	-2.66	-2.77	-2.66	-2.71	-2.68
Location	**A-Ten-U-Pr-L10**	**A-Ten-L-Pr-L10**	**A-Gas-Pr-L10**	**B-Ten-U-Pr-L10**	**B-Ten-L-Pr-L10**	**B-Gas-Pr-L10**
Slope	5.33	5.27	5.30	5.29	5.25	5.27
Intercept	-2.74	-2.69	-2.75	-2.70	-2.65	-2.67
Location	**A-Ten-U-Pr-L11**	**A-Ten-L-Pr-L11**	**A-Gas-Pr-L11**	**B-Ten-U-Pr-L11**	**B-Ten-L-Pr-L11**	**B-Gas-Pr-L11**
Slope	5.27	5.27	5.26	5.23	5.28	5.25
Intercept	-2.70	-2.65	-2.70	-2.59	-2.75	-2.63
Location	**A-Ten-U-Pr-L12**	**A-Ten-L-Pr-L12**	**A-Gas-Pr-L12**	**B-Ten-U-Pr-L12**	**B-Ten-L-Pr-L12**	**B-Gas-Pr-L12**
Slope	5.27	5.32	5.27	5.26	5.25	5.28
Intercept	-2.66	-2.65	-2.75	-2.67	-2.52	-2.66
Location	**A-Ten-U-Pr-L13**	**A-Ten-L-Pr-L13**	**A-Gas-Pr-L13**	**B-Ten-U-Pr-L13**	**B-Ten-L-Pr-L13**	**B-Gas-Pr-L13**
Slope	5.26	5.27	5.26	5.36	5.26	5.25
Intercept	-2.59	-2.70	-2.68	-2.78	-2.72	-2.66

3.0 RESULTS

3.1 Moisture Content--Neutron Probe Readings

Neutron logging provides a one-dimensional distribution of moisture content in the formation. Due to the presence of casing and backfill material, as well as the spatial variability of geologic properties of the medium, this information is largely qualitative, although relative percentage change in moisture content at any one point can be quantified. Therefore, this tool is best used to measure changes in the moisture distribution, whether due to evaporation or rainfall infiltration. In conjunction with moisture content data from cores, a calibration of neutron counts to moisture content is possible. However, this must be done separately for each lithology.

During the period 5/15/97 to 8/15/97, neutron logging was performed at the site on 7/22/97, using a CPN 503DR Hydroprobe consisting of a 50 mCi Am-Be neutron source and a He detector of thermal neutrons. An obstruction in Well NP-A at 25 ft has prevented the logging of this hole below that depth. Well NP-B was logged to a depth of 98 ft. Results of measurements in Well NP-B are shown in Fig. 2, where a comparison with data from previous measurements is made. The data are presented as ratios of readings taken in the borehole to readings taken in a standard shielded casing. As seen from these results, the relative moisture content in the formation did not change significantly between 5/97 and 7/97, although the depth-integrated mean relative change in moisture content showed an increase of 1%.

3.2 Gas-Phase VOC Concentrations

The gas phase is being sampled via in-situ gas samplers consisting of a 7.62 cm long, 100 μm porous metal cylinder with welded top and bottom flanges. A 1/4 in diameter stainless steel tube extends out from the top flange and is connected using Swagelok™ compression fittings to a 1/4 in Teflon tube that goes up to the ground surface. In order to purge the gas collected in the gas probe, a photo-ionization detector (PID-580) is used. The sampler is purged until the PID reading is stable. The PID is then disconnected and a gas sample is collected by applying a vacuum through an absorbent tube. A calibrated volumetric pump is used for this purpose and the exact time and volume collected are recorded. The absorbent tube is sealed with brass Swagelok™ compression fittings lined with Teflon gaskets. This sampling method does not require refrigeration and the sample holding time is 25 days. EPA TO14 analyses are performed by the Environmental Measurements Laboratory of LBNL.

To date, three complete sets of gas samples have been collected at the site, on 4/4/97, 5/8/97, and 7/22/97. The analysis of the 4/4/97 samples from Well A was out of control due to problems with sample dilution. Because of the relatively high concentrations of certain compounds, the sampling time, i.e. the sample volume, was greatly reduced after the first sampling event, thereby preventing the full saturation of the charcoal tubes and reducing the need to split the sample. Unfortunately, this has resulted in higher quantification limits, thereby bringing the concentrations of minor compounds below a reportable concentration. In the future, two samples will be collected from each sampler; one will be a low volume sample for the major compounds and the other will be a high volume sample for the minor compounds. It is hoped that this will allow for a more consistent characterization of the contaminant signature with time.

TCE, cis-1,2-DCE, and Freon have been identified as the major contaminants in the system. In the previous progress report (LBNL, 1997), acetone was identified as a major contaminant, based on its very high (> 9,000 ppbv) concentration at a depth of 6 ft on 4/4/97. At

all other depths acetone was either not detected or was at concentrations below 500 ppbv. Acetone has not been detected in any of the subsequent samples. In the same progress report, the Freon was identified as Freon-113. Further analysis of those and newer results suggest that it is not Freon-113, but rather a more exotic Freon, yet to be identified.

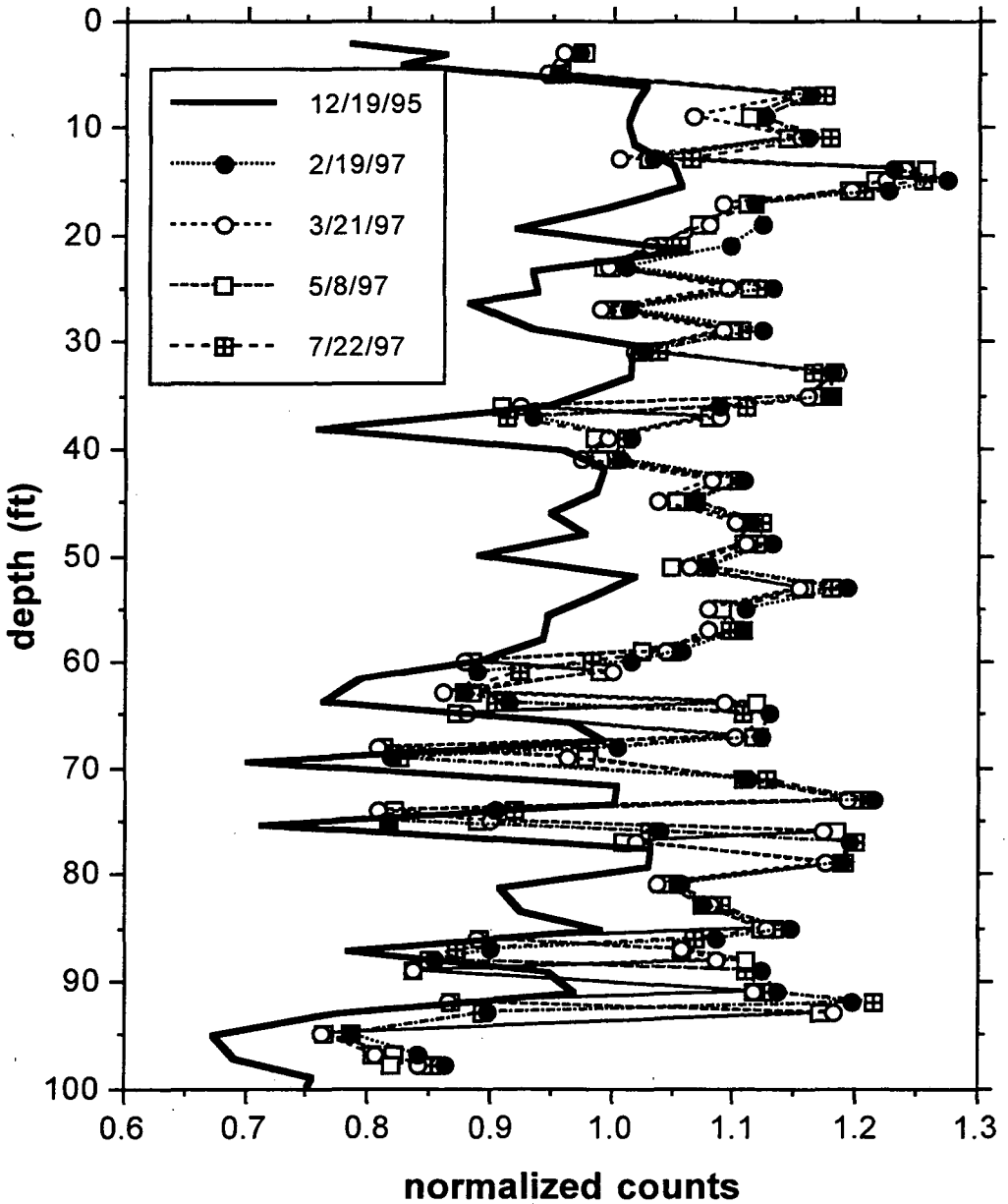

Figure 2. Normalized neutron counts measured in Well NP-B over the period 12/95 to 7/97.

Time-trends in TCE, cis-1,2-DCE, and Freon concentrations in the gas phase are shown in Figs. 3, 4, and 5. TCE concentrations are consistently highest in the upper part of the profile, between depths of 6 and 11 ft, and also immediately above the water table, at 110 ft, indicating that there are either two sources of TCE, or that TCE from a near-surface source has migrated through the vadose zone towards the groundwater table. However, cis-1,2-DCE data show a different trend (Fig. 4), in that there is only one peak in concentration, at depth of 6 and 11 ft. This

suggests that the TCE peak at the water table is not the result of TCE migration from the surface but rather a distinct source. This explanation is further supported by the distribution of Freon (Fig. 5). Freon is found only within 25 ft of the water table, with the highest concentrations found at the deepest monitoring points. The inset in Fig. 5 shows that, even though concentrations are substantially lower in Well A than in Well B, the trends are similar.

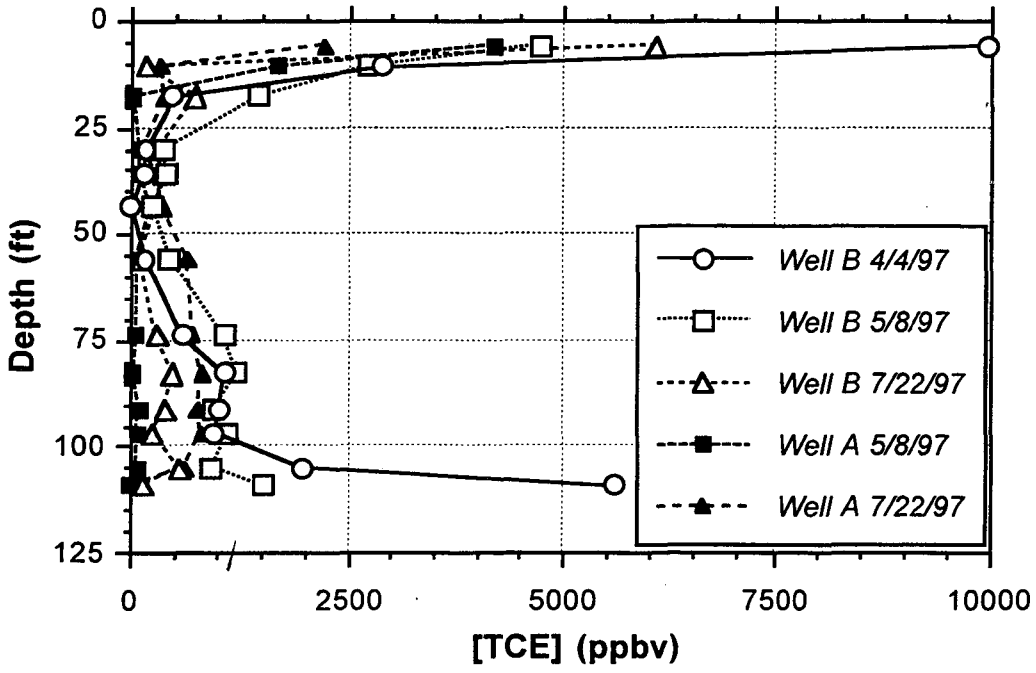

Figure 3. TCE concentrations in the gas-phase, as measured on 4/4/97, 5/8/97, and 7/22/97.

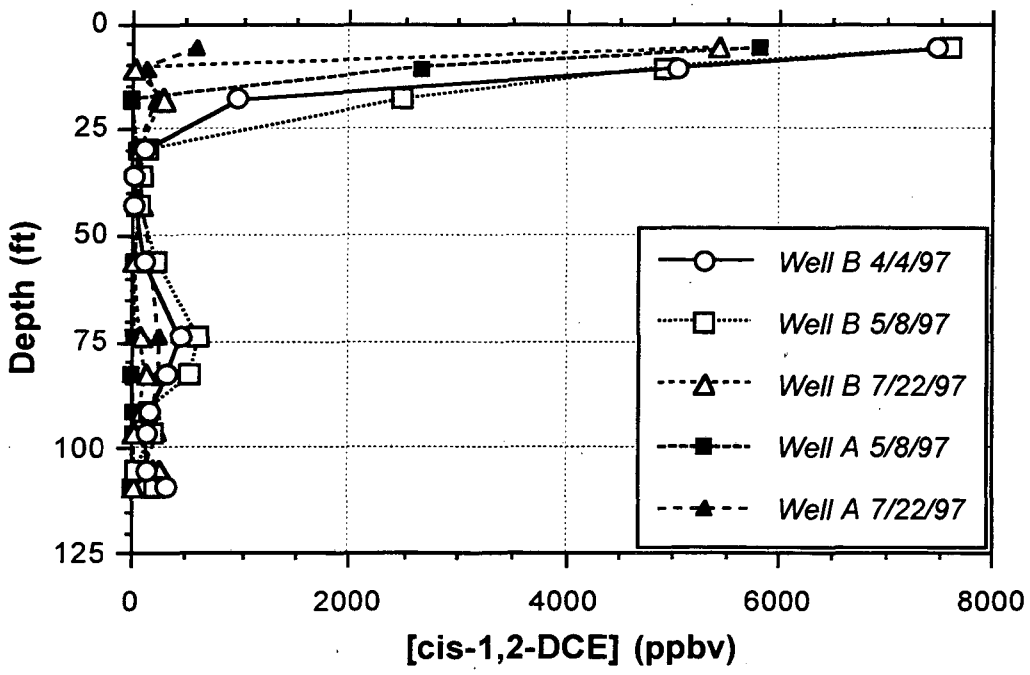

Figure 4. Cis-1,2-DCE concentrations in the gas-phase, as measured on 4/4/97, 5/8/97, and 7/22/97.

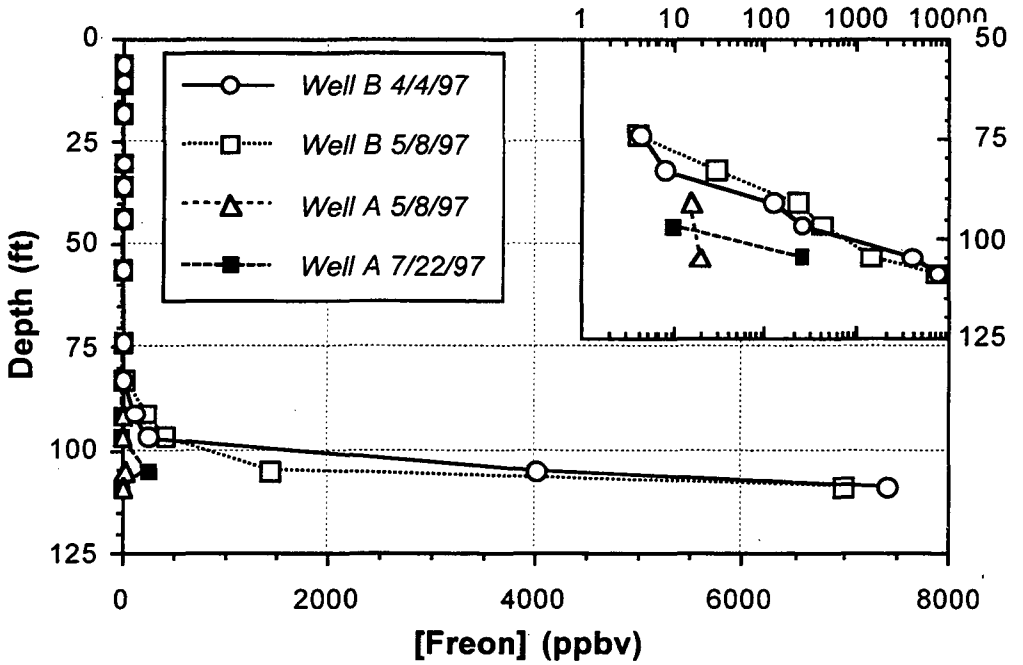

Figure 5. Freon concentrations in the gas-phase, as measured on 4/4/97, 5/8/97, and 7/22/97.

Of the "intermediate" compounds described in the May 1997 progress report, only methylene chloride has been consistently detected at reportable concentrations (Fig. 6). There is an absence of consistent depth trends in the methylene chloride distribution, although the average concentration at most depths declined between 5/97 and 7/97 in both Wells.

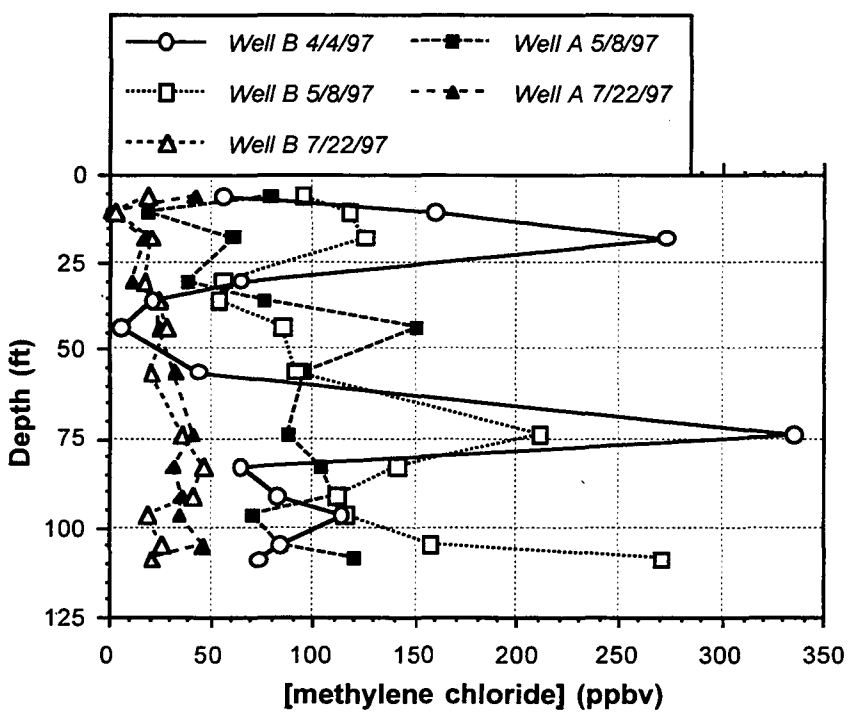

Figure 6. Methylene chloride concentrations in the gas-phase, as measured on 4/4/97, 5/8/97, and 7/22/97.

Of the "minor" compounds described in the previous progress report, only benzene has been detected at consistently reportable concentrations over the two subsequent sampling events (Fig. 7). Although benzene concentrations are highest at 6 and 11 ft, suggesting that it comes from the near-surface source, it is present throughout the profile.

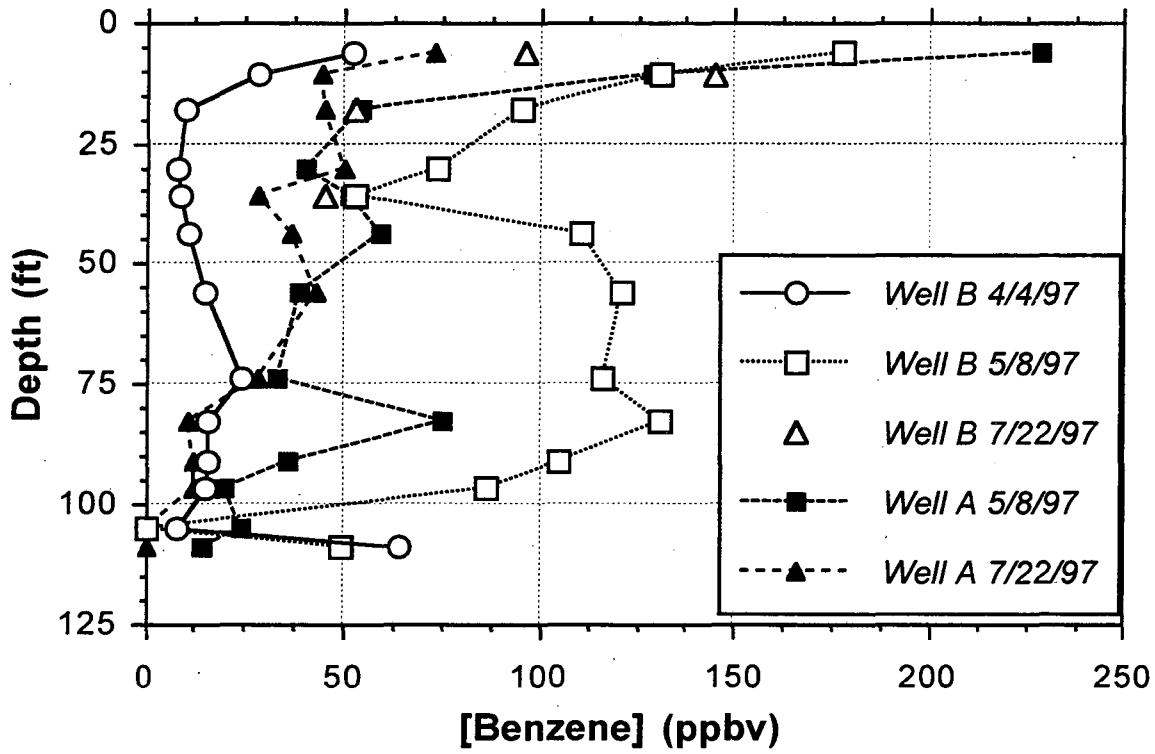

Figure 7. Benzene concentrations in the gas-phase, as measured on 4/4/97, 5/8/97, and 7/22/97. The analysis of most sample collected from Well B on 7/22/97 was out of control and therefore those data are not shown.

3.3 Liquid-Phase VOC Concentrations

The liquid-phase VOCs are sampled using two-chamber suction lysimeters designed for use at depths greater than 7-8 m. One 1/4-in and one 1/8-in tube connect the lysimeter to the surface. A miniature check valve separates the lower chamber from the upper chamber. A 0.5 μm porous stainless steel cylinder permits the collection of the sample which is drawn by vacuum through the check valve into the upper chamber. To withdraw a water sample from the soils into the suction lysimeter, a vacuum is applied to the tube connected to the top of the upper chamber. In order to bring the water sample to the surface, dry, purified gas, either N_2 or Ar, is used to pressurize the upper chamber, forcing the water sample up through the second tube that connects the bottom of the upper chamber to ground surface. The check valve closes, preventing liquid from being forced back into the lower chamber.

Lysimeter samples were extracted on 3/21, 3/25, 4/2, 4/11, 5/7, and 7/17/97. Some of these samples were removed as part of the instrument testing process and were not analyzed. Due to the relative dryness of the formation, extracting water has been difficult. Generally, small, less than 20 mL samples, are collected over a period of a week. In many cases, samples are no greater than 5 mL. Therefore, 4- and 6-mL vials have been used to collect the samples in order to prevent or minimize headspace. Unfortunately, some samples are smaller than 4 mL and a headspace cannot

be prevented. Overall, samples have been extracted from 11 out of 26 suction lysimeter. It is assumed that more of the lysimeters will provide samples under wetter conditions present after winter rain events. Also, further "conditioning" of the lysimeters may improve contact with the formation. Nonetheless, it appears that several of the lysimeters are in a part of the formation where the pressure is lower than the air-entry value for the stainless-steel porous cups (approximately -600 mbar), preventing the collection of measureable quantities of sample. As discussed in the previous progress report (LBNL, 1997), the vacuum extraction method inherently causes some partitioning of VOCs from the sampled water into the headspace. In order to perturb the system in a consistent manner during each sampling event, a one-week time period is used for vacuum extraction.

Although several compounds have been found to occur in the aqueous phase (LBNL, 1997), TCE and cis-1,2-DCE are by far the dominant contaminants and only their distributions are presented in this report. Freon peaks were also detected in samples collected near the water table, but mass spectrometry could not identify the Freon compound, therefore it was not quantified. Temporal changes in TCE concentrations in Well A and Well B are shown in Figs. 8 and 9, respectively, while cis-1,2-DCE values are shown in Figs. 10 and 11. These data exhibit trends similar to those seen in the gas phase: there are two peaks of TCE, one near the surface and one at the water table, but only one peak in cis-1,2-DCE, near the surface. The lines connecting data points in these figures are present only for the purpose of visual clarification and do not indicate depth trends. There is clearly some variability in concentrations measured at the same depth, but this may be due to spatial variability in the formation, rather than actual changes in time.

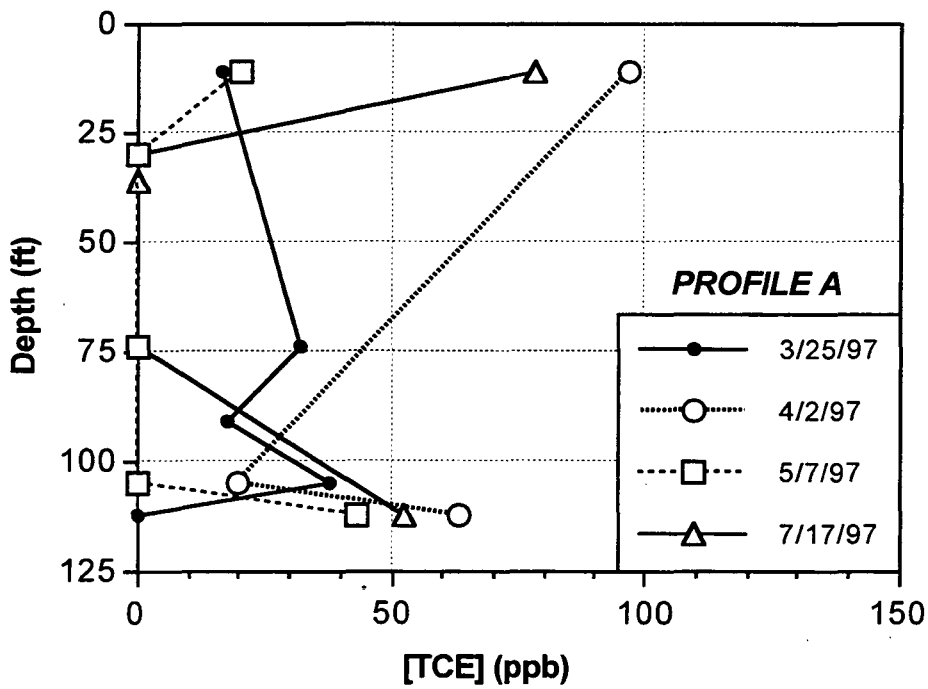

Figure 8. Depth-distribution of dissolved TCE in Well A as measured on 3/25, 4/2, 5/7, and 7/17/97.

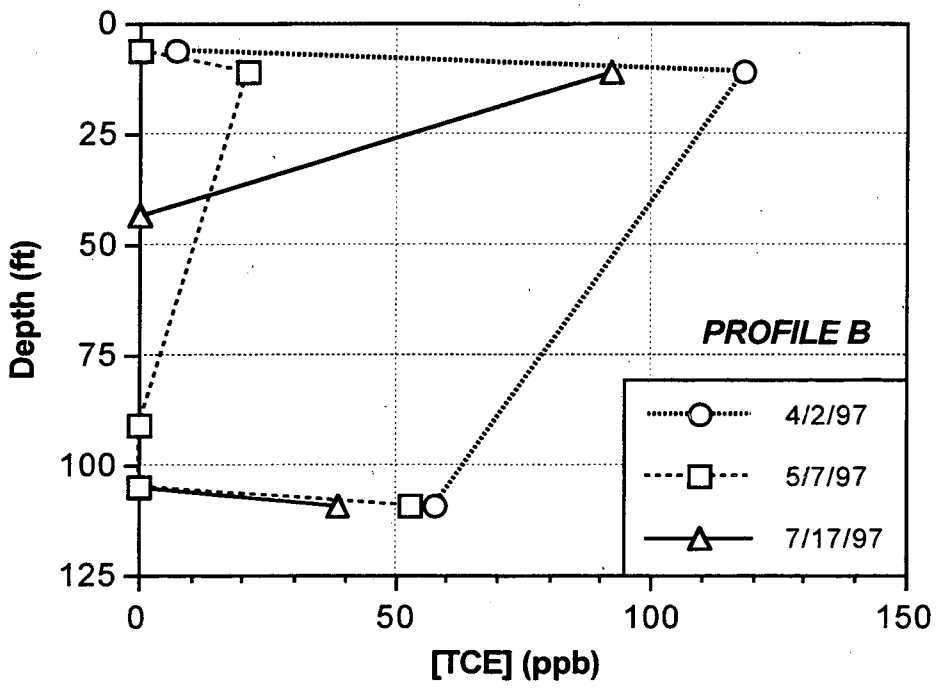

Figure 9. Depth-distribution of dissolved TCE in Well B as measured on 4/2, 5/7, and 7/17/97.

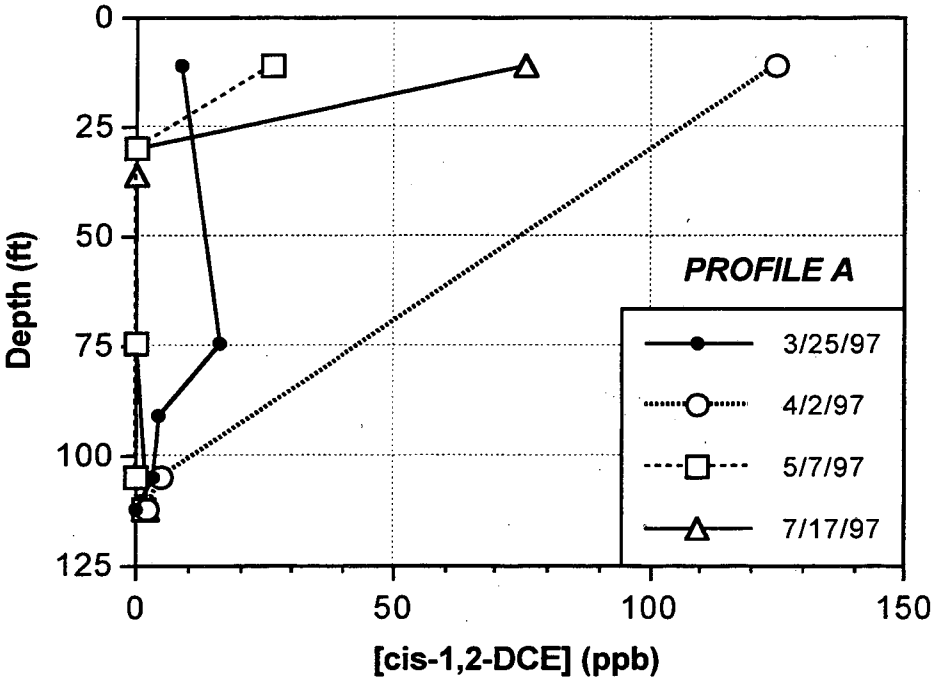

Figure 10. Depth-distribution of dissolved cis-1,2-DCE in Well A as measured on 3/25, 4/2, 5/7, and 7/17/97.

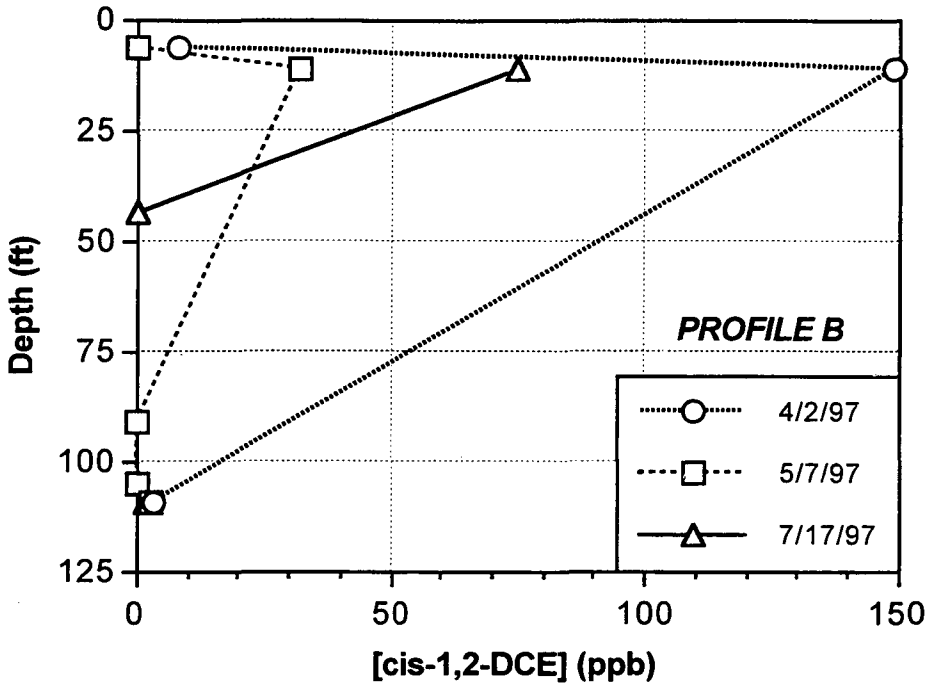

Figure 11. Depth-distribution of dissolved cis-1,2-DCE in Well B as measured on 4/2, 5/7, and 7/17/97.

3.4 Temperature Distribution

Formation temperature is being measured using in-situ thermistors. The data is collected electronically in real time and the measured resistance is converted to temperature in °C using calibrations generated in the laboratory prior to installation. A sample of the results from 3/97, 5/97, and 7/97 is shown in Fig. 12 and 13, for Wells A and B, respectively. Temperature did not fluctuate significantly below a depth of 25 ft in either well. The largest fluctuation was observed at the shallowest instrumented point, at a depth of 6 ft. An increase of more than 6°C was observed between 5/12/97 and 7/14/97 at the 6-ft depth, and an increase of 1.5 °C was observed over the same period at the 11-ft depth. Diurnal temperature effects were not observed at any depth.

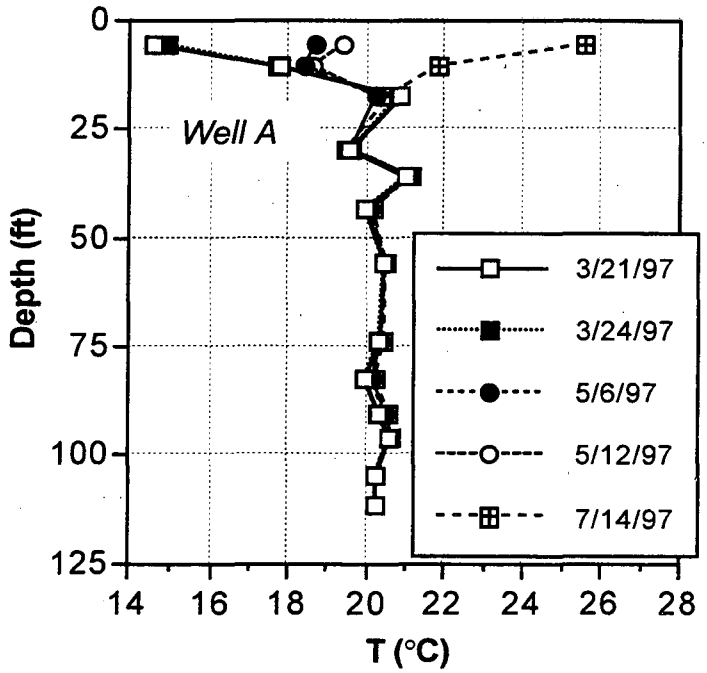

Figure 12. Temperature profile in Well A.

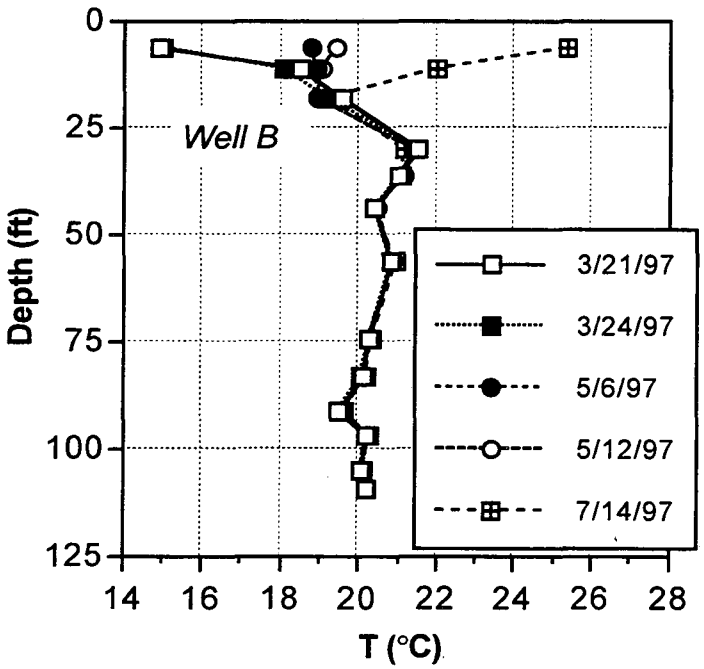

Figure 13. Temperature profile in Well B.

3.5 Gas-Phase and Liquid-Phase Pressure Distribution

Gas-phase pressure is being measured using the same probes as used for gas sampling. These are allowed to equilibrate with the subsurface environment and the pressure is measured using dedicated pressure transducers. In the previous progress report (LBNL, 1997), gas phase pressures were presented and compared with atmospheric pressure. Unfortunately, those results were based on erroneous transducer calibrations, and were, therefore, inaccurate, giving the impression of small vertical gradients in gas-phase pressure. Subsequent to transducer re-calibration (Section 2), it became apparent that there are in fact no such gradients present. An example of corrected results for the period 7/24/97-8/4/97 is shown in Figs. 14 and 15 for Well A and B, respectively. Overall, gas-phase pressures are very close to atmospheric pressure, but display a slight lag and dampening relative to diurnal atmospheric pressure fluctuations. Both effects are to be expected given that the gas samplers are measuring pressure at depth, and serve to confirm that none of the samplers are leaking at the ground surface. Gas-phase pressure measured at the depth of 112 ft (SG-A-1) in Well A deviates from the common trend, though remains within 10 cm of water head of atmospheric pressure. This can be explained by the fact that this sampler is very near the groundwater table and likely in the capillary fringe, which would impair the communication via the gas-phase.

Liquid-phase pressure measurements are being performed using a new design of an air-pocket tensiometer in which a porous tip is connected to a two-cell transducer with a constant water level above the porous tip (Faybishenko, 1996). The tensiometer consists of three parts: (1) a porous tip of cylindrical shape, (2) a two-cell stainless steel transducer, and (3) a module consisting of three air-filled tubes that provide a means for measurements and maintenance. The porous tip was fabricated from a stainless steel porous tube and is filled with water and connected through a coupling to the two-cell transducer. Polyethylene tubing is used to connect the body of the tensiometer with pressure transducers at land surface.

The cumulative tensiometer data collected to date suggests that, with the exception of the deepest sample points (at 112 ft and 109 ft in Wells A and B, respectively), and possibly two other points in Well A, the matric potential in the formation is more negative than the air-entry pressure of the porous cups of the tensiometers (-500 to -600 mbar, equivalent to approximately -5 to -6 m water column). It is possible that changes in moisture content due to seasonal rains may raise the matric potential above -500 mbar, thereby permitting the quantification of hydraulic head. These observations are corroborated by the small number of lysimeters which yield water and the very small volume of water which they yield. It is in fact possible to collect small volumes water from formations in which the matric potential is very close to or just beyond the air-entry pressure of the cup, simply due to there being a distribution of pore sizes in the cup, so that while gas is entering the lysimeter through the bulk of the pore space, some water will enter through the smallest pores. The tensiometer system is still being tested with the hope of improving its performance.

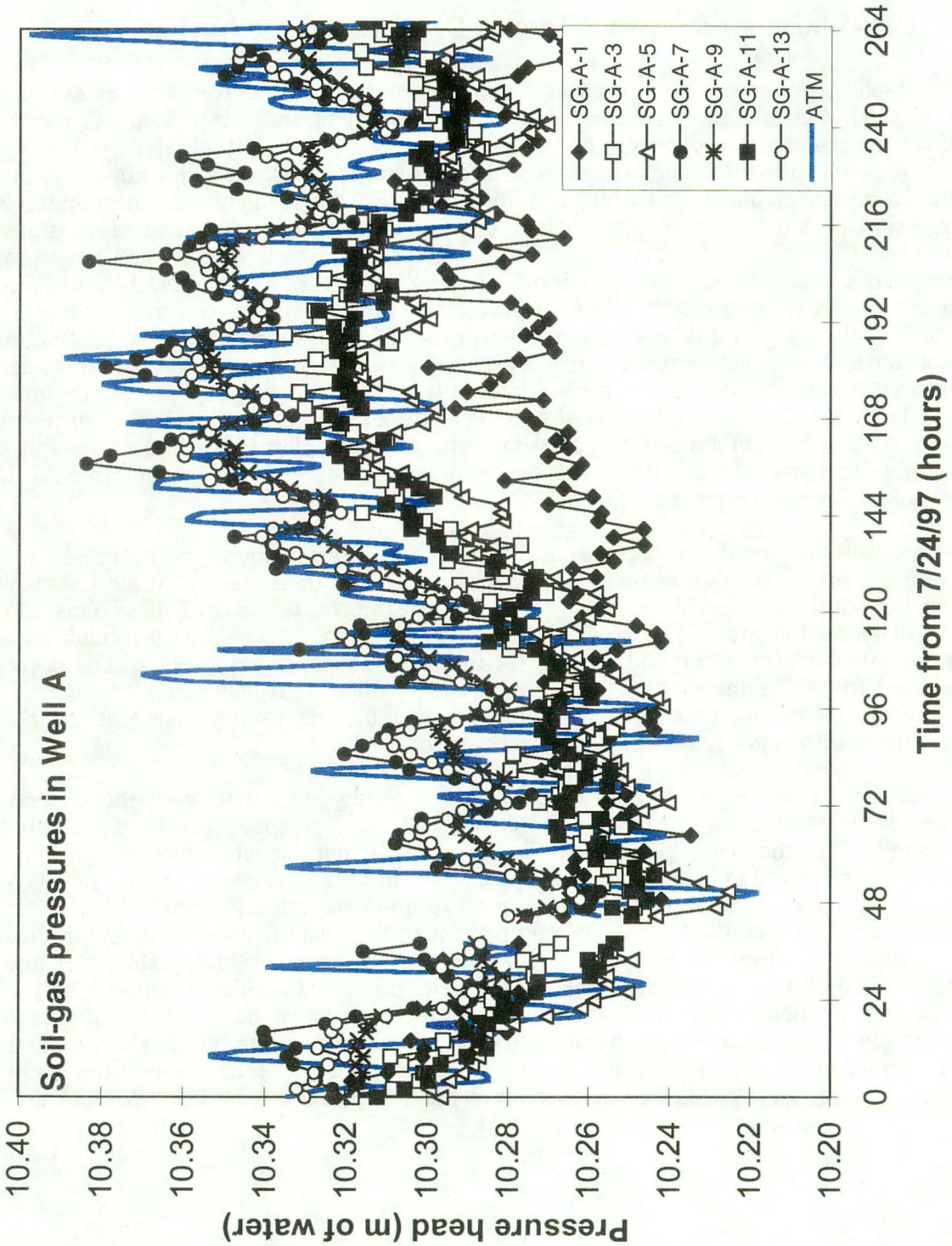

Figure 14. Gas-phase pressures (absolute) at levels 1, 3, 5, 7, 9, 11, and 13 in Well A and atmospheric pressure (ATM), expressed in terms of an equivalent water column.

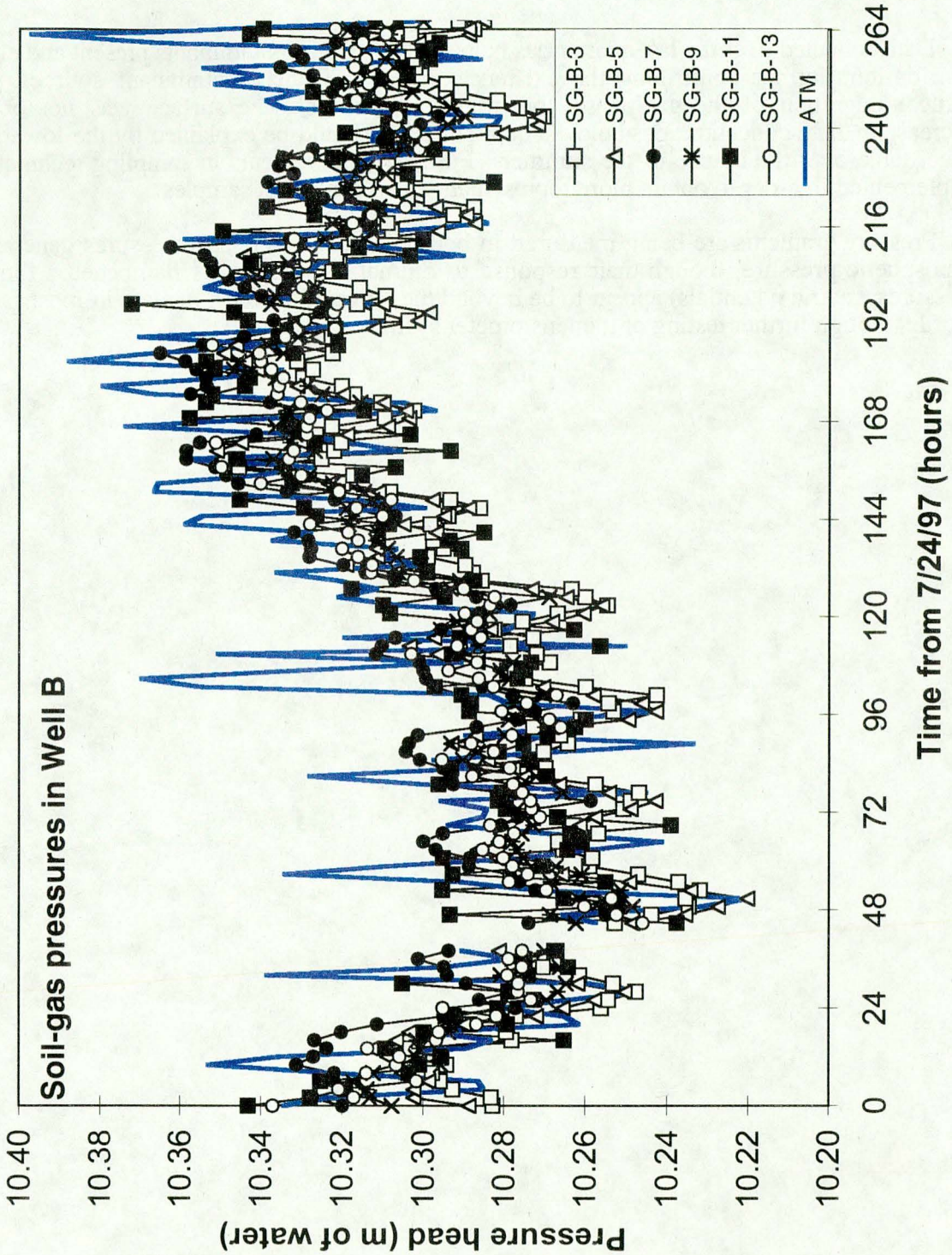

Figure 15. Gas-phase pressures (absolute) at levels 3, 5, 7, 9, 11, and 13 in Well B and atmospheric pressure (ATM), expressed in terms of an equivalent water column.

4.0 SUMMARY

Data collected over the last quarter has helped identify the contaminants present and clarify their distribution, further confirming the existence of two distinct contaminant sources. Although vertical migration of the gas-phase contaminant plume near the surface was not observed, a decrease in TCE concentrations below a depth of 100 ft could be explained by the lowering of the water table over the course of the summer. Further improvements in sampling technique will be implemented in order to obtain more representative and consistent samples.

Pressure gradients are being measured in both phases. Gas-phase pressures generally follow atmospheric pressure, though their response to diurnal fluctuations is dampened. Liquid-phase pressures (matric potentials) appear to be beyond the range of the tensiometers in most parts of the profile, though further testing of the tensiometer system is ongoing.

REFERENCES

Faybishenko, B., 1996. *Omni-Depth Tensiometer*. Patent pending.

LBNL, 1996. *Vadose Zone Monitoring System Installation Report for McClellan AFB*. Prepared by Zawislanski, P.T., B. Faybishenko, A. James, B. Freifeld, and R. Salve, for Department of the Air Force, McClellan AFB, October, 1996.

LBNL, 1997. Monitoring and Data Analysis for the Vadose Zone Monitoring System (VZMS), McClellan AFB. Prepared by Zawislanski, P.T., R. Salve, B. Freifeld, H.S. Mountford, R. Dahlquist, A. James, S. Rodriguez, and B. Faybishenko, for Department of the Air Force, McClellan AFB, May 28, 1997.

APPENDIX - ANALYTICAL REPORTS

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-1	Laboratory ID:	OA970501
Matrix:	Gas Cartridge	Sample Vol.(L):	0.260
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	15.89
2	Benzene	71-43-2	13.9	11.83
3	Carbon Tetrachloride	56-23-5	LT	6.02
4	Chloroform	67-66-3	LT	7.75
5	1,2-Dichlorobenzene	95-50-1	LT	6.29
6	1,3-Dichlorobenzene	541-73-1	LT	6.29
7	1,4-Dichlorobenzene	106-46-7	LT	6.29
8	1,1-Dichloroethane	75-34-3	LT	9.34
9	1,2-Dichloroethane	107-06-2	LT	9.54
10	1,1-Dichloroethene	75-35-4	LT	9.54
11	cis-1,2-Dichloroethene	156-69-9	LT	9.54
12	trans-1,2-Dichloroethene	156-60-5	LT	9.54
13	Ethylbenzene	100-41-4	LT	8.72
14	Methylene Chloride	75-09-2	120	10.90
15	Tetrachloroethene	127-18-4	LT	5.58
16	Toluene	108-88-3	LT	10.04
17	1,1,1-Trichloroethane	71-55-6	LT	6.93
18	1,1,2-Trichloroethane	79-00-5	LT	6.93
19	Trichloroethene	79-01-6	11.1	7.04
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	6.13
21	1,2,4-Trimethylbenzene	95-63-6	LT	10.04
22	Vinyl Chloride	75-01-4	LT	14.79
23	Total-Xylene	1330-20-7	LT	8.72
24	Total VOC		145	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	82%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: HB Pourtnel Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-2	Laboratory ID:	OA970502
Matrix:	Gas Cartridge	Sample Vol.(L):	0.256
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	16.14
2	Benzene	71-43-2	24.0	12.02
3	Carbon Tetrachloride	56-23-5	LT	6.11
4	Chloroform	67-66-3	LT	7.88
5	1,2-Dichlorobenzene	95-50-1	LT	6.39
6	1,3-Dichlorobenzene	541-73-1	LT	6.39
7	1,4-Dichlorobenzene	106-46-7	LT	6.39
8	1,1-Dichloroethane	75-34-3	LT	9.48
9	1,2-Dichloroethane	107-06-2	LT	9.69
10	1,1-Dichloroethene	75-35-4	LT	9.69
11	cis-1,2-Dichloroethene	156-69-9	12.3	9.69
12	trans-1,2-Dichloroethene	156-60-5	LT	9.69
13	Ethylbenzene	100-41-4	LT	8.86
14	Methylene Chloride	75-09-2	85.3	11.07
15	Tetrachloroethene	127-18-4	LT	5.67
16	Toluene	108-88-3	LT	10.20
17	1,1,1-Trichloroethane	71-55-6	LT	7.04
18	1,1,2-Trichloroethane	79-00-5	LT	7.04
19	Trichloroethene	79-01-6	77.5	7.15
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	19.9	6.23
21	1,2,4-Trimethylbenzene	95-63-6	LT	10.20
22	Vinyl Chloride	75-01-4	LT	15.02
23	Total-Xylene	1330-20-7	LT	8.86
24	Total VOC		219	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	87%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst: [signature] Date: 8/23/97
Reviewer: [signature] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-3	Laboratory ID:	OA970503
Matrix:	Gas Cartridge	Sample Vol.(L):	0.253
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	16.33
2	Benzene	71-43-2	20.3	12.16
3	Carbon Tetrachloride	56-23-5	LT	6.19
4	Chloroform	67-66-3	LT	7.97
5	1,2-Dichlorobenzene	95-50-1	LT	6.47
6	1,3-Dichlorobenzene	541-73-1	LT	6.47
7	1,4-Dichlorobenzene	106-46-7	LT	6.47
8	1,1-Dichloroethane	75-34-3	LT	9.59
9	1,2-Dichloroethane	107-06-2	LT	9.81
10	1,1-Dichloroethene	75-35-4	LT	9.81
11	cis-1,2-Dichloroethene	156-69-9	17.8	9.81
12	trans-1,2-Dichloroethene	156-60-5	LT	9.81
13	Ethylbenzene	100-41-4	LT	8.96
14	Methylene Chloride	75-09-2	71.4	11.20
15	Tetrachloroethene	127-18-4	LT	5.74
16	Toluene	108-88-3	LT	10.32
17	1,1,1-Trichloroethane	71-55-6	LT	7.12
18	1,1,2-Trichloroethane	79-00-5	LT	7.12
19	Trichloroethene	79-01-6	83.3	7.24
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	6.30
21	1,2,4-Trimethylbenzene	95-63-6	LT	10.32
22	Vinyl Chloride	75-01-4	LT	15.20
23	Total-Xylene	1330-20-7	LT	8.96
24	Total VOC		193	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	87%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Kahlquist Date: 8/23/97
Reviewer: H. Fountain Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-4	Laboratory ID:	OA970504
Matrix:	Gas Cartridge	Sample Vol.(L):	0.126
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	32.80
2	Benzene	71-43-2	36.0	24.42
3	Carbon Tetrachloride	56-23-5	LT	12.42
4	Chloroform	67-66-3	LT	16.00
5	1,2-Dichlorobenzene	95-50-1	LT	12.99
6	1,3-Dichlorobenzene	541-73-1	LT	12.99
7	1,4-Dichlorobenzene	106-46-7	LT	12.99
8	1,1-Dichloroethane	75-34-3	LT	19.26
9	1,2-Dichloroethane	107-06-2	LT	19.69
10	1,1-Dichloroethene	75-35-4	LT	19.69
11	cis-1,2-Dichloroethene	156-69-9	29.0	19.69
12	trans-1,2-Dichloroethene	156-60-5	LT	19.69
13	Ethylbenzene	100-41-4	LT	18.00
14	Methylene Chloride	75-09-2	111	22.48
15	Tetrachloroethene	127-18-4	LT	11.52
16	Toluene	108-88-3	LT	20.72
17	1,1,1-Trichloroethane	71-55-6	LT	14.30
18	1,1,2-Trichloroethane	79-00-5	LT	14.30
19	Trichloroethene	79-01-6	125	14.54
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	15.6	12.66
21	1,2,4-Trimethylbenzene	95-63-6	LT	20.72
22	Vinyl Chloride	75-01-4	LT	30.53
23	Total-Xylene	1330-20-7	LT	18.00
24	Total VOC		317	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	85%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst: Rob Dallquist Date: 8/23/97
Reviewer: HG Pomuntnd Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-5	Laboratory ID:	OA970505
Matrix:	Gas Cartridge	Sample Vol.(L):	0.124
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	33.32
2	Benzene	71-43-2	74.6	24.81
3	Carbon Tetrachloride	56-23-5	LT	12.62
4	Chloroform	67-66-3	LT	16.26
5	1,2-Dichlorobenzene	95-50-1	LT	13.20
6	1,3-Dichlorobenzene	541-73-1	LT	13.20
7	1,4-Dichlorobenzene	106-46-7	LT	13.20
8	1,1-Dichloroethane	75-34-3	LT	19.57
9	1,2-Dichloroethane	107-06-2	LT	20.01
10	1,1-Dichloroethene	75-35-4	LT	20.01
11	cis-1,2-Dichloroethene	156-69-9	LT	20.01
12	trans-1,2-Dichloroethene	156-60-5	LT	20.01
13	Ethylbenzene	100-41-4	LT	18.29
14	Methylene Chloride	75-09-2	104	22.85
15	Tetrachloroethene	127-18-4	LT	11.70
16	Toluene	108-88-3	LT	21.06
17	1,1,1-Trichloroethane	71-55-6	LT	14.53
18	1,1,2-Trichloroethane	79-00-5	LT	14.53
19	Trichloroethene	79-01-6	30.0	14.77
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	12.86
21	1,2,4-Trimethylbenzene	95-63-6	LT	21.06
22	Vinyl Chloride	75-01-4	LT	31.02
23	Total-Xylene	1330-20-7	LT	18.29
24	Total VOC		209	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	88%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: H. Pomfrad Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-6	Laboratory ID:	OA970506
Matrix:	Gas Cartridge	Sample Vol.(L):	0.124
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	33.32
2	Benzene	71-43-2	32.9	24.81
3	Carbon Tetrachloride	56-23-5	LT	12.62
4	Chloroform	67-66-3	LT	16.26
5	1,2-Dichlorobenzene	95-50-1	LT	13.20
6	1,3-Dichlorobenzene	541-73-1	LT	13.20
7	1,4-Dichlorobenzene	106-46-7	LT	13.20
8	1,1-Dichloroethane	75-34-3	LT	19.57
9	1,2-Dichloroethane	107-06-2	LT	20.01
10	1,1-Dichloroethene	75-35-4	LT	20.01
11	cis-1,2-Dichloroethene	156-69-9	LT	20.01
12	trans-1,2-Dichloroethene	156-60-5	LT	20.01
13	Ethylbenzene	100-41-4	LT	18.29
14	Methylene Chloride	75-09-2	87.5	22.85
15	Tetrachloroethene	127-18-4	LT	11.70
16	Toluene	108-88-3	LT	21.06
17	1,1,1-Trichloroethane	71-55-6	LT	14.53
18	1,1,2-Trichloroethane	79-00-5	LT	14.53
19	Trichloroethene	79-01-6	52.1	14.77
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	12.86
21	1,2,4-Trimethylbenzene	95-63-6	LT	21.06
22	Vinyl Chloride	75-01-4	LT	31.02
23	Total-Xylene	1330-20-7	LT	18.29
24	Total VOC		173	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	85%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst: Rich Dahlquist Date: 8/23/97
Reviewer: H.S. Tomita Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-7	Laboratory ID:	OA970507
Matrix:	Gas Cartridge	Sample Vol.(L):	0.123
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	33.60
2	Benzene	71-43-2	39.2	25.02
3	Carbon Tetrachloride	56-23-5	LT	12.72
4	Chloroform	67-66-3	LT	16.39
5	1,2-Dichlorobenzene	95-50-1	LT	13.31
6	1,3-Dichlorobenzene	541-73-1	LT	13.31
7	1,4-Dichlorobenzene	106-46-7	LT	13.31
8	1,1-Dichloroethane	75-34-3	LT	19.73
9	1,2-Dichloroethane	107-06-2	LT	20.17
10	1,1-Dichloroethene	75-35-4	LT	20.17
11	cis-1,2-Dichloroethene	156-69-9	20.4	20.17
12	trans-1,2-Dichloroethene	156-60-5	LT	20.17
13	Ethylbenzene	100-41-4	LT	18.44
14	Methylene Chloride	75-09-2	95.6	23.03
15	Tetrachloroethene	127-18-4	LT	11.80
16	Toluene	108-88-3	LT	21.23
17	1,1,1-Trichloroethane	71-55-6	LT	14.65
18	1,1,2-Trichloroethane	79-00-5	LT	14.65
19	Trichloroethene	79-01-6	79.2	14.89
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	12.97
21	1,2,4-Trimethylbenzene	95-63-6	LT	21.23
22	Vinyl Chloride	75-01-4	LT	31.27
23	Total-Xylene	1330-20-7	LT	18.44
24	Total VOC		234	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	87%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: H. Fountain Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-8	Laboratory ID:	OA970508
Matrix:	Gas Cartridge	Sample Vol.(L):	0.120
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	34.44
2	Benzene	71-43-2	59.4	25.64
3	Carbon Tetrachloride	56-23-5	LT	13.04
4	Chloroform	67-66-3	LT	16.80
5	1,2-Dichlorobenzene	95-50-1	LT	13.64
6	1,3-Dichlorobenzene	541-73-1	LT	13.64
7	1,4-Dichlorobenzene	106-46-7	LT	13.64
8	1,1-Dichloroethane	75-34-3	LT	20.23
9	1,2-Dichloroethane	107-06-2	LT	20.68
10	1,1-Dichloroethene	75-35-4	LT	20.68
11	cis-1,2-Dichloroethene	156-69-9	73.5	20.68
12	trans-1,2-Dichloroethene	156-60-5	LT	20.68
13	Ethylbenzene	100-41-4	LT	18.90
14	Methylene Chloride	75-09-2	151	23.61
15	Tetrachloroethene	127-18-4	LT	12.09
16	Toluene	108-88-3	LT	21.76
17	1,1,1-Trichloroethane	71-55-6	LT	15.02
18	1,1,2-Trichloroethane	79-00-5	LT	15.02
19	Trichloroethene	79-01-6	214	15.26
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	13.29
21	1,2,4-Trimethylbenzene	95-63-6	LT	21.76
22	Vinyl Chloride	75-01-4	LT	32.05
23	Total-Xylene	1330-20-7	LT	18.90
24	Total VOC		498	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	85%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-9	Laboratory ID:	OA970509
Matrix:	Gas Cartridge	Sample Vol.(L):	0.119
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	34.72
2	Benzene	71-43-2	50.8	25.86
3	Carbon Tetrachloride	56-23-5	LT	13.15
4	Chloroform	67-66-3	LT	16.94
5	1,2-Dichlorobenzene	95-50-1	LT	13.75
6	1,3-Dichlorobenzene	541-73-1	LT	13.75
7	1,4-Dichlorobenzene	106-46-7	LT	13.75
8	1,1-Dichloroethane	75-34-3	LT	20.40
9	1,2-Dichloroethane	107-06-2	LT	20.85
10	1,1-Dichloroethene	75-35-4	LT	20.85
11	cis-1,2-Dichloroethene	156-69-9	35.9	20.85
12	trans-1,2-Dichloroethene	156-60-5	LT	20.85
13	Ethylbenzene	100-41-4	LT	19.06
14	Methylene Chloride	75-09-2	76.4	23.81
15	Tetrachloroethene	127-18-4	LT	12.20
16	Toluene	108-88-3	LT	21.94
17	1,1,1-Trichloroethane	71-55-6	LT	15.14
18	1,1,2-Trichloroethane	79-00-5	LT	15.14
19	Trichloroethene	79-01-6	113	15.39
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	13.40
21	1,2,4-Trimethylbenzene	95-63-6	LT	21.94
22	Vinyl Chloride	75-01-4	LT	32.32
23	Total-Xylene	1330-20-7	LT	19.06
24	Total VOC		277	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	85%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-10	Laboratory ID:	OA970510
Matrix:	Gas Cartridge	Sample Vol.(L):	0.117
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	35.32
2	Benzene	71-43-2	40.4	26.30
3	Carbon Tetrachloride	56-23-5	LT	13.38
4	Chloroform	67-66-3	LT	17.23
5	1,2-Dichlorobenzene	95-50-1	LT	13.99
6	1,3-Dichlorobenzene	541-73-1	LT	13.99
7	1,4-Dichlorobenzene	106-46-7	LT	13.99
8	1,1-Dichloroethane	75-34-3	LT	20.75
9	1,2-Dichloroethane	107-06-2	LT	21.21
10	1,1-Dichloroethene	75-35-4	LT	21.21
11	cis-1,2-Dichloroethene	156-69-9	34.3	21.21
12	trans-1,2-Dichloroethene	156-60-5	LT	21.21
13	Ethylbenzene	100-41-4	LT	19.38
14	Methylene Chloride	75-09-2	38.5	24.21
15	Tetrachloroethene	127-18-4	LT	12.40
16	Toluene	108-88-3	LT	22.32
17	1,1,1-Trichloroethane	71-55-6	LT	15.40
18	1,1,2-Trichloroethane	79-00-5	LT	15.40
19	Trichloroethene	79-01-6	110	15.65
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	13.63
21	1,2,4-Trimethylbenzene	95-63-6	LT	22.32
22	Vinyl Chloride	75-01-4	LT	32.87
23	Total-Xylene	1330-20-7	LT	19.38
24	Total VOC		223	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	87%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst: [signature] Date: 8/23/97
Reviewer: [signature] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-11	Laboratory ID:	OA970511
Matrix:	Gas Cartridge	Sample Vol.(L):	0.116
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	35.62
2	Benzene	71-43-2	54.1	26.53
3	Carbon Tetrachloride	56-23-5	LT	13.49
4	Chloroform	67-66-3	LT	17.38
5	1,2-Dichlorobenzene	95-50-1	LT	14.11
6	1,3-Dichlorobenzene	541-73-1	LT	14.11
7	1,4-Dichlorobenzene	106-46-7	LT	14.11
8	1,1-Dichloroethane	75-34-3	LT	20.92
9	1,2-Dichloroethane	107-06-2	LT	21.39
10	1,1-Dichloroethene	75-35-4	LT	21.39
11	cis-1,2-Dichloroethene	156-69-9	LT	21.39
12	trans-1,2-Dichloroethene	156-60-5	LT	21.39
13	Ethylbenzene	100-41-4	LT	19.55
14	Methylene Chloride	75-09-2	61.3	24.42
15	Tetrachloroethene	127-18-4	LT	12.51
16	Toluene	108-88-3	LT	22.51
17	1,1,1-Trichloroethane	71-55-6	LT	15.53
18	1,1,2-Trichloroethane	79-00-5	LT	15.53
19	Trichloroethene	79-01-6	29.9	15.79
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	13.75
21	1,2,4-Trimethylbenzene	95-63-6	LT	22.51
22	Vinyl Chloride	75-01-4	LT	33.16
23	Total-Xylene	1330-20-7	LT	19.55
24	Total VOC		145	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	86%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: H. Brownford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-12	Laboratory ID:	OA970512
Matrix:	Gas Cartridge	Sample Vol.(L):	0.058
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	71.86
2	Benzene	71-43-2	129	53.51
3	Carbon Tetrachloride	56-23-5	LT	27.22
4	Chloroform	67-66-3	LT	35.06
5	1,2-Dichlorobenzene	95-50-1	LT	28.46
6	1,3-Dichlorobenzene	541-73-1	LT	28.46
7	1,4-Dichlorobenzene	106-46-7	LT	28.46
8	1,1-Dichloroethane	75-34-3	LT	42.21
9	1,2-Dichloroethane	107-06-2	LT	43.15
10	1,1-Dichloroethene	75-35-4	LT	43.15
11	cis-1,2-Dichloroethene	156-69-9	2650	43.15
12	trans-1,2-Dichloroethene	156-60-5	LT	43.15
13	Ethylbenzene	100-41-4	LT	39.44
14	Methylene Chloride	75-09-2	LT	49.27
15	Tetrachloroethene	127-18-4	LT	25.24
16	Toluene	108-88-3	LT	45.41
17	1,1,1-Trichloroethane	71-55-6	LT	31.34
18	1,1,2-Trichloroethane	79-00-5	LT	31.34
19	Trichloroethene	79-01-6	1680	31.85
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	27.74
21	1,2,4-Trimethylbenzene	95-63-6	LT	45.41
22	Vinyl Chloride	75-01-4	LT	66.89
23	Total-Xylene	1330-20-7	LT	39.44
24	Total VOC		4459	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	86%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: H.G. Poulsford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-13	Laboratory ID:	OA970513
Matrix:	Gas Cartridge	Sample Vol.(L):	0.028
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/29/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	147.58
2	Benzene	71-43-2	229	109.89
3	Carbon Tetrachloride	56-23-5	LT	55.89
4	Chloroform	67-66-3	LT	72.00
5	1,2-Dichlorobenzene	95-50-1	LT	58.45
6	1,3-Dichlorobenzene	541-73-1	LT	58.45
7	1,4-Dichlorobenzene	106-46-7	LT	58.45
8	1,1-Dichloroethane	75-34-3	LT	86.69
9	1,2-Dichloroethane	107-06-2	LT	88.62
10	1,1-Dichloroethene	75-35-4	LT	88.62
11	cis-1,2-Dichloroethene	156-69-9	5800	88.62
12	trans-1,2-Dichloroethene	156-60-5	LT	88.62
13	Ethylbenzene	100-41-4	LT	80.98
14	Methylene Chloride	75-09-2	LT	101.17
15	Tetrachloroethene	127-18-4	LT	51.83
16	Toluene	108-88-3	LT	93.25
17	1,1,1-Trichloroethane	71-55-6	LT	64.35
18	1,1,2-Trichloroethane	79-00-5	LT	64.35
19	Trichloroethene	79-01-6	4200	65.41
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	56.96
21	1,2,4-Trimethylbenzene	95-63-6	LT	93.25
22	Vinyl Chloride	75-01-4	LT	137.36
23	Total-Xylene	1330-20-7	LT	80.98
24	Total VOC		10229	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	83%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dalliquist Date: 8/23/97
Reviewer: H G Brumford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-1	Laboratory ID:	OA970514
Matrix:	Gas Cartridge	Sample Vol.(L):	0.109
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	37.91
2	Benzene	71-43-2	48.8	28.23
3	Carbon Tetrachloride	56-23-5	LT	14.36
4	Chloroform	67-66-3	LT	18.50
5	1,2-Dichlorobenzene	95-50-1	LT	15.02
6	1,3-Dichlorobenzene	541-73-1	LT	15.02
7	1,4-Dichlorobenzene	106-46-7	LT	15.02
8	1,1-Dichloroethane	75-34-3	LT	22.27
9	1,2-Dichloroethane	107-06-2	LT	22.77
10	1,1-Dichloroethene	75-35-4	LT	22.77
11	cis-1,2-Dichloroethene	156-69-9	216	22.77
12	trans-1,2-Dichloroethene	156-60-5	LT	22.77
13	Ethylbenzene	100-41-4	LT	20.80
14	Methylene Chloride	75-09-2	270	25.99
15	Tetrachloroethene	127-18-4	LT	13.32
16	Toluene	108-88-3	LT	23.95
17	1,1,1-Trichloroethane	71-55-6	LT	16.53
18	1,1,2-Trichloroethane	71-55-6	LT	16.53
19	Trichloroethene	79-01-6	1510	16.80
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	6980	14.63
21	1,2,4-Trimethylbenzene	95-63-6	LT	23.95
22	Vinyl Chloride	75-01-4	LT	35.29
23	Total-Xylene	1330-20-7	LT	20.80
24	Total VOC		9024	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	87%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/23/97
Reviewer: HS Crawford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-2	Laboratory ID:	OA970515
Matrix:	Gas Cartridge	Sample Vol.(L):	0.108
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	38.26
2	Benzene	71-43-2	LT	28.49
3	Carbon Tetrachloride	56-23-5	LT	14.49
4	Chloroform	67-66-3	LT	18.67
5	1,2-Dichlorobenzene	95-50-1	LT	15.15
6	1,3-Dichlorobenzene	541-73-1	LT	15.15
7	1,4-Dichlorobenzene	106-46-7	LT	15.15
8	1,1-Dichloroethane	75-34-3	LT	22.47
9	1,2-Dichloroethane	107-06-2	LT	22.98
10	1,1-Dichloroethene	75-35-4	LT	22.98
11	cis-1,2-Dichloroethene	156-69-9	46.0	22.98
12	trans-1,2-Dichloroethene	156-60-5	LT	22.98
13	Ethylbenzene	100-41-4	LT	21.00
14	Methylene Chloride	75-09-2	158	26.23
15	Tetrachloroethene	127-18-4	LT	13.44
16	Toluene	108-88-3	LT	24.18
17	1,1,1-Trichloroethane	71-55-6	LT	16.68
18	1,1,2-Trichloroethane	79-00-5	LT	16.68
19	Trichloroethene	79-01-6	916	16.96
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	1440	14.77
21	1,2,4-Trimethylbenzene	95-63-6	LT	24.18
22	Vinyl Chloride	75-01-4	LT	35.61
23	Total-Xylene	1330-20-7	LT	21.00
24	Total VOC		2561	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	87%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst: Rick Dahlquist Date: 8/23/97
Reviewer: H.R. Rowland Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-3	Laboratory ID:	OA970516
Matrix:	Gas Cartridge	Sample Vol.(L):	0.106
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	38.98
2	Benzene	71-43-2	85.5	29.03
3	Carbon Tetrachloride	56-23-5	LT	14.76
4	Chloroform	67-66-3	19.4	19.02
5	1,2-Dichlorobenzene	95-50-1	LT	15.44
6	1,3-Dichlorobenzene	541-73-1	LT	15.44
7	1,4-Dichlorobenzene	106-46-7	LT	15.44
8	1,1-Dichloroethane	75-34-3	25.4	22.90
9	1,2-Dichloroethane	107-06-2	LT	23.41
10	1,1-Dichloroethene	75-35-4	LT	23.41
11	cis-1,2-Dichloroethene	156-69-9	195	23.41
12	trans-1,2-Dichloroethene	156-60-5	LT	23.41
13	Ethylbenzene	100-41-4	LT	21.39
14	Methylene Chloride	75-09-2	116	26.73
15	Tetrachloroethene	127-18-4	LT	13.69
16	Toluene	108-88-3	LT	24.63
17	1,1,1-Trichloroethane	71-55-6	LT	17.00
18	1,1,2-Trichloroethane	79-00-5	LT	17.00
19	Trichloroethene	79-01-6	1110	17.28
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	422	15.05
21	1,2,4-Trimethylbenzene	95-63-6	LT	24.63
22	Vinyl Chloride	75-01-4	LT	36.28
23	Total-Xylene	1330-20-7	LT	21.39
24	Total VOC		1973	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	86%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst: Rick Dahlquist Date: 8/23/97
Reviewer: H.G. Fonseca Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-4	Laboratory ID:	OA970517
Matrix:	Gas Cartridge	Sample Vol.(L):	0.106
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	38.98
2	Benzene	71-43-2	104	29.03
3	Carbon Tetrachloride	56-23-5	LT	14.76
4	Chloroform	67-66-3	LT	19.02
5	1,2-Dichlorobenzene	95-50-1	LT	15.44
6	1,3-Dichlorobenzene	541-73-1	LT	15.44
7	1,4-Dichlorobenzene	106-46-7	LT	15.44
8	1,1-Dichloroethane	75-34-3	LT	22.90
9	1,2-Dichloroethane	107-06-2	LT	23.41
10	1,1-Dichloroethene	75-35-4	LT	23.41
11	cis-1,2-Dichloroethene	156-69-9	159	23.41
12	trans-1,2-Dichloroethene	156-60-5	LT	23.41
13	Ethylbenzene	100-41-4	LT	21.39
14	Methylene Chloride	75-09-2	112	26.73
15	Tetrachloroethene	127-18-4	LT	13.69
16	Toluene	108-88-3	LT	24.63
17	1,1,1-Trichloroethane	71-55-6	LT	17.00
18	1,1,2-Trichloroethane	79-00-5	LT	17.00
19	Trichloroethene	79-01-6	954	17.28
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	225	15.05
21	1,2,4-Trimethylbenzene	95-63-6	LT	24.63
22	Vinyl Chloride	75-01-4	LT	36.28
23	Total-Xylene	1330-20-7	LT	21.39
24	Total VOC		1555	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	86%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-5	Laboratory ID:	OA970518
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	131	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	29.1	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	542	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	141	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	LT	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	79-00-5	LT	17.16
19	Trichloroethene	79-01-6	1210	17.44
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	30.4	15.19
21	1,2,4-Trimethylbenzene	95-63-6	LT	24.87
22	Vinyl Chloride	75-01-4	LT	36.63
23	Total-Xylene	1330-20-7	LT	21.60
24	Total VOC		2083	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	85%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst: Rick Dahlquist Date: 8/23/97
Reviewer: H.G. Powerford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-6	Laboratory ID:	OA970519
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	116	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	31.1	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	605	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	211	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	LT	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	79-00-5	LT	17.16
19	Trichloroethene	79-01-6	1070	17.44
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	LT	15.19
21	1,2,4-Trimethylbenzene	95-63-6	LT	24.87
22	Vinyl Chloride	75-01-4	LT	36.63
23	Total-Xylene	1330-20-7	LT	21.60
24	Total VOC		2032	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	88%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst: Rich Dahlquist Date: 8/23/97
Reviewer: H.G. Powaford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-7	Laboratory ID:	OA970520
Matrix:	Gas Cartridge	Sample Vol.(L):	0.104
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.73
2	Benzene	71-43-2	121	29.59
3	Carbon Tetrachloride	56-23-5	LT	15.05
4	Chloroform	67-66-3	LT	19.39
5	1,2-Dichlorobenzene	95-50-1	LT	15.74
6	1,3-Dichlorobenzene	541-73-1	LT	15.74
7	1,4-Dichlorobenzene	106-46-7	LT	15.74
8	1,1-Dichloroethane	75-34-3	LT	23.34
9	1,2-Dichloroethane	107-06-2	LT	23.86
10	1,1-Dichloroethene	75-35-4	LT	23.86
11	cis-1,2-Dichloroethene	156-69-9	213	23.86
12	trans-1,2-Dichloroethene	156-60-5	LT	23.86
13	Ethylbenzene	100-41-4	LT	21.80
14	Methylene Chloride	75-09-2	91.8	27.24
15	Tetrachloroethene	127-18-4	LT	13.96
16	Toluene	108-88-3	LT	25.11
17	1,1,1-Trichloroethane	71-55-6	LT	17.33
18	1,1,2-Trichloroethane	79-00-5	LT	17.33
19	Trichloroethene	79-01-6	457	17.61
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	LT	15.34
21	1,2,4-Trimethylbenzene	95-63-6	LT	25.11
22	Vinyl Chloride	75-01-4	LT	36.98
23	Total-Xylene	1330-20-7	LT	21.80
24	Total VOC		883	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	87%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst: Rich Dallquist Date: 8/23/97
Reviewer: H G Fourtard Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-8	Laboratory ID:	OA9705221
Matrix:	Gas Cartridge	Sample Vol.(L):	0.103
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	40.12
2	Benzene	71-43-2	111	29.87
3	Carbon Tetrachloride	56-23-5	LT	15.19
4	Chloroform	67-66-3	LT	19.57
5	1,2-Dichlorobenzene	95-50-1	LT	15.89
6	1,3-Dichlorobenzene	541-73-1	LT	15.89
7	1,4-Dichlorobenzene	106-46-7	LT	15.89
8	1,1-Dichloroethane	75-34-3	LT	23.56
9	1,2-Dichloroethane	107-06-2	LT	24.09
10	1,1-Dichloroethene	75-35-4	LT	24.09
11	cis-1,2-Dichloroethene	156-69-9	65.6	24.09
12	trans-1,2-Dichloroethene	156-60-5	LT	24.09
13	Ethylbenzene	100-41-4	LT	22.02
14	Methylene Chloride	75-09-2	86.4	27.50
14	Tetrachloroethene	127-18-4	LT	14.09
15	Toluene	108-88-3	LT	25.35
16	1,1,1-Trichloroethane	71-55-6	LT	17.49
16	1,1,2-Trichloroethane	79-00-5	LT	17.49
17	Trichloroethene	79-01-6	253	17.78
18	Dichlorotrifluoroethane (Freon 123)	306-83-2	LT	15.48
17	1,2,4-Trimethylbenzene	95-63-6	LT	25.35
18	Vinyl Chloride	75-01-4	LT	37.34
19	Total-Xylene	1330-20-7	LT	22.02
19	Total VOC		516	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	87%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst: Rich Dabfunt Date: 8/23/97
Reviewer: H. Fountford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-9	Laboratory ID:	OA970522
Matrix:	Gas Cartridge	Sample Vol.(L):	0.102
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	40.51
2	Benzene	71-43-2	52.6	30.17
3	Carbon Tetrachloride	56-23-5	LT	15.34
4	Chloroform	67-66-3	LT	19.77
5	1,2-Dichlorobenzene	95-50-1	LT	16.05
6	1,3-Dichlorobenzene	541-73-1	LT	16.05
7	1,4-Dichlorobenzene	106-46-7	LT	16.05
8	1,1-Dichloroethane	75-34-3	LT	23.80
9	1,2-Dichloroethane	107-06-2	LT	24.33
10	1,1-Dichloroethene	75-35-4	LT	24.33
11	cis-1,2-Dichloroethene	156-69-9	99.5	24.33
12	trans-1,2-Dichloroethene	156-60-5	LT	24.33
13	Ethylbenzene	100-41-4	LT	22.23
14	Methylene Chloride	75-09-2	53.9	27.77
15	Tetrachloroethene	127-18-4	LT	14.23
16	Toluene	108-88-3	LT	25.60
17	1,1,1-Trichloroethane	71-55-6	LT	17.66
18	1,1,2-Trichloroethane	79-00-5	LT	17.66
19	Trichloroethene	79-01-6	426	17.96
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	LT	15.64
21	1,2,4-Trimethylbenzene	95-63-6	LT	25.60
22	Vinyl Chloride	75-01-4	LT	37.71
23	Total-Xylene	1330-20-7	LT	22.23
24	Total VOC		632	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	107%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-10	Laboratory ID:	OA970523
Matrix:	Gas Cartridge	Sample Vol.(L):	0.101
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	40.91
2	Benzene	71-43-2	74.4	30.46
3	Carbon Tetrachloride	56-23-5	LT	15.49
4	Chloroform	67-66-3	LT	19.96
5	1,2-Dichlorobenzene	95-50-1	LT	16.20
6	1,3-Dichlorobenzene	541-73-1	LT	16.20
7	1,4-Dichlorobenzene	106-46-7	LT	16.20
8	1,1-Dichloroethane	75-34-3	LT	24.03
9	1,2-Dichloroethane	107-06-2	LT	24.57
10	1,1-Dichloroethene	75-35-4	LT	24.57
11	cis-1,2-Dichloroethene	156-69-9	134	24.57
12	trans-1,2-Dichloroethene	156-60-5	LT	24.57
13	Ethylbenzene	100-41-4	LT	22.45
14	Methylene Chloride	75-09-2	55.5	28.05
15	Tetrachloroethene	127-18-4	LT	14.37
16	Toluene	108-88-3	LT	25.85
17	1,1,1-Trichloroethane	71-55-6	LT	17.84
18	1,1,2-Trichloroethane	79-00-5	LT	17.84
19	Trichloroethene	79-01-6	350	18.13
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	LT	15.79
21	1,2,4-Trimethylbenzene	95-63-6	LT	25.85
22	Vinyl Chloride	75-01-4	LT	38.08
23	Total-Xylene	1330-20-7	LT	22.45
24	Total VOC		614	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	83%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Date: 8/23/97
Reviewer: Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-11	Laboratory ID:	OA970524
Matrix:	Gas Cartridge	Sample Vol.(L):	0.100
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	41.32
2	Benzene	71-43-2	95.0	30.77
3	Carbon Tetrachloride	56-23-5	LT	15.65
4	Chloroform	67-66-3	LT	20.16
5	1,2-Dichlorobenzene	95-50-1	LT	16.37
6	1,3-Dichlorobenzene	541-73-1	LT	16.37
7	1,4-Dichlorobenzene	106-46-7	LT	16.37
8	1,1-Dichloroethane	75-34-3	33.5	24.27
9	1,2-Dichloroethane	107-06-2	142	24.81
10	1,1-Dichloroethene	75-35-4	LT	24.81
11	cis-1,2-Dichloroethene	156-69-9	2480	24.81
12	trans-1,2-Dichloroethene	156-60-5	LT	24.81
13	Ethylbenzene	100-41-4	LT	22.68
14	Methylene Chloride	75-09-2	125	28.33
15	Tetrachloroethene	127-18-4	LT	14.51
16	Toluene	108-88-3	LT	26.11
17	1,1,1-Trichloroethane	71-55-6	LT	18.02
18	1,1,2-Trichloroethane	79-00-5	LT	18.02
19	Trichloroethene	79-01-6	1450	18.32
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	LT	15.95
21	1,2,4-Trimethylbenzene	95-63-6	LT	26.11
22	Vinyl Chloride	75-01-4	LT	38.46
23	Total-Xylene	1330-20-7	LT	22.68
24	Total VOC		4326	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	87%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: H. Rainford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-12	Laboratory ID:	OA970525
Matrix:	Gas Cartridge	Sample Vol.(L):	0.050
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	82.64
2	Benzene	71-43-2	131	61.54
3	Carbon Tetrachloride	56-23-5	LT	31.30
4	Chloroform	67-66-3	LT	40.32
5	1,2-Dichlorobenzene	95-50-1	LT	32.73
6	1,3-Dichlorobenzene	541-73-1	LT	32.73
7	1,4-Dichlorobenzene	106-46-7	LT	32.73
8	1,1-Dichloroethane	75-34-3	LT	48.54
9	1,2-Dichloroethane	107-06-2	130	49.63
10	1,1-Dichloroethene	75-35-4	LT	49.63
11	cis-1,2-Dichloroethene	156-69-9	4910	49.63
12	trans-1,2-Dichloroethene	156-60-5	53.1	49.63
13	Ethylbenzene	100-41-4	LT	45.35
14	Methylene Chloride	75-09-2	118	56.66
15	Tetrachloroethene	127-18-4	LT	29.03
16	Toluene	108-88-3	LT	52.22
17	1,1,1-Trichloroethane	71-55-6	LT	36.04
18	1,1,2-Trichloroethane	79-00-5	LT	36.04
19	Trichloroethene	79-01-6	2700	36.63
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	LT	31.90
21	1,2,4-Trimethylbenzene	95-63-6	LT	52.22
22	Vinyl Chloride	75-01-4	LT	76.92
23	Total-Xylene	1330-20-7	LT	45.35
24	Total VOC		8042	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	84%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-13A	Laboratory ID:	OA970526
Matrix:	Gas Cartridge	Sample Vol.(L):	0.049
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	84.33
2	Benzene	71-43-2	178	62.79
3	Carbon Tetrachloride	56-23-5	LT	31.94
4	Chloroform	67-66-3	LT	41.15
5	1,2-Dichlorobenzene	95-50-1	LT	33.40
6	1,3-Dichlorobenzene	541-73-1	LT	33.40
7	1,4-Dichlorobenzene	106-46-7	LT	33.40
8	1,1-Dichloroethane	75-34-3	LT	49.53
9	1,2-Dichloroethane	107-06-2	60.3	50.64
10	1,1-Dichloroethene	75-35-4	LT	50.64
11	cis-1,2-Dichloroethene	156-69-9	7590	50.64
12	trans-1,2-Dichloroethene	156-60-5	184	50.64
13	Ethylbenzene	100-41-4	LT	46.28
14	Methylene Chloride	75-09-2	95.4	57.81
15	Tetrachloroethene	127-18-4	LT	29.62
16	Toluene	108-88-3	LT	53.29
17	1,1,1-Trichloroethane	71-55-6	152	36.77
18	1,1,2-Trichloroethane	79-00-5	LT	36.77
19	Trichloroethene	79-01-6	4730	37.38
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	LT	32.55
21	1,2,4-Trimethylbenzene	95-63-6	LT	53.29
22	Vinyl Chloride	75-01-4	LT	78.49
23	Total-Xylene	1330-20-7	LT	46.28
24	Total VOC		12989	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	89%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/23/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-13B	Laboratory ID:	OA970527
Matrix:	Gas Cartridge	Sample Vol.(L):	0.025
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	165.29
2	Benzene	71-43-2	230	123.08
3	Carbon Tetrachloride	56-23-5	LT	62.60
4	Chloroform	67-66-3	LT	80.65
5	1,2-Dichlorobenzene	95-50-1	LT	65.47
6	1,3-Dichlorobenzene	541-73-1	LT	65.47
7	1,4-Dichlorobenzene	106-46-7	LT	65.47
8	1,1-Dichloroethane	75-34-3	LT	97.09
9	1,2-Dichloroethane	107-06-2	LT	99.26
10	1,1-Dichloroethene	75-35-4	LT	99.26
11	cis-1,2-Dichloroethene	156-69-9	11100	99.26
12	trans-1,2-Dichloroethene	156-60-5	136	99.26
13	Ethylbenzene	100-41-4	LT	90.70
14	Methylene Chloride	75-09-2	LT	113.31
15	Tetrachloroethene	127-18-4	LT	58.06
16	Toluene	108-88-3	LT	104.44
17	1,1,1-Trichloroethane	71-55-6	173	72.07
18	1,1,2-Trichloroethane	79-00-5	LT	72.07
19	Trichloroethene	79-01-6	7300	73.26
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	LT	63.80
21	1,2,4-Trimethylbenzene	95-63-6	LT	104.44
22	Vinyl Chloride	75-01-4	LT	153.85
23	Total-Xylene	1330-20-7	LT	90.70
24	Total VOC		18939	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	90%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rick Dehlquist Date: 8/23/97
Reviewer: H. Fairchild Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	FB	Laboratory ID:	OA970527
Matrix:	Gas Cartridge	Sample Vol.(L):	0.100
Date Sampled:	5/8/97	Date Received:	5/12/97
Date Analyzed:	5/30/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	41.32
2	Benzene	71-43-2	47.1	30.77
3	Carbon Tetrachloride	56-23-5	LT	15.65
4	Chloroform	67-66-3	LT	20.16
5	1,2-Dichlorobenzene	95-50-1	LT	16.37
6	1,3-Dichlorobenzene	541-73-1	LT	16.37
7	1,4-Dichlorobenzene	106-46-7	LT	16.37
8	1,1-Dichloroethane	75-34-3	LT	24.27
9	1,2-Dichloroethane	107-06-2	LT	24.81
10	1,1-Dichloroethene	75-35-4	LT	24.81
11	cis-1,2-Dichloroethene	156-69-9	1150	24.81
12	trans-1,2-Dichloroethene	156-60-5	LT	24.81
13	Ethylbenzene	100-41-4	LT	22.68
14	Methylene Chloride	75-09-2	LT	28.33
15	Tetrachloroethene	127-18-4	LT	14.51
16	Toluene	108-88-3	LT	26.11
17	1,1,1-Trichloroethane	71-55-6	LT	18.02
18	1,1,2-Trichloroethane	79-00-5	LT	18.02
19	Trichloroethene	79-01-6	1390	18.32
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	15.95
21	1,2,4-Trimethylbenzene	95-63-6	LT	26.11
22	Vinyl Chloride	75-01-4	LT	38.46
23	Total-Xylene	1330-20-7	LT	22.68
24	Total VOC		2587	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	90%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/23/97
Reviewer: H Powitzed Date: 8-21-97

LBL Environmental Measurements Laboratory
Volatile Organics Analysis Data Sheet

Sample ID:	SWS-A1	Laboratory ID:	OW970753
Matrix:	Water	Sample Wt./Vol.:	5.0 ml
Date Sampled:	7/17/97	Date Received:	7/22/97
Date Analyzed:	7/22/97	Method:	EPA 8260(Purge & Trap)

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
1	Benzene	71-43-2	LT	1.0
2	Bromobenzene	108-86-1	LT	1.0
3	Bromochloromethane	74-97-5	LT	2.0
4	Bromodichloromethane	75-27-4	LT	1.0
5	Bromoform	75-25-2	LT	2.0
6	Bromomethane	74-83-9	LT	4.0
7	n-Butylbenzene	104-51-8	LT	1.0
8	sec-Butylbenzene	135-98-8	LT	1.0
9	ter-Butylbenzene	98-06-6	LT	1.0
10	Carbon Tetrachloride	56-23-5	LT	1.0
11	Chlorobenzene	108-90-7	LT	1.0
12	Chlorodifluoromethane(Freon-22)	75-45-6	LT	30.0
13	Chloroethane	75-00-3	LT	30.0
14	Chloroform	67-66-3	LT	1.0
15	Chloromethane	74-87-3	LT	1.0
16	2-Chlorotoluene	95-49-8	LT	2.0
17	4-Chlorotoluene	106-43-4	LT	2.0
18	Dibromochloromethane	124-48-1	LT	2.0
19	1,2-Dibromo-3-chloropropane	96-12-8	LT	2.0
20	1,2-Dibromoethane	106-93-4	LT	2.0
21	Dibromomethane	74-95-3	LT	1.0
22	1,2-Dichlorobenzene	95-50-1	LT	1.0
23	1,3-Dichlorobenzene	541-73-1	LT	1.0
24	1,4-Dichlorobenzene	106-46-7	LT	1.0
25	Dichlorodifluoromethane(Freon-12)	75-71-8	LT	3.0
26	1,1-Dichloroethane	75-34-3	LT	1.0
27	1,2-Dichloroethane	107-06-2	LT	2.0
28	1,1-Dichloroethene	75-35-4	LT	1.0
29	cis-1,2-Dichloroethene	156-69-9	1.8	1.0
30	trans-1,2-Dichloroethene	156-60-5	LT	1.0
31	Dichlorofluoromethane(Freon-21)	75-43-4	LT	3.0
32	1,2-Dichloropropane	78-87-5	LT	1.0
33	1,3-Dichloropropane	142-28-9	LT	1.0
34	2,2-Dichloropropane	594-20-7	LT	1.0

Volatile Organics Analysis Data Sheet (Continued) Sample I.D. OW970753

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
35	1,1-Dichloropropene	563-58-6	LT	1.0
36	cis-1,3-Dichloropropene	10061-01-5	LT	1.0
37	trans-1,3-Dichloropropene	10061-02-6	LT	1.0
38	1,2-Dichlorotetrafluoroethane(Freon-114)	76-14-2	LT	3.0
39	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	1.0
40	Ethylbenzene	100-41-4	LT	1.0
41	Hexachlorobutadien	87-68-3	LT	3.0
42	Isopropylbenzene	98-82-8	LT	2.0
43	p-Isopropyltoluene	99-87-6	LT	1.0
44	Methylene Chloride	75-09-2	LT	1.0
45	Methyl tert-Butyl Ether	1634-04-4	LT	5.0
46	Naphthalene	91-20-3	LT	2.0
47	n-Propylbenzene	103-65-1	LT	1.0
48	Styrene	100-42-5	LT	1.0
49	1,1,2,2-Tetrachloroethane	79-34-5	LT	1.0
50	1,1,1,2-Tetrachloroethane	79-34-5	LT	2.0
51	Tetrachloroethene	127-18-4	LT	1.0
52	Toluene	108-88-3	LT	1.0
53	1,2,3-Trichlorobenzene	87-61-6	LT	2.0
54	1,2,4-Trichlorobenzene	120-82-1	LT	1.0
55	1,1,1-Trichloroethane	71-55-6	LT	1.0
56	1,1,2-Trichloroethane	79-00-5	LT	1.0
57	Trichloroethene	79-01-6	52.3	1.0
58	Trichlorofluoromethane(Freon-11)	75-69-4	LT	2.0
59	1,2,3-Trichloropropane	96-18-4	LT	1.0
60	1,1,2-Trichlorotrifluoroethane(Freon-113)	76-13-1	LT	1.0
61	1,2,4-Trimethylbenzene	95-63-6	LT	1.0
62	1,3,5-Trimethylbenzene	108-67-8	LT	1.0
63	Vinyl Chloride	75-01-4	LT	1.0
64	Total-Xylene	1330-20-7	LT	2.0

Surrogate Compounds	% Recovery	QC Limits (%)
4-Bromofluorobenzene	103.3	86-115
Dibromofluoromethane	100.4	86-118
Toluene-d8	100.0	88-110

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits (based on 5 ml water sample volume)
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: H Gounard Date: 8-21-97

LBL Environmental Measurements Laboratory
Volatile Organics Analysis Data Sheet

Sample ID:	SWS-A6	Laboratory ID:	OW970754
Matrix:	Water	Sample Wt./Vol.:	5.0 ml
Date Sampled:	7/17/97	Date Received:	7/22/97
Date Analyzed:	7/22/97	Method:	EPA 8260(Purge & Trap)

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
1	Benzene	71-43-2	LT	5.0
2	Bromobenzene	108-86-1	LT	5.0
3	Bromochloromethane	74-97-5	LT	10.0
4	Bromodichloromethane	75-27-4	LT	5.0
5	Bromoform	75-25-2	LT	10.0
6	Bromomethane	74-83-9	LT	20.0
7	n-Butylbenzene	104-51-8	LT	5.0
8	sec-Butylbenzene	135-98-8	LT	5.0
9	ter-Butylbenzene	98-06-6	LT	5.0
10	Carbon Tetrachloride	56-23-5	LT	5.0
11	Chlorobenzene	108-90-7	LT	5.0
12	Chlorodifluoromethane(Freon-22)	75-45-6	LT	150.0
13	Chloroethane	75-00-3	LT	150.0
14	Chloroform	67-66-3	LT	5.0
15	Chloromethane	74-87-3	LT	5.0
16	2-Chlorotoluene	95-49-8	LT	10.0
17	4-Chlorotoluene	106-43-4	LT	10.0
18	Dibromochloromethane	124-48-1	LT	10.0
19	1,2-Dibromo-3-chloropropane	96-12-8	LT	10.0
20	1,2-Dibromoethane	106-93-4	LT	10.0
21	Dibromomethane	74-95-3	LT	5.0
22	1,2-Dichlorobenzene	95-50-1	LT	5.0
23	1,3-Dichlorobenzene	541-73-1	LT	5.0
24	1,4-Dichlorobenzene	106-46-7	LT	5.0
25	Dichlorodifluoromethane(Freon-12)	75-71-8	LT	15.0
26	1,1-Dichloroethane	75-34-3	LT	5.0
27	1,2-Dichloroethane	107-06-2	LT	10.0
28	1,1-Dichloroethene	75-35-4	LT	5.0
29	cis-1,2-Dichloroethene	156-69-9	LT	5.0
30	trans-1,2-Dichloroethene	156-60-5	LT	5.0
31	Dichlorofluoromethane(Freon-21)	75-43-4	LT	15.0
32	1,2-Dichloropropane	78-87-5	LT	5.0
33	1,3-Dichloropropane	142-28-9	LT	5.0
34	2,2-Dichloropropane	594-20-7	LT	5.0

Volatile Organics Analysis Data Sheet (Continued) Sample I.D. OW970754

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
35	1,1-Dichloropropene	563-58-6	LT	5.0
36	cis-1,3-Dichloropropene	10061-01-5	LT	5.0
37	trans-1,3-Dichloropropene	10061-02-6	LT	5.0
38	1,2-Dichlorotetrafluoroethane(Freon-114)	76-14-2	LT	15.0
39	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	5.0
40	Ethylbenzene	100-41-4	LT	5.0
41	Hexachlorobutadien	87-68-3	LT	15.0
42	Isopropylbenzene	98-82-8	LT	10.0
43	p-Isopropyltoluene	99-87-6	LT	5.0
44	Methylene Chloride	75-09-2	LT	5.0
45	Methyl tert-Butyl Ether	1634-04-4	LT	25.0
46	Naphthalene	91-20-3	LT	10.0
47	n-Propylbenzene	103-65-1	LT	5.0
48	Styrene	100-42-5	LT	5.0
49	1,1,2,2-Tetrachloroethane	79-34-5	LT	5.0
50	1,1,1,2-Tetrachloroethane	79-34-5	LT	10.0
51	Tetrachloroethene	127-18-4	LT	5.0
52	Toluene	108-88-3	LT	5.0
53	1,2,3-Trichlorobenzene	87-61-6	LT	10.0
54	1,2,4-Trichlorobenzene	120-82-1	LT	5.0
55	1,1,1-Trichloroethane	71-55-6	LT	5.0
56	1,1,2-Trichloroethane	79-00-5	LT	5.0
57	Trichloroethene	79-01-6	LT	5.0
58	Trichlorofluoromethane(Freon-11)	75-69-4	LT	10.0
59	1,2,3-Trichloropropane	96-18-4	LT	5.0
60	1,1,2-Trichlorotrifluoroethane(Freon-113)	76-13-1	LT	5.0
61	1,2,4-Trimethylbenzene	95-63-6	LT	5.0
62	1,3,5-Trimethylbenzene	108-67-8	LT	5.0
63	Vinyl Chloride	75-01-4	LT	5.0
64	Total-Xylene	1330-20-7	LT	10.0

Surrogate Compounds	% Recovery	QC Limits (%)
4-Bromofluorobenzene	101.8	86-115
Dibromofluoromethane	99.7	86-118
Toluene-d8	97.2	88-110

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits (based on 5 ml water sample volume)
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rob Dahlquist Date: 8/23/97
Reviewer: H Pownsford Date: 8-21-97

LBL Environmental Measurements Laboratory
Volatile Organics Analysis Data Sheet

Sample ID:	SWS-A9	Laboratory ID:	OW970755
Matrix:	Water	Sample Wt./Vol.:	5.0 ml
Date Sampled:	7/17/97	Date Received:	7/22/97
Date Analyzed:	7/22/97	Method:	EPA 8260(Purge & Trap)

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
1	Benzene	71-43-2	LT	10.0
2	Bromobenzene	108-86-1	LT	10.0
3	Bromochloromethane	74-97-5	LT	20.0
4	Bromodichloromethane	75-27-4	LT	10.0
5	Bromoform	75-25-2	LT	20.0
6	Bromomethane	74-83-9	LT	40.0
7	n-Butylbenzene	104-51-8	LT	10.0
8	sec-Butylbenzene	135-98-8	LT	10.0
9	ter-Butylbenzene	98-06-6	LT	10.0
10	Carbon Tetrachloride	56-23-5	LT	10.0
11	Chlorobenzene	108-90-7	LT	10.0
12	Chlorodifluoromethane(Freon-22)	75-45-6	LT	300.0
13	Chloroethane	75-00-3	LT	300.0
14	Chloroform	67-66-3	LT	10.0
15	Chloromethane	74-87-3	LT	10.0
16	2-Chlorotoluene	95-49-8	LT	20.0
17	4-Chlorotoluene	106-43-4	LT	20.0
18	Dibromochloromethane	124-48-1	LT	20.0
19	1,2-Dibromo-3-chloropropane	96-12-8	LT	20.0
20	1,2-Dibromoethane	106-93-4	LT	20.0
21	Dibromomethane	74-95-3	LT	10.0
22	1,2-Dichlorobenzene	95-50-1	LT	10.0
23	1,3-Dichlorobenzene	541-73-1	LT	10.0
24	1,4-Dichlorobenzene	106-46-7	LT	10.0
25	Dichlorodifluoromethane(Freon-12)	75-71-8	LT	30.0
26	1,1-Dichloroethane	75-34-3	LT	10.0
27	1,2-Dichloroethane	107-06-2	LT	20.0
28	1,1-Dichloroethene	75-35-4	LT	10.0
29	cis-1,2-Dichloroethene	156-69-9	LT	10.0
30	trans-1,2-Dichloroethene	156-60-5	LT	10.0
31	Dichlorofluoromethane(Freon-21)	75-43-4	LT	30.0
32	1,2-Dichloropropane	78-87-5	LT	10.0
33	1,3-Dichloropropane	142-28-9	LT	10.0
34	2,2-Dichloropropane	594-20-7	LT	10.0

Volatile Organics Analysis Data Sheet (Continued) Sample I.D. OW970755

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
35	1,1-Dichloropropene	563-58-6	LT	10.0
36	cis-1,3-Dichloropropene	10061-01-5	LT	10.0
37	trans-1,3-Dichloropropene	10061-02-6	LT	10.0
38	1,2-Dichlorotetrafluoroethane(Freon-114)	76-14-2	LT	30.0
39	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	10.0
40	Ethylbenzene	100-41-4	LT	10.0
41	Hexachlorobutadien	87-68-3	LT	30.0
42	Isopropylbenzene	98-82-8	LT	20.0
43	p-Isopropyltoluene	99-87-6	LT	10.0
44	Methylene Chloride	75-09-2	LT	10.0
45	Methyl tert-Butyl Ether	1634-04-4	LT	50.0
46	Naphthalene	91-20-3	LT	20.0
47	n-Propylbenzene	103-65-1	LT	10.0
48	Styrene	100-42-5	LT	10.0
49	1,1,2,2-Tetrachloroethane	79-34-5	LT	10.0
50	1,1,1,2-Tetrachloroethane	79-34-5	LT	20.0
51	Tetrachloroethene	127-18-4	LT	10.0
52	Toluene	108-88-3	LT	10.0
53	1,2,3-Trichlorobenzene	87-61-6	LT	20.0
54	1,2,4-Trichlorobenzene	120-82-1	LT	10.0
55	1,1,1-Trichloroethane	71-55-6	LT	10.0
56	1,1,2-Trichloroethane	79-00-5	LT	10.0
57	Trichloroethene	79-01-6	LT	10.0
58	Trichlorofluoromethane(Freon-11)	75-69-4	LT	20.0
59	1,2,3-Trichloropropane	96-18-4	LT	10.0
60	1,1,2-Trichlorotrifluoroethane(Freon-113)	76-13-1	LT	10.0
61	1,2,4-Trimethylbenzene	95-63-6	LT	10.0
62	1,3,5-Trimethylbenzene	108-67-8	LT	10.0
63	Vinyl Chloride	75-01-4	LT	10.0
64	Total-Xylene	1330-20-7	LT	20.0

Surrogate Compounds	% Recovery	QC Limits (%)
4-Bromofluorobenzene	105.8	86-115
Dibromofluoromethane	103.4	86-118
Toluene-d8	98.1	88-110

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits (based on 5 ml water sample volume)
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
Volatile Organics Analysis Data Sheet

Sample ID:	SWS-A10	Laboratory ID:	OW970756
Matrix:	Water	Sample Wt./Vol.:	5.0 ml
Date Sampled:	7/17/97	Date Received:	7/22/97
Date Analyzed:	7/22/97	Method:	EPA 8260(Purge & Trap)

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
1	Benzene	71-43-2	LT	5.0
2	Bromobenzene	108-86-1	LT	5.0
3	Bromochloromethane	74-97-5	LT	10.0
4	Bromodichloromethane	75-27-4	LT	5.0
5	Bromoform	75-25-2	LT	10.0
6	Bromomethane	74-83-9	LT	20.0
7	n-Butylbenzene	104-51-8	LT	5.0
8	sec-Butylbenzene	135-98-8	LT	5.0
9	ter-Butylbenzene	98-06-6	LT	5.0
10	Carbon Tetrachloride	56-23-5	LT	5.0
11	Chlorobenzene	108-90-7	LT	5.0
12	Chlorodifluoromethane(Freon-22)	75-45-6	LT	150.0
13	Chloroethane	75-00-3	LT	150.0
14	Chloroform	67-66-3	LT	5.0
15	Chloromethane	74-87-3	LT	5.0
16	2-Chlorotoluene	95-49-8	LT	10.0
17	4-Chlorotoluene	106-43-4	LT	10.0
18	Dibromochloromethane	124-48-1	LT	10.0
19	1,2-Dibromo-3-chloropropane	96-12-8	LT	10.0
20	1,2-Dibromoethane	106-93-4	LT	10.0
21	Dibromomethane	74-95-3	LT	5.0
22	1,2-Dichlorobenzene	95-50-1	LT	5.0
23	1,3-Dichlorobenzene	541-73-1	LT	5.0
24	1,4-Dichlorobenzene	106-46-7	LT	5.0
25	Dichlorodifluoromethane(Freon-12)	75-71-8	LT	15.0
26	1,1-Dichloroethane	75-34-3	LT	5.0
27	1,2-Dichloroethane	107-06-2	LT	10.0
28	1,1-Dichloroethene	75-35-4	LT	5.0
29	cis-1,2-Dichloroethene	156-69-9	[3.2]	5.0
30	trans-1,2-Dichloroethene	156-60-5	LT	5.0
31	Dichlorofluoromethane(Freon-21)	75-43-4	LT	15.0
32	1,2-Dichloropropane	78-87-5	LT	5.0
33	1,3-Dichloropropane	142-28-9	LT	5.0
34	2,2-Dichloropropane	594-20-7	LT	5.0

Volatile Organics Analysis Data Sheet (Continued) Sample I.D. OW970756

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
35	1,1-Dichloropropene	563-58-6	LT	5.0
36	cis-1,3-Dichloropropene	10061-01-5	LT	5.0
37	trans-1,3-Dichloropropene	10061-02-6	LT	5.0
38	1,2-Dichlorotetrafluoroethane(Freon-114)	76-14-2	LT	15.0
39	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	5.0
40	Ethylbenzene	100-41-4	LT	5.0
41	Hexachlorobutadien	87-68-3	LT	15.0
42	Isopropylbenzene	98-82-8	LT	10.0
43	p-Isopropyltoluene	99-87-6	LT	5.0
44	Methylene Chloride	75-09-2	LT	5.0
45	Methyl tert-Butyl Ether	1634-04-4	LT	25.0
46	Naphthalene	91-20-3	LT	10.0
47	n-Propylbenzene	103-65-1	LT	5.0
48	Styrene	100-42-5	LT	5.0
49	1,1,2,2-Tetrachloroethane	79-34-5	LT	5.0
50	1,1,1,2-Tetrachloroethane	79-34-5	LT	10.0
51	Tetrachloroethene	127-18-4	LT	5.0
52	Toluene	108-88-3	LT	5.0
53	1,2,3-Trichlorobenzene	87-61-6	LT	10.0
54	1,2,4-Trichlorobenzene	120-82-1	LT	5.0
55	1,1,1-Trichloroethane	71-55-6	LT	5.0
56	1,1,2-Trichloroethane	79-00-5	LT	5.0
57	Trichloroethene	79-01-6	[3.6]	5.0
58	Trichlorofluoromethane(Freon-11)	75-69-4	LT	10.0
59	1,2,3-Trichloropropane	96-18-4	LT	5.0
60	1,1,2-Trichlorotrifluoroethane(Freon-113)	76-13-1	LT	5.0
61	1,2,4-Trimethylbenzene	95-63-6	LT	5.0
62	1,3,5-Trimethylbenzene	108-67-8	LT	5.0
63	Vinyl Chloride	75-01-4	LT	5.0
64	Total-Xylene	1330-20-7	LT	10.0

Surrogate Compounds	% Recovery	QC Limits (%)
4-Bromofluorobenzene	105.3	**86-115**
Dibromofluoromethane	101.8	**86-118**
Toluene-d8	97.3	**88-110**

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits (based on 5 ml water sample volume)
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rob Dahlquist Date: 8/23/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
Volatile Organics Analysis Data Sheet

Sample ID:	SWS-A12	Laboratory ID:	OW970757
Matrix:	Water	Sample Wt./Vol.:	5.0 ml
Date Sampled:	7/17/97	Date Received:	7/22/97
Date Analyzed:	7/22/97	Method:	EPA 8260(Purge & Trap)

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
1	Benzene	71-43-2	LT	5.0
2	Bromobenzene	108-86-1	LT	5.0
3	Bromochloromethane	74-97-5	LT	10.0
4	Bromodichloromethane	75-27-4	LT	5.0
5	Bromoform	75-25-2	LT	10.0
6	Bromomethane	74-83-9	LT	20.0
7	n-Butylbenzene	104-51-8	LT	5.0
8	sec-Butylbenzene	135-98-8	LT	5.0
9	ter-Butylbenzene	98-06-6	LT	5.0
10	Carbon Tetrachloride	56-23-5	LT	5.0
11	Chlorobenzene	108-90-7	LT	5.0
12	Chlorodifluoromethane(Freon-22)	75-45-6	LT	150.0
13	Chloroethane	75-00-3	LT	150.0
14	Chloroform	67-66-3	LT	5.0
15	Chloromethane	74-87-3	LT	5.0
16	2-Chlorotoluene	95-49-8	LT	10.0
17	4-Chlorotoluene	106-43-4	LT	10.0
18	Dibromochloromethane	124-48-1	LT	10.0
19	1,2-Dibromo-3-chloropropane	96-12-8	LT	10.0
20	1,2-Dibromoethane	106-93-4	LT	10.0
21	Dibromomethane	74-95-3	LT	5.0
22	1,2-Dichlorobenzene	95-50-1	LT	5.0
23	1,3-Dichlorobenzene	541-73-1	LT	5.0
24	1,4-Dichlorobenzene	106-46-7	LT	5.0
25	Dichlorodifluoromethane(Freon-12)	75-71-8	LT	15.0
26	1,1-Dichloroethane	75-34-3	LT	5.0
27	1,2-Dichloroethane	107-06-2	LT	10.0
28	1,1-Dichloroethene	75-35-4	LT	5.0
29	cis-1,2-Dichloroethene	156-69-9	75.7	5.0
30	trans-1,2-Dichloroethene	156-60-5	LT	5.0
31	Dichlorofluoromethane(Freon-21)	75-43-4	LT	15.0
32	1,2-Dichloropropane	78-87-5	LT	5.0
33	1,3-Dichloropropane	142-28-9	LT	5.0
34	2,2-Dichloropropane	594-20-7	LT	5.0

Volatile Organics Analysis Data Sheet (Continued) Sample I.D. OW970757

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
35	1,1-Dichloropropene	563-58-6	LT	5.0
36	cis-1,3-Dichloropropene	10061-01-5	LT	5.0
37	trans-1,3-Dichloropropene	10061-02-6	LT	5.0
38	1,2-Dichlorotetrafluoroethane(Freon-114)	76-14-2	LT	15.0
39	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	5.0
40	Ethylbenzene	100-41-4	LT	5.0
41	Hexachlorobutadien	87-68-3	LT	15.0
42	Isopropylbenzene	98-82-8	LT	10.0
43	p-Isopropyltoluene	99-87-6	LT	5.0
44	Methylene Chloride	75-09-2	LT	5.0
45	Methyl tert-Butyl Ether	1634-04-4	LT	25.0
46	Naphthalene	91-20-3	LT	10.0
47	n-Propylbenzene	103-65-1	LT	5.0
48	Styrene	100-42-5	LT	5.0
49	1,1,2,2-Tetrachloroethane	79-34-5	LT	5.0
50	1,1,1,2-Tetrachloroethane	79-34-5	LT	10.0
51	Tetrachloroethene	127-18-4	LT	5.0
52	Toluene	108-88-3	LT	5.0
53	1,2,3-Trichlorobenzene	87-61-6	LT	10.0
54	1,2,4-Trichlorobenzene	120-82-1	LT	5.0
55	1,1,1-Trichloroethane	71-55-6	LT	5.0
56	1,1,2-Trichloroethane	79-00-5	LT	5.0
57	Trichloroethene	79-01-6	78.0	5.0
58	Trichlorofluoromethane(Freon-11)	75-69-4	LT	10.0
59	1,2,3-Trichloropropane	96-18-4	LT	5.0
60	1,1,2-Trichlorotrifluoroethane(Freon-113)	76-13-1	LT	5.0
61	1,2,4-Trimethylbenzene	95-63-6	LT	5.0
62	1,3,5-Trimethylbenzene	108-67-8	LT	5.0
63	Vinyl Chloride	75-01-4	LT	5.0
64	Total-Xylene	1330-20-7	LT	10.0

Surrogate Compounds	% Recovery	QC Limits (%)
4-Bromofluorobenzene	106.3	**86-115**
Dibromofluoromethane	103.2	**86-118**
Toluene-d8	98.1	**88-110**

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits (based on 5 ml water sample volume)
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: H. Gomez Date: 8-21-97

LBL Environmental Measurements Laboratory
Volatile Organics Analysis Data Sheet

Sample ID:	SWS-B1	Laboratory ID:	OW970758
Matrix:	Water	Sample Wt./Vol.:	5.0 ml
Date Sampled:	7/17/97	Date Received:	7/22/97
Date Analyzed:	7/22/97	Method:	EPA 8260(Purge & Trap)

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
1	Benzene	71-43-2	LT	1.0
2	Bromobenzene	108-86-1	LT	1.0
3	Bromochloromethane	74-97-5	LT	2.0
4	Bromodichloromethane	75-27-4	LT	1.0
5	Bromoform	75-25-2	LT	2.0
6	Bromomethane	74-83-9	LT	4.0
7	n-Butylbenzene	104-51-8	LT	1.0
8	sec-Butylbenzene	135-98-8	LT	1.0
9	ter-Butylbenzene	98-06-6	LT	1.0
10	Carbon Tetrachloride	56-23-5	LT	1.0
11	Chlorobenzene	108-90-7	LT	1.0
12	Chlorodifluoromethane(Freon-22)	75-45-6	LT	30.0
13	Chloroethane	75-00-3	LT	30.0
14	Chloroform	67-66-3	LT	1.0
15	Chloromethane	74-87-3	LT	1.0
16	2-Chlorotoluene	95-49-8	LT	2.0
17	4-Chlorotoluene	106-43-4	LT	2.0
18	Dibromochloromethane	124-48-1	LT	2.0
19	1,2-Dibromo-3-chloropropane	96-12-8	LT	2.0
20	1,2-Dibromoethane	106-93-4	LT	2.0
21	Dibromomethane	74-95-3	LT	1.0
22	1,2-Dichlorobenzene	95-50-1	LT	1.0
23	1,3-Dichlorobenzene	541-73-1	LT	1.0
24	1,4-Dichlorobenzene	106-46-7	LT	1.0
25	Dichlorodifluoromethane(Freon-12)	75-71-8	LT	3.0
26	1,1-Dichloroethane	75-34-3	LT	1.0
27	1,2-Dichloroethane	107-06-2	LT	2.0
28	1,1-Dichloroethene	75-35-4	LT	1.0
29	cis-1,2-Dichloroethene	156-69-9	1.9	1.0
30	trans-1,2-Dichloroethene	156-60-5	LT	1.0
31	Dichlorofluoromethane(Freon-21)	75-43-4	LT	3.0
32	1,2-Dichloropropane	78-87-5	LT	1.0
33	1,3-Dichloropropane	142-28-9	LT	1.0
34	2,2-Dichloropropane	594-20-7	LT	1.0

Volatile Organics Analysis Data Sheet (Continued) Sample I.D. OW970758

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
35	1,1-Dichloropropene	563-58-6	LT	1.0
36	cis-1,3-Dichloropropene	10061-01-5	LT	1.0
37	trans-1,3-Dichloropropene	10061-02-6	LT	1.0
38	1,2-Dichlorotetrafluoroethane(Freon-114)	76-14-2	LT	3.0
39	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	1.0
40	Ethylbenzene	100-41-4	LT	1.0
41	Hexachlorobutadien	87-68-3	LT	3.0
42	Isopropylbenzene	98-82-8	LT	2.0
43	p-Isopropyltoluene	99-87-6	LT	1.0
44	Methylene Chloride	75-09-2	LT	1.0
45	Methyl tert-Butyl Ether	1634-04-4	LT	5.0
46	Naphthalene	91-20-3	LT	2.0
47	n-Propylbenzene	103-65-1	LT	1.0
48	Styrene	100-42-5	LT	1.0
49	1,1,2,2-Tetrachloroethane	79-34-5	LT	1.0
50	1,1,1,2-Tetrachloroethane	79-34-5	LT	2.0
51	Tetrachloroethene	127-18-4	LT	1.0
52	Toluene	108-88-3	LT	1.0
53	1,2,3-Trichlorobenzene	87-61-6	LT	2.0
54	1,2,4-Trichlorobenzene	120-82-1	LT	1.0
55	1,1,1-Trichloroethane	71-55-6	LT	1.0
56	1,1,2-Trichloroethane	79-00-5	LT	1.0
57	Trichloroethene	79-01-6	38.5	1.0
58	Trichlorofluoromethane(Freon-11)	75-69-4	LT	2.0
59	1,2,3-Trichloropropane	96-18-4	LT	1.0
60	1,1,2-Trichlorotrifluoroethane(Freon-113)	76-13-1	LT	1.0
61	1,2,4-Trimethylbenzene	95-63-6	LT	1.0
62	1,3,5-Trimethylbenzene	108-67-8	LT	1.0
63	Vinyl Chloride	75-01-4	LT	1.0
64	Total-Xylene	1330-20-7	LT	2.0

Surrogate Compounds	% Recovery	QC Limits (%)
4-Bromofluorobenzene	105.9	86-115
Dibromofluoromethane	105.1	86-118
Toluene-d8	97.9	88-110

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits (based on 5 ml water sample volume)
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: H.E. Howard Date: 8-21-97

LBL Environmental Measurements Laboratory
Volatile Organics Analysis Data Sheet

Sample ID:	SWS-B2	Laboratory ID:	OW970759
Matrix:	Water	Sample Wt./Vol.:	5.0 ml
Date Sampled:	7/17/97	Date Received:	7/22/97
Date Analyzed:	7/22/97	Method:	EPA 8260(Purge & Trap)

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
1	Benzene	71-43-2	LT	5.0
2	Bromobenzene	108-86-1	LT	5.0
3	Bromochloromethane	74-97-5	LT	10.0
4	Bromodichloromethane	75-27-4	LT	5.0
5	Bromoform	75-25-2	LT	10.0
6	Bromomethane	74-83-9	LT	20.0
7	n-Butylbenzene	104-51-8	LT	5.0
8	sec-Butylbenzene	135-98-8	LT	5.0
9	ter-Butylbenzene	98-06-6	LT	5.0
10	Carbon Tetrachloride	56-23-5	LT	5.0
11	Chlorobenzene	108-90-7	LT	5.0
12	Chlorodifluoromethane(Freon-22)	75-45-6	LT	150.0
13	Chloroethane	75-00-3	LT	150.0
14	Chloroform	67-66-3	LT	5.0
15	Chloromethane	74-87-3	LT	5.0
16	2-Chlorotoluene	95-49-8	LT	10.0
17	4-Chlorotoluene	106-43-4	LT	10.0
18	Dibromochloromethane	124-48-1	LT	10.0
19	1,2-Dibromo-3-chloropropane	96-12-8	LT	10.0
20	1,2-Dibromoethane	106-93-4	LT	10.0
21	Dibromomethane	74-95-3	LT	5.0
22	1,2-Dichlorobenzene	95-50-1	LT	5.0
23	1,3-Dichlorobenzene	541-73-1	LT	5.0
24	1,4-Dichlorobenzene	106-46-7	LT	5.0
25	Dichlorodifluoromethane(Freon-12)	75-71-8	LT	15.0
26	1,1-Dichloroethane	75-34-3	LT	5.0
27	1,2-Dichloroethane	107-06-2	LT	10.0
28	1,1-Dichloroethene	75-35-4	LT	5.0
29	cis-1,2-Dichloroethene	156-69-9	LT	5.0
30	trans-1,2-Dichloroethene	156-60-5	LT	5.0
31	Dichlorofluoromethane(Freon-21)	75-43-4	LT	15.0
32	1,2-Dichloropropane	78-87-5	LT	5.0
33	1,3-Dichloropropane	142-28-9	LT	5.0
34	2,2-Dichloropropane	594-20-7	LT	5.0

Volatile Organics Analysis Data Sheet (Continued) Sample I.D. OW970759

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
35	1,1-Dichloropropene	563-58-6	LT	5.0
36	cis-1,3-Dichloropropene	10061-01-5	LT	5.0
37	trans-1,3-Dichloropropene	10061-02-6	LT	5.0
38	1,2-Dichlorotetrafluoroethane(Freon-114)	76-14-2	LT	15.0
39	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	5.0
40	Ethylbenzene	100-41-4	LT	5.0
41	Hexachlorobutadien	87-68-3	LT	15.0
42	Isopropylbenzene	98-82-8	LT	10.0
43	p-Isopropyltoluene	99-87-6	LT	5.0
44	Methylene Chloride	75-09-2	LT	5.0
45	Methyl tert-Butyl Ether	1634-04-4	LT	25.0
46	Naphthalene	91-20-3	LT	10.0
47	n-Propylbenzene	103-65-1	LT	5.0
48	Styrene	100-42-5	LT	5.0
49	1,1,2,2-Tetrachloroethane	79-34-5	LT	5.0
50	1,1,1,2-Tetrachloroethane	79-34-5	LT	10.0
51	Tetrachloroethene	127-18-4	LT	5.0
52	Toluene	108-88-3	LT	5.0
53	1,2,3-Trichlorobenzene	87-61-6	LT	10.0
54	1,2,4-Trichlorobenzene	120-82-1	LT	5.0
55	1,1,1-Trichloroethane	71-55-6	LT	5.0
56	1,1,2-Trichloroethane	79-00-5	LT	5.0
57	Trichloroethene	79-01-6	LT	5.0
58	Trichlorofluoromethane(Freon-11)	75-69-4	LT	10.0
59	1,2,3-Trichloropropane	96-18-4	LT	5.0
60	1,1,2-Trichlorotrifluoroethane(Freon-113)	76-13-1	LT	5.0
61	1,2,4-Trimethylbenzene	95-63-6	LT	5.0
62	1,3,5-Trimethylbenzene	108-67-8	LT	5.0
63	Vinyl Chloride	75-01-4	LT	5.0
64	Total-Xylene	1330-20-7	LT	10.0

Surrogate Compounds	% Recovery	QC Limits (%)
4-Bromofluorobenzene	104.0	**86-115**
Dibromofluoromethane	96.6	**86-118**
Toluene-d8	103.3	**88-110**

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits (based on 5 ml water sample volume)
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/23/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
Volatile Organics Analysis Data Sheet

Sample ID:	SWS-B8	Laboratory ID:	OW970760
Matrix:	Water	Sample Wt./Vol.:	5.0 ml
Date Sampled:	7/17/97	Date Received:	7/17/97
Date Analyzed:	7/22/97	Method:	EPA 8260(Purge & Trap)

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
1	Benzene	71-43-2	LT	5.0
2	Bromobenzene	108-86-1	LT	5.0
3	Bromochloromethane	74-97-5	LT	10.0
4	Bromodichloromethane	75-27-4	LT	5.0
5	Bromoform	75-25-2	LT	10.0
6	Bromomethane	74-83-9	LT	20.0
7	n-Butylbenzene	104-51-8	LT	5.0
8	sec-Butylbenzene	135-98-8	LT	5.0
9	ter-Butylbenzene	98-06-6	LT	5.0
10	Carbon Tetrachloride	56-23-5	LT	5.0
11	Chlorobenzene	108-90-7	LT	5.0
12	Chlorodifluoromethane(Freon-22)	75-45-6	LT	150.0
13	Chloroethane	75-00-3	LT	150.0
14	Chloroform	67-66-3	LT	5.0
15	Chloromethane	74-87-3	LT	5.0
16	2-Chlorotoluene	95-49-8	LT	10.0
17	4-Chlorotoluene	106-43-4	LT	10.0
18	Dibromochloromethane	124-48-1	LT	10.0
19	1,2-Dibromo-3-chloropropane	96-12-8	LT	10.0
20	1,2-Dibromoethane	106-93-4	LT	10.0
21	Dibromomethane	74-95-3	LT	5.0
22	1,2-Dichlorobenzene	95-50-1	LT	5.0
23	1,3-Dichlorobenzene	541-73-1	LT	5.0
24	1,4-Dichlorobenzene	106-46-7	LT	5.0
25	Dichlorodifluoromethane(Freon-12)	75-71-8	LT	15.0
26	1,1-Dichloroethane	75-34-3	LT	5.0
27	1,2-Dichloroethane	107-06-2	LT	10.0
28	1,1-Dichloroethene	75-35-4	LT	5.0
29	cis-1,2-Dichloroethene	156-69-9	LT	5.0
30	trans-1,2-Dichloroethene	156-60-5	LT	5.0
31	Dichlorofluoromethane(Freon-21)	75-43-4	LT	15.0
32	1,2-Dichloropropane	78-87-5	LT	5.0
33	1,3-Dichloropropane	142-28-9	LT	5.0
34	2,2-Dichloropropane	594-20-7	LT	5.0

Volatile Organics Analysis Data Sheet (Continued) Sample I.D. OW970760

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
35	1,1-Dichloropropene	563-58-6	LT	5.0
36	cis-1,3-Dichloropropene	10061-01-5	LT	5.0
37	trans-1,3-Dichloropropene	10061-02-6	LT	5.0
38	1,2-Dichlorotetrafluoroethane(Freon-114)	76-14-2	LT	15.0
39	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	5.0
40	Ethylbenzene	100-41-4	LT	5.0
41	Hexachlorobutadien	87-68-3	LT	15.0
42	Isopropylbenzene	98-82-8	LT	10.0
43	p-Isopropyltoluene	99-87-6	LT	5.0
44	Methylene Chloride	75-09-2	LT	5.0
45	Methyl tert-Butyl Ether	1634-04-4	LT	25.0
46	Naphthalene	91-20-3	LT	10.0
47	n-Propylbenzene	103-65-1	LT	5.0
48	Styrene	100-42-5	LT	5.0
49	1,1,2,2-Tetrachloroethane	79-34-5	LT	5.0
50	1,1,1,2-Tetrachloroethane	79-34-5	LT	10.0
51	Tetrachloroethene	127-18-4	LT	5.0
52	Toluene	108-88-3	LT	5.0
53	1,2,3-Trichlorobenzene	87-61-6	LT	10.0
54	1,2,4-Trichlorobenzene	120-82-1	LT	5.0
55	1,1,1-Trichloroethane	71-55-6	LT	5.0
56	1,1,2-Trichloroethane	79-00-5	LT	5.0
57	Trichloroethene	79-01-6	LT	5.0
58	Trichlorofluoromethane(Freon-11)	75-69-4	LT	10.0
59	1,2,3-Trichloropropane	96-18-4	LT	5.0
60	1,1,2-Trichlorotrifluoroethane(Freon-113)	76-13-1	LT	5.0
61	1,2,4-Trimethylbenzene	95-63-6	LT	5.0
62	1,3,5-Trimethylbenzene	108-67-8	LT	5.0
63	Vinyl Chloride	75-01-4	LT	5.0
64	Total-Xylene	1330-20-7	LT	10.0

Surrogate Compounds	% Recovery	QC Limits (%)
4-Bromofluorobenzene	99.7	**86-115**
Dibromofluoromethane	99.3	**86-118**
Toluene-d8	102.3	**88-110**

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits (based on 5 ml water sample volume)
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rob Dahlquist Date: 8/23/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
Volatile Organics Analysis Data Sheet

Sample ID:	SWS-B12	Laboratory ID:	OW970761
Matrix:	Water	Sample Wt./Vol.:	5.0 ml
Date Sampled:	7/17/97	Date Received:	7/22/97
Date Analyzed:	7/22/97	Method:	EPA 8260(Purge & Trap)

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
1	Benzene	71-43-2	LT	5.0
2	Bromobenzene	108-86-1	LT	5.0
3	Bromochloromethane	74-97-5	LT	10.0
4	Bromodichloromethane	75-27-4	LT	5.0
5	Bromoform	75-25-2	LT	10.0
6	Bromomethane	74-83-9	LT	20.0
7	n-Butylbenzene	104-51-8	LT	5.0
8	sec-Butylbenzene	135-98-8	LT	5.0
9	ter-Butylbenzene	98-06-6	LT	5.0
10	Carbon Tetrachloride	56-23-5	LT	5.0
11	Chlorobenzene	108-90-7	LT	5.0
12	Chlorodifluoromethane(Freon-22)	75-45-6	LT	150.0
13	Chloroethane	75-00-3	LT	150.0
14	Chloroform	67-66-3	LT	5.0
15	Chloromethane	74-87-3	LT	5.0
16	2-Chlorotoluene	95-49-8	LT	10.0
17	4-Chlorotoluene	106-43-4	LT	10.0
18	Dibromochloromethane	124-48-1	LT	10.0
19	1,2-Dibromo-3-chloropropane	96-12-8	LT	10.0
20	1,2-Dibromoethane	106-93-4	LT	10.0
21	Dibromomethane	74-95-3	LT	5.0
22	1,2-Dichlorobenzene	95-50-1	LT	5.0
23	1,3-Dichlorobenzene	541-73-1	LT	5.0
24	1,4-Dichlorobenzene	106-46-7	LT	5.0
25	Dichlorodifluoromethane(Freon-12)	75-71-8	LT	15.0
26	1,1-Dichloroethane	75-34-3	LT	5.0
27	1,2-Dichloroethane	107-06-2	LT	10.0
28	1,1-Dichloroethene	75-35-4	LT	5.0
29	cis-1,2-Dichloroethene	156-69-9	74.7	5.0
30	trans-1,2-Dichloroethene	156-60-5	LT	5.0
31	Dichlorofluoromethane(Freon-21)	75-43-4	LT	15.0
32	1,2-Dichloropropane	78-87-5	LT	5.0
33	1,3-Dichloropropane	142-28-9	LT	5.0
34	2,2-Dichloropropane	594-20-7	LT	5.0

Volatile Organics Analysis Data Sheet (Continued) Sample I.D. OW970761

	Compound	CAS #	Conc.(ug/L)	PQL(ug/L)
35	1,1-Dichloropropene	563-58-6	LT	5.0
36	cis-1,3-Dichloropropene	10061-01-5	LT	5.0
37	trans-1,3-Dichloropropene	10061-02-6	LT	5.0
38	1,2-Dichlorotetrafluoroethane(Freon-114)	76-14-2	LT	15.0
39	Dichlorotrifluoroethane(Freon-123)	306-83-2	LT	5.0
40	Ethylbenzene	100-41-4	LT	5.0
41	Hexachlorobutadien	87-68-3	LT	15.0
42	Isopropylbenzene	98-82-8	LT	10.0
43	p-Isopropyltoluene	99-87-6	LT	5.0
44	Methylene Chloride	75-09-2	LT	5.0
45	Methyl tert-Butyl Ether	1634-04-4	LT	25.0
46	Naphthalene	91-20-3	LT	10.0
47	n-Propylbenzene	103-65-1	LT	5.0
48	Styrene	100-42-5	LT	5.0
49	1,1,2,2-Tetrachloroethane	79-34-5	LT	5.0
50	1,1,1,2-Tetrachloroethane	79-34-5	LT	10.0
51	Tetrachloroethene	127-18-4	LT	5.0
52	Toluene	108-88-3	LT	5.0
53	1,2,3-Trichlorobenzene	87-61-6	LT	10.0
54	1,2,4-Trichlorobenzene	120-82-1	LT	5.0
55	1,1,1-Trichloroethane	71-55-6	LT	5.0
56	1,1,2-Trichloroethane	79-00-5	LT	5.0
57	Trichloroethene	79-01-6	92.1	5.0
58	Trichlorofluoromethane(Freon-11)	75-69-4	LT	10.0
59	1,2,3-Trichloropropane	96-18-4	LT	5.0
60	1,1,2-Trichlorotrifluoroethane(Freon-113)	76-13-1	LT	5.0
61	1,2,4-Trimethylbenzene	95-63-6	LT	5.0
62	1,3,5-Trimethylbenzene	108-67-8	LT	5.0
63	Vinyl Chloride	75-01-4	LT	5.0
64	Total-Xylene	1330-20-7	LT	10.0

Surrogate Compounds	% Recovery	QC Limits (%)
4-Bromofluorobenzene	108.0	**86-115**
Dibromofluoromethane	105.0	**86-118**
Toluene-d8	98.5	**88-110**

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits (based on 5 ml water sample volume)
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/23/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-1	Laboratory ID:	OA970701
Matrix:	Gas Cartridge	Sample Vol.(L):	0.210
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/24/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	19.68
2	Benzene	71-43-2	LT	14.65
3	Carbon Tetrachloride	56-23-5	LT	7.45
4	Chloroform	67-66-3	LT	9.60
5	1,2-Dichlorobenzene	95-50-1	LT	7.79
6	1,3-Dichlorobenzene	541-73-1	LT	7.79
7	1,4-Dichlorobenzene	106-46-7	LT	7.79
8	1,1-Dichloroethane	75-34-3	LT	11.56
9	1,2-Dichloroethane	107-06-2	LT	11.82
10	1,1-Dichloroethene	75-35-4	LT	11.82
11	cis-1,2-Dichloroethene	156-69-9	LT	11.82
12	trans-1,2-Dichloroethene	156-60-5	LT	11.82
13	Ethylbenzene	100-41-4	LT	10.80
14	Methylene Chloride	75-09-2	20.1	13.49
15	Tetrachloroethene	127-18-4	LT	6.91
16	Toluene	108-88-3	LT	12.43
17	1,1,1-Trichloroethane	71-55-6	LT	8.58
18	1,1,2-Trichloroethane	79-00-5	LT	8.58
19	Trichloroethene	79-01-6	LT	8.72
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	7.59
21	1,2,4-Trimethylbenzene	95-63-6	LT	12.43
22	Vinyl Chloride	75-01-4	NR	18.32
23	Total-Xylene	1330-20-7	LT	10.80
24	Total VOC		20	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	115%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rob Dahlgren Date: 8/21/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-2	Laboratory ID:	OA970702
Matrix:	Gas Cartridge	Sample Vol.(L):	0.210
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/24/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	19.68
2	Benzene	71-43-2	LT	14.65
3	Carbon Tetrachloride	56-23-5	LT	7.45
4	Chloroform	67-66-3	LT	9.60
5	1,2-Dichlorobenzene	95-50-1	LT	7.79
6	1,3-Dichlorobenzene	541-73-1	LT	7.79
7	1,4-Dichlorobenzene	106-46-7	LT	7.79
8	1,1-Dichloroethane	75-34-3	LT	11.56
9	1,2-Dichloroethane	107-06-2	LT	11.82
10	1,1-Dichloroethene	75-35-4	LT	11.82
11	cis-1,2-Dichloroethene	156-69-9	138	11.82
12	trans-1,2-Dichloroethene	156-60-5	LT	11.82
13	Ethylbenzene	100-41-4	LT	10.80
14	Methylene Chloride	75-09-2	45.6	13.49
15	Tetrachloroethene	127-18-4	LT	6.91
16	Toluene	108-88-3	LT	12.43
17	1,1,1-Trichloroethane	71-55-6	LT	8.58
18	1,1,2-Trichloroethane	79-00-5	LT	8.58
19	Trichloroethene	79-01-6	618	8.72
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	7.59
21	1,2,4-Trimethylbenzene	95-63-6	LT	12.43
22	Vinyl Chloride	75-01-4	NR	18.32
23	Total-Xylene	1330-20-7	LT	10.80
24	Total VOC		802	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	111%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/21/97
Reviewer: H Forwood Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-3	Laboratory ID:	OA970703
Matrix:	Gas Cartridge	Sample Vol.(L):	0.200
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/24/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	20.66
2	Benzene	71-43-2	LT	15.38
3	Carbon Tetrachloride	56-23-5	LT	7.82
4	Chloroform	67-66-3	11.1	10.08
5	1,2-Dichlorobenzene	95-50-1	LT	8.18
6	1,3-Dichlorobenzene	541-73-1	LT	8.18
7	1,4-Dichlorobenzene	106-46-7	LT	8.18
8	1,1-Dichloroethane	75-34-3	LT	12.14
9	1,2-Dichloroethane	107-06-2	LT	12.41
10	1,1-Dichloroethene	75-35-4	LT	12.41
11	cis-1,2-Dichloroethene	156-69-9	254	12.41
12	trans-1,2-Dichloroethene	156-60-5	LT	12.41
13	Ethylbenzene	100-41-4	LT	11.34
14	Methylene Chloride	75-09-2	35.3	14.16
15	Tetrachloroethene	127-18-4	LT	7.26
16	Toluene	108-88-3	LT	13.05
17	1,1,1-Trichloroethane	71-55-6	LT	9.01
18	1,1,2-Trichloroethane	79-00-5	LT	9.01
19	Trichloroethene	79-01-6	809	9.16
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	7.97
21	1,2,4-Trimethylbenzene	95-63-6	LT	13.05
22	Vinyl Chloride	75-01-4	NR	19.23
23	Total-Xylene	1330-20-7	LT	11.34
24	Total VOC		1110	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	107%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rob Dahlquist Date: 8/21/97
Reviewer: H. Fowler Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-4	Laboratory ID:	OA970704
Matrix:	Gas Cartridge	Sample Vol.(L):	0.200
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/24/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	20.66
2	Benzene	71-43-2	LT	15.38
3	Carbon Tetrachloride	56-23-5	LT	7.82
4	Chloroform	67-66-3	LT	10.08
5	1,2-Dichlorobenzene	95-50-1	LT	8.18
6	1,3-Dichlorobenzene	541-73-1	LT	8.18
7	1,4-Dichlorobenzene	106-46-7	LT	8.18
8	1,1-Dichloroethane	75-34-3	LT	12.14
9	1,2-Dichloroethane	107-06-2	LT	12.41
10	1,1-Dichloroethene	75-35-4	LT	12.41
11	cis-1,2-Dichloroethene	156-69-9	202	12.41
12	trans-1,2-Dichloroethene	156-60-5	LT	12.41
13	Ethylbenzene	100-41-4	LT	11.34
14	Methylene Chloride	75-09-2	36.3	14.16
15	Tetrachloroethene	127-18-4	LT	7.26
16	Toluene	108-88-3	LT	13.05
17	1,1,1-Trichloroethane	71-55-6	LT	9.01
18	1,1,2-Trichloroethane	79-00-5	LT	9.01
19	Trichloroethene	79-01-6	744	9.16
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	7.97
21	1,2,4-Trimethylbenzene	95-63-6	LT	13.05
22	Vinyl Chloride	75-01-4	NR	19.23
23	Total-Xylene	1330-20-7	LT	11.34
24	Total VOC		982	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	122%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/21/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-5	Laboratory ID:	OA970705
Matrix:	Gas Cartridge	Sample Vol.(L):	0.190
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/24/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	21.75
2	Benzene	71-43-2	LT	16.19
3	Carbon Tetrachloride	56-23-5	LT	8.24
4	Chloroform	67-66-3	13.5	10.61
5	1,2-Dichlorobenzene	95-50-1	LT	8.61
6	1,3-Dichlorobenzene	541-73-1	LT	8.61
7	1,4-Dichlorobenzene	106-46-7	LT	8.61
8	1,1-Dichloroethane	75-34-3	LT	12.77
9	1,2-Dichloroethane	107-06-2	LT	13.06
10	1,1-Dichloroethene	75-35-4	LT	13.06
11	cis-1,2-Dichloroethene	156-69-9	248	13.06
12	trans-1,2-Dichloroethene	156-60-5	LT	13.06
13	Ethylbenzene	100-41-4	LT	11.93
14	Methylene Chloride	75-09-2	32.2	14.91
15	Tetrachloroethene	127-18-4	LT	7.64
16	Toluene	108-88-3	LT	13.74
17	1,1,1-Trichloroethane	71-55-6	LT	9.48
18	1,1,2-Trichloroethane	79-00-5	LT	9.48
19	Trichloroethene	79-01-6	801	9.64
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	8.39
21	1,2,4-Trimethylbenzene	95-63-6	LT	13.74
22	Vinyl Chloride	75-01-4	NR	20.24
23	Total-Xylene	1330-20-7	LT	11.93
24	Total VOC		1095	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	112%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/21/97
Reviewer: H. Fonseca Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-6	Laboratory ID:	OA970706
Matrix:	Gas Cartridge	Sample Vol.(L):	0.190
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/25/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	21.75
2	Benzene	71-43-2	27.8	16.19
3	Carbon Tetrachloride	56-23-5	LT	8.24
4	Chloroform	67-66-3	11.9	10.61
5	1,2-Dichlorobenzene	95-50-1	LT	8.61
6	1,3-Dichlorobenzene	541-73-1	LT	8.61
7	1,4-Dichlorobenzene	106-46-7	LT	8.61
8	1,1-Dichloroethane	75-34-3	LT	12.77
9	1,2-Dichloroethane	107-06-2	LT	13.06
10	1,1-Dichloroethene	75-35-4	LT	13.06
11	cis-1,2-Dichloroethene	156-69-9	247	13.06
12	trans-1,2-Dichloroethene	156-60-5	LT	13.06
13	Ethylbenzene	100-41-4	LT	11.93
14	Methylene Chloride	75-09-2	41.6	14.91
15	Tetrachloroethene	127-18-4	LT	7.64
16	Toluene	108-88-3	LT	13.74
17	1,1,1-Trichloroethane	71-55-6	LT	9.48
18	1,1,2-Trichloroethane	79-00-5	LT	9.48
19	Trichloroethene	79-01-6	704	9.64
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	8.39
21	1,2,4-Trimethylbenzene	95-63-6	LT	13.74
22	Vinyl Chloride	75-01-4	NR	20.24
23	Total-Xylene	1330-20-7	LT	11.93
24	Total VOC		1032	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	84%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/21/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-7	Laboratory ID:	OA970707
Matrix:	Gas Cartridge	Sample Vol.(L):	0.180
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/25/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	22.96
2	Benzene	71-43-2	42.5	17.09
3	Carbon Tetrachloride	56-23-5	LT	8.69
4	Chloroform	67-66-3	LT	11.20
5	1,2-Dichlorobenzene	95-50-1	LT	9.09
6	1,3-Dichlorobenzene	541-73-1	LT	9.09
7	1,4-Dichlorobenzene	106-46-7	LT	9.09
8	1,1-Dichloroethane	75-34-3	LT	13.48
9	1,2-Dichloroethane	107-06-2	LT	13.79
10	1,1-Dichloroethene	75-35-4	LT	13.79
11	cis-1,2-Dichloroethene	156-69-9	185	13.79
12	trans-1,2-Dichloroethene	156-60-5	LT	13.79
13	Ethylbenzene	100-41-4	LT	12.60
14	Methylene Chloride	75-09-2	32.7	15.74
15	Tetrachloroethene	127-18-4	LT	8.06
16	Toluene	108-88-3	LT	14.51
17	1,1,1-Trichloroethane	71-55-6	LT	10.01
18	1,1,2-Trichloroethane	79-00-5	LT	10.01
19	Trichloroethene	79-01-6	649	10.18
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	8.86
21	1,2,4-Trimethylbenzene	95-63-6	LT	14.51
22	Vinyl Chloride	75-01-4	NR	21.37
23	Total-Xylene	1330-20-7	13.6	12.60
24	Total VOC		923	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	113%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rob Dahlquist Date: 8/21/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-8	Laboratory ID:	OA970708
Matrix:	Gas Cartridge	Sample Vol.(L):	0.180
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/25/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	22.96
2	Benzene	71-43-2	37.2	17.09
3	Carbon Tetrachloride	56-23-5	LT	8.69
4	Chloroform	67-66-3	LT	11.20
5	1,2-Dichlorobenzene	95-50-1	LT	9.09
6	1,3-Dichlorobenzene	541-73-1	LT	9.09
7	1,4-Dichlorobenzene	106-46-7	LT	9.09
8	1,1-Dichloroethane	75-34-3	LT	13.48
9	1,2-Dichloroethane	107-06-2	LT	13.79
10	1,1-Dichloroethene	75-35-4	LT	13.79
11	cis-1,2-Dichloroethene	156-69-9	104	13.79
12	trans-1,2-Dichloroethene	156-60-5	LT	13.79
13	Ethylbenzene	100-41-4	LT	12.60
14	Methylene Chloride	75-09-2	25.2	15.74
15	Tetrachloroethene	127-18-4	LT	8.06
16	Toluene	108-88-3	LT	14.51
17	1,1,1-Trichloroethane	71-55-6	LT	10.01
18	1,1,2-Trichloroethane	79-00-5	LT	10.01
19	Trichloroethene	79-01-6	374	10.18
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	8.86
21	1,2,4-Trimethylbenzene	95-63-6	LT	14.51
22	Vinyl Chloride	75-01-4	NR	21.37
23	Total-Xylene	1330-20-7	LT	12.60
24	Total VOC		540	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	114%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/21/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-9	Laboratory ID:	OA970709
Matrix:	Gas Cartridge	Sample Vol.(L):	0.170
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/25/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	24.31
2	Benzene	71-43-2	28.1	18.10
3	Carbon Tetrachloride	56-23-5	LT	9.21
4	Chloroform	67-66-3	LT	11.86
5	1,2-Dichlorobenzene	95-50-1	LT	9.63
6	1,3-Dichlorobenzene	541-73-1	LT	9.63
7	1,4-Dichlorobenzene	106-46-7	LT	9.63
8	1,1-Dichloroethane	75-34-3	LT	14.28
9	1,2-Dichloroethane	107-06-2	LT	14.60
10	1,1-Dichloroethene	75-35-4	LT	14.60
11	cis-1,2-Dichloroethene	156-69-9	79.2	14.60
12	trans-1,2-Dichloroethene	156-60-5	LT	14.60
13	Ethylbenzene	100-41-4	LT	13.34
14	Methylene Chloride	75-09-2	25.0	16.66
15	Tetrachloroethene	127-18-4	LT	8.54
16	Toluene	108-88-3	LT	15.36
17	1,1,1-Trichloroethane	71-55-6	LT	10.60
18	1,1,2-Trichloroethane	79-00-5	LT	10.60
19	Trichloroethene	79-01-6	292	10.77
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	9.38
21	1,2,4-Trimethylbenzene	95-63-6	LT	15.36
22	Vinyl Chloride	75-01-4	NR	22.62
23	Total-Xylene	1330-20-7	LT	13.34
24	Total VOC		424	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	115%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/21/97
Reviewer: H.S. Lomitzer Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-10	Laboratory ID:	OA970710
Matrix:	Gas Cartridge	Sample Vol.(L):	0.085
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/25/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	48.61
2	Benzene	71-43-2	49.8	36.20
3	Carbon Tetrachloride	56-23-5	LT	18.41
4	Chloroform	67-66-3	LT	23.72
5	1,2-Dichlorobenzene	95-50-1	LT	19.25
6	1,3-Dichlorobenzene	541-73-1	LT	19.25
7	1,4-Dichlorobenzene	106-46-7	LT	19.25
8	1,1-Dichloroethane	75-34-3	LT	28.56
9	1,2-Dichloroethane	107-06-2	LT	29.19
10	1,1-Dichloroethene	75-35-4	LT	29.19
11	cis-1,2-Dichloroethene	156-69-9	36.3	29.19
12	trans-1,2-Dichloroethene	156-60-5	LT	29.19
13	Ethylbenzene	100-41-4	LT	26.68
14	Methylene Chloride	75-09-2	LT	33.33
15	Tetrachloroethene	127-18-4	LT	17.08
16	Toluene	108-88-3	LT	30.72
17	1,1,1-Trichloroethane	71-55-6	LT	21.20
18	1,1,2-Trichloroethane	79-00-5	LT	21.20
19	Trichloroethene	79-01-6	132	21.55
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	18.76
21	1,2,4-Trimethylbenzene	95-63-6	LT	30.72
22	Vinyl Chloride	75-01-4	NR	45.25
23	Total-Xylene	1330-20-7	LT	26.68
24	Total VOC		219	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	112%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rob Dahlquist Date: 8/21/97
Reviewer: H Stromund Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-11	Laboratory ID:	OA970711
Matrix:	Gas Cartridge	Sample Vol.(L):	0.080
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/25/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	51.65
2	Benzene	71-43-2	45.4	38.46
3	Carbon Tetrachloride	56-23-5	LT	19.56
4	Chloroform	67-66-3	LT	25.20
5	1,2-Dichlorobenzene	95-50-1	LT	20.46
6	1,3-Dichlorobenzene	541-73-1	LT	20.46
7	1,4-Dichlorobenzene	106-46-7	LT	20.46
8	1,1-Dichloroethane	75-34-3	LT	30.34
9	1,2-Dichloroethane	107-06-2	LT	31.02
10	1,1-Dichloroethene	75-35-4	LT	31.02
11	cis-1,2-Dichloroethene	156-69-9	234	31.02
12	trans-1,2-Dichloroethene	156-60-5	LT	31.02
13	Ethylbenzene	100-41-4	LT	28.34
14	Methylene Chloride	75-09-2	LT	35.41
15	Tetrachloroethene	127-18-4	LT	18.14
16	Toluene	108-88-3	LT	32.64
17	1,1,1-Trichloroethane	71-55-6	LT	22.52
18	1,1,2-Trichloroethane	79-00-5	LT	22.52
19	Trichloroethene	79-01-6	384	22.89
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	19.94
21	1,2,4-Trimethylbenzene	95-63-6	37.9	32.64
22	Vinyl Chloride	75-01-4	NR	48.08
23	Total-Xylene	1330-20-7	LT	28.34
24	Total VOC		702	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	91%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/21/97
Reviewer: H.G. Fourniquet Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-12	Laboratory ID:	OA970712
Matrix:	Gas Cartridge	Sample Vol.(L):	0.040
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/25/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	103.31
2	Benzene	71-43-2	LT	76.92
3	Carbon Tetrachloride	56-23-5	LT	39.12
4	Chloroform	67-66-3	LT	50.40
5	1,2-Dichlorobenzene	95-50-1	LT	40.92
6	1,3-Dichlorobenzene	541-73-1	LT	40.92
7	1,4-Dichlorobenzene	106-46-7	LT	40.92
8	1,1-Dichloroethane	75-34-3	LT	60.68
9	1,2-Dichloroethane	107-06-2	LT	62.03
10	1,1-Dichloroethene	75-35-4	LT	62.03
11	cis-1,2-Dichloroethene	156-69-9	126	62.03
12	trans-1,2-Dichloroethene	156-60-5	LT	62.03
13	Ethylbenzene	100-41-4	LT	56.69
14	Methylene Chloride	75-09-2	LT	70.82
15	Tetrachloroethene	127-18-4	LT	36.28
16	Toluene	108-88-3	LT	65.27
17	1,1,1-Trichloroethane	71-55-6	LT	45.05
18	1,1,2-Trichloroethane	79-00-5	LT	45.05
19	Trichloroethene	79-01-6	332	45.79
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	39.87
21	1,2,4-Trimethylbenzene	95-63-6	LT	65.27
22	Vinyl Chloride	75-01-4	NR	96.15
23	Total-Xylene	1330-20-7	LT	56.69
24	Total VOC		459	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	112%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/21/97
Reviewer: H. Fountain Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	AG-13	Laboratory ID:	OA970713
Matrix:	Gas Cartridge	Sample Vol.(L):	0.053
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/25/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	78.71
2	Benzene	71-43-2	73.4	58.61
3	Carbon Tetrachloride	56-23-5	LT	29.81
4	Chloroform	67-66-3	LT	38.40
5	1,2-Dichlorobenzene	95-50-1	LT	31.17
6	1,3-Dichlorobenzene	541-73-1	LT	31.17
7	1,4-Dichlorobenzene	106-46-7	LT	31.17
8	1,1-Dichloroethane	75-34-3	LT	46.23
9	1,2-Dichloroethane	107-06-2	LT	47.26
10	1,1-Dichloroethene	75-35-4	LT	47.26
11	cis-1,2-Dichloroethene	156-69-9	574	47.26
12	trans-1,2-Dichloroethene	156-60-5	LT	47.26
13	Ethylbenzene	100-41-4	LT	43.19
14	Methylene Chloride	75-09-2	LT	53.96
15	Tetrachloroethene	127-18-4	LT	27.65
16	Toluene	108-88-3	LT	49.73
17	1,1,1-Trichloroethane	71-55-6	LT	34.32
18	1,1,2-Trichloroethane	79-00-5	LT	34.32
19	Trichloroethene	79-01-6	2210	34.89
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	30.38
21	1,2,4-Trimethylbenzene	95-63-6	LT	49.73
22	Vinyl Chloride	75-01-4	NR	73.26
23	Total-Xylene	1330-20-7	LT	43.19
24	Total VOC		2858	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	112%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Schlegmilch Date: 8/21/97
Reviewer: H. Grounsford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	FB	Laboratory ID:	OA970714
Matrix:	Gas Cartridge	Sample Vol.(L):	0.210
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/25/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	19.68
2	Benzene	71-43-2	LT	14.65
3	Carbon Tetrachloride	56-23-5	LT	7.45
4	Chloroform	67-66-3	LT	9.60
5	1,2-Dichlorobenzene	95-50-1	LT	7.79
6	1,3-Dichlorobenzene	541-73-1	LT	7.79
7	1,4-Dichlorobenzene	106-46-7	LT	7.79
8	1,1-Dichloroethane	75-34-3	LT	11.56
9	1,2-Dichloroethane	107-06-2	LT	11.82
10	1,1-Dichloroethene	75-35-4	LT	11.82
11	cis-1,2-Dichloroethene	156-69-9	LT	11.82
12	trans-1,2-Dichloroethene	156-60-5	LT	11.82
13	Ethylbenzene	100-41-4	LT	10.80
14	Methylene Chloride	75-09-2	LT	13.49
15	Tetrachloroethene	127-18-4	LT	6.91
16	Toluene	108-88-3	LT	12.43
17	1,1,1-Trichloroethane	71-55-6	LT	8.58
18	1,1,2-Trichloroethane	79-00-5	LT	8.58
19	Trichloroethene	79-01-6	LT	8.72
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	7.59
21	1,2,4-Trimethylbenzene	95-63-6	LT	12.43
22	Vinyl Chloride	75-01-4	NR	18.32
23	Total-Xylene	1330-20-7	LT	10.80
24	Total VOC		0	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	92%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/21/97
Reviewer: H.G. Fountford. Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-1	Laboratory ID:	OA970715
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	*	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	LT	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	*	21.60
14	Methylene Chloride	75-09-2	LT	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	*	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	71-55-6	LT	17.16
19	Trichloroethene	79-01-6	153	17.44
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	15.19
21	1,2,4-Trimethylbenzene	95-63-6	*	24.87
22	Vinyl Chloride	75-01-4	NR	36.63
23	Total-Xylene	1330-20-7	*	21.60
24	Total VOC		153	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	105%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL
* Compounds could not be determined because of interferent on detector.
California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/21/97
Reviewer: H.G. Pourmand Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-2	Laboratory ID:	OA970716
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	LT	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	267	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	LT	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	LT	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	79-00-5	LT	17.16
19	Trichloroethene	79-01-6	550	17.44
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	15.19
21	1,2,4-Trimethylbenzene	95-63-6	LT	24.87
22	Vinyl Chloride	75-01-4	NR	36.63
23	Total-Xylene	1330-20-7	*	21.60
24	Total VOC		818	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	114%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL
* Compounds could not be determined because of interferent on detector.
California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/21/97
Reviewer: H.L. Fountford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-3	Laboratory ID:	OA970717
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	*	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	33.1	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	LT	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	*	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	79-00-5	LT	17.16
19	Trichloroethene	79-01-6	249	17.44
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	15.19
21	1,2,4-Trimethylbenzene	95-63-6	*	24.87
22	Vinyl Chloride	75-01-4	NR	36.63
23	Total-Xylene	1330-20-7	*	21.60
24	Total VOC		283	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	105%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL
* Compounds could not be determined because of interferent on detector.
California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/21/97
Reviewer: H. Fountain Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-4	Laboratory ID:	OA970718
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	*	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	86.0	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	41.8	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	LT	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	79-00-5	LT	17.16
19	Trichloroethene	79-01-6	387	17.44
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	15.19
21	1,2,4-Trimethylbenzene	95-63-6	*	24.87
22	Vinyl Chloride	75-01-4	NR	36.63
23	Total-Xylene	1330-20-7	*	21.60
24	Total VOC		515	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	105%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL
* Compounds could not be determined because of interferent on detector.
California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/21/97
Reviewer: H. Fourward Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-5	Laboratory ID:	OA970719
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	*	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	140	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	46.4	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	*	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	79-00-5	LT	17.16
19	Trichloroethene	79-01-6	471	17.44
20	Dichlorotrifluoroethane(Freon-123)	306-83-2	NR	15.19
21	1,2,4-Trimethylbenzene	95-63-6	*	24.87
22	Vinyl Chloride	75-01-4	NR	36.63
23	Total-Xylene	1330-20-7	*	21.60
24	Total VOC		657	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	98%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL
* Compounds could not be determined because of interferent on detector.
California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/21/97
Reviewer: H.G. Crawford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-6	Laboratory ID:	OA970720
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	*	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	85.5	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	35.9	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	*	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	79-00-5	LT	17.16
19	Trichloroethene	79-01-6	315	17.44
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	NR	15.19
21	1,2,4-Trimethylbenzene	95-63-6	*	24.87
22	Vinyl Chloride	75-01-4	NR	36.63
23	Total-Xylene	1330-20-7	LT	21.60
24	Total VOC		436	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	112%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL
* Compounds could not be determined because of interferent on detector.
California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/21/97
Reviewer: H.G. Crawford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-7	Laboratory ID:	OA970721
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	*	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	LT	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	LT	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	*	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	79-00-5	LT	17.16
19	Trichloroethene	79-01-6	112	17.44
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	NR	15.19
21	1,2,4-Trimethylbenzene	95-63-6	*	24.87
22	Vinyl Chloride	75-01-4	NR	36.63
23	Total-Xylene	1330-20-7	*	21.60
24	Total VOC		112	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	101%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL
* Compounds could not be determined because of interferent on detector.
California D.O.H.S. Cert. # 1704

Analyst : Rich Dolfuest Date: 8/21/97
Reviewer: H.G. Crawford Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-8	Laboratory ID:	OA970722
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	*	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	65.0	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	29.1	26.98
14	Tetrachloroethene	127-18-4	LT	13.82
15	Toluene	108-88-3	*	24.87
16	1,1,1-Trichloroethane	71-55-6	LT	17.16
16	1,1,2-Trichloroethane	79-00-5	LT	17.16
17	Trichloroethene	79-01-6	310	17.44
18	Dichlorotrifluoroethane (Freon 123)	306-83-2	NR	15.19
17	1,2,4-Trimethylbenzene	95-63-6	*	24.87
18	Vinyl Chloride	75-01-4	NR	36.63
19	Total-Xylene	1330-20-7	LT	21.60
19	Total VOC		405	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	110%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL
* Compounds could not be determined because of interferent on detector.
California D.O.H.S. Cert. # 1704

Analyst : Rick Walkenst Date: 8/21/97
Reviewer: H. Fountain Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-9	Laboratory ID:	OA970723
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	44.7	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	99.3	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	LT	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	26.6	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	79-00-5	LT	17.16
19	Trichloroethene	79-01-6	354	17.44
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	NR	15.19
21	1,2,4-Trimethylbenzene	95-63-6	*	24.87
22	Vinyl Chloride	75-01-4	NR	36.63
23	Total-Xylene	1330-20-7	LT	21.60
24	Total VOC		525	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	108%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL
* Compound could not be determined because of interferent on detector.
California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/21/97
Reviewer: H Grounfard Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-10	Laboratory ID:	OA970724
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	*	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	71.4	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	LT	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	LT	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	79-00-5	LT	17.16
19	Trichloroethene	79-01-6	277	17.44
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	NR	15.19
21	1,2,4-Trimethylbenzene	95-63-6	*	24.87
22	Vinyl Chloride	75-01-4	NR	36.63
23	Total-Xylene	1330-20-7	*	21.60
24	Total VOC		349	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	124%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL
* Compounds could not be determined because of interferent on detector.
California D.O.H.S. Cert. # 1704

Analyst : Rick Dahlquist Date: 8/21/97
Reviewer: [illegible] Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-11	Laboratory ID:	OA970725
Matrix:	Gas Cartridge	Sample Vol.(L):	0.105
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	39.35
2	Benzene	71-43-2	53.2	29.30
3	Carbon Tetrachloride	56-23-5	LT	14.90
4	Chloroform	67-66-3	LT	19.20
5	1,2-Dichlorobenzene	95-50-1	LT	15.59
6	1,3-Dichlorobenzene	541-73-1	LT	15.59
7	1,4-Dichlorobenzene	106-46-7	LT	15.59
8	1,1-Dichloroethane	75-34-3	LT	23.12
9	1,2-Dichloroethane	107-06-2	LT	23.63
10	1,1-Dichloroethene	75-35-4	LT	23.63
11	cis-1,2-Dichloroethene	156-69-9	288	23.63
12	trans-1,2-Dichloroethene	156-60-5	LT	23.63
13	Ethylbenzene	100-41-4	LT	21.60
14	Methylene Chloride	75-09-2	LT	26.98
15	Tetrachloroethene	127-18-4	LT	13.82
16	Toluene	108-88-3	LT	24.87
17	1,1,1-Trichloroethane	71-55-6	LT	17.16
18	1,1,2-Trichloroethane	79-00-5	LT	17.16
19	Trichloroethene	79-01-6	724	17.44
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	NR	15.19
21	1,2,4-Trimethylbenzene	95-63-6	LT	24.87
22	Vinyl Chloride	75-01-4	NR	36.63
23	Total-Xylene	1330-20-7	LT	21.60
24	Total VOC		1065	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	114%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dahlquist Date: 8/21/97
Reviewer: H. Fonseca Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-13A	Laboratory ID:	OA970727
Matrix:	Gas Cartridge	Sample Vol.(L):	0.053
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	78.71
2	Benzene	71-43-2	96.3	58.61
3	Carbon Tetrachloride	56-23-5	LT	29.81
4	Chloroform	67-66-3	LT	38.40
5	1,2-Dichlorobenzene	95-50-1	LT	31.17
6	1,3-Dichlorobenzene	541-73-1	LT	31.17
7	1,4-Dichlorobenzene	106-46-7	LT	31.17
8	1,1-Dichloroethane	75-34-3	LT	46.23
9	1,2-Dichloroethane	107-06-2	LT	47.26
10	1,1-Dichloroethene	75-35-4	LT	47.26
11	cis-1,2-Dichloroethene	156-69-9	5430	47.26
12	trans-1,2-Dichloroethene	156-60-5	LT	47.26
13	Ethylbenzene	100-41-4	LT	43.19
14	Methylene Chloride	75-09-2	LT	53.96
15	Tetrachloroethene	127-18-4	LT	27.65
16	Toluene	108-88-3	LT	49.73
17	1,1,1-Trichloroethane	71-55-6	LT	34.32
18	1,1,2-Trichloroethane	79-00-5	LT	34.32
19	Trichloroethene	79-01-6	6050	34.89
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	NR	30.38
21	1,2,4-Trimethylbenzene	95-63-6	LT	49.73
22	Vinyl Chloride	75-01-4	NR	73.26
23	Total-Xylene	1330-20-7	LT	43.19
24	Total VOC		11576	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	122%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Rich Dalgnit Date: 8/21/97
Reviewer: H Fountain Date: 8-21-97

LBL Environmental Measurements Laboratory
TO-14 Analysis Data Sheet

Sample ID:	BG-13B	Laboratory ID:	OA970728
Matrix:	Gas Cartridge	Sample Vol.(L):	0.026
Date Sampled:	7/22/97	Date Received:	7/24/97
Date Analyzed:	7/26/97	Method:	TO-14

	Compound	CAS #	Conc.(ppbv)	PQL(ppbv)
1	Acetone	67-64-1	LT	158.93
2	Benzene	71-43-2	180	118.34
3	Carbon Tetrachloride	56-23-5	LT	60.19
4	Chloroform	67-66-3	LT	77.54
5	1,2-Dichlorobenzene	95-50-1	LT	62.95
6	1,3-Dichlorobenzene	541-73-1	LT	62.95
7	1,4-Dichlorobenzene	106-46-7	LT	62.95
8	1,1-Dichloroethane	75-34-3	LT	93.35
9	1,2-Dichloroethane	107-06-2	LT	95.44
10	1,1-Dichloroethene	75-35-4	LT	95.44
11	cis-1,2-Dichloroethene	156-69-9	5100	95.44
12	trans-1,2-Dichloroethene	156-60-5	LT	95.44
13	Ethylbenzene	100-41-4	LT	87.21
14	Methylene Chloride	75-09-2	LT	108.96
15	Tetrachloroethene	127-18-4	LT	55.82
16	Toluene	108-88-3	LT	100.42
17	1,1,1-Trichloroethane	71-55-6	LT	69.30
18	1,1,2-Trichloroethane	79-00-5	LT	69.30
19	Trichloroethene	79-01-6	10300	70.44
20	Dichlorotrifluoroethane (Freon 123)	306-83-2	NR	61.34
21	1,2,4-Trimethylbenzene	95-63-6	LT	100.42
22	Vinyl Chloride	75-01-4	NR	147.93
23	Total-Xylene	1330-20-7	LT	87.21
24	Total VOC		15580	

Surrogate Compound	% Recovery	QC Limits (%)
4-Bromofluorobenzene	118%	75-130

CAS #: Chemical Abstract Services Registry Number
PQL: Practical Quantitation Limits
LT: Less than PQL

California D.O.H.S. Cert. # 1704

Analyst : Robert Dahlquist Date: 8/21/97
Reviewer: H Crawford Date: 8-21-97

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