Harding Lawson Associates

Engineering and Environmental Services

SOIL-GAS SURVEY REPORT
17300 EAST CHESTNUT STREET
CITY OF INDUSTRY, CALIFORNIA

HLA Job No. 20368,003.11

A Report Prepared for

Utility Trailer Manufacturing Company
17295 East Railroad Street
City of Industry, California 91749

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INTRODUCTION

This report presents the results of the soil-gas survey that was conducted by Harding Lawson Associates (HLA) at Utility Trailer Manufacturing Company (UT) located at 17300 East Chestnut Street, City of Industry, California (Plate 1), in July 1991. This report was prepared in response to the November 21, 1990, directive for a soil-gas survey issued by the California Regional Water Quality Control Board (RWQCB). The RWQCB required that a soil-gas survey be conducted along all drainage conduits and along the eastern edge of the property (including the facility maintenance shed, paint shed, current and historic chemical storage and use areas, and current and historic chemical waste storage areas).

SITE DESCRIPTION

GENERAL FEATURES

UT is located at 17300 East Chestnut Street in the City of Industry, California. The site is bounded on the north by Chestnut Street and San Jose Creek and on the west by a field adjacent to Azusa Road. The southern and eastern edges of the site are bounded by Somitex Prints of California (Somitex) and by the Los Angeles Water Company (LA Water) and Cal Molding Company, respectively. Currently, a main manufacturing building, plant operations building, and numerous small operational support buildings are located on the site. The property is paved with asphalt and concrete, except for two unpaved areas located on the northern and western portions of the property. These unpaved locations are reported to be a trailer parking lot and a quality assurance test track. The property has been used by previous occupants for raising livestock and performing other agricultural activities.

SITE HISTORY AND OPERATION

Environmental investigations were conducted at the property by Triad Engineering and Hydro-Fluent, Inc., to assess the impact of volatile halogenated and aromatic hydrocarbons on the soil and ground water. After reviewing these reports, the RWQCB requested a

bimonthly monitoring program that began in August 1989 and ended in October 1990. In January 1991, HLA began a monthly monitoring and quarterly sampling program at the UT site. The purpose of these monitoring programs was to collect and analyze ground-water samples from the site's five existing monitoring wells.

SOIL-GAS SURVEY

OBJECTIVE

The objective of the soil-gas survey was to screen for both halogenated solvents and aromatic hydrocarbons including benzene, toluene, ethylbenzene, and xylene (BTEX) to aid in the assessment of the vertical and lateral extent of these compounds.

SOIL-GAS PROBE LOCATION RATIONALE

Sampling locations were initially sited on a coarse 50-foot sampling grid targeting the eastern edge of the property and all drainage conduits (Plate 2). Additional areas that have historically been used for paint-spraying operations were targeted within the manufacturing building. Based on this initial grid, 55 on-site and 15 off-site probe locations were proposed.

One of the planned probe locations that was thought to be on the LA Water property in HLA's April 4, 1991, workplan entitled "Soil-Gas Survey, 17300 East Chestnut Street, City of Industry, California," was actually situated on the adjoining Cal Molding Company property, directly south of LA Water. Because this was discovered less than a week before the sampling was scheduled to begin and because of the difficulty in obtaining off-site access, this probe location (SG-69) was relocated on the southeast corner of the UT property, approximately 100 feet from its original location.

Based on discussions with UT employees, it was discovered that the historic location of the aboveground solvent tanks was further south than was depicted in the original workplan. Because of this finding, the two probe locations that were planned for this area were deleted, and an additional probe location (SG-70) was added.

Initially, it was planned that when concentrations of volatile organics were detected at levels significantly above site background levels, a finer 20-foot sampling grid would be used. During a RWQCB site visit to observe the survey on July 16, 1991, HLA and the RWQCB modified this plan. It was decided that instead of using a finer grid, the 50-foot grid would be extended to try to assess the edge of the soil-gas plume.

Additional survey points were added at three locations on the site to assess the extent and distribution of chemicals in the soil gas surrounding locations where readings were significantly above site background levels. Because of manufacturing operations and restricted space within the building, additional points were not added to the grid around probe locations within the manufacturing building.

The modifications discussed above resulted in the addition of 27 on-site and 1 off-site probe locations, which increased the total number of probe locations in the survey to 82 on site and 16 off site.

SAMPLING METHODOLOGY

Samples were collected at the probe locations from a depth of approximately 6 feet. Additional deeper soil-gas samples were collected at probe locations that contained a relatively high concentration of volatiles. At these locations, a second sample was collected at depths of approximately 13 to 15 feet. A total of 98 shallow samples and 31 deep samples were collected.

The soil-gas survey was performed by Optimal Technologies, Inc. (OTI), of Carpenteria, California. Soil-gas probes were constructed of 7-foot lengths of 1/2-inch-diameter galvanized steel and had an extractable stainless-steel drive point attached to the tip. An electric hammer drill was used to drill a 1-inch-diameter hole through the overlying asphalt or concrete. A probe rod was inserted into the drilled hole and was driven into the soil by a hydraulic pushing cylinder mounted to the front of a van. When soil conditions inhibited this technique, an electric hammer was added to this system to assist the hydraulics in driving the rod. Probes were removed using the hydraulic system. In cases where the sampling location

was inaccessible to the van, the electric hammer was the sole driving tool and a modified truck jack was used to extract the probe. All probe locations were backfilled with granular bentonite and patched with asphalt or concrete following sampling.

Once the probe was driven to the desired sampling depth, the probe was pulled up approximately 1 inch to extract the driving point from the probe. A 1/4-inch-diameter section of silicon tubing was used to connect the top of the probe to the sampling equipment, which consisted of a vacuum pump and associated tubing. After the probe had been purged and while the pump was still running, samples were obtained in Hamilton gas-tight syringes by puncturing the silicone tubing.

All analyses were performed on a laboratory-grade Hewlett Packard model 5890 Series II gas chromatograph (GC) equipped with both a photoionization detector (PID) and an electron capture detector (ECD). All samples were injected on the GC within 30 seconds of collection.

To prevent cross contamination, new silicone tubing and decontaminated sampling probes were used at each sample point. All other equipment that came in contact with the soil gas was either disposed of or thoroughly decontaminated before reuse.

ANALYTICAL PROCEDURES

The target compounds analyzed for by OTI were chloroform, 1,1-dichloroethene (DCE), 1,1-dichloroethane (DCA), cis-1,2-dichloroethene (cis-1,2-DCE), trans-1,2-dichloroethene (trans-1,2-DCE), 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), and tetrachloroethene (PCE). Soil-gas samples were also analyzed for BTEX by injecting a duplicate sample on a second column that was connected to a PID. Detection limits were calculated to be 0.1 microgram per liter (ug/L) for BTEX and 0.01 ug/L for the halogenated solvents.

The PID detector was originally set up to be used as a detector for BTEX; however, when levels of some of the chlorinated compounds were observed above the electronic scale of the ECD, the PID was calibrated for the double-bonded solvents to quantitate their

concentrations. The compounds 1,1-DCA and 1,1,1-TCA are not double-bonded and cannot be detected by the PID. Therefore, the concentrations of these compounds are reported with a plus (+) symbol in the results table to indicate that the concentrations were off-scale on the ECD and are higher than reported.

At the RWQCB's request, OTI conducted a test at the first survey location to assess the optimal purge time before sample collection. Samples were collected at 1/2, 1, and 2 minutes after the purging was initiated. The results of this test indicated that concentrations of volatile organics in the samples collected after 1 minute of purging were higher than those in the samples collected after 1/2 minute and approximately the same as in samples collected after 2 minutes. Based on these results, a 1-minute purge was used on all subsequent shallow samples. (Because the sampling assembly for the deeper samples required the use of two 7-foot probes, which contained twice the volume of one 7-foot probe, the purge time for the deeper samples was set at 2 minutes.)

During the soil-gas survey, an unknown peak was observed. OTI tentatively identified the peak as a freon compound but did not have any freon standards to calibrate to in the field. A sample was subsequently collected (SG-36 at 13.5 feet below ground surface) in an evacuated stainless-steel cylinder and submitted under chain-of-custody procedures to Analytical Technologies, Inc. (ATI), for analysis by EPA Method 8240. ATI identified the peak as trichlorotrifluoroethane (Freon 113) (Appendix A). Although these results were obtained after the field work was completed, OTI was able to confirm that the observed peak was Freon 113 and approximate the concentrations of this compound by calibrating their GC to Freon 113 in the office. This response was used to calculate the concentrations that were observed in the field.

QUALITY ASSURANCE

The quality assurance (QA) procedures for this project included calibration checks, duplicate analyses, method blank data, field blank data, and equipment blank data. QA data are tabulated in Appendix B in OTI's August 5, 1991, report entitled "Soil Vapor Study Results."

A three-point calibration using the analytes of concern was run at the beginning of each day. A midpoint continuing calibration check was run after approximately every 10th sample to assure that the instrument response was consistent throughout the day.

To evaluate the reproducibility of both the sampling system and the instrument, duplicate analyses were run at a minimum of one every 10 samples collected. Data from duplicate pairs were analyzed to assess if a consistent response was observed. Acceptable variation between duplicate pairs is usually set at 20 percent. In general, duplicate pairs were of the same order of magnitude and variation between pairs was less than 20 percent; however, because of natural variation in the composition of soil-gas, some data varied by greater than 20 percent.

Equipment blanks were run prior to probe installation at each sampling location. The equipment blank was collected by attaching the entire sampling system above ground and collecting an air sample. These blanks checked for contamination in the sampling equipment, the analytical equipment, and the ambient air. If contamination was found, the procedure was repeated until the source was determined and corrected, if possible.

Method blanks were collected to assess if the analytical equipment could be a source of contamination. A method blank consists of sample of hydrocarbon-free air that is injected into the GC. Because the levels of halogenated solvents observed at the site, the ECD could not be completely cleaned in the field, and low levels of some solvents were observed in the method blanks. These levels are recorded in the tables of OTI's report but were not subtracted from actual survey results.

A field blank was also collected at the beginning of each day by filling a syringe with ambient air and injecting it on the GC. The source of chemicals found in the field blank could be the ambient air or the analytical equipment. By comparing the field blank and the method blank, the source of the chemicals can be determined.

RESULTS

As stated in OTI's "Soil-Vapor Survey Results" report (Appendix B), soil-gas testing is only a subsurface screening tool and does not represent actual contaminant concentrations in either soil or ground water. This limitation should be kept in mind when reviewing the following results.

The five most prevalent compounds that were observed in the soil-gas were DCE, 1,1,1-TCA, TCE, PCE, and Freon 113. The highest levels of TCE and PCE (900 and 8,990 ug/L, respectively) were detected in SG-80 at 14 feet below ground surface. The highest concentrations of 1,1,1-TCA, DCE, and Freon 113 (1,920+, 3,150, and 1170 ug/L, respectively) were detected in SG-40 at 13.5 feet below ground surface. BTEX were not detected at any locations on site.

In order to discuss areas of elevated volatile organic compounds, a total volatile organic concentration was calculated by summing the concentrations of the individual compounds detected. Results of the soil-gas survey are presented in Table 1. Plates 2 through 7 depict concentrations of DCE, 1,1,1-TCA, TCE, PCE, Freon 113, and total volatile organic compounds, respectively, in the shallow samples that were collected. Plates 8 through 13 present the concentrations of these chemicals and their sum in deep samples that were collected.

The subsurface conditions encountered during the survey varied and greatly affected the flow rates observed during probe purging and sample collection. Soils that were identified as ranging from clays to sands were observed in the cuttings during the initial drilling (0 to 12 inches) of the hole and on the extractable probe tip after it was withdrawn from the soil. Poor flow rates appear to have resulted from the probe tip being in low-porosity clay layers. Moderate to good vapor flow rates commonly occurred in areas where the probe tip was in higher porosity sand. Flow rates are presented in Table 1 and are semi-quantitatively depicted on Plates 2 through 13.

Three areas containing relatively higher concentrations of volatile organics were identified during the survey. These areas are located on the northwestern edge of the property between the parts and sales building and the main manufacturing building (Area 1), on the southwestern edge of the property near UT's border with Somitex (Area 2), and on the southeastern edge of the building (Area 3). A few additional locations within the building were noted to contain relatively high concentrations of 1,1,1-TCA.

Relatively low concentrations of volatile organics were encountered along the drainage conduit between the north and south ends of the manufacturing building and at most of the probe locations on the LA Water property. On the LA Water property, SG-46 and SG-51 contained the highest concentrations of volatile organic compounds. At SG-46, a relatively high concentration of Freon 113 was detected with PCE, DCE, 1,1,1-TCA, and TCE present at relatively low levels. DCE and 1,1,1-TCA were detected at moderate levels at SG-51 with TCE, PCE and Freon 113 detected a relatively low levels. No samples were collected at depths greater than 6 feet on the LA Water property because of an agreement that was reached between UT and Halbert Brothers, the owners of the property. Low concentrations were also observed in SG-31 through SG-35, the initial samples that were collected from the Somitex property.

In Area 1, the highest total volatile organic concentrations in the shallow and deep samples were detected in SG-79, SG-80, and SG-87. Of the compounds detected, PCE was the most prevalent, with DCE, TCE, 1,1,1-TCA, and Freon 113 detected in order of decreasing concentrations, respectively. The concentration of Freon 113 was at least an order of magnitude lower than those detected for the other compounds.

On the western edge of Area 1 at SG-9, a secondary area of lower level concentrations was identified. DCE was the most prevalent compound detected in the shallow and deep samples with PCE, TCE, Freon 113, and 1,1,1-TCA detected in order of decreasing concentration. The concentration of Freon 113 was at least an order of magnitude lower than those detected for the other compounds.

The highest concentrations of the volatile organic compounds in the shallow and deep samples collected in Area 2 were detected in SG-40. DCE was detected in the highest concentration with PCE, 1,1,1-TCA, and Freon 113 detected in order of decreasing concentration. (Because 1,1,1-TCA could only be quantitated at a lower limit [i.e., 1800+], it is unclear whether 1,1,1-TCA is actually present at lower concentrations than PCE). TCE concentrations were much lower (by an order of magnitude) than those concentrations detected for the other compounds.

Area 3 contained two zones and one discrete point (SG-70) of relatively high volatile organic concentrations. One zone was centered on SG-58 and SG-89. In order of decreasing concentration, the compounds detected were PCE, DCE, 1,1,1-TCA, TCE, and Freon 113. A second zone containing relatively high concentrations of volatile organics was identified directly north of this region centered on SG-88 and SG-56 in the shallow and deep samples. PCE was detected at the highest concentration at this location with 1,1,1-TCA, DCE, and TCE detected in order of decreasing concentration. In SG-70, elevated 1,1,1-TCA and TCE concentrations were detected in both shallow and deep samples. Freon 113 concentrations in Area 3 were very low.

Additional discrete points were found to have relatively high concentrations of volatile organic compounds. These points were SG-26, SG-60, and SG-62. In SG-26, PCE was detected in the highest concentration with 1,1,1-TCA and DCE detected in order of decreasing concentration. In SG-60, 1,1,1-TCA was detected at the highest concentration with PCE, DCE, and TCE detected in order of decreasing concentration. In the shallow and deep samples in SG-62, DCE, TCE, 1,1,1-TCA, and PCE were detected at approximately the same concentrations.

DISCUSSION

Variations in the subsurface soil conditions across the site appear to have greatly affected vapor flow rates during purging of the probe and sample collection. In general, samples that contained relatively high concentrations of volatile organics appear to have been collected from probes with good vapor flow rates. It is unclear whether the geology adversely affected

the flow rates and inhibited collection of a representative sample in these regions or if low concentrations of volatile organic compounds were observed in regions of poor flow because the low porosity of the soil naturally restricts vapor flow into this region. Because of the differences that were observed in flow rates, the data should not be contoured without a better understanding of subsurface conditions.

Three areas and several discrete points were identified that contained relatively high concentrations of volatile organic compounds. PCE and DCE were the most prevalent compounds found in Areas 1, 2, and 3 and at SG-26 and SG-62. The compound 1,1,1-TCA was the most prevalent compound observed in SG-28, SG-60, and SG-70. Freon 113 was observed at relatively low concentrations across the property except in Area 2 (SG-40) where the concentrations were relatively high (1,040 and 1,170 ug/L in shallow and deep samples, respectively).

TABLES

Table 1. Soil-Gas Survey Results
Utility Trailer Manufacturing

Sample ID	Depth	Type of Flow	1,1-DCE (ug/L)	trans 1,2-DCE (ug/L)	1,1-DCA (ug/L)	cis 1,2-DCE (ug/L)	Chloroform	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	Freon 113 (ug/L)	Total Volatile Compounds
SG-01-B	5	Good	735	ND	ND	ND	0.93	25.8	192	2,560	30.6	3,544.33
SG-01-D	13	Good	533	ND	ND	ND	0.42	14.9	63.5	914	20.1	1,545.92
SG-02-A	5	Poor	4.23	ND	ND	ND	ND	0.21	0.04	0.34	TR	4.82
SG-02-B	13	Poor	0.63	ND	ND	ND	ND	0.08	0.15	2.87	TR	3.73
SG-03	5	Poor	5.59	ND	ND	ND	ND	0.32	1.23	16.8	TR	23.94
SG-04	5	Good	448	ND	ND	2.66	0.23	8.55	20.9	171	6.5	657.84
SG-05	5	Poor	ND	ND	ND	ND	ND	0.07	ND	0.17	TR	0.24
SG-06	5	Poor	ND	ND	ND	ND	ND	0.06	0.03	0.23	TR	0.32
SG-07	6	Poor	ND	ND	ND	ND	ND	0.05	0.07	1.56	TR	1.68
SG-08	6	Good	164	ND	ND	1.15	ND	0.13	2.65	0.67	0.17	168.77
SG-09-A	6	Good	470	ND	ND	3.05	ND	4.34	14.5	36.1	2.55	530.54
SG-09-B	13	Good	478	ND	ND	1.76	0.10	69.3	11.2	47.8	11.7	619.86
SG-10	6	Poor	ND	ND	ND	ND	ND	0.07	ND	0.03	TR	0.10
SG-11	6	Good	121	ND	ND	ND	ND	4.98	2.60	57.6	7.9	194.08
SG-12	6	Good	203	ND	ND	ND	0.16	16.4	3.43	38.1	5.48	266.57
SG-13	6	Moderate	9.42	ND	ND	ND	ND	0.56	0.13	0.56	0.63	11.30
SG-14	6	Poor	10.7	ND	ND	ND	ND	1.15	0.82	11.4	0.16	24.23
SG-15-A	6	Poor	0.27	ND	ND	ND	ND	0.01	ND	0.03	TR	0.31
SG-15-B	16	Poor	2,460	ND	ND	3.76	0.27	12.7	92.5	427	2.38	2,998.61
SG-16	6	Poor	2.22	ND	ND	ND	ND	0.17	0.01	0.05	TR	2.45
SG-17-A	6	Poor	1.33	ND	ND	ND	ND	0.06	0.02	0.08	TR	1.49
SG-18	6	Poor	1.37	ND	ND	ND	ND	0.06	0.01	0.02	TR	1.46
SG-19-A	6	Poor	0.87	ND	ND	ND	ND	0.11	0.01	0.01	TR	1.00
SG-20	6	Poor	0.59	ND	ND	ND	ND	0.06	0.03	0.03	TR	0.71
SG-21-A	6	Poor	0.79	ND	ND	ND	ND	0.04	ND	0.01	TR	0.84
SG-22	6	Poor	0.01	ND	ND	ND	ND	0.05	0.09	0.02	TR	0.17
SG-23	6	Poor	0.64	ND	ND	ND	ND	0.08	ND	0.02	TR	0.74
SG-24	6	Poor	2.55	ND	ND	ND	ND	1.32	0.16	0.75	0.11	4.89
SG-25-A	6	Poor	0.09	ND	ND	ND	ND	0.18	0.21	2.63	TR	3.11

NOTES:
1,1-DCE = 1,1-dichloroethene
1,1-DCA = 1,1-dichloroethane
1,1,1-TCA = 1,1,1-trichloroethane
TR = Trace
TCE = trichloroethene
PCE = tetrachloroethene
Freon 113 = trichlorofluoroethane
NA = Data not available
ND = Not detected at or above detection limits of 0.01 ug/L for 1,1-DCE, 1,1-DCA, Chloroform, TCE and PCE, and 0.05 ug/L for Freon 113.

Table 1. Soil-Gas Survey Results
Utility Trailer Manufacturing

Sample ID	Depth	Type of Flow	1,1-DCE (ug/L)	trans 1,2-DCE (ug/L)	1,1-DCA (ug/L)	cis 1,2-DCE (ug/L)	Chloroform	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	Freon 113 (ug/L)	Total Volatile Compounds
SG-25-C	13	Good	118	ND	ND	ND	ND	415+	6.14	143	160	842.14+
SG-26-A	6	Moderate	143	ND	ND	ND	0.25	213+	1.68	44.5	60.7	463.13+
SG-26-B	13	Good	324	ND	ND	ND	ND	613+	3.57	107	144	1,191.57+
SG-27	6	Poor	ND	ND	ND	ND	ND	8.46	ND	0.04	TR	8.50
SG-28-A	6	Moderate	3.90	ND	12.5	0.07	ND	174	ND	0.09	TR	190.56
SG-28-B	13	Poor	1.44	ND	3.34	ND	ND	36.6	0.09	1.99	0.24	43.70
SG-29	6	Poor	1.91	ND	6.66	ND	ND	1.74	ND	0.22	TR	10.53
SG-30	6	Poor	1.15	ND	3.68	ND	ND	0.59	0.02	0.29	TR	5.73
SG-31	6	Poor	9.53	ND	3.10	ND	ND	1.38	0.17	4.81	0.76	19.75
SG-32	6	Poor	0.47	ND	2.61	ND	ND	0.03	ND	0.03	TR	3.14
SG-33	6	Poor	0.46	ND	2.61	ND	ND	0.16	ND	ND	TR	3.23
SG-34	6	Poor	0.01	ND	ND	ND	ND	ND	ND	0.01	0.05	0.07
SG-35	6	Poor	0.31	ND	2.78	ND	ND	0.03	ND	ND	TR	3.12
SG-36-A	6	Good	171	ND	7.82	ND	ND	11.0	3.96	260	85	538.78
SG-36-B	13	Good	260	ND	18.8	ND	ND	21.3	6.60	340	182	828.70
SG-37	6	Good	7.97	ND	28.9	ND	ND	1.45	1.11	65.0	1.33	105.76
SG-38	6	Poor	0.01	ND	5.03	ND	ND	0.18	ND	0.07	TR	5.29
SG-39	6	Poor	0.68	ND	2.20	ND	ND	1.03	ND	0.04	TR	3.95
SG-40-B	6	Good	3,590	ND	ND	5.29	2.60	1,800+	154	2,910	1,040	9,501.89+
SG-40-C	13.5	Good	3,900	ND	62.7	ND	3.51	1,920+	195	3,150	1,170	10,401.21+
SG-41-A	6	Good	1,000	ND	40.4	ND	ND	205	27.8	830	486	2,589.20
SG-41-B	15	Good	700	ND	75.0	ND	ND	140	22.5	627	331	1,895.50
SG-42	6	Poor	1.06	ND	3.75	ND	ND	1.16	ND	0.06	0.11	6.14
SG-43	6	Poor	ND	ND	ND	ND	ND	0.23	ND	0.08	0.31	0.62
SG-44	6	Poor	7.08	ND	ND	ND	ND	8.09	0.02	0.08	0.10	15.37
SG-45	6	Poor	ND	MD	22.9	ND	ND	0.05	0.02	2.47	31.2	56.64
SG-46	6	Good	9.43	ND	31.7	ND	ND	4.64	0.75	34.7	307	388.22
SG-47	6	Poor	2.28	ND	6.51	ND	ND	0.60	0.73	0.03	0.16	10.31
SG-48	6	Poor	ND	ND	4.91	ND	ND	0.08	0.08	0.23	0.12	5.42

NOTES:
1,1-DCE = 1,1-dichloroethene
1,1-DCA = 1,1-dichloroethane
1,1,1-TCA = 1,1,1-trichloroethane
TR = Trace
TCE = trichloroethene
PCE = tetrachloroethene
Freon 113 = trichlorofluoroethane
NA = Data not available
ND = Not detected at or above detection limits of 0.01 ug/L for 1,1-DCE, 1,1-DCA, Chloroform, TCE and PCE, and 0.05 ug/L for Freon 113.

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Utility Trailer Manufacturing

Sample ID	Depth	Type of Flow	1,1-DCE (ug/L)	trans 1,2-DCE (ug/L)	1,1-DCA (ug/L)	cis 1,2-DCE (ug/L)	Chloroform	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	Freon 113 (ug/L)	Total Volatile Compounds
SG-49	6	Poor	ND	ND	5.97	ND	ND	0.07	ND	0.03	TR	6.07
SG-50	6	Poor	ND	ND	5.26	ND	ND	0.06	ND	0.31	TR	5.63
SG-51	6	Poor	82.7	ND	12.4	ND	0.05	74.7+	1.53	7.86	1.22	180.46+
SG-52	6	Poor	15.2	ND	7.30	ND	ND	3.70	0.53	11.7	0.57	39.00
SG-53	6	Good	24.7	ND	34.8	ND	0.15	12.5	3.33	7.96	120	203.44
SG-54	6	Good	9.08	ND	29.1	ND	ND	3.07	0.15	14.7	98.5	154.60
SG-55	6	Poor	ND	ND	10.2	ND	ND	0.31	0.11	0.13	TR	10.75
SG-56-A	6	Good	940	ND	190	16.5	0.75	498+	341	2,530	13.6	4,529.85+
SG-56-B	13.5	Good	203	ND	75.0	2.48	0.49	234	85.7	710	1.82	1,312.49
SG-57	6	Good	9.06	ND	45.8	ND	ND	9.13	0.30	1.23	ND	65.52
SG-58-A	6	Good	1,460	ND	276	2.33	1.06	449+	252	3,680	72.6	6,192.99+
SG-58-B	13	Good	1,670	ND	88.5	1.63	1.43	1,040+	207	3,290	104	6,402.56+
SG-59	6	Poor	7.87	ND	26.6	ND	0.04	13.0	5.71	94.7	0.18	148.10
SG-60-A	6	Good	840	ND	98.5	ND	3.45	1,890+	106	1,180	45.1	4,163.05+
SG-60-B	14	Poor	63.5	ND	29.0	ND	0.32	768	8.36	112	ND	981.18
SG-61	6	Good	48.6	ND	86.8	ND	ND	3.51	0.19	17.3	4.96	161.36
SG-62-A	6	Good	152	ND	41.9	ND	0.95	102	106	119	ND	521.85
SG-62-B	14	Good	228	ND	77.1	ND	1.51	211	243	143	ND	903.61
SG-63	6	Poor	33.2	ND	ND	ND	ND	0.49	0.11	0.08	ND	33.88
SG-64	6	Poor	2.11	ND	40.7	ND	ND	0.70	0.07	0.07	ND	43.65
SG-65	6	Poor	ND	ND	8.32	ND	ND	1.15	0.17	2.40	0.87	12.91
SG-66	6	Poor	ND	ND	5.47	ND	ND	1.54	0.32	3.49	1.20	12.02
SG-67	6	Poor	12.6	ND	30.9	ND	ND	0.84	0.11	0.05	ND	44.50
SG-68	6	Poor	7.94	ND	7.41	ND	ND	9.47	ND	0.22	ND	25.04
SG-69	6	Poor	3.92	ND	7.66	ND	ND	0.05	0.09	0.04	ND	11.76
SG-70-A	6	Good	163	ND	35.1	ND	ND	341	27.5	37.1	ND	603.70
SG-70-B	14	Good	22.3	ND	19.4	ND	ND	55.5	2.95	4.98	ND	105.13
SG-71	6	Good	3.93	ND	ND	ND	ND	0.11	0.76	0.07	0.06	4.93
SG-72	6	Poor	ND	ND	16.2	ND	ND	0.06	0.48	0.03	ND	16.77

NOTES:
1,1-DCE = 1,1-dichloroethene
1,1-DCA = 1,1-dichloroethane
1,1,1-TCA = 1,1,1-trichloroethane
TR = Trace
TCE = trichloroethene
PCE = tetrachloroethene
Freon 113 = trichlorofluoroethane
NA = Data not available
ND = Not detected at or above detection limits of 0.01 ug/L for 1,1-DCE, 1,1-DCA, Chloroform, TCE and PCE, and 0.05 ug/L for Freon 113.

Table 1. Soil-Gas Survey Results
Utility Trailer Manufacturing

Sample ID	Depth	Type of Flow	1,1-DCE (ug/L)	trans 1,2-DCE (ug/L)	1,1-DCA (ug/L)	cis 1,2-DCE (ug/L)	Chloroform	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	Freon 113 (ug/L)	Total Volatile Compounds
SG-73	6	Poor	2.52	ND	14.4	ND	ND	0.05	0.36	0.02	ND	17.35
SG-74	6	Good	6.73	ND	20.6	ND	ND	0.14	0.51	3.91	0.73	32.62
SG-75	6	Good	65.8	ND	27.7	ND	ND	0.39	6.27	24.6	4.29	129.05
SG-76-A	6	Good	415	ND	80.4	ND	0.39	68.2	82.3	1,730	21.6	2,397.89
SG-76-B	14	Good	389	ND	24.8	ND	0.41	69.0	95.2	2,040	25.2	2,643.61
SG-77	6	Good	10.3	ND	ND	ND	ND	1.59	0.31	21.4	5.16	38.76
SG-78-A	6	Good	103	ND	ND	ND	ND	26.4	24.4	950	26.0	1,129.80
SG-78-B	14	Poor - Moderate	62.8	ND	ND	ND	ND	7.93	6.22	368	8.23	453.18
SG-79-A	6	Good	742	ND	45.7	18.7	2.53	86.4	579	5,930	46.6	7,450.93
SG-79-B	14	Good	261	ND	53.3	6.94	1.21	33.9	215	3,000	15.0	3,586.35
SG-80-A	6	Good	425	ND	48.9	127	1.68	162	318	4,830	18.6	5,931.18
SG-80-B	14	Good	1,170	ND	345	60.2	5.83	884+	900	8,990	52.4	12,407.43+
SG-81-A	6	Poor	15.4	ND	39.8	61.2	ND	0.12	1.10	11.2	ND	128.82
SG-81-B	14	Poor	223	ND	75.0	59.4	0.74	395+	145	1,790	1.43	2,689.57+
SG-82	6	Poor	ND	ND	22.1	ND	ND	1.05	0.96	45.7	ND	69.81
SG-83-A	6	Good	65.3	ND	58.5	ND	ND	5.69	0.85	26.6	51.5	208.44
SG-83-B	14	Poor - Moderate	4.78	ND	24.7	ND	ND	0.31	0.20	1.21	0.98	32.18
SG-84	6	Good	44.4	ND	35.6	ND	ND	5.90	0.58	18.5	36.9	141.88
SG-85	6	Good	34.3	ND	75.6	ND	ND	2.17	1.11	14.0	122	249.18
SG-86	6	Poor - Moderate	18.7	ND	27.4	ND	ND	5.65	0.24	2.66	14.4	69.05
SG-87-A	6	Good	1,450	ND	ND	ND	1.96	57.9	624	3,230	2.83	5,366.69
SG-87-B	14	Good	1,080	ND	88.5	3.67	1.72	54.8	464	2,690	2.58	4,385.27
SG-88-A	6	Good	406	ND	66.8	23.7	1.46	559+	720	4,640	1.63	6,418.59+
SG-88-B	14	Good	232	ND	130	10.6	2.73	792+	457	3,290	2.55	4,916.88+
SG-89-A	6	Good	174	ND	49.9	6.77	ND	168	19.5	253	2.64	673.81
SG-89-B	14	Good	1,730	ND	58.7	39.7	1.09	1,290+	186	2,310	33.9	5,649.39+

NOTES:
1,1-DCE = 1,1-dichloroethene
1,1-DCA = 1,1-dichloroethane
1,1,1-TCA = 1,1,1-trichloroethane
TR = Trace
TCE = trichloroethene
PCE = tetrachloroethene
Freon 113 = trichlorofluoroethane
NA = Data not available
ND = Not detected at or above detection limits of 0.01 ug/L for 1,1-DCE, 1,1-DCA, Chloroform, TCE and PCE, and 0.05 ug/L for Freon 113.

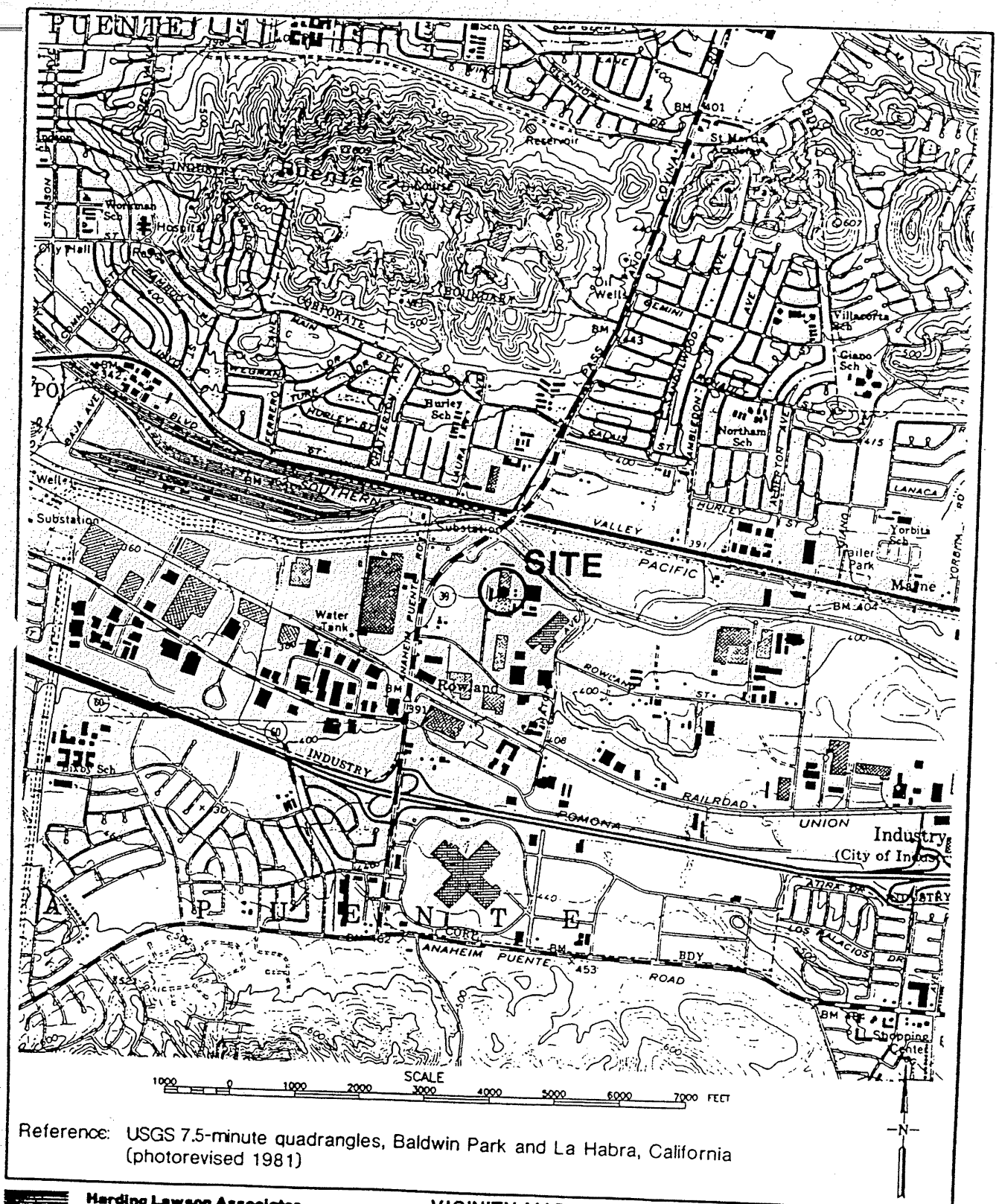
Table 1. Soil-Gas Survey Results
Utility Trailer Manufacturing

Sample ID	Depth	Type of Flow	1,1-DCE (ug/L)	trans 1,2-DCE (ug/L)	1,1-DCA (ug/L)	cis 1,2-DCE (ug/L)	Chloroform	1,1,1-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	Freon 113 (ug/L)	Total Volatile Compounds
SG-90-A	6	Good	94	ND	50.4	ND	ND	64.1	19.1	417	1.57	646.17
SG-90-B	14	Good	280	ND	ND	ND	0.79	323	50.0	950	3.62	1,607.41
SG-91	6	Poor	75	ND	ND	ND	ND	14.4	4.46	53.3	TR	147.19
SG-92-A	6	Good	2,130	ND	48.5	ND	2.01	1,110+	134	2,020	115	5,559.51+
SG-92-B	14	Good	208	ND	ND	ND	0.98	170	9.65	200	5.97	594.60
SG-93-A	6	Good	1,270	ND	ND	ND	ND	248	20.9	698	98.1	2,335.00
SG-93-B	14	Good	872	ND	ND	ND	ND	172	11.9	518	78.4	1,652.30
SG-94-A	6	Good	726	ND	ND	ND	0.38	246	18.1	763	105	1,858.48
SG-94-B	14	Moderate	326	ND	ND	ND	ND	95.7	8.82	297	39.9	767.42
SG-95-A	6	Poor - Moderate	681	ND	ND	0.96	0.97	401+	53.0	1,040	34.2	2,211.13+
SG-95-B	14	Poor - Moderate	68	ND	ND	0.48	ND	35.9	11.1	135	1.55	252.03
SG-96-A	6	Good	808	ND	ND	ND	0.65	248	134	2,700	173	4,063.65
SG-96-B	14	Good	794	ND	ND	ND	0.55	230	104	2,440	148	3,716.55
SG-97-A	6	Good	855	ND	51.4	ND	0.43	265	83.5	2,210	166	3,631.33
SG-97-B	14	Good	1,010	ND	60.7	ND	0.49	335	103	2,490	NA	3,999.19
SG-98-A	6	Good	50	ND	ND	ND	ND	7.97	1.13	43.3	20.1	122.50
SG-98-B	14	Good	63	ND	37.8	ND	ND	9.14	1.44	68.8	30.0	210.18

[MISC\UTILITY.TBL]

NOTES:
1,1-DCE = 1,1-dichloroethene
1,1-DCA = 1,1-dichloroethane
1,1,1-TCA = 1,1,1-trichloroethane
TR = Trace
ND = Not detected at or above detection limits of 0.01 ug/L for 1,1-DCE, 1,1-DCA, Chloroform, TCE and PCE, and 0.05 ug/L for Freon 113.
TCE = trichloroethene
PCE = tetrachloroethene
Freon 113 = trichlorofluoroethane
NA = Data not available

ILLUSTRATIONS



Reference: USGS 7.5-minute quadrangles, Baldwin Park and La Habra, California (photorevised 1981)

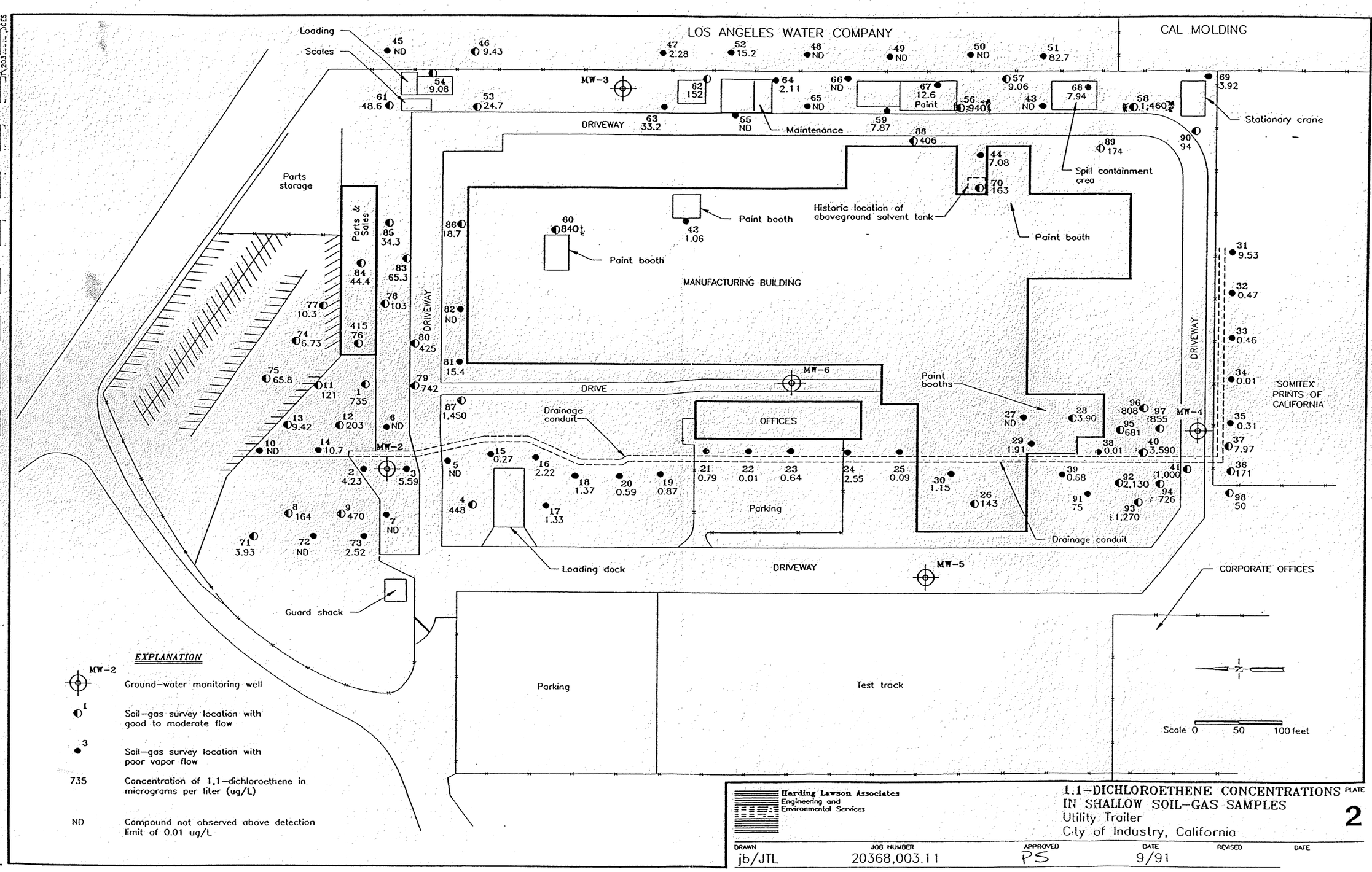
Harding Lawson Associates
Engineers, Geologists & Geophysicists

VICINITY MAP
Utility Trailer Manufacturing Company
Former R&D Facility
City of Industry, California

PLATE **1**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	PS	8/91		

UTM 000863



Harding Lawson Associates
Engineering and Environmental Services

1,1-DICHLOROETHENE CONCENTRATIONS IN SHALLOW SOIL-GAS SAMPLES
Utility Trailer
City of Industry, California

PLATE 2

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	PS	9/91		

UTM 000864

LOS ANGELES WATER COMPANY

CAL MOLDING

Loading

Scales

DRIVEWAY

MW-3

Maintenance

Stationary crane

Spill containment area

Parts storage

Parts & Sales

Paint booth

Historic location of aboveground solvent tank

Paint booth

Paint booth

MANUFACTURING BUILDING

DRIVEWAY

MW-6

DRIVE

Paint booths

Drainage conduit

OFFICES

DRIVEWAY

MW-4

SOMITEX PRINTS OF CALIFORNIA

MW-2

Parking

Drainage conduit

Loading dock

DRIVEWAY

MW-5

CORPORATE OFFICES

Guard shack

Parking

Test track

Scale 0 50 100 feet

EXPLANATION

MW-2 — Ground-water monitoring well

Soil-gas survey location with good to moderate flow

Soil-gas survey location with poor vapor flow

25.8 — Concentration of 1,1,1-trichloroethane in micrograms per liter (ug/L)

ND — Compound not observed above detection limit of 0.01 ug/L

Harding Lawson Associates
Engineering and Environmental Services

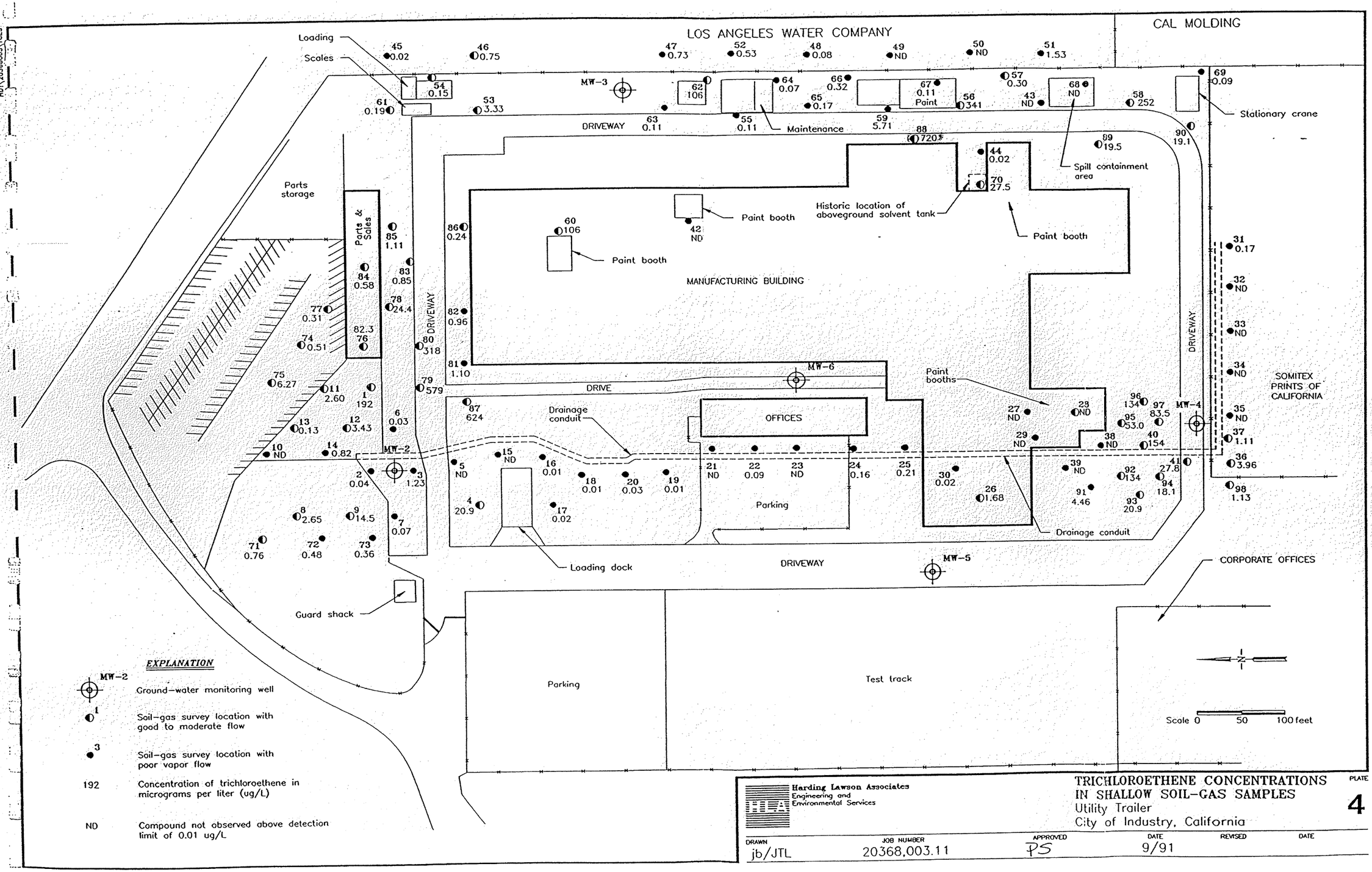
1,1,1-TRICHLOROETHANE CONCENTRATIONS IN SHALLOW SOIL-GAS SAMPLES

Utility Trailer
City of Industry, California

PLATE 3

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	PS	9/91		

UTM 000865



Harding Lawson Associates
Engineering and Environmental Services

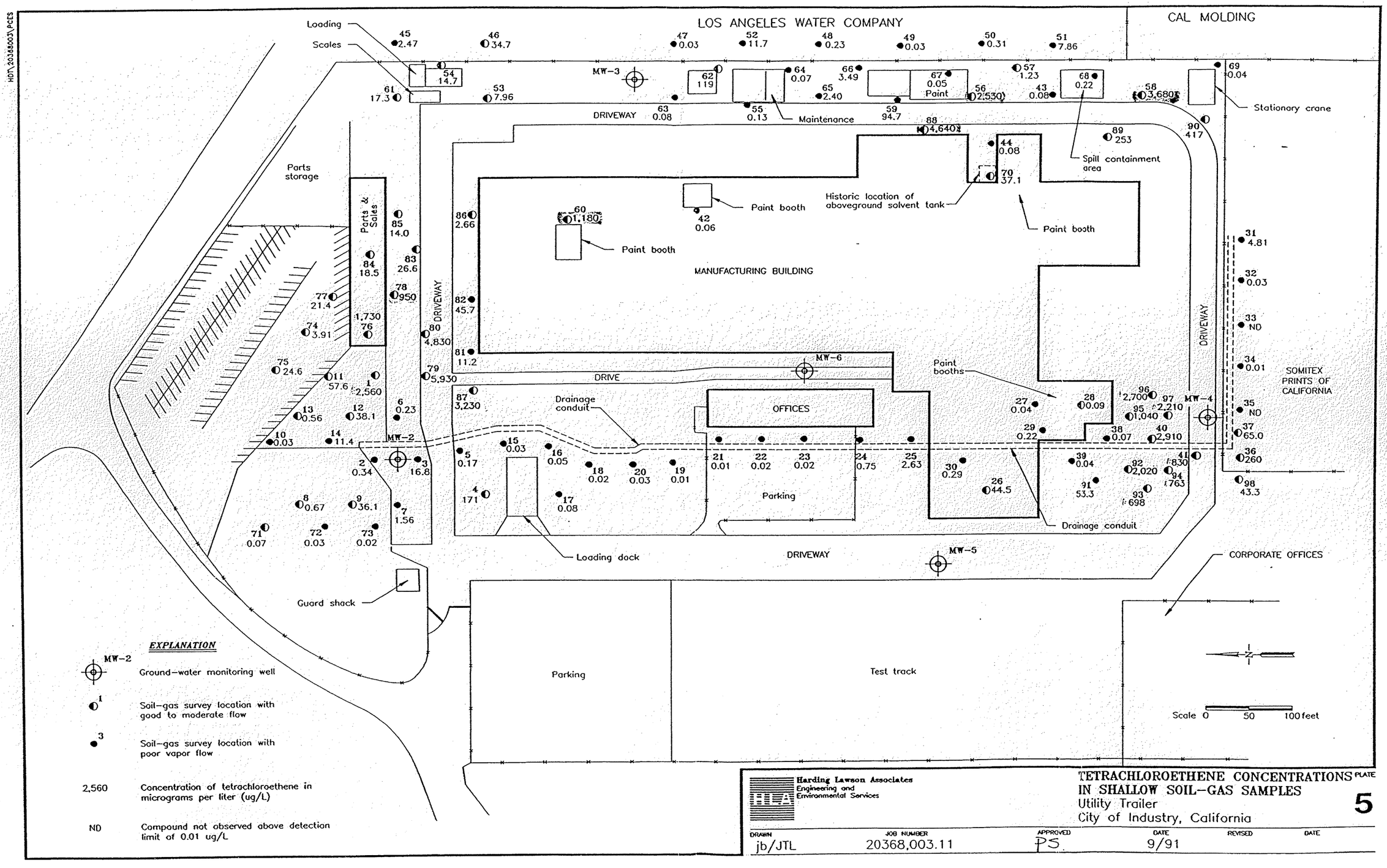
TRICHLOROETHENE CONCENTRATIONS IN SHALLOW SOIL-GAS SAMPLES

Utility Trailer
City of Industry, California

PLATE 4

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	PS	9/91		

UTM 000866



EXPLANATION

MW-2 — Ground-water monitoring well

1 — Soil-gas survey location with good to moderate flow

3 — Soil-gas survey location with poor vapor flow

2,560 — Concentration of tetrachloroethene in micrograms per liter (ug/L)

ND — Compound not observed above detection limit of 0.01 ug/L

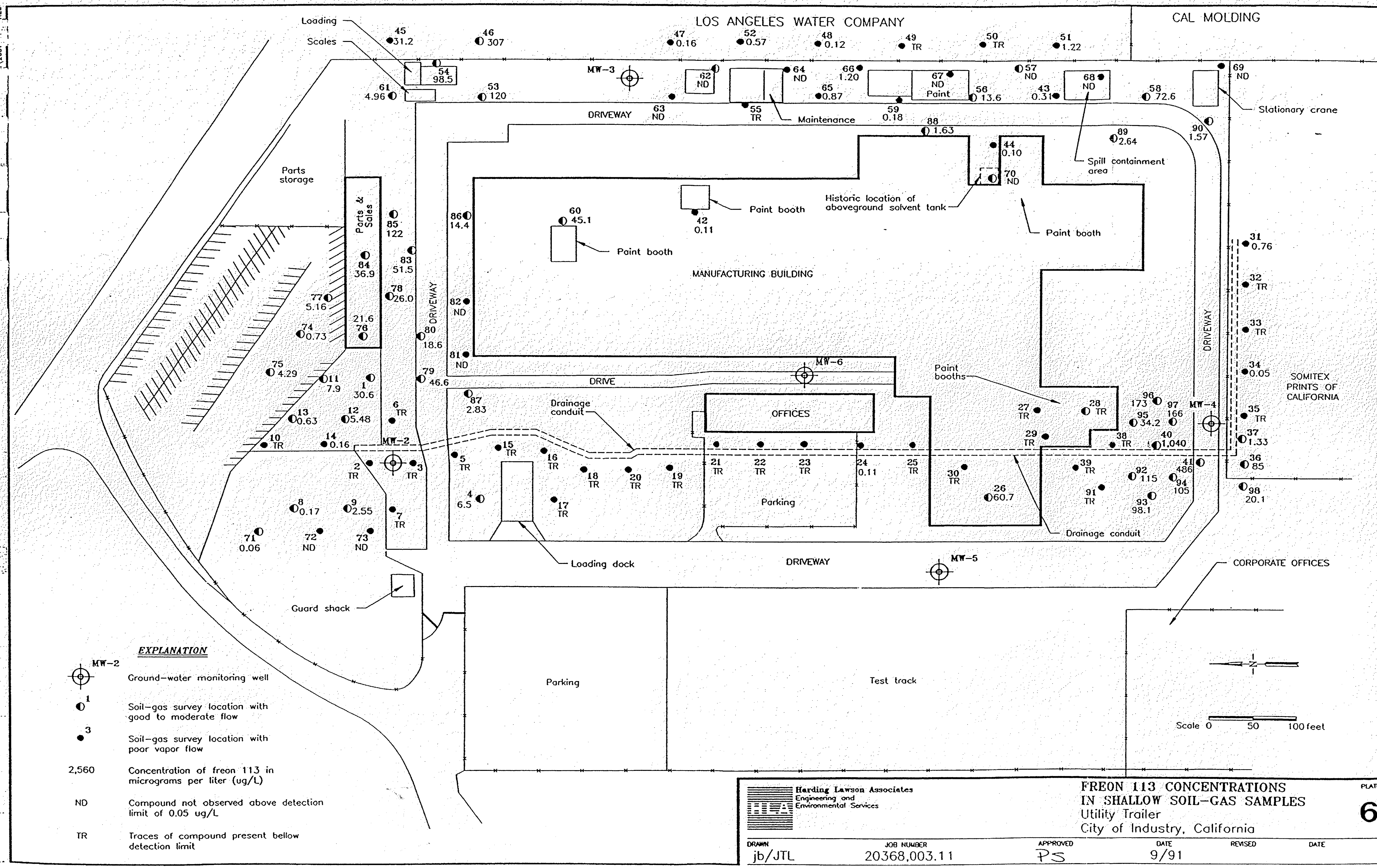
Harding Lawson Associates
Engineering and Environmental Services

TETRACHLOROETHENE CONCENTRATIONS IN SHALLOW SOIL-GAS SAMPLES
Utility Trailer
City of Industry, California

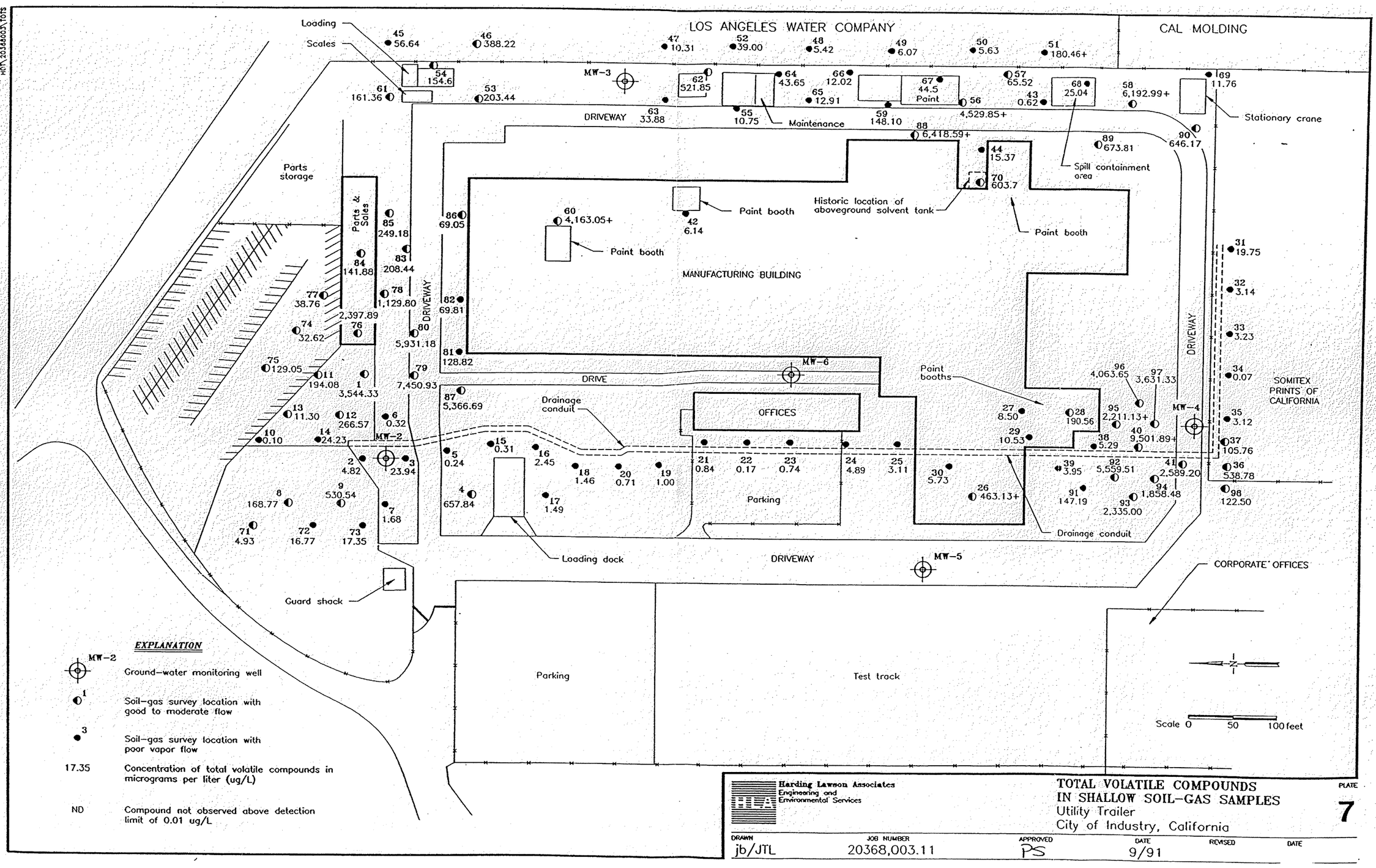
PLATE 5

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	PS	9/91		

UTM 000867


LOS ANGELES WATER COMPANY
CAL MOLDING
Loading
Scales
Parts storage
Parts & Sales
DRIVEWAY
Maintenance
Stationary crane
Spill containment area
Historic location of aboveground solvent tank
Paint booth
Paint booth
Paint booth
MANUFACTURING BUILDING
DRIVE
Drainage conduit
OFFICES
Paint booths
SOMITEX PRINTS OF CALIFORNIA
Parking
Drainage conduit
Loading dock
DRIVEWAY
CORPORATE OFFICES
Guard shack
Parking
Test track
MW-2
MW-3
MW-4
MW-5
MW-6
EXPLANATION
Ground-water monitoring well
Soil-gas survey location with good to moderate flow
Soil-gas survey location with poor vapor flow
2,560 Concentration of freon 113 in micrograms per liter (ug/L)
ND Compound not observed above detection limit of 0.05 ug/L
TR Traces of compound present bellow detection limit
Scale 0 50 100 feet
Harding Lawson Associates
Engineering and Environmental Services
FREON 113 CONCENTRATIONS IN SHALLOW SOIL-GAS SAMPLES
Utility Trailer
City of Industry, California
PLATE 6
DRAWN jb/JTL
JOB NUMBER 20368,003.11
APPROVED PS
DATE 9/91
REVISED
DATE

UTM 000868



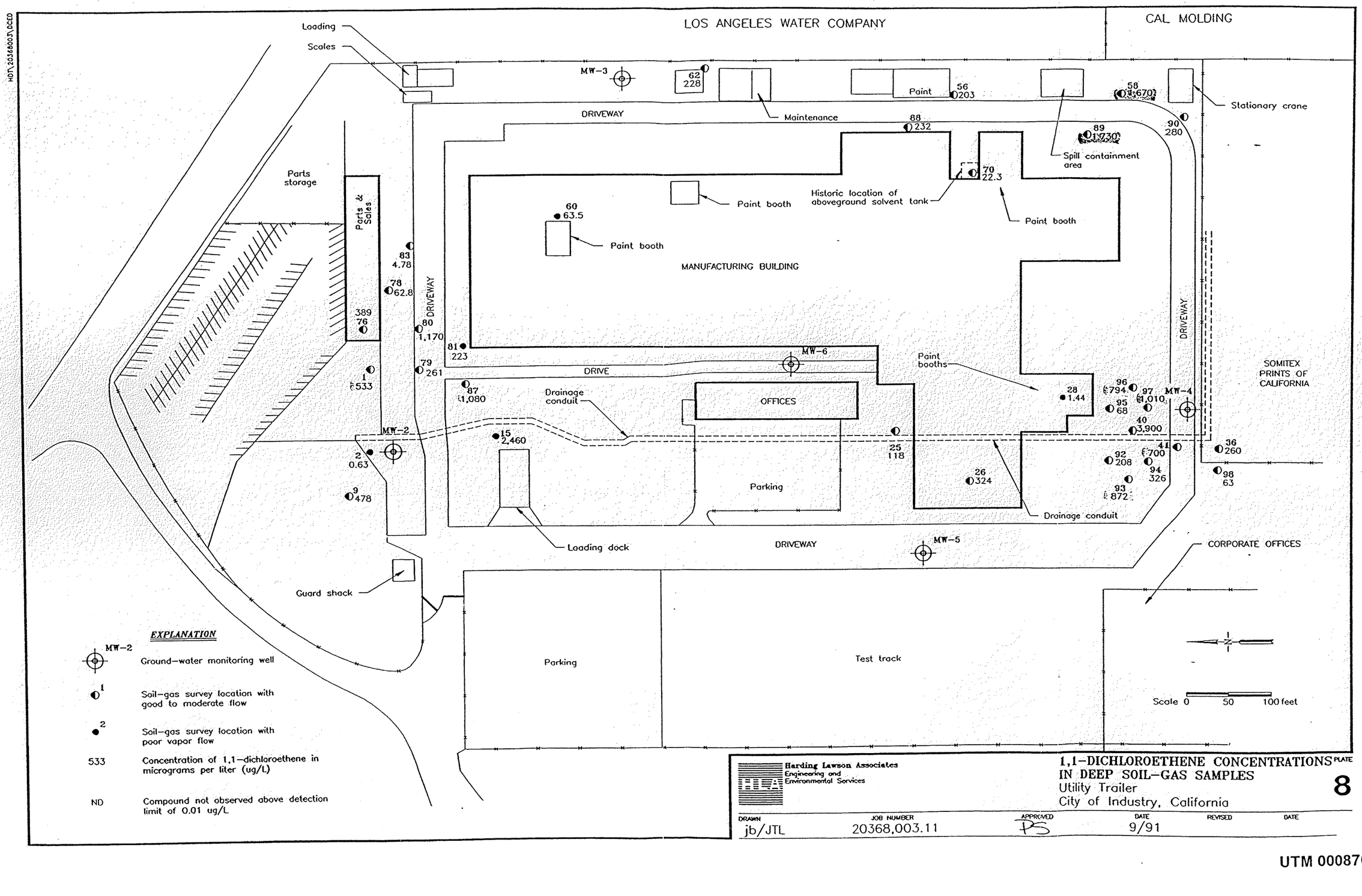
Harding Lawson Associates
Engineering and Environmental Services

TOTAL VOLATILE COMPOUNDS
IN SHALLOW SOIL-GAS SAMPLES
Utility Trailer
City of Industry, California

PLATE 7

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	PS	9/91		

UTM 000869



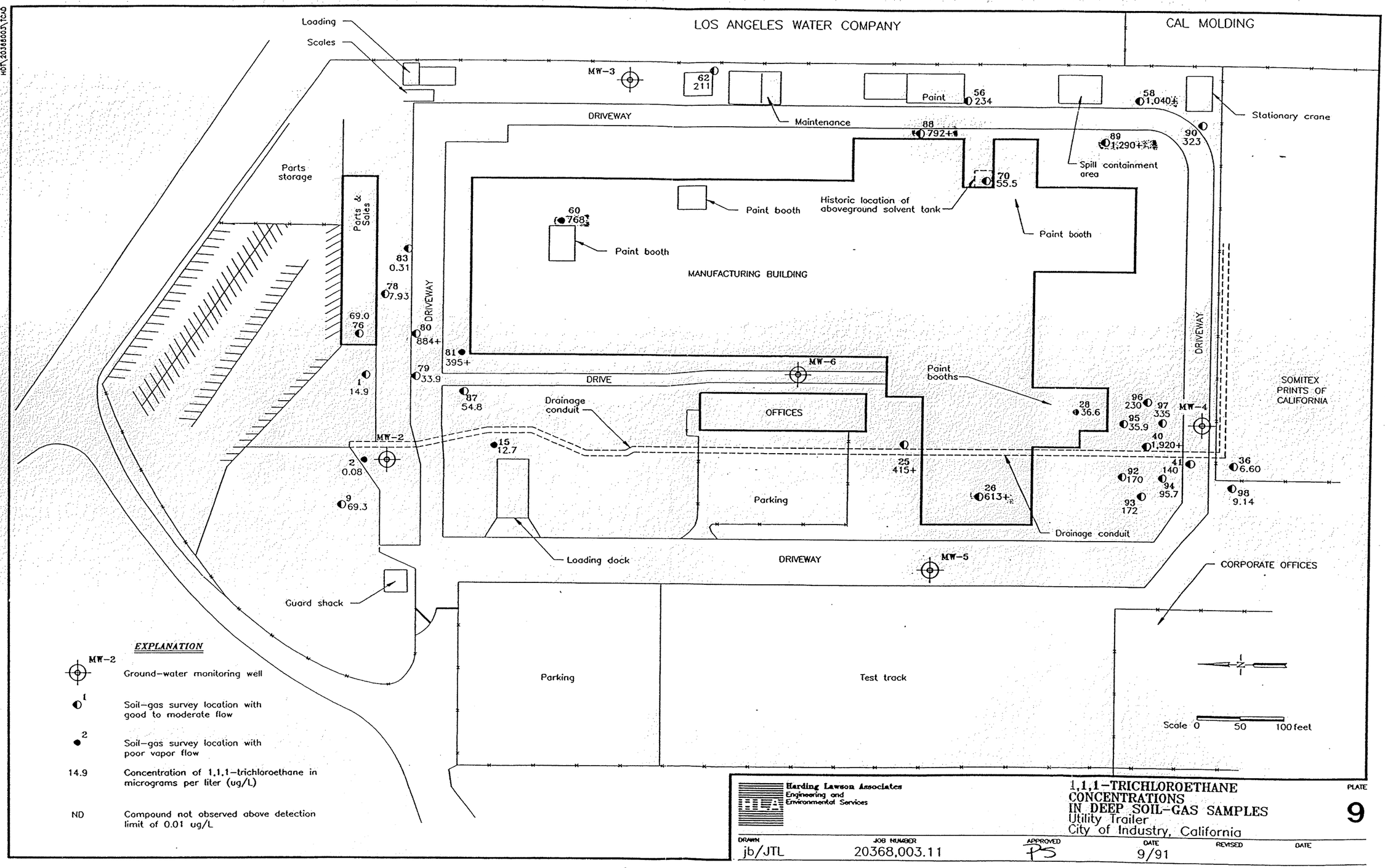
Harding Lawson Associates
Engineering and Environmental Services

1,1-DICHLOROETHENE CONCENTRATIONS IN DEEP SOIL-GAS SAMPLES
Utility Trailer
City of Industry, California

PLATE **8**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	PS	9/91		

UTM 000870



Harding Lawson Associates
Engineering and Environmental Services

1,1,1-TRICHLOROETHANE CONCENTRATIONS IN DEEP SOIL-GAS SAMPLES
Utility Trailer
City of Industry, California

PLATE 9

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	PS	9/91		

UTM 000871

H:\20368003\TCED

LOS ANGELES WATER COMPANY

CAL MOLDING

Loading

Scales

MW-3

62
243

Paint

56
85.7

58
207

Stationary crane

DRIVEWAY

Maintenance

88
457

89
186

90
50.0

Spill containment area

Parts storage

70
2.95

Historic location of aboveground solvent tank

Paint booth

Paint booth

Paint booth

60
8.36

MANUFACTURING BUILDING

Parts & Sales

83
0.20

78
6.22

95.2
76

DRIVEWAY

80
900

81
145

79
215

MW-6

DRIVE

1
63.5

87
464

Drainage conduit

Paint booths

28
0.09

96
104

97
103

95
11.1

MW-4

40
195

SOMITEX PRINTS OF CALIFORNIA

OFFICES

MW-2

15
92.5

25
6.14

41
22.5

36
6.60

92
9.65

94
8.82

2
0.15

9
11.2

Parking

26
03.57

93
11.9

98
1.44

Drainage conduit

Loading dock

DRIVEWAY

MW-5

CORPORATE OFFICES

Guard shack

Parking

Test track

Scale 0 50 100 feet

EXPLANATION

MW-2 — Ground-water monitoring well

1 — Soil-gas survey location with good to moderate flow

2 — Soil-gas survey location with poor vapor flow

63.5 — Concentration of trichloroethene in micrograms per liter (ug/L)

ND — Compound not observed above detection limit of 0.01 ug/L

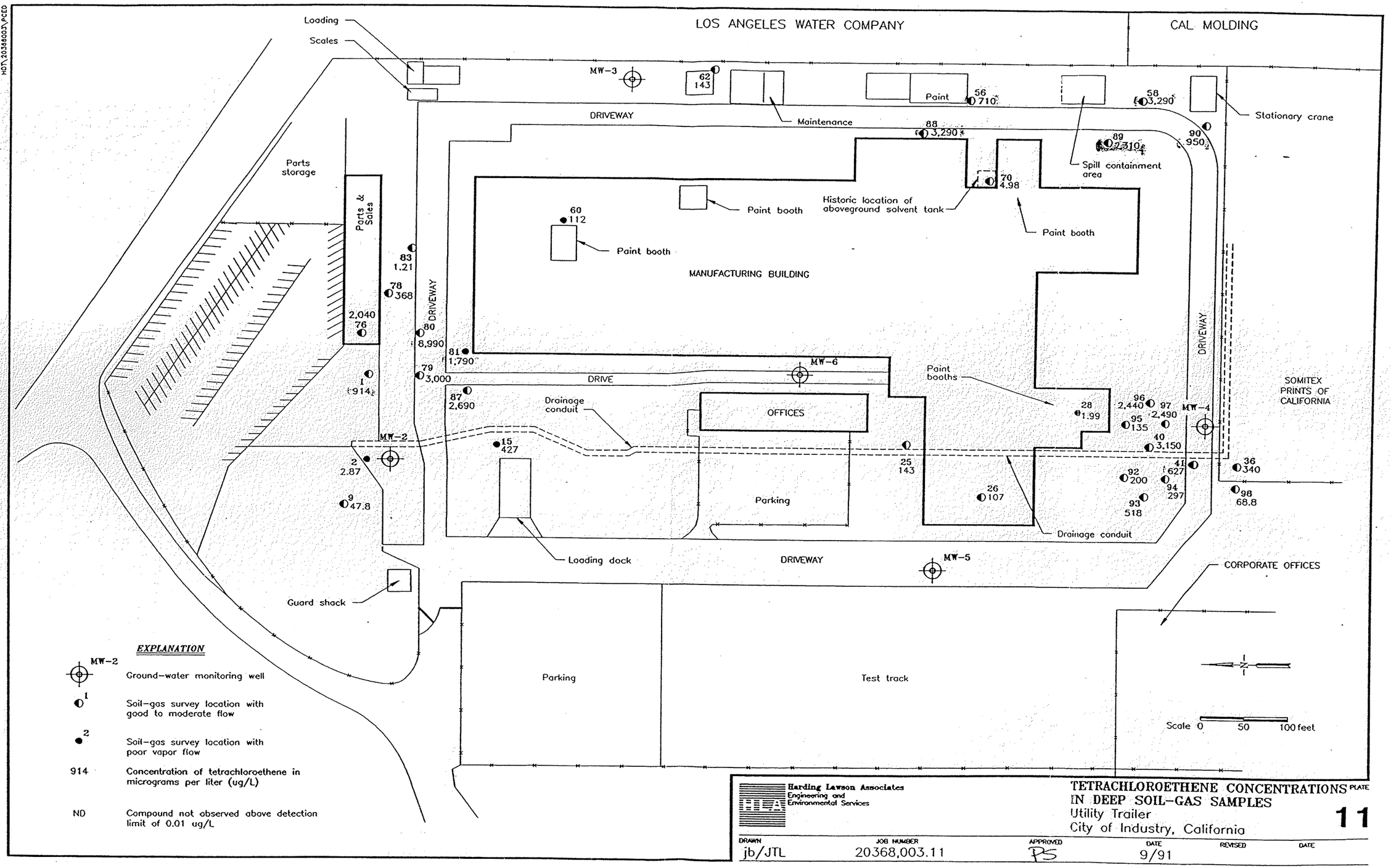
Harding Lawson Associates
Engineering and Environmental Services

TRICHLOROETHENE CONCENTRATIONS IN DEEP SOIL-GAS SAMPLES
Utility Trailer
City of Industry, California

PLATE 10

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	PS	9/91		

UTM 000872



EXPLANATION

MW-2	Ground-water monitoring well
1	Soil-gas survey location with good to moderate flow
2	Soil-gas survey location with poor vapor flow
914	Concentration of tetrachloroethene in micrograms per liter (ug/L)
ND	Compound not observed above detection limit of 0.01 ug/L

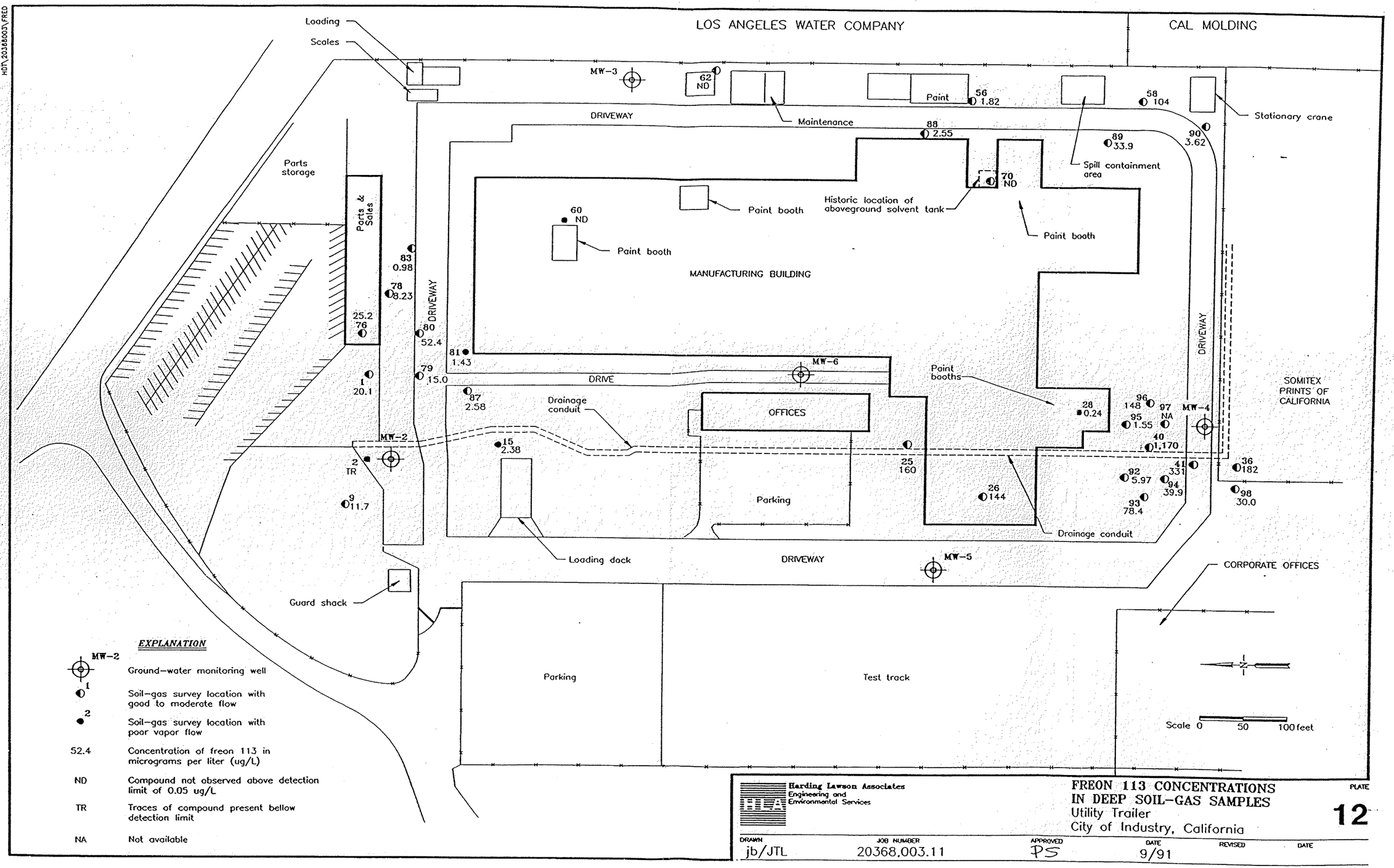
Harding Lawson Associates
Engineering and Environmental Services

TETRACHLOROETHENE CONCENTRATIONS IN DEEP SOIL-GAS SAMPLES
Utility Trailer
City of Industry, California

PLATE **11**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	RS	9/91		

UTM 000873



EXPLANATION

MW-2	Ground-water monitoring well
1	Soil-gas survey location with good to moderate flow
2	Soil-gas survey location with poor vapor flow
52.4	Concentration of freon 113 in micrograms per liter (ug/L)
ND	Compound not observed above detection limit of 0.05 ug/L
TR	Traces of compound present bellow detection limit
NA	Not available

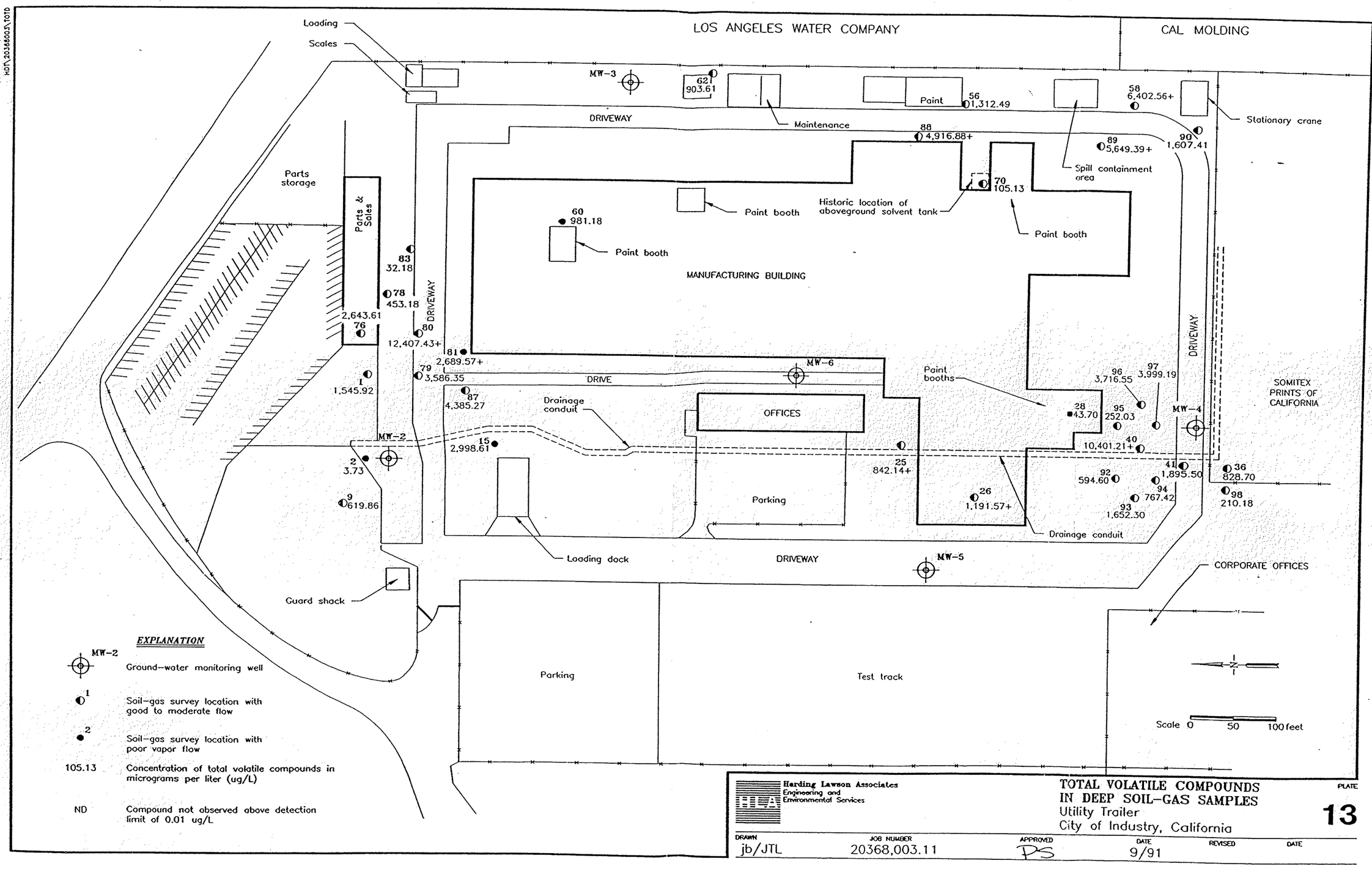
Harding Lawson Associates
Engineering and Environmental Services

FREON 113 CONCENTRATIONS IN DEEP SOIL-GAS SAMPLES
Utility Trailer
City of Industry, California

PLATE **12**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	PS	9/91		

UTM 000874



Harding Lawson Associates
Engineering and Environmental Services

TOTAL VOLATILE COMPOUNDS IN DEEP SOIL-GAS SAMPLES
Utility Trailer
City of Industry, California

PLATE **13**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED	DATE
jb/JTL	20368,003.11	PS	9/91		

UTM 000875

APPENDIX A

APPENDIX A

ATI ANALYTICAL REPORT

AnalyticalTechnologies,Inc. 2950 Airway Avenue, Suite A-1 Costa Mesa, CA 92626 (714) 435-9180 (714) 435-9184 (FAX)

ATI I.D. : 91-200-001

August 7, 1991

Harding Lawson Associates
15621 Redhill Avenue
Suite 100
Tustin, CA 92680

Project Name: Utility Trailer
Project # : 20368,003.11

Attention: Peg Seracuse

Analytical Technologies, Inc. has received the following sample(s):

Date Received	Quantity	Matrix
July 19, 1991	1	Air

The sample(s) were analyzed with EPA methodology or equivalent methods as specified in the enclosed analytical schedule. The symbol for "less than" indicates a value below the reportable detection limit. Please see the attached sheet for the sample cross reference table.

The results of these analyses and the quality control data are enclosed. If you have any questions please do not hesitate to call.

Bill Wuhrman
Chemist

Leon Levan
Laboratory Manager

Analytical Technologies, Inc.

SAMPLE CROSS REFERENCE

Client : Harding Lawson Associates
Project# : 20368,003.11
Project Name : Utility Trailer

Report Date: August 7, 1991
ATI I.D. # : 91-200-001

ATI #	Client Description	Matrix	Date Collected
1	SV-36	Air	17-JUL-91

—TOTALS—

Matrix	# Samples
Air	1

Analytical**Technologies,**Inc.

ANALYTICAL SCHEDULE

Client : Harding Lawson Associates
Project # : 20368,003.11
Project Name : Utility Trailer

ATI I.D. # : 91-200-001

Analysis	Technique/Description
8240 TARGET COMPOUND LIST	GC/MS

Analytical Technologies, Inc.

	VOLATILE ORGANIC ANALYSIS						
CLIENT NAME:	HARDING LAWSON		CLIENT SAMPLE ID:		SV-36		
PROJECT #:	20368003.11		ATI ASSESSION #:		91200001		
PROJECT NAME:	UTILITY TRAILER		ATI ID#:		-1		
MATRIX:	AIR/CANISTER		DATE SAMPLED:		7/17/91		
SAMPLE VOLUME:	0.1	Liter	DATE RECEIVED:		7/19/91		
INITIAL PRESSURE:	1.00	psia	DATE ANALYZED:		7/31/91		
FINAL PRESSURE:	1.00	psia	METHOD:		EPA TO14		
PRES. DILUTION :	1.00		ANALYTES:		8240 LIST		
DILUTION FACTOR:	10						
CAS NO	COMPOUND	FW(G)	QUANT RES.		CONCENTRATION UNITS		
			ng		ug/m3		ppb(v)
74-87-3	Chloromethane	50.49	5	ND <	500	ND <	242
74-83-9	Bromomethane	94.95	5	ND <	500	ND <	129
75-01-04	Vinyl Chloride	62.5	5	ND <	500	ND <	196
75-00-3	Chloroethane	64.52	5	ND <	500	ND <	189
75-69-4	Trichlorofluoromethane	137.37	5	ND <	500	ND <	89
75-35-4	1,1-Dichloroethene	96.94	92.6		9260		2.34E+03
75-09-2	Methylene Chloride	84.93	5	ND <	500	ND <	144
75-15-0	Carbon Disulfide	76.14	5	ND <	500	ND <	161
76-13-1	Trichlorotrifluoroethane	187.38	61		6100		796
108-05-4	Vinyl Acetate	86.09	10	ND <	1000	ND <	284
75-35-3	1,1-Dichloroethane	98.96	5	ND <	500	ND <	124
	trans-1,2-Dichloroethene	96.94	5	ND <	500	ND <	126
156-59-2	cis-1,2-Dichloroethene	96.94	5	ND <	500	ND <	126
67-66-3	Chloroform	119.38	5	ND <	500	ND <	102
71-55-6	1,1,1-Trichloroethane	133.41	7.9		790		145
71-43-2	Benzene	78.11	5	ND <	500	ND <	157
56-23-5	Carbon Tetrachloride	153.82	5	ND <	500	ND <	79
107-06-2	1,2-Dichloroethane	98.96	5	ND <	500	ND <	124
79-01-6	Trichloroethene	131.39	5	ND <	500	ND <	93
78-87-5	1,2-Dichloropropane	112.99	5	ND <	500	ND <	108
75-27-4	Bromodichloromethane	163.83	5	ND <	500	ND <	75
10061-02-6	trans-1,3-Dichloropropene	110.97	5	ND <	500	ND <	110
10061-01-5	cis-1,3-Dichloropropene	110.97	5	ND <	500	ND <	110
79-00-5	1,1-2-Trichloroethane	133.41	5	ND <	500	ND <	92
108-88-3	Toluene	92.14	5	ND <	500	ND <	133
124-48-1	Dibromochloromethane	208.29	5	ND <	500	ND <	59
127-18-4	Tetrachloroethene	165.83	124.9		12490		1.84E+03
108-90-7	Chlorobenzene	112.56	5	ND <	500	ND <	109
100-41-4	Ethylbenzene	106.17	5	ND <	500	ND <	115
75-25-2	Bromoform	252.72	5	ND <	500	ND <	48
100-42-5	Styrene	104.15	5	ND <	500	ND <	117
1330-20-7	Total Xylenes	106.17	5	ND <	500	ND <	115
79-34-5	1,1,2,2-Tetrachloroethane	167.85	5	ND <	500	ND <	73
67-64-1	Acetone	58.08	10	ND <	1000	ND <	421
78-93-3	2-Butanone	72.11	10	ND <	1000	ND <	339
108-10-1	4-Methyl-2-pentanone	100.16	10	ND <	1000	ND <	244
591-78-6	2-Hexanone	100.16	10	ND <	1000	ND <	244

Analytical Technologies, Inc.

	VOLATILE ORGANIC ANALYSIS						
CLIENT NAME:	HARDING LAWSON		CLIENT SAMPLE ID:				
PROJECT #:	20368003.11		ATI ASSESSION #:		91200001		
PROJECT NAME:	UTILITY TRAILER		ATI ID#:		METHOD BLANK		
MATRIX:	AIR/CANISTER		DATE SAMPLED:		N/A		
SAMPLE VOLUME:	0.5	Liter	DATE RECEIVED:		N/A		
INITIAL PRESSURE:	1.00	psia	DATE ANALYZED:		7/31/91		
FINAL PRESSURE:	1.00	psia	METHOD:		EPA TO14		
PRES. DILUTION :	1.00		ANALYTES:		8240 LIST		
DILUTION FACTOR:	1						
CAS NO	COMPOUND	FW(G)	QUANT RES.		CONCENTRATION UNITS		
			ng		ug/m3		ppb(v)
74-87-3	Chloromethane	50.49	5	ND <	10	ND <	4.8
74-83-9	Bromomethane	94.95	5.9	TR	12	TR	3.0
75-01-04	Vinyl Chloride	62.5	5	ND <	10	ND <	3.9
75-00-3	Chloroethane	64.52	5	ND <	10	ND <	3.8
75-69-4	Trichlorofluoromethane	137.37	5	ND <	10	ND <	1.8
75-35-4	1,1-Dichloroethene	96.94	5	ND <	10	ND <	2.5
75-09-2	Methylene Chloride	84.93	5	ND <	10	ND <	2.9
75-15-0	Carbon Disulfide	76.14	5	ND <	10	ND <	3.2
76-13-1	Trichlorotrifluoroethane	187.38	5	ND <	10	ND <	1.3
108-05-4	Vinyl Acetate	86.09	10	ND <	20	ND <	5.7
75-35-3	1,1-Dichloroethane	98.96	5	ND <	10	ND <	2.5
	trans-1,2-Dichloroethene	96.94	5	ND <	10	ND <	2.5
156-59-2	cis-1,2-Dichloroethene	96.94	5	ND <	10	ND <	2.5
67-66-3	Chloroform	119.38	5	ND <	10	ND <	2.0
71-55-6	1,1,1-Trichloroethane	133.41	5	ND <	10	ND <	1.8
71-43-2	Benzene	78.11	5	ND <	10	ND <	3.1
56-23-5	Carbon Tetrachloride	153.82	5	ND <	10	ND <	1.6
107-06-2	1,2-Dichloroethane	98.96	5	ND <	10	ND <	2.5
79-01-6	Trichloroethene	131.39	5	ND <	10	ND <	1.9
78-87-5	1,2-Dichloropropane	112.99	5	ND <	10	ND <	2.2
75-27-4	Bromodichloromethane	163.83	5	ND <	10	ND <	1.5
10061-02-6	trans-1,3-Dichloropropene	110.97	5	ND <	10	ND <	2.2
10061-01-5	cis-1,3-Dichloropropene	110.97	5	ND <	10	ND <	2.2
79-00-5	1,1-2-Trichloroethane	133.41	5	ND <	10	ND <	1.8
108-88-3	Toluene	92.14	5	ND <	10	ND <	2.7
124-48-1	Dibromochloromethane	208.29	5	ND <	10	ND <	1.2
127-18-4	Tetrachloroethene	165.83	5	ND <	10	ND <	1.5
108-90-7	Chlorobenzene	112.56	5	ND <	10	ND <	2.2
100-41-4	Ethylbenzene	106.17	5	ND <	10	ND <	2.3
75-25-2	Bromoform	252.72	5	ND <	10	ND <	1.0
100-42-5	Styrene	104.15	5	ND <	10	ND <	2.3
1330-20-7	Total Xylenes	106.17	4.7	TR	9	TR	2.2
79-34-5	1,1,2,2-Tetrachloroethane	167.85	5	ND <	10	ND <	1.5
67-64-1	Acetone	58.08	10	ND <	20	ND <	8.4
78-93-3	2-Butanone	72.11	10	ND <	20	ND <	6.8
108-10-1	4-Methyl-2-pentanone	100.16	10	ND <	20	ND <	4.9
591-78-6	2-Hexanone	100.16	10	ND <	20	ND <	4.9

Harding Lawson Associates
15621 Redhill Avenue, Suite 100
Tustin, California 92680
714/259-7992 — 213/617-7232
Telecopy: 714/259-1378

CHAIN OF CUSTODY FORM

Lab: HTT 9/2000.01

Samplers: Peg Sinacuse

Job Number: 20365.003.11

Name/Location: Utility Trailer

Project Manager: Peg Sinacuse

Recorder: Peg Sinacuse (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	L/P	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	ANALYSIS REQUESTED: EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH
G2					X							91	07	17		SV-36		X				

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature) Peg Sinacuse	RECEIVED BY: (Signature) Kathryn McKate	DATE/TIME 7-19 5:15
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
DISPATCHED BY: (Signature) DATE/TIME	RECEIVED FOR LAB BY (Signature)	DATE/TIME
METHOD OF SHIPMENT		

Laboratory Copy White — Project Office Copy Yellow — Field or Office Copy Pink

UTM 000883

6533

APPENDIX B

APPENDIX B

OTI SOIL-VAPOR STUDY RESULTS

SOIL VAPOR STUDY RESULTS

17295 E. Railroad
City of Industry, California

Project #: OTI-20368.003.11

Submitted By:

Optimal Technology Inc.

August 5, 1991

OPTIMAL TECHNOLOGY INC.
Specializing in Environmental Field Services

August 5, 1991
20368,003.11

Ms. Peggy Seracus
Harding Lawson Associates
15621 Redhill Ave., Suite 100
Tustin, CA 92680

Dear Ms. Seracus:

This letter presents the results of the soil vapor investigation conducted by Optimal Technology Inc. (OTI) for Harding Lawson Associates (HLA) at 17295 E. Railroad in City of Industry, CA. on July 15 through July 25, 1991.

OTI was contracted to perform a shallow soil vapor study at this site to screen for both halogenated solvents and aromatic petroleum hydrocarbon contamination (BTEX) known to exist in the subsurface soil and groundwater. The primary objective of this study was to aid HLA in locating any possible point sources of the existing contamination. The study concentrated on historical areas of concern and included a drainage conduit which runs from south to north across the property (See Figure 1).

Sampling Method

Sampling was performed by hydraulically pushing 1/2" galvanized steel soil vapor probes to depths ranging from 5 to 15 feet below ground surface. An electric rotary hammer drill was used to drill a one inch hole through the overlying asphalt to allow probe placement. The same electric hammer drill was used to push probes in areas of resistance during placement.

At each sampling location an electric vacuum pump (drawing 1.5 liters/min of soil vapor) was attached to the probe and purged for 60 seconds prior to sample collection (optimal purge time was determined by a 3 point pump test at 30, 60 and 120 seconds). Samples were obtained in Hamilton gas-tight syringes by puncturing silicone tubing which connects the sampling probe and the vacuum pump. New silicone tubing was used at each sampling point to prevent cross contamination. Samples were immediately injected into the gas chromatograph after collection. New sampling probes were used after each sample which contained contamination. Each new probe was blanked by collecting a sample through the entire sampling system. If contamination was detected in these blanks, corrective actions were taken to try to eliminate the source and blanks were re-analyzed. If attempts to eliminate the source of contamination were unsuccessful, the quantities were evaluated as to their effects on the actual results.

All analyses were performed on a laboratory grade Hewlett Packard model 5890 Series II gas chromatograph equipped with both a Photo Ionization Detector (PID) and an Electron Capture Detector (ECD). Restec wide bore capillary columns using hydrogen and nitrogen as the carrier gases were used to perform all analysis. All results were collected on a 80386 based personal computer utilizing Hewlett Packard's PC based chromatographic data collection and handling system.

6430 Via Real, Suite # 6 • Carpinteria, CA 93013 • Tele: (805) 684-6226 • Fax: (805) 684-1061

Quality Assurance

Calibrations

The gas chromatograph was calibrated at the beginning of each work day by preparing a 0.025 ng/ul solvent mixture and 0.125 ng/ul BTEX air solutions in 40 ml air tight EPA vials. A three point calibration consisting of 20, 50 and 100 ul injections of these solutions were performed prior to sampling (due to solvent contamination above the electronic scale of the ECD detector, the PID was calibrated to the solvent mixture after the first day). A calibration factor based on the best fit line forced through the origin was calculated using the HP data system. If the r^2 factor generated from this line was not greater than 0.980, an additional three point calibration was performed. Detection limits were calculated to be 0.1 ug/L for BTEX and 0.01 ug/L for the halogenated solvents.

Continuing Calibrations

A 1-point continuing calibration was run after every 10 samples analyzed and compared to that days 3-point calibration. This assured that the instrument response was consistent throughout the day. These continuing calibrations must agree within 20% of that days 3-point calibration or an additional 3-point calibration would be performed and the new calibration factor used for subsequent samples.

Sample Duplicates

Duplicate analyses were run a minimum of once every 10 samples collected to evaluate the reproducibility of both the sampling system and the instrument. If the difference between samples collected varied more than 20%, the entire system was evaluated and the cause of the inconsistency was determined and corrected, if possible.

Equipment Blanks

Blanks were run on each new probe prior to installation. New probes were used following each sample with positive results. The blanks were collected by hooking up the entire sampling system above ground and collecting an air sample. These blanks checked the probes, fittings, septum, syringe, GC column, GC detector and the ambient air. If contamination was found to exist, the procedure was repeated until the source was determined and corrected, if possible. The quantities of any contaminants found in the blanks were reported on the Soil Gas Quality Assurance table and were not subtracted from the results given in the Soil Gas Results table. 111-TCE, TCE and PCE levels at this site were extremely high and could not be completely cleaned from the ECD detector while in the field. For samples with high contamination, the PID detector was used to quantitate the results.

Method Blanks using hydrocarbon free (Zero Grade) air were run approximately once every 10 samples collected.

Subsurface Conditions

During probe emplacement and removal, observed soil conditions ranged from clays to medium grain sands. The clays encountered were low porosity and permeability offering poor vapor flows during sampling with high porosity sands being encountered in 69 of the 129 samples collected at the site. The daily run logs included with this report indicate the air flow rates (poor, moderate or good) encountered at each sampling location under the comments column. Groundwater depths at this facility were estimated to be between 25 and 30 feet from ground surface.

Scope of Work

A total of 129 samples were collected from 98 sampling locations at the facility (multiple depth samples were collected at 31 locations). Sampling depths ranged from 5 to 6 feet for shallow samples and 13 to 15 feet for deeper samples. A three point pump test was conducted at the initial sampling point (SG-01) to determine the optimal purge time. The results of this pump test indicated that the samples collected after 60 seconds were higher than the samples collected after 30 seconds and approximately the same as after 120 seconds. Based on these results, a 60 second purge was used on all subsequent samples. All the samples collected were analyzed on-site for aromatic petroleum hydrocarbons (BTEX) with a Photo Ionization Detector and halogenated solvents with an Electron Capture Detector.

Of the 98 locations sampled, all 93 required drilling through either asphalt or concrete. A total of 7 samples were collected from inside the main manufacturing building. All the locations were backfilled with granular bentonite and patched with asphalt or concrete following sampling.

Sample identification, sampling depths and injection amounts are presented on the daily field log attached. The file names presented in the daily logs identify the correlating chromatograms.

Results

Of the 129 samples collected, greater than 90% had detectable levels of 1,1-Dichloroethene, 1,1,1-Trichloroethane, Trichloroethene and Tetrachloroethene. In addition, over 50% of the samples contained 1,1-Dichloroethane and an unknown compound. We are presently waiting for the laboratory results to positively identify the unknown contaminant (possibly Freon 11). Other compounds detected at in a small percent of the samples analyzed include: cis-1,2-Dichloroethene and Chloroform. The highest levels of 11-DCE and 111-TCA were detected in sample SG-40-C at 13.5 feet and were 3,900 and 1,920+ ug/L respectfully. The highest levels of TCE and PCE were detected in SG-80-B at 14 feet and were 900 and 8,990 ug/L respectfully. Concentrations exceeding 1,000 ug/L of 11-DCE, 111-TCA and PCE were observed in numerous locations (see Results Table attached).

Of the 31 locations sampled at multiple depths, 13 had higher concentrations at the shallow depth indicating possible shallow contamination.

Because 11-DCE, 111-TCA, TCE and PCE levels were above the electronic scale of the ECD detector, the PID detector was calibrated for the double bonded solvents and used to quantitate compounds above the ECD detectors range. Since the PID detector can not detect 11-DCA or 111-TCA, the concentrations reported with a plus (+) symbol in the results table mean that the values are actually higher than reported. (Note: A FID detector was used in place of the PID detector on July 19, 1991 due to a mechanical problem with the equipment.)

Detection of 11-DCA on July 15th was not possible (low levels, small volume injections, poor ECD sensitivity for two chlorine compounds and the inability to detect with the PID accounts for this detection problem).

With the exception of 111-TCA in blanks collected at or near paint booths, the concentrations of contaminants found in the blanks were insignificant when compared to the actual results. Concentrations found in the blanks, in most cases, were less than 0.05 for TCE and PCE, less than 0.1 for 111-TCA and less than 1.0 for 11-DCE. Blank concentrations were not subtracted from the analytical results reported.

A complete table of all analytical results for compounds detected at this location is attached.

Conclusions

From the information collected during the soil vapor study, it appears that there are five (5) areas of relatively high concentration (>1,000 ug/L) at the facility. These areas were located near SG-40 (southwest corner of drainage conduit), SG-58 (southeast corner of property), SG-88 (east side near paint storage), SG-60 (inside manufacturing building near paint booth) and SG-80 (along northern driveway between sales and manufacturing buildings). The highest levels of TCE and PCE were at SG-80 while the highest levels of 11-DCE and 111-TCA were at SG-40. However, all the areas described above had relatively high levels of the four major contaminants identified at this site.

With the exception of the area surrounding SG-58, the other four areas had higher levels of contamination in the shallow sample as opposed to the deeper sample. Samples collected along the drainage conduit had relatively low levels of contaminants with the exception of the southwest corner near the Utility Trailer - Somitex property line. The low level reading along the conduit may be influenced by the low porosity clays encountered in the majority of the samples along the drainage conduit.

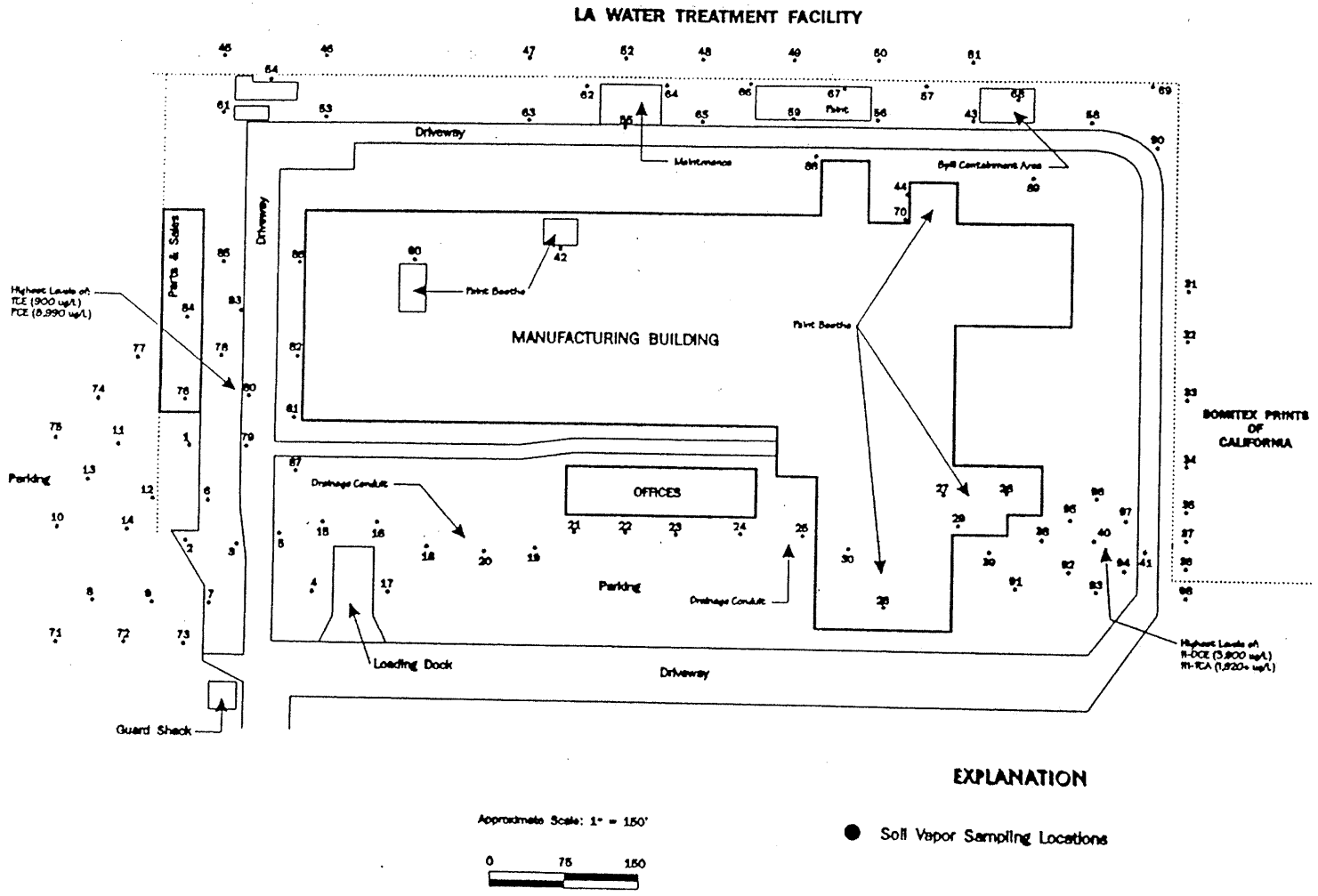
Disclaimer

All conclusions presented in this letter are based solely on the information collected by the soil gas survey conducted by OTI. Soil gas testing is only a subsurface screening tool and does not represent actual contaminant concentrations in either the soil and/or groundwater.

We enjoyed working with you on this project and look forward to future projects. If you have any questions please contact me at (805) 684-6226.

Sincerely
Optimal Technology Inc.

Timothy L. Theisen
President



OPTIMAL TECHNOLOGY INC. 6430 Via Real, Suite 6 Carpinteria, CA 93013 *Tel: (805) 684-6226 • Fax: (805) 684-1061*	**DATE:** July 26, 1991 **COMPANY:** Harding Lawson Assoc.	**PROJECT NO.:** 20368.003.11	**APPROVED BY:** T.L.T.	**FIGURE** **1**
		TITLE: UTILITY TRAILER - Soil Gas Sampling Locations		

UTM 000892

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: 07/15/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (uL)	COMMENTS
Method Blank	EHL/PHL-01	N/A	500/1000	Zero Grade Air Method Blank
20 ul. Standard	EHL/PHL-02	N/A	20	
50 ul. Standard	EHL/PHL-03	N/A	50	
100 ul. Standard	EHL/PHL-04	N/A	100	
Field Blank	EHL/PHL-05	N/A	500/1000	Outside Air
EB -01	EHL/PHL-06	N/A	500/1000	Small TCA and PCE
SG -01-A	EHL/PHL-07	5	500/1000	Total of 7 Peaks
Field Blank	EHL/PHL-08	N/A	500/1000	Equipment Blank - Outside Air, Ok
Method Blank	EHL/PHL-09	N/A	500/1000	Zero Grade Air Method Blank
SG-01-B	EHL/PHL-10	5	50/500	Good Flow
SG-01-C	EHL/PHL-11	5	50/500	
EB-01-D	EHL/PHL-12	N/A	500/1000	Equipment Blank - Ok
SG-01-D	EHL/PHL-13	13	50/500	Good Flow
EB-02	EHL/PHL-14	N/A	500/1000	Equipment Blank - Ok
[illegible]-A	EHL/PHL-15	5	50/500	Poor Flow
SG-02-B	EHL/PHL-16	13	250/1000	Poor Flow, Clay Layer
EB-03	EHL/PHL-17	N/A	500/1000	Equipment Blank - Ok
SG-03	EHL/PHL-18	5	250/1000	Poor Flow
EB-04	EHL/PHL-19	N/A	500/1000	Equipment Blank - Ok
SG-04	EHL/PHL-20	5	100/500	Good Flow
EB-05	EHL/PHL-21	N/A	500/1000	Equipment Blank - Ok
SG-05	EHL/PHL-22	5	250/500	Poor Flow
EB-06	EHL/PHL-23	N/A	500/1000	Equipment Blank - Ok
SG-06	EHL/PHL-24	5	250/1000	Poor Flow
EB-07	EHL/PHL-25	N/A	500/1000	Equipment Blank - Ok
SG-07	EHL/PHL-26	6	500/1000	Poor Flow
EB-08	EHL/PHL-27	N/A	500/1000	Equipment Blank - Ok
SG-08	EHL/PHL-28	6	100/500	Good Flow
EB-09-A	EHL/PHL-29	N/A	500/1000	Equipment Blank - Ok
SG-09-A	EHL/PHL-30	6	100/500	Good Flow
EB-09-B	EHL/PHL-31	N/A	500/1000	Equipment Blank - Ok
SG-09-B	EHL/PHL-32	13	100/1000	Good Flow
EB-10	EHL/PHL-33	N/A	500/1000	Equipment Blank - Ok
SG-10	EHL/PHL-34	6	500/1000	Poor flow
EB-11	EHL/PHL-35	N/A	500/1000	Equipment Blank - Ok
SG-11	EHL/PHL-36	6	100/500	Good Flow
[illegible]-Dup.	EHL/PHL-37	6	100/500	Duplicate Analysis
[illegible] Cal.	EHL/PHL-38	N/A	50	Continuing Calibration
Method Blank	EHL/PHL-39	N/A	500/1000	Zero Grade Air Method Blank
EB-12	EHL/PHL-40	N/A	500/1000	Equipment Blank - Ok

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: Jul/15/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (ul)	COMMENTS
SG-12	EHL/PHL-41	6	100/500	Good Flow
EB-13	EHL/PHL-42	N/A	500/1000	Equipment Blank - Ok
SG-13	EHL/PHL-43	6	100/500	Moderate Flow
EB-14	EHL/PHL-44	N/A	500/1000	Equipment Blank - Ok
SG-14	EHL/PHL-45	6	250/1000	Poor Flow
EB-15	EHL/PHL-46	N/A	500/1000	Equipment Blank - Ok
SG-15-A	EHL/PHL-47	6	250/1000	Poor Flow
SG-15-B	EHL/PHL-48	16	250/1000	

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: 07/16/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (uL)	COMMENTS
Method Blank	EHL/PHL-49	N/A	500/1000	Zero Grade Air Method Blank
20 ul. Standard	EHL/PHL-50	N/A	20/100	1 ul in 40 ml of 1000 ng/ul
50 ul. Standard	EHL/PHL-51	N/A	50/250	
100 ul. Standard	EHL/PHL-52	N/A	100/500	
Field Blank	EHL/PHL-53	N/A	500/1000	Ambient Air Field Blank
EB-16	EHL/PHL-54	N/A	500/1000	Equipment Blank - Slight Contamination
SG-16	EHL/PHL-55	6	250/1000	Poor Flow
EB-17	EHL/PHL-56	N/A	500/1000	Equipment Blank - Ok
SG-17-A	EHL/PHL-57	6	250/1000	Poor Flow - 1/2 liter per minute
SG-17-B	EHL/PHL-58	6	250/1000	Poor Flow - 1/2 liter per minute
EB-18	EHL/PHL-59	N/A	500/1000	Equipment Blank - Ok
SG-18	EHL/PHL-60	6	250/1000	Poor Flow
EB-19	EHL/PHL-61	N/A	500/1000	Equipment Blank - Ok
SG-19-A	EHL/PHL-62	6	250/1000	Poor Flow
-B	EHL/PHL-63	6	250/1000	Poor Flow
EB-20	EHL/PHL-64	N/A	500/1000	Equipment Blank - Ok
SG-20	EHL/PHL-65	6	250/1000	Poor Flow - 1.5 liter per minute
EB-21	EHL/PHL-66	N/A	500/1000	Equipment Blank - Ok
SG-21-A	EHL/PHL-67	6	250/1000	
SG-21-B	EHL/PHL-68	6	250/1000	Tried other pump
EB-22	EHL/PHL-69	N/A	500/1000	Equipment Blank - Ok
SG-22	EHL/PHL-70	6	250/1000	Poor Flow
EB-23	EHL/PHL-71	N/A	500/1000	Equipment Blank - Ok
SG-23	EHL/PHL-72	6	250/1000	Poor Blank
EB-24	EHL/PHL-73	N/A	500/1000	Equipment Blank - Ok
SG-24	EHL/PHL-74	6	250/1000	Poor Flow
EB-25	EHL/PHL-75	N/A	500/1000	Equipment Blank - Ok
SG-25-A	EHL/PHL-76	6	250/1000	Poor Flow
SG-25-B	EHL/PHL-77	6	250/1000	Pump OTI method
SG-25-Dup.	EHL/PHL-78	6	250/1000	Pump OTI method
EB-25-C	EHL/PHL-79	N/A	500/1000	Equipment Blank - Ok
SG-25-C	EHL/PHL-80	13	100/1000	Good Flow
Cont. Cal.	EHL/PHL-81	N/A	50/250	Continuing Calibration
Field Blank	EHL/PHL-82	N/A	500/1000	Field Blank
EB-26-A	EHL/PHL-83	N/A	500/1000	Run over Blank
SG-26-A	EHL/PHL-83	6	250/1000	Moderate Flow - In Building
E B	EHL/PHL-84	N/A	500/1000	Equipment Blank - Ok
-B	EHL/PHL-85	13	50/1000	Good Flow - In Building, painting is done
EB-27	EHL/PHL-86	N/A	500/1000	Equipment Blank - High TCA Cont.
Method Blank	EHL/PHL-87	N/A	500/1000	Zero Grade Air Method Blank - High TCA

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: 07/16/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (uL)	COMMENTS
SG-27	EHL/PHL-88	6	250/1000	
EB-28	EHL/PHL-89	N/A	500/1000	Equipment Blank - TCA Contamination
SG-28	EHL/PHL-90	6	100/1000	Moderate Flow - Inside Building,Paint Area
EB-29	EHL/PHL-91	N/A	500/1000	Equipment Blank - High TCA Cont.
SG-29	EHL/PHL-92	6	250/1000	Poor Flow, Inside Paint Area
EB-30	EHL/PHL-93	N/A	500/1000	Equipment Blank - High TCA Cont.
SG-30	EHL/PHL-94	6	250/1000	Poor Flow

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: Jul/17/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (ul)	COMMENTS
Method Blank	EHL/PHL-95	N/A	500/1000	Zero Grade Air Method Blank
20 ul. Standard	EHL/PHL-96	N/A	20/100	
50 ul. Standard	EHL/PHL-97	N/A	50/250	
100 ul. Standard	EHL/PHL-98	N/A	100/250	
Field Blank	EHL/PHL-99	N/A	100/500	Field Blank - Ambient Air
EB-31	EHL/PHL-100	N/A	500/1000	Equipment Blank - Ok
SG-31	EHL/PHL-101	6	250/1000	Poor Flow - Broken Water lines, very wet
EB-32	EHL/PHL-102	N/A	500/1000	Equipment Blank - Ok
SG-32	EHL/PHL-103	6	250/1000	Poor Flow
EB-33	EHL/PHL-104	N/A	500/1000	Equipment Blank - Ok
SG-33	EHL/PHL-105	6	250/1000	Poor Flow
EB-34	EHL/PHL-106	N/A	500/1000	Equipment Blank - Ok
SG-34	EHL/PHL-107	6	250/1000	Poor Flow
EB-35	EHL/PHL-108	N/A	500/1000	Equipment Blank - Ok
[illegible]	EHL/PHL-109	6	250/1000	Poor Flow
EB-36-A	EHL/PHL-110	N/A	500/1000	Equipment Blank - Ok
SG-36-A	EHL/PHL-111	6	100/1000	Good Flow
EB-36-B	EHL/PHL-112	N/A	500/1000	Equipment Blank - Ok
SG-36-B	EHL/PHL-113	13	50/1000	Good Flow
EB-37	EHL/PHL-114	N/A	500/1000	Equipment Blank - Ok
SG-37	EHL/PHL-115	6	250/1000	Good Flow
EB-38	EHL/PHL-116	N/A	500/1000	Equipment Blank - TCA Contamination
SG-38	EHL/PHL-117	6	250/1000	Poor Flow
EB-39	EHL/PHL-118	N/A	500/1000	Equipment Blank - High TCA, near paint
SG-39	EHL/PHL-119	6	250/1000	Poor Flow
EB-40	EHL/PHL-120	N/A	500/1000	Equipment Blank - Ok
SG-40-A	EHL/PHL-121	6	100/1000	Good Flow - All contaminants off scale
SG-40-B	EHL/PHL-122	6	20/1000	
Field Blank	EHL/PHL-123	N/A	500/1000	Field Blank - High PCE reading
EB-41-A	EHL/PHL-124	N/A	500/1000	Equipment Blank - Ok
SG-41-A	EHL/PHL-125	6	20/1000	Good Flow
SG-41-A-Dup.	EHL/PHL-126	6	20/1000	Good Flow, Duplicate Analysis
EB-41-B	EHL/PHL-127	N/A	500/1000	Equipment Blank - Ok
SG-41-B	EHL/PHL-128	15	20/1000	Good Flow
Cont. Calib.	EHL/PHL-129	N/A	50/250	Continuing Calibration
EB-40-C	EHL/PHL-130	N/A	500/1000	Equipment Blank - Ok
[illegible]0-C	EHL/PHL-131	13.5	20/1000	Good Flow
[illegible]-B	EHL/PHL-132	N/A	500/1000	Equipment Blank - Inside painting area
SG-28-B	EHL/PHL-133	13	250/1000	Poor Flow
EB-42	EHL/PHL-134	N/A	500/1000	Equipment Blank - High TCA, outside bldg.

Optimal Technology Inc.

Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: 07/17/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (uL)	COMMENTS
SG-42	EHL/PHL-135	6	250/1000	Poor Flow
EB-43	EHL/PHL-136	N/A	500/1000	Equipment Blank - Ok
SG-43	EHL/PHL-137	6	250/1000	Poor Flow
EB-44	EHL/PHL-138	N/A	500/1000	Equipment Blank - Ok
SG-44	EHL/PHL-139	6	250/1000	Poor Flow

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: 07/18/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (uL)	COMMENTS
Method Blank	EHL/PHL-140	N/A	500/1000	Zero Grade Air Method Blank
20 ul. Standard	EHL/PHL-141	N/A	20/100	
50 ul. Standard	EHL/PHL-142	N/A	50/250	
100 ul. Standard	EHL/PHL-143	N/A	100/500	
Field Blank	EHL/PHL-144	N/A	500/1000	Field Blank - Slight TCA
Method Blank	EHL/PHL-145	N/A	500/1000	Zero Grade Air Method Blank - Low TCA
EB-45	EHL/PHL-146	N/A	500/1000	Equipment Blank - TCA higher than Fld Blk
SG-45	EHL/PHL-147	6	250/1000	Poor Flow
EB-46	EHL/PHL-148	N/A	500/1000	Equipment Blank - Ok
SG-46	EHL/PHL-149	6	50/1000	Good Flow
EB-47	EHL/PHL-150	N/A	500/1000	Equipment Blank - Ok
SG-47	EHL/PHL-151	6	250/1000	Poor Flow
EB-48	EHL/PHL-152	N/A	500/1000	Equipment blank - Ok
SG-48	EHL/PHL-153	6	250/1000	Poor Flow
	EHL/PHL-154	N/A	500/1000	Equipment Blank - Ok
SG-49	EHL/PHL-155	6	250/1000	Poor flow
EB-50	EHL/PHL-156	N/A	500/1000	Equipment Blank - Ok
SG-50	EHL/PHL-157	6	250/1000	Poor flow
EB-51	EHL/PHL-158	N/A	500/1000	Equipment Blank - Ok
SG-51	EHL/PHL-159	6	250/1000	Poor Flow - Higher than normal
EB-52	EHL/PHL-160	N/A	500/1000	Equipment Blank - Ok
SG-52	EHL/PHL-161	6	250/1000	Poor flow
EB-53	EHL/PHL-162	N/A	500/1000	Equipment Blank - Ok
SG-53	EHL/PHL-163	6	50/1000	Good flow
EB-54	EHL/PHL-164	N/A	500/1000	Equipment Blank - Ok
SG-54	EHL/PHL-165	6	50/1000	Good flow
SG-54-Dup.	EHL/PHL-166	6	50/1000	Equipment Blank - Ok
Cont. Calib.	EHL/PHL-167	N/A	50/250	Continuing Calibration
Field Blank	EHL/PHL-168	N/A	500/1000	Field Blank - Good
EB-55	EHL/PHL-169	N/A	50/1000	Equipment Blank - TCA Contamination
SG-55	EHL/PHL-170	6	250/1000	Poor Flow
EB-56-A	EHL/PHL-171	N/A	500/1000	Equipment Blank - Ok
SG-56-A	EHL/PHL-172	6	50/1000	Good Flow
EB-56-B	EHL/PHL-173	N/A	500/1000	Equipment Blank - High Contamination
Method Blank	EHL/PHL-174	N/A	500/1000	Zero Grade Air Method Blank
SG-56-B	EHL/PHL-175	13.5	20/1000	Good Flow
	EHL/PHL-176	N/A	500/1000	Equipment Blank - Ok
	EHL/PHL-177	6	20/1000	Good Flow
EB-58-A	EHL/PHL-178	N/A	500/1000	Equipment Blank - Ok
SG-58-A	EHL/PHL-179	6	50/1000	Good Flow

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: Jul/18/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (ul)	COMMENTS
Method Blank	EHL/PHL-180	N/A	500/1000	Zero Grade Air Method Blank
EB-58-B	EHL/PHL-181	N/A	500/1000	Run Over Blank
SG-58-B	EHL/PHL-181	13	20/1000	Good Flow
Method Blank	EHL/PHL-183	N/A	500/1000	Zero Grade Air Method Blank
EB-59	EHL/PHL-184	N/A	500/1000	Equipment Blank - High TCA and PCE
SG-59	EHL/PHL-185	6	250/1000	Poor Flow
EB-60-A	EHL/PHL-186	N/A	500/1000	Equipment Blank - High TCA
SG-60-A	EHL/PHL-187	6	20/1000	Good Flow
EB-60-B	EHL/PHL-188	N/A	500/1000	Equipment Blank - Ok

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SOIL GAS RUN TABLE

DATE: Jul/19/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (ul)	COMMENTS
Field Blank	EHL/FHL-191	N/A	N/A	Field Blank
20 ul. Standard	EHL/FHL-192	N/A	20/250	
50 ul. Standard	EHL/FHL-193	N/A	50/500	
100 ul. Standard	EHL/FHL-194	N/A	100/1000	
Method Blank	EHL/FHL-195	N/A	N/A	Zero Grade Air Method Blank
Field Blank	EHL/FHL-196	N/A	N/A	Field Blank - Ambient Air
Field Blank	EHL/FHL-197	N/A	N/A	Run Over Blank
EB-61	EHL/FHL-197	N/A	200/1000	Equipment Blank - Ok
SG-61	EHL/FHL-198	6	50/1000	Good Flow
EB-62-A	EHL/FHL-199	N/A	500/1000	Equipment Blank - Ok
SG-62-A	EHL/FHL-200	6	250/1000	Good Flow
EB-63	EHL/FHL-201	N/A	500/1000	Equipment Blank - Ok
SG-63	EHL/FHL-202	6	250/1000	Poor Flow
EB-64	EHL/FHL-203	N/A	500/1000	Equipment Blank - Ok
	EHL/FHL-204	6	250/1000	Poor Flow
EB-65	EHL/FHL-205	N/A	500/1000	Equipment Blank - Ok
SG-65	EHL/FHL-206	6	250/1000	Poor Flow
EB-66	EHL/FHL-207	N/A	500/1000	Equipment Blank - Ok
SG-66	EHL/FHL-208	6	250/1000	Poor Flow
EB-67	EHL/FHL-209	N/A	500/1000	Equipment Blank - Ok
SG-67	EHL/FHL-210	6	500/1000	Poor Flow
EB-68	EHL/FHL-211	N/A	500/1000	Equipment Blank - Ok
SG-68	EHL/FHL-212	6	100/1000	Poor Flow
EB-69	EHL/FHL-213	N/A	500/1000	Equipment Blank - Ok
SG-69	EHL/FHL-214	6	250/1000	Poor Flow
EB-70-A	EHL/FHL-215	N/A	500/1000	Equipment Blank - Ok
SG-70-A	EHL/FHL-216	6	50/1000	Good Flow
SG-70-A-Dup.	EHL/FHL-217	6	50/1000	Good Flow, Duplicate Analysis
EB-70-B	EHL/FHL-218	N/A	500/1000	Equipment Blank - Ok
SG-70-B	EHL/FHL-219	14	50/1000	Good Flow
Cont. Calib.	EHL/FHL-220	N/A	50/1000	Continuing Calibration
EB-62-B	EHL/FHL-221	N/A	500/1000	Equipment Blank - Ok
SG-62-B	EHL/FHL-222	14	50/1000	Good Flow
EB-60-B	EHL/FHL-223	N/A	250/1000	Equipment Blank - Next to Paint Room
SG-60-B	EHL/FHL-224	14	100/1000	Poor Flow

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: 07/24/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (uL)	COMMENTS
Field Blank	EHL1/PHL1-01	N/A	500/1000	Field Blank
20 ul. Standard	EHL1/PHL1-02	N/A	20/200	
50 ul. Standard	EHL1/PHL1-03	N/A	50/500	
100 ul. Standard	EHL1/PHL1-04	N/A	100/1000	
Field Blank	EHL1/PHL1-05	N/A	500/1000	Field Blank - Clean
EB-71	EHL1/PHL1-06	N/A	500/1000	Equipment Blank - Ok
SG-71	EHL1/PHL1-07	6	100/1000	Good Flow, 1.5 liter per minute
EB-72	EHL1/PHL1-08	N/A	500/1000	Equipment Blank - High TCA
SG-72	EHL1/PHL1-09	6	250/1000	Poor Flow
EB-73	EHL1/PHL1-10	N/A	500/1000	Equipment Blank - Ok
SG-73	EHL1/PHL1-11	6	250/1000	Poor Flow
EB-74	EHL1/PHL1-12	N/A	500/1000	Equipment Blank - Ok
SG-74	EHL1/PHL1-13	6	100/1000	Good Flow
EB-75	EHL1/PHL1-14	N/A	500/1000	Equipment Blank - Ok
5	EHL1/PHL1-15	6	100/1000	Good Flow
EB-76-A	EHL1/PHL1-16	N/A	500/1000	Equipment Blank - Ok
SG-76-A	EHL1/PHL1-17	6	100/1000	Good Flow
EB-76-B	EHL1/PHL1-18	N/A	500/1000	Equipment Blank - Ok
SG-76-B	EHL1/PHL1-19	14	100/1000	Good Flow
EB-77	EHL1/PHL1-20	N/A	500/1000	Equipment Blank - Ok
SG-77	EHL1/PHL1-21	6	100/1000	Good Flow
EB-78-A	EHL1/PHL1-22	N/A	500/1000	Equipment Blank - OK
SG-78-A	EHL1/PHL1-23	6	100/1000	Good Flow
EB-78-B	EHL1/PHL1-24	N/A	500/1000	Equipment Blank - Ok
SG-78-B	EHL1/PHL1-25	14	100/1000	Poor to Moderate Flow
EB-79-A	EHL1/PHL1-26	N/A	500/1000	Equipment Blank - Ok
SG-79-A	EHL1/PHL1-27	6	100/1000	Good Flow
EB-79-B	EHL1/PHL1-28	N/A	N/A	Equipment Blank - Ok
SG-79-B	EHL1/PHL1-29	14	50/1000	Good Flow
EB-80-A	EHL1/PHL1-30	N/A	500/1000	Equipment Blank - Ok
SG-80-A	EHL1/PHL1-31	6	100/1000	Good Flow
SG-80-A-Dup.	EHL1/PHL1-32	6	100/1000	Good Flow
Cont. Calib.	EHL1/PHL1-33	N/A	50/500	Continuing Calibration
EB-80-B	EHL1/PHL1-34	N/A	500/1000	Equipment Blank - Ok
SG-80-B	EHL1/PHL1-35	14	50/1000	Good Flow
EB-81-A	EHL1/PHL1-36	N/A	500/1000	Equipment Blank - High Pce Contamination
1-A	EHL1/PHL1-37	6	100/1000	Poor Flow
2	EHL1/PHL1-38	N/A	500/1000	Equipment Blank - PCE Carryover
SG-82	EHL1/PHL1-39	6	100/1000	Poor Flow
EB-81-B	EHL1/PHL1-40	N/A	500/1000	Equipment Blank - TCA and PCE

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: 07/24/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (uL)	COMMENTS
SG-81-B	EHL1/PHL1-41	14	100/1000	Poor Flow
EB-83-A	EHL1/PHL1-42	N/A	500/1000	Equipment Blank - Ok
SG-83-A	EHL1/PHL1-43	6	50/1000	Good Flow
EB-84	EHL1/PHL1-44	N/A	500/1000	Equipment Blank - Ok
SG-84	EHL1/PHL1-45	6	50/1000	Good Flow
EB-85	EHL1/PHL1-46	N/A	500/1000	Equipment Blank - OK
SG-85	EHL1/PHL1-47	6	100/1000	Good Flow
EB-86	EHL1/PHL1-48	N/A	500/1000	Equipment Blank - Ok
SG-86	EHL1/PHL1-49	6	100/1000	Poor to Moderate Flow
EB-83-B	EHL1/PHL1-50	N/A	500/1000	Equipment blank - Ok
SG-83-B	EHL1/PHL1-51	14	100/1000	Poor to Moderate Flow
EB-87-A	EHL1/PHL1-52	N/A	500/1000	Equipment Blank - Ok
SG-87-A	EHL1/PHL1-53	6	50/1000	Good Flow
EB-87-B	EHL1/PHL1-54	N/A	500/1000	Equipment Blank - Ok
-B	EHL1/PHL1-55	14	50/1000	Good Flow

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: 07/25/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (uL)	COMMENTS
Field Blank	EHL1/PHL1-56	N/A	500/1000	Field Blank
20 ul. Standard	EHL1/PHL1-57	N/A	20/200	
50 ul. Standard	EHL1/PHL1-58	N/A	50/500	
100 ul. Standard	EHL1/PHL1-59	N/A	100/1000	
EB-88-A	EHL1/PHL1-60	N/A	500/1000	Equipment Blank - OK
SG-88-A	EHL1/PHL1-61	6	100/1000	Good Flow
EB-88-B	EHL1/PHL1-62	N/A	500/1000	Equipment Blank - OK
SG-88-B	EHL1/PHL1-63	14	50/1000	Good Flow
EB-89-A	EHL1/PHL1-64	N/A	500/1000	Equipment Blank - Ok
SG-89-A	EHL1/PHL1-65	6	50/1000	Good Flow
EB-89-B	EHL1/PHL1-66	N/A	500/1000	Equipment blank - Ok
SG-89-B	EHL1/PHL1-67	14	50/1000	Good Flow
EB-90-A	EHL1/PHL1-68	N/A	500/1000	Equipment blank - Ok
SG-90-A	EHL1/PHL1-69	6	50/1000	Good Flow
[illegible]-B	EHL1/PHL1-70	N/A	500/1000	Equipment Blank - Ok
[illegible]-B	EHL1/PHL1-71	14	50/1000	Good Flow
EB-91	EHL1/PHL1-72	N/A	500/1000	Equipment Blank - Ok
SG-91	EHL1/PHL1-73	6	250/1000	Poor Flow
EB-92-A	EHL1/PHL1-74	N/A	500/1000	Equipment Blank - Ok
SG-92-A	EHL1/PHL1-75	6	50/1000	Good Flow
EB-92-B	EHL1/PHL1-76	N/A	500/1000	Equipment Blank - Ok
SG-92-B	EHL1/PHL1-77	14	50/1000	Good Flow
EB-93-A	EHL1/PHL1-78	N/A	500/1000	Equipment Blank - Ok
SG-93-A	EHL1/PHL1-79	6	50/1000	Good Flow
EB-93-B	EHL1/PHL1-80	N/A	500/1000	Equipment Blank - Ok
SG-93-B	EHL1/PHL1-81	14	50/1000	Good Flow
SG-93-B-Dup.	EHL1/PHL1-82	14	50/1000	Good Flow, Duplicate Analysis
Cont. Calib.	EHL1/PHL1-83	N/A	50/500	Continuing Calibration
EB-94-A	EHL1/PHL1-84	N/A	500/1000	Equipment Blank - Ok
SG-94-A	EHL1/PHL1-85	6	50/1000	Good Flow
EB-94-B	EHL1/PHL1-86	N/A	500/1000	Equipment Blank - Ok
SG-94-B	EHL1/PHL1-87	14	50/1000	Moderate Flow
EB-95-A	EHL1/PHL1-88	N/A	500/1000	Equipment Blank - Ok
SG-95-A	EHL1/PHL1-89	6	100/1000	Poor to Moderate Flow
EB-95-B	EHL1/PHL1-90	N/A	500/1000	Equipment Blank - Ok
SG-95-B	EHL1/PHL1-91	14	100/1000	Poor to Moderate Flow
EB-96-A	EHL1/PHL1-92	N/A	500/1000	Equipment Blank - Ok
[illegible]A	EHL1/PHL1-93	6	50/1000	Good Flow
EB-96-B	EHL1/PHL1-94	N/A	500/1000	Equipment Blank - Ok
SG-96-B	EHL1/PHL1-95	14	50/1000	Good Flow

Optimal Technology Inc.

Specializing in Soil Gas Surveys

SOIL GAS RUN TABLE

DATE: 07/25/1991

SAMPLE ID	FILE NAME	DEPTH (Ft.)	VOLUME (uL)	COMMENTS
EB-97-A	EHL1/PHL1-96	N/A	500/1000	Equipment Blank - Ok
SG-97-A	EHL1/PHL1-97	6	50/1000	Good Flow
EB-97-B	EHL1/PHL1-98	N/A	500/1000	Equipment Blank - Ok
SG-97-B	EHL1/PHL1-99	14	50/1000	Good Flow
EB-98-A	EHL1/PHL1-100	N/A	500/1000	Equipment Blank - Run Over SG-97-B
SG-98-A	EHL1/PHL1-101	6	50/1000	Good Flow
EB-98-B	EHL1/PHL1-102	N/A	500/1000	Equipment Blank - Ok
SG-98-B	EHL1/PHL1-103	14	50/1000	Good Flow

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin, CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 15 to July 25, 1991
MATRIX TYPE: Soil Vapor (Air)

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloroform (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	Freon-113 (ug/L)
SG-01-A	695	ND	ND	ND	0.03	34.6	162	2,170	27.5
SG-01-B	735	ND	ND	ND	0.93	25.8	192	2,560	30.6
SG-01-C	706	ND	ND	ND	0.99	31.8	221	2,460	34.5
SG-01-D	533	ND	ND	ND	0.42	14.9	63.5	914	20.1
SG-02-A	4.23	ND	ND	ND	ND	0.21	0.04	0.34	<0.05
SG-02-B	0.63	ND	ND	ND	ND	0.08	0.15	2.87	<0.05
SG-03	5.59	ND	ND	ND	ND	0.32	1.23	16.8	<0.05
SG-04	448	ND	ND	2.66	0.23	8.55	20.9	171	6.5
SG-05	ND	ND	ND	ND	ND	0.07	ND	0.17	<0.05
SG-06	ND	ND	ND	ND	ND	0.06	0.03	0.23	<0.05
SG-07	ND	ND	ND	ND	ND	0.05	0.07	1.56	<0.05
SG-08	164	ND	ND	1.15	ND	0.13	2.65	0.67	0.17
SG-09-A	470	ND	ND	3.05	ND	4.34	14.5	36.1	2.55
SG-09-B	478	ND	ND	1.76	0.10	69.3	11.2	47.8	11.7
SG-10	ND	ND	ND	ND	ND	0.07	ND	0.03	<0.05
SG-11	121	ND	ND	ND	ND	4.98	2.60	57.6	7.9
SG-12	203	ND	ND	ND	0.16	16.4	3.43	38.1	5.48
SG-13	9.42	ND	ND	ND	ND	0.56	0.13	0.56	0.63
SG-14	10.7	ND	ND	ND	ND	1.15	0.82	11.4	0.16
SG-15-A	0.27	ND	ND	ND	ND	0.01	ND	0.03	<0.05
SG-15-B	2,460	ND	ND	3.76	0.27	12.7	92.5	427	2.38
SG-16	2.22	ND	ND	ND	ND	0.17	0.01	0.05	<0.05
SG-17-A	1.33	ND	ND	ND	ND	0.06	0.02	0.08	<0.05
SG-17-B	3.77	ND	ND	ND	ND	0.30	0.38	2.59	<0.05
SG-18	1.37	ND	ND	ND	ND	0.06	0.01	0.02	<0.05
SG-19-A	0.87	ND	ND	ND	ND	0.11	0.01	0.01	<0.05
SG-19-B	0.71	ND	ND	ND	ND	0.13	0.01	0.07	<0.05
SG-20	0.59	ND	ND	ND	ND	0.06	0.03	0.03	<0.05
SG-21-A	0.79	ND	ND	ND	ND	0.04	ND	0.01	<0.05
SG-21-B	3.74	ND	ND	ND	ND	0.19	0.59	4.31	<0.05

& Cis are trans-1,2-Dichloroethene and cis-1,2-Dichloroethene - calculated with PID
Not Detected at or above reporting limits of: 0.05 ug/L for Trans- & Cis-12-DCE, Trichlorotrifluoroethane (freon 113)
0.01 ug/L for 11-DCE, 11-DCA, Chloroform, 111-TCA, TCE & PCE

NOTE: High levels of 11-DCE, TCE and PCE were quantitated with the PID because they were either above the calibration range and/or were off the electronic scale of the ECD.

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin, CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 15 to July 25, 1991
MATRIX TYPE: Soil Vapor (Air)

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloroform (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	Freon-113 (ug/L)
SG-22	0.01	ND	ND	ND	ND	0.05	0.09	0.02	<0.05
SG-23	0.64	ND	ND	ND	ND	0.08	ND	0.02	<0.05
SG-24	2.55	ND	ND	ND	ND	1.32	0.16	0.75	0.11
SG-25-A	0.09	ND	ND	ND	ND	0.18	0.21	2.63	<0.05
SG-25-B	2.43	ND	ND	ND	ND	0.28	0.66	5.83	<0.05
SG-25-C	118	ND	ND	ND	ND	415+	6.14	143	160
SG-26-A	143	ND	ND	ND	0.25	213+	1.68	44.5	60.7
SG-26-B	324	ND	ND	ND	ND	613+	3.57	107	144
SG-27	ND	ND	ND	ND	ND	8.46	ND	0.04	<0.05
SG-28-A	3.90	ND	12.5	0.07	ND	174	ND	0.09	<0.05
SG-28-B	1.44	ND	3.34	ND	ND	36.6	0.09	1.99	0.24
SG-29	1.91	ND	6.66	ND	ND	1.74	ND	0.22	<0.05
SG-30	1.15	ND	3.68	ND	ND	0.59	0.02	0.29	<0.05
SG-31	9.53	ND	3.10	ND	ND	1.38	0.17	4.81	0.76
SG-32	0.47	ND	2.61	ND	ND	0.03	ND	0.03	<0.05
SG-33	0.46	ND	2.61	ND	ND	0.16	ND	ND	<0.05
SG-34	0.01	ND	ND	ND	ND	ND	ND	0.01	0.05
SG-35	0.31	ND	2.78	ND	ND	0.03	ND	ND	<0.05
SG-36-A	171	ND	7.82	ND	ND	11.0	3.96	260	85
SG-36-B	260	ND	18.8	ND	ND	21.3	6.60	340	182
SG-37	7.97	ND	28.9	ND	ND	1.45	1.11	65.0	1.33
SG-38	0.01	ND	5.03	ND	ND	0.18	ND	0.07	<0.05
SG-39	0.68	ND	2.20	ND	ND	1.03	ND	0.04	<0.05
SG-40-A	3,770	ND	ND	6.11	1.74	499+	167	3,040	526
SG-40-B	3,590	ND	ND	5.29	2.60	1,800+	154	2,910	1040
SG-40-C	3,900	ND	62.7	ND	3.51	1,920+	195	3,150	1170
SG-41-A	1,000	ND	40.4	ND	ND	205	27.8	830	486
SG-41-B	700	ND	75.0	ND	ND	140	22.5	627	331
SG-42	1.06	ND	3.75	ND	ND	1.16	ND	0.06	0.11
SG-43	ND	ND	ND	ND	ND	0.23	ND	0.08	0.31

Trans & Cis are trans-1,2-Dichloroethene and cis-1,2-Dichloroethene - calculated with PID
ot Detected at or above reporting limits of: 0.05 ug/L for Trans- & Cis-12-DCE, Trichlorotrifluoroethane (freon 113)
0.01 ug/L for 11-DCE, 11-DCA, Chloroform, 111-TCA, TCE & PCE

NOTE: High levels of 11-DCE, TCE and PCE were quantitated with the PID because they were either above the calibration range and/or were off the electronic scale of the ECD.

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin, CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 15 to July 25, 1991
MATRIX TYPE: Soil Vapor (Air)

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloroform (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	Freon-113 (ug/L)
SG-44	7.08	ND	ND	ND	ND	8.09	0.02	0.08	0.10
SG-45	ND	ND	22.9	ND	ND	0.05	0.02	2.47	31.2
SG-46	9.43	ND	31.7	ND	ND	4.64	0.75	34.7	307
SG-47	2.28	ND	6.51	ND	ND	0.60	0.73	0.03	0.16
SG-48	ND	ND	4.91	ND	ND	0.08	0.08	0.23	0.12
SG-49	ND	ND	5.97	ND	ND	0.07	ND	0.03	<0.05
SG-50	ND	ND	5.26	ND	ND	0.06	ND	0.31	<0.05
SG-51	82.7	ND	12.4	ND	0.05	74.7+	1.53	7.86	1.22
SG-52	15.2	ND	7.30	ND	ND	3.70	0.53	11.7	0.57
SG-53	24.7	ND	34.8	ND	0.15	12.5	3.33	7.96	120
SG-54	9.08	ND	29.1	ND	ND	3.07	0.15	14.7	98.5
SG-55	ND	ND	10.2	ND	ND	0.31	0.11	0.13	<0.05
SG-56-A	940	ND	190	16.5	0.75	498+	341	2,530	13.6
SG-56-B	203	ND	75.0	2.48	0.49	234	85.7	710	1.82
SG-57	9.06	ND	45.8	ND	ND	9.13	0.30	1.23	ND
SG-58-A	1,460	ND	276	2.33	1.06	449+	252	3,680	72.6
SG-58-B	1,670	ND	88.5	1.63	1.43	1,040+	207	3,290	104
SG-59	7.87	ND	26.6	ND	0.04	13.0	5.71	94.7	0.18
SG-60-A	840	ND	98.5	ND	3.45	1,890+	106	1,180	45.1
SG-60-B	63.5	ND	29.0	ND	0.32	768	8.36	112	ND
SG-61	48.6	ND	86.8	ND	ND	3.51	0.19	17.3	4.96
SG-62-A	152	ND	41.9	ND	0.95	102	106	119	ND
SG-62-B	228	ND	77.1	ND	1.51	211	243	143	ND
SG-63	33.2	ND	ND	ND	ND	0.49	0.11	0.08	ND
SG-64	2.11	ND	40.7	ND	ND	0.70	0.07	0.07	ND
SG-65	ND	ND	8.32	ND	ND	1.15	0.17	2.40	0.87
SG-66	ND	ND	5.47	ND	ND	1.54	0.32	3.49	1.20
SG-67	12.6	ND	30.9	ND	ND	0.84	0.11	0.05	ND
SG-68	7.94	ND	7.41	ND	ND	9.47	ND	0.22	ND
SG-69	3.92	ND	7.66	ND	ND	0.05	0.09	0.04	ND

Trans & Cis are trans-1,2-Dichloroethene and cis-1,2-Dichloroethene - calculated with PID
ND Detected at or above reporting limits of: 0.05 ug/L for Trans- & Cis-12-DCE, Trichlorotrifluoroethane (freon 113)
0.01 ug/L for 11-DCE, 11-DCA, Chloroform, 111-TCA, TCE & PCE

NOTE: High levels of 11-DCE, TCE and PCE were quantitated with the PID because they were either above the calibration range and/or were off the electronic scale of the ECD.

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin, CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 15 to July 25, 1991
MATRIX TYPE: Soil Vapor (Air)

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloroform (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	Freon-113 (ug/L)
SG-70-A	163	ND	35.1	ND	ND	341	27.5	37.1	ND
SG-70-B	22.3	ND	19.4	ND	ND	55.5	2.95	4.98	ND
SG-71	3.93	ND	ND	ND	ND	0.11	0.76	0.07	0.06
SG-72	ND	ND	16.2	ND	ND	0.06	0.48	0.03	ND
SG-73	2.52	ND	14.4	ND	ND	0.05	0.36	0.02	ND
SG-74	6.73	ND	20.6	ND	ND	0.14	0.51	3.91	0.73
SG-75	65.8	ND	27.7	ND	ND	0.39	6.27	24.6	4.29
SG-76-A	415	ND	80.4	ND	0.39	68.2	82.3	1,730	21.6
SG-76-B	389	ND	24.8	ND	0.41	69.0	95.2	2,040	25.2
SG-77	10.3	ND	ND	ND	ND	1.59	0.31	21.4	5.16
SG-78-A	103	ND	ND	ND	ND	26.4	24.4	950	26.0
SG-78-B	62.8	ND	ND	ND	ND	7.93	6.22	368	8.23
SG-79-A	742	ND	45.7	18.7	2.53	86.4	579	5,930	46.6
SG-79-B	261	ND	53.3	6.94	1.21	33.9	215	3,000	15.0
SG-80-A	425	ND	48.9	127	1.68	162	318	4,830	18.6
SG-80-B	1,170	ND	345	60.2	5.83	884+	900	8,990	52.4
SG-81-A	15.4	ND	39.8	61.2	ND	0.12	1.10	11.2	ND
SG-81-B	223	ND	75.0	59.4	0.74	395+	145	1,790	1.43
SG-82	ND	ND	22.1	ND	ND	1.05	0.96	45.7	ND
SG-83-A	65.3	ND	58.5	ND	ND	5.69	0.85	26.6	51.5
SG-83-B	4.78	ND	24.7	ND	ND	0.31	0.20	1.21	0.98
SG-84	44.4	ND	35.6	ND	ND	5.90	0.58	18.5	36.9
SG-85	34.3	ND	75.6	ND	ND	2.17	1.11	14.0	122
SG-86	18.7	ND	27.4	ND	ND	5.65	0.24	2.66	14.4
SG-87-A	1,450	ND	ND	ND	1.96	57.9	624	3,230	2.83
SG-87-B	1,080	ND	88.5	3.67	1.72	54.8	464	2,690	2.58
SG-88-A	406	ND	66.8	23.7	1.46	559+	720	4,640	1.63
SG-88-B	232	ND	130	10.6	2.73	792+	457	3,290	2.55
SG-89-A	174	ND	49.9	6.77	ND	168	19.5	253	2.64
SG-89-B	1,730	ND	58.7	39.7	1.09	1,290+	186	2,310	33.9

Trans & Cis are trans-1,2-Dichloroethene and cis-1,2-Dichloroethene - calculated with PID
Not Detected at or above reporting limits of: 0.05 ug/L for Trans- & Cis-12-DCE, Trichlorotrifluoroethane (freon 113)
0.01 ug/L for 11-DCE, 11-DCA, Chloroform, 111-TCA, TCE & PCE

NOTE: High levels of 11-DCE, TCE and PCE were quantitated with the PID because they were either above the calibration range and/or were off the electronic scale of the ECD.

Optimal Technology Inc.
Specializing in Soil Gas Surveys

SOIL GAS RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin, CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 15 to July 25, 1991
MATRIX TYPE: Soil Vapor (Air)

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloroform (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)	Freon-113 (ug/L)
SG-90-A	94	ND	50.4	ND	ND	64.1	19.1	417	1.57
SG-90-B	280	ND	ND	ND	0.79	323	50.0	950	3.62
SG-91	75	ND	ND	ND	ND	14.4	4.46	53.3	0.03
SG-92-A	2,130	ND	48.5	ND	2.01	1,110+	134	2,020	115
SG-92-B	208	ND	ND	ND	0.98	170	9.65	200	5.97
SG-93-A	1,270	ND	ND	ND	ND	248	20.9	698	98.1
SG-93-B	872	ND	ND	ND	ND	172	11.9	518	78.4
SG-94-A	726	ND	ND	ND	0.38	246	18.1	763	105
SG-94-B	326	ND	ND	ND	ND	95.7	8.82	297	39.9
SG-95-A	681	ND	ND	0.96	0.97	401+	53.0	1,040	34.2
SG-95-B	68	ND	ND	0.48	ND	35.9	11.1	135	1.55
SG-96-A	808	ND	ND	ND	0.65	248	134	2,700	173
SG-96-B	794	ND	ND	ND	0.55	230	104	2,440	148
SG-97-A	855	ND	51.4	ND	0.43	265	83.5	2,210	166
SG-97-B	1,010	ND	60.7	ND	0.49	335	103	2,490	NA
SG-98-A	50	ND	ND	ND	ND	7.97	1.13	43.3	20.1
SG-98-B	63	ND	37.8	ND	ND	9.14	1.44	68.8	30.0

Trans & Cis are trans-1,2-Dichloroethene and cis-1,2-Dichloroethene - calculated with PID

'ot Detected at or above reporting limits of: 0.05 ug/L for Trans- & Cis-12-DCE, Trichlorotrifluoroethane (freon 113)
0.01 ug/L for 11-DCE, 11-DCA, Chloroform, 111-TCA, TCE & PCE

NOTE: High levels of 11-DCE, TCE and PCE were quantitated with the PID because they were either above the calibration range and/or were off the electronic scale of the ECD.

Optimal Technology
Specializing in Soil Gas Surveys

SOIL GAS QA RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin , CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 15,1991
MATRIX TYPE: Soil Vapor (Air)

BLANKS

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro. (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
Method Blank	ND	ND	ND	ND	ND	ND	ND	0.01
Field Blank	2.22	ND	ND	ND	ND	0.07	0.02	0.03
EB-01	ND	ND	ND	ND	ND	0.15	ND	0.01
Field Blank	3.13	3.12	ND	ND	ND	0.40	0.03	0.13
Method Blank	0.32	2.36	ND	ND	ND	0.01	ND	0.54
EB-01-D	ND	ND	ND	ND	ND	0.04	0.02	0.25
EB-02	0.95	4.16	ND	ND	ND	0.19	0.01	0.09
EB-03	0.51	ND	ND	ND	ND	0.06	0.01	0.05
EB-04	ND	ND	ND	ND	ND	0.04	ND	0.05
EB-05	0.44	ND	ND	ND	ND	0.05	ND	0.05
EB-06	0.40	ND	ND	ND	ND	0.06	0.01	0.03
EB-07	0.36	ND	ND	ND	ND	0.05	ND	0.03
EB-08	0.40	ND	ND	ND	ND	0.05	ND	0.02
EB-09-A	0.07	ND	ND	ND	ND	0.04	ND	0.02
EB-09-B	0.40	ND	ND	ND	ND	0.09	0.01	0.04
EB-10	0.34	ND	ND	ND	ND	0.05	ND	0.02
EB-11	0.22	ND	ND	ND	ND	0.10	0.01	0.03
Method Blank	ND	ND	ND	ND	ND	0.02	ND	0.03
EB-12	ND	ND	ND	ND	ND	0.11	ND	0.01
EB-13	0.26	ND	ND	ND	ND	0.06	ND	0.02
EB-14	1.12	ND	ND	ND	ND	0.04	ND	0.02
EB-15	0.35	ND	ND	ND	ND	0.05	ND	0.03

CONTINUING CALIBRATIONS

FILE ID	INJ. AMT. (ng)	11-DCE (ng)	Trans (ng)	11-DCA (ng)	Cis (ng)	Chloro (ng)	111-TCA (ng)	TCE (ng)	PCE (ng)
EHL-38	1.25/6.50	6.55	6.73	6.42	7.78	1.37	1.45	1.50	1.29

DUPLICATES

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
SG-11-Dup.	246	ND	ND	ND	ND	5.65	2.79	37.9+

Optimal Technology
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SOIL GAS QA RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin, CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 16,1991
MATRIX TYPE: Soil Vapor (Air)

BLANKS

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro. (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
Method Blank	0.94	ND	ND	ND	ND	ND	ND	0.13
Field Blank	1.42	2.32	ND	ND	ND	0.17	0.03	0.01
EB-16	1.73	ND	24	31	ND	0.36	0.03	0.02
EB-17	0.69	2.43	5.02	ND	ND	0.06	ND	0.01
EB-18	0.52	ND	3.70	ND	ND	0.06	0.01	0.02
EB-19	0.48	ND	2.62	ND	ND	0.05	0.01	0.01
EB-20	0.45	ND	1.23	ND	ND	0.04	0.01	0.02
EB-21	0.22	ND	0.54	ND	ND	0.06	ND	0.01
EB-22	0.78	ND	2.52	ND	ND	0.03	ND	0.02
EB-23	0.65	ND	0.84	ND	ND	0.04	ND	0.02
EB-24	0.37	0.59	ND	ND	ND	0.05	ND	0.01
EB-25	1.25	0.65	1.47	ND	ND	0.04	ND	0.02
EB-25-C	2.23	ND	ND	ND	ND	0.51	ND	0.03
EB-26-A	NA	NA	NA	NA	NA	NA	NA	NA
EB-26-B	0.06	0.70	0.53	0.33	ND	0.31	ND	0.03
EB-27	0.93	ND	4.15	1.76	ND	1.25	0.01	0.02
EB-28	ND	ND	ND	ND	ND	1.19	0.01	0.02
EB-29	ND	ND	ND	ND	ND	2.29	0.01	0.03
EB-30	ND	ND	ND	ND	ND	0.72	ND	0.02

CONTINUING CALIBRATIONS

FILE ID	INJ. AMT. (ng)	11-DCE (ng)	Trans (ng)	11-DCA (ng)	Cis (ng)	Chloro (ng)	111-TCA (ng)	TCE (ng)	PCE (ng)
EHL-81	1.25/6.50	7.81	7.36	7.58	7.42	1.44	1.50	1.41	1.41

DUPLICATES

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
SG-25-B-Dup.	3.02	ND	ND	ND	ND	0.32	0.71	5.79

Optimal Technology
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SOIL GAS QA RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin, CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 17,1991
MATRIX TYPE: Soil Vapor (Air)

BLANKS

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro. (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
Method Blank	ND	0.86	1.80	ND	ND	0.20	0.01	0.14
Field Blank	0.44	ND	ND	ND	ND	ND	0.02	<0.01
EB-31	0.17	ND	ND	ND	ND	0.02	ND	0.01
EB-32	0.41	ND	2.46	ND	ND	0.03	0.02	0.02
EB-33	0.64	ND	ND	ND	ND	0.06	0.01	0.02
EB-34	0.33	ND	2.89	ND	ND	0.05	ND	0.01
EB-35	0.23	ND	1.25	ND	ND	0.03	ND	0.01
EB-36-A	0.42	ND	2.06	ND	ND	0.03	ND	0.01
EB-36-B	ND	4.77	11.4	ND	0.02	0.04	0.01	<0.01
EB-37	ND	ND	1.79	ND	ND	0.02	0.01	0.05
EB-38	ND	1.3	2.91	ND	ND	0.26	ND	0.02
EB-39	ND	0.70	1.71	ND	ND	0.78	0.01	0.03
EB-40	ND	0.69	ND	ND	ND	0.06	ND	0.01
Field Blank	ND	ND	ND	ND	ND	ND	0.02	0.19
EB-41-A	0.33	1.83	2.70	ND	ND	0.04	0.02	0.15
EB-41-B	ND	ND	3.63	1.62	ND	0.04	0.02	0.18
EB-40-C	ND	1.93	5.43	2.12	ND	0.05	0.02	0.09
EB-28-B	ND	2.32	2.72	ND	ND	2.02	0.03	0.43
EB-42	1.22	1.53	3.23	ND	ND	1.23	0.02	0.08
EB-43	0.80	1.42	3.02	ND	ND	1.13	0.02	0.08
EB-44	0.37	1.21	2.01	ND	ND	2.03	0.02	0.10

CONTINUING CALIBRATIONS

FILE ID	INJ. AMT. (ng)	11-DCE (ng)	Trans (ng)	11-DCA (ng)	Cis (ng)	Chloro (ng)	111-TCA (ng)	TCE (ng)	PCE (ng)
EHL-129	1.25/6.50	7.11	6.90	6.82	6.36	1.43	1.47	1.50	1.41

DUPLICATES

AMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
SG-41-A-Dup.	1013	63.8	56.2	ND	ND	224	28.5	851

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SOIL GAS QA RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin, CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 18,1991
MATRIX TYPE: Soil Vapor (Air)

BLANKS

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro. (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
Method Blank	ND	5.12	ND	ND	ND	ND	0.01	0.01
Field Blank	ND	4.44	ND	ND	ND	0.26	0.03	<0.01
Method Blank	0.44	ND	2.52	ND	ND	0.02	0.01	ND
EB-45	ND	ND	ND	ND	ND	0.12	0.01	0.01
EB-46	ND	3.44	9.71	ND	ND	0.01	ND	<0.01
EB-47	ND	4.62	ND	ND	ND	0.07	0.01	<0.01
EB-48	ND	1.70	ND	ND	ND	0.04	ND	0.002
EB-49	ND	2.50	ND	ND	0.08	ND	ND	0.02
EB-50	ND	ND	2.62	ND	ND	0.05	ND	ND
EB-51	ND	ND	ND	ND	ND	0.06	ND	<0.01
EB-52	ND	ND	ND	ND	ND	0.04	ND	0.02
EB-53	ND	1.23	2.51	ND	ND	0.14	ND	0.01
EB-54	ND	1.94	2.42	ND	ND	0.24	0.01	0.02
Field Blank	ND	1.92	3.83	ND	ND	0.02	0.01	0.01
EB-55	ND	3.83	1.93	ND	ND	0.30	ND	0.02
EB-56-A	ND	3.73	9.03	ND	ND	ND	ND	0.02
EB-56-B	0.99	2.54	3.61	ND	ND	8.62	0.04	0.43
Method Blank	ND	2.31	2.91	ND	ND	0.06	0.02	0.10
EB-57	ND	2.11	4.11	ND	ND	ND	0.02	0.11
EB-58-A	0.31	1.90	4.50	ND	ND	0.63	0.01	0.04
Method Blank	ND	4.41	2.40	ND	ND	ND	0.03	0.39
EB-58-B	NA	NA	NA	NA	NA	NA	NA	NA

CONTINUING CALIBRATIONS

FILE ID	INJ. AMT. (ng)	11-DCE (ng)	Trans (ng)	11-DCA (ng)	Cis (ng)	Chloro (ng)	111-TCA (ng)	TCE (ng)	PCE (ng)
EHL-167	1.25/6.50	8.01	5.82	11.5	7.30	1.45	1.57	1.46	1.31

DUPLICATES

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
SG-54-Dup.	9.46	ND	24.7	ND	ND	3.06	0.17	15.2

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SOIL GAS QA RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin, CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 18,1991
MATRIX TYPE: Soil Vapor (Air)

BLANKS

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro. (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
Method Blank	1.32	ND	1.14	ND	ND	ND	0.01	0.13
EB-59	ND	1.61	2.33	ND	ND	1.82	0.01	0.18
EB-60-A	2.21	2.71	4.02	ND	ND	4.71	0.02	0.13
EB-60-B	ND	4.00	2.32	ND	ND	0.20	0.02	0.15
Field Blank	ND	420	ND	ND	ND	ND	6.61	ND

CONTINUING CALIBRATIONS

FILE ID	INJ. AMT. (ng)	11-DCE (ng)	Trans (ng)	11-DCA (ng)	Cis (ng)	Chloro (ng)	111-TCA (ng)	TCE (ng)	PCE (ng)

DUPLICATES

MPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)

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SOIL GAS QA RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin, CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 19,1991
MATRIX TYPE: Soil Vapor (Air)

BLANKS

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro. (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
Field Blank	NA	NA	NA	NA	NA	NA	NA	NA
Method Blank	NA	NA	NA	NA	NA	NA	NA	NA
Field Blank	NA	NA	NA	NA	NA	NA	NA	NA
Field Blank	NA	NA	NA	NA	NA	NA	NA	NA
EB-61	ND	ND	ND	ND	ND	1.85	0.17	0.12
EB-62-A	ND	ND	ND	ND	ND	0.29	0.06	0.08
EB-63	ND	ND	ND	ND	ND	0.56	0.03	0.07
EB-64	ND	ND	ND	ND	ND	0.07	0.04	0.03
EB-65	ND	ND	ND	ND	ND	0.61	0.03	0.03
EB-66	ND	ND	ND	ND	ND	0.39	0.03	0.09
EB-67	ND	ND	ND	ND	ND	0.63	0.04	0.02
EB-68	ND	ND	9.57	ND	ND	0.17	0.10	0.03
EB-69	11.6	ND	ND	ND	ND	0.22	0.02	0.02
EB-70-A	7.81	ND	ND	ND	ND	1.12	ND	0.02
EB-70-B	ND	ND	ND	ND	ND	3.36	ND	0.07
EB-62-B	ND	ND	ND	ND	ND	3.59	0.02	0.10
EB-60-B	ND	ND	ND	ND	ND	5.26	0.19	0.29

CONTINUING CALIBRATIONS

FILE ID	INJ. AMT. (ng)	11-DCE (ng)	Trans (ng)	11-DCA (ng)	Cis (ng)	Chloro (ng)	111-TCA (ng)	TCE (ng)	PCE (ng)
EHL-220	1.25/6.50	6.64	5.86	7.76	9.61	1.77	2.35	1.84	1.75

DUPLICATES

MPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
SG-70-A-Dup,	160	ND	36.1	ND	ND	305	24.1	27.8

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SOIL GAS QA RESULTS

COMPANY:	Harding Lawson Associates	PROJECT NAME:	Utility Trailer
CONTACT:	Ms. Peggy Seracuse	PROJECT NUMBER:	20368,003.11
ADDRESS:	15621 Redhill Ave., Suite 100 Tustin, CA 92680	SAMPLE DATES:	July 24,1991
		MATRIX TYPE:	Soil Vapor (Air)

BLANKS

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro. (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
Field Blank	ND	ND	ND	ND	ND	ND	ND	ND
Field Blank	ND	4.36	9.21	ND	ND	0.97	0.45	0.01
EB-71	ND	7.23	18	ND	ND	0.05	0.25	0.02
EB-72	ND	3.43	7.44	ND	ND	1.42	0.12	0.07
EB-73	1.07	ND	ND	ND	ND	0.09	0.05	0.04
EB-74	ND	3.31	9.87	ND	ND	0.06	0.26	0.07
EB-75	ND	3.31	5.01	ND	ND	0.18	0.06	0.04
EB-76-A	ND	17	34	ND	ND	0.10	0.87	0.06
EB-76-B	ND	5.42	7.17	ND	ND	0.39	0.16	0.35
EB-77	ND	5.46	11	ND	ND	0.06	0.09	0.34
EB-78-A	1.81	4.93	11	ND	ND	0.17	0.07	0.17
EB-78-B	2.14	4.16	11	ND	ND	0.04	0.08	0.27
EB-79-A	1.55	5.89	7.06	ND	ND	0.06	0.03	0.13
EB-79-B	NA	NA	NA	NA	NA	NA	NA	NA
EB-80-A	ND	5.03	12	ND	ND	0.04	0.14	0.92
EB-80-B	ND	6.71	7.18	ND	ND	0.47	0.30	0.51
EB-81-A	ND	14	30	ND	ND	0.23	0.40	4.15
EB-82	ND	7.43	8.09	ND	ND	0.18	0.29	2.68
EB-81-B	1.03	3.48	6.21	ND	ND	0.47	0.04	0.01
EB-83-A	2.05	ND	7.36	ND	ND	0.31	0.03	0.71
EB-84	ND	4.07	ND	ND	ND	0.02	0.05	0.41
EB-85	1.73	ND	9.04	ND	ND	0.04	0.03	0.32

CONTINUING CALIBRATIONS

FILE ID	INJ. AMT. (ng)	11-DCE (ng)	Trans (ng)	11-DCA (ng)	Cis (ng)	Chloro (ng)	111-TCA (ng)	TCE (ng)	PCE (ng)
EHL1-33	1.26/6.50	7.72	6.40	4.89	8.49	1.40	1.49	1.34	1.41

DUPLICATES

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
SG-80-A-Dup.	284	ND	74.3	79.8	0.82	67.4	210	3528

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SOIL GAS QA RESULTS

COMPANY:	Harding Lawson Associates	**PROJECT NAME:**	Utility Trailer
CONTACT:	Ms. Peggy Seracuse	**PROJECT NUMBER:**	20368,003.11
ADDRESS:	15621 Redhill Ave., Suite 100 Tustin, CA 92680	**SAMPLE DATES:**	July 24,1991
		MATRIX TYPE:	Soil Vapor (Air)

BLANKS

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro. (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
EB-86	ND	4.66	ND	ND	ND	1.31	0.06	0.27
EB-83-B	1.97	3.50	ND	ND	ND	0.07	0.05	0.31
EB-87-A	ND	6.38	19	ND	ND	0.20	0.25	0.18
EB-87-B	3.20	5.45	ND	ND	ND	0.05	0.47	1.78

CONTINUING CALIBRATIONS

FILE ID	INJ. AMT. (ng)	11-DCE (ng)	Trans (ng)	11-DCA (ng)	Cis (ng)	Chloro (ng)	111-TCA (ng)	TCE (ng)	PCE (ng)

DUPLICATES

AMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)

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SOIL GAS QA RESULTS

COMPANY: Harding Lawson Associates
CONTACT: Ms. Peggy Seracuse
ADDRESS: 15621 Redhill Ave., Suite 100
Tustin, CA 92680

PROJECT NAME: Utility Trailer
PROJECT NUMBER: 20368,003.11
SAMPLE DATES: July 25,1991
MATRIX TYPE: Soil Vapor (Air)

BLANKS

SAMPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro. (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
Field Blank	ND	12	ND	ND	ND	0.06	0.16	0.14
EB-88-A	ND	4.22	5.45	ND	ND	0.19	0.12	0.23
EB-88-B	ND	2.80	ND	ND	ND	0.15	0.13	1.27
EB-89-A	ND	11	6.47	ND	ND	0.06	0.06	0.83
EB-89-B	ND	ND	6.16	ND	ND	0.07	0.08	0.53
EB-90-A	ND	2.97	6.65	ND	ND	0.14	0.07	0.35
EB-90-B	ND	ND	4.91	ND	ND	0.04	0.12	1.07
EB-91	ND	ND	4.83	ND	ND	0.07	0.03	0.20
EB-92-A	ND	ND	5.99	ND	ND	0.15	0.05	0.13
EB-92-B	1.42	ND	ND	ND	ND	0.13	0.11	1.20
3-93-A	1.58	ND	ND	ND	ND	0.31	0.03	0.21
EB-93-B	1.36	ND	ND	ND	ND	0.03	0.04	0.28
EB-94-A	ND	ND	ND	ND	ND	0.05	0.03	0.09
EB-94-B	ND	ND	5.48	ND	ND	0.04	ND	0.19
EB-95-A	2.46	2.47	8.47	ND	ND	0.05	0.06	0.24
EB-95-B	ND	ND	5.94	ND	ND	0.04	0.03	0.29
EB-96-A	ND	ND	5.13	ND	ND	0.04	ND	0.21
EB-96-B	ND	ND	4.36	ND	ND	0.03	0.05	1.03
EB-97-A	ND	ND	6.09	ND	ND	0.03	0.05	0.76
EB-97-B	ND	ND	6.40	ND	ND	0.06	0.07	1.40
EB-98-A	ND	ND	6.40	ND	ND	0.04	0.07	1.04
EB-98-B	ND	ND	4.62	ND	ND	0.05	0.03	0.23

CONTINUING CALIBRATIONS

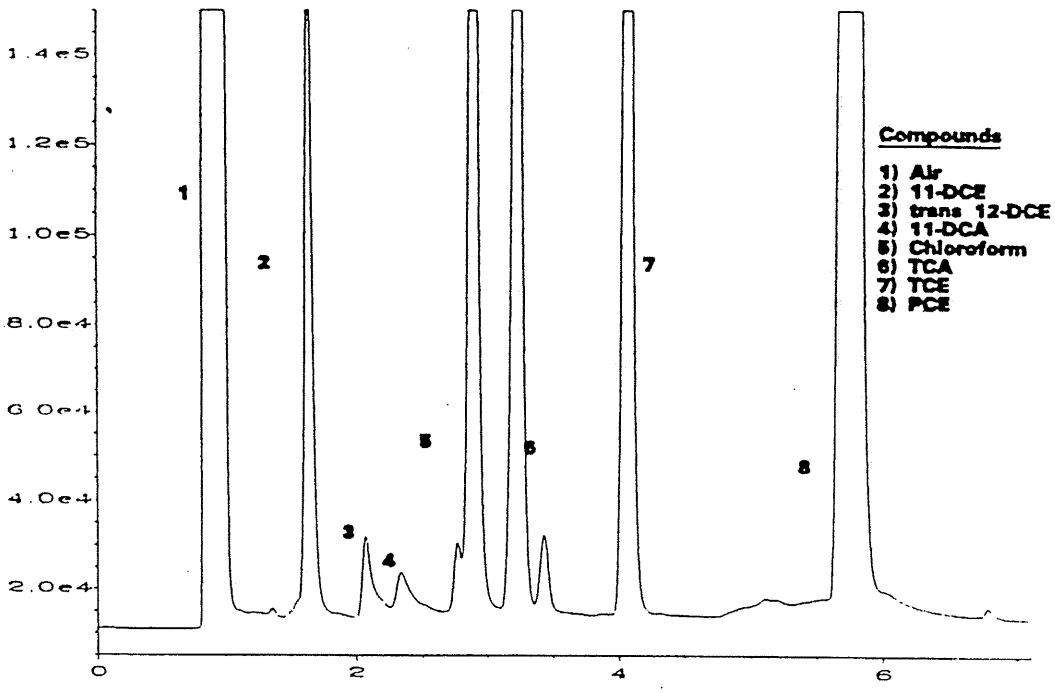
FILE ID	INJ. AMT. (ng)	11-DCE (ng)	Trans (ng)	11-DCA (ng)	Cis (ng)	Chloro (ng)	111-TCA (ng)	TCE (ng)	PCE (ng)
EHL1/PHL1-83	1.25/6.50	7.78	5.79	6.30	7.35	1.51	1.60	1.46	1.45

DUPLICATES

MPLE ID	11-DCE (ug/L)	Trans (ug/L)	11-DCA (ug/L)	Cis (ug/L)	Chloro (ug/L)	111-TCA (ug/L)	TCE (ug/L)	PCE (ug/L)
3B-93-B-Dup.	853	ND	ND	ND	ND	154	12.1	506

CHROMATOGRAMS

100 ul ECD Standard



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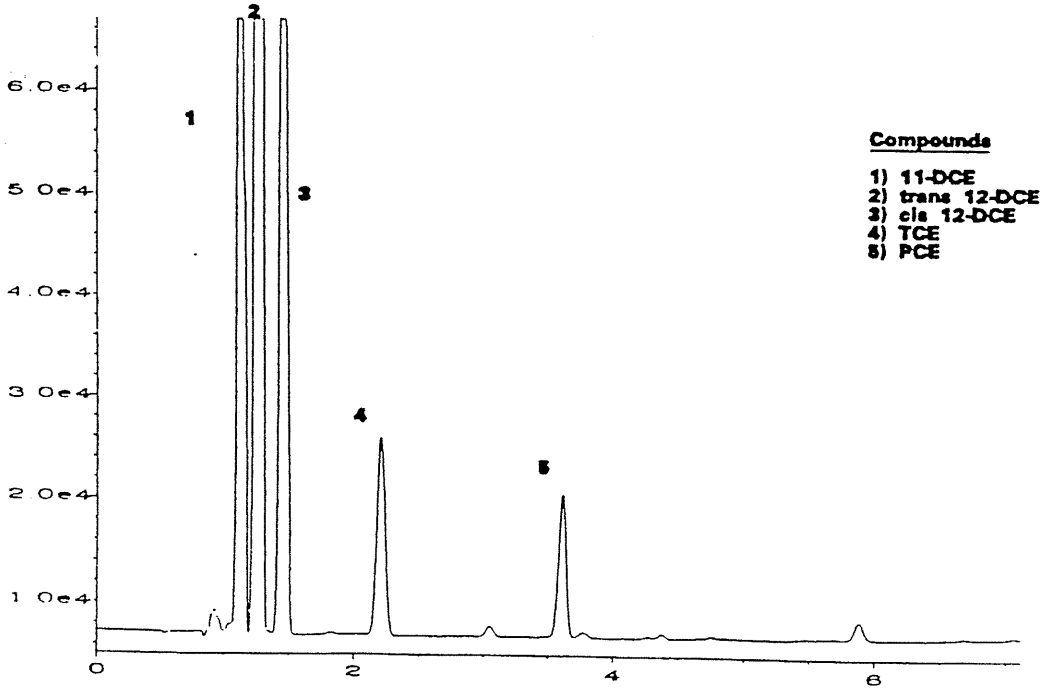
100 ul PID Standard



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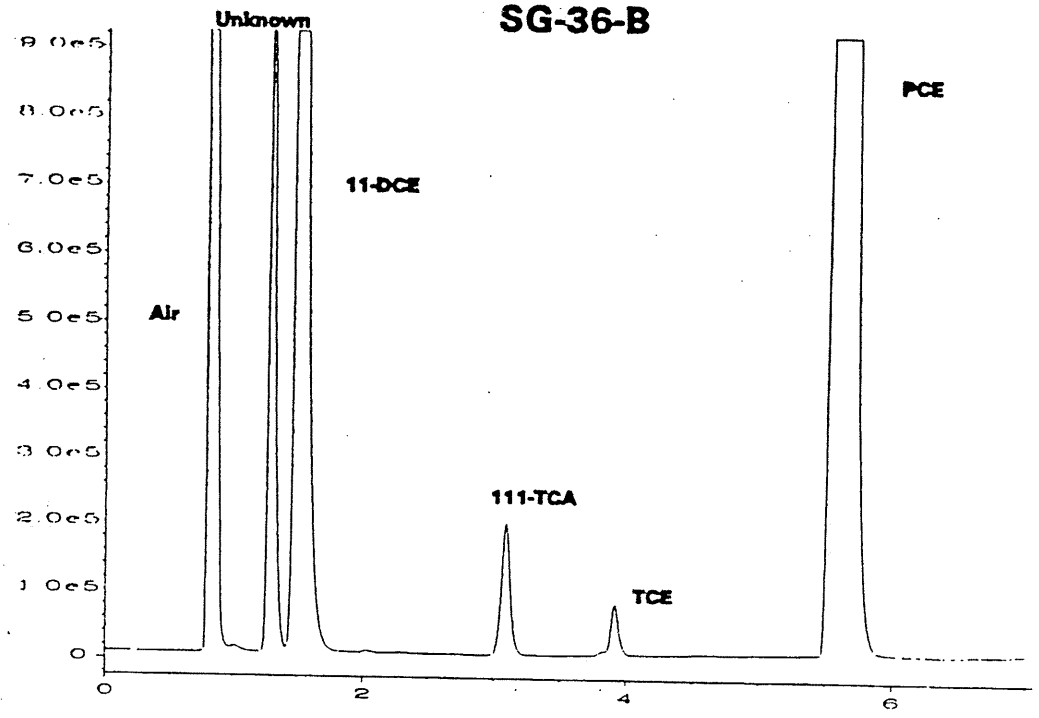
SG-36-B



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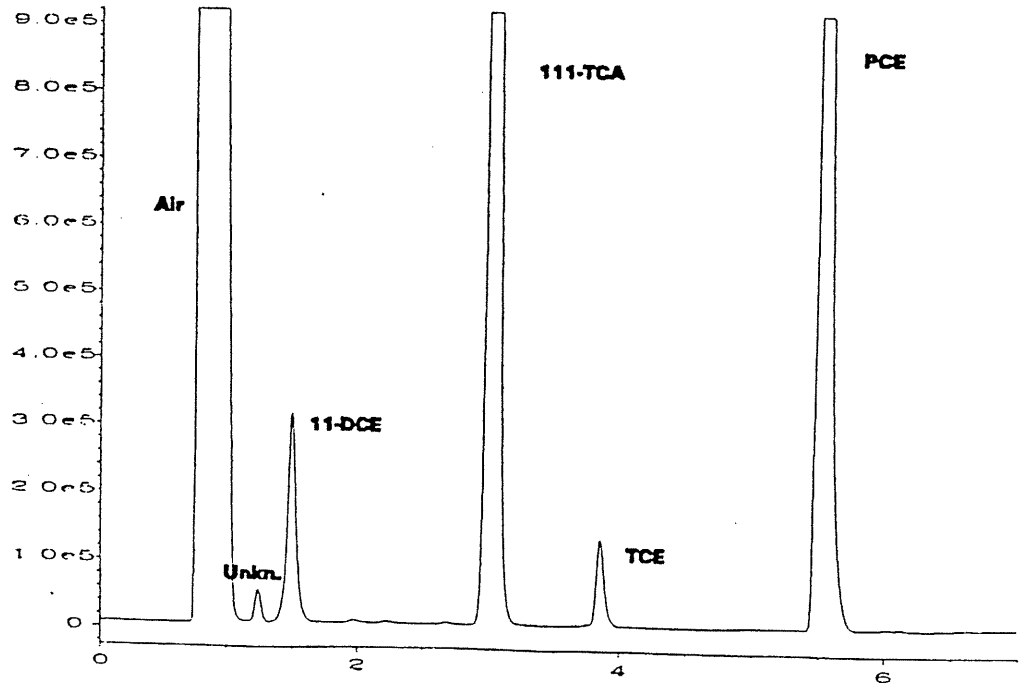
SG-51



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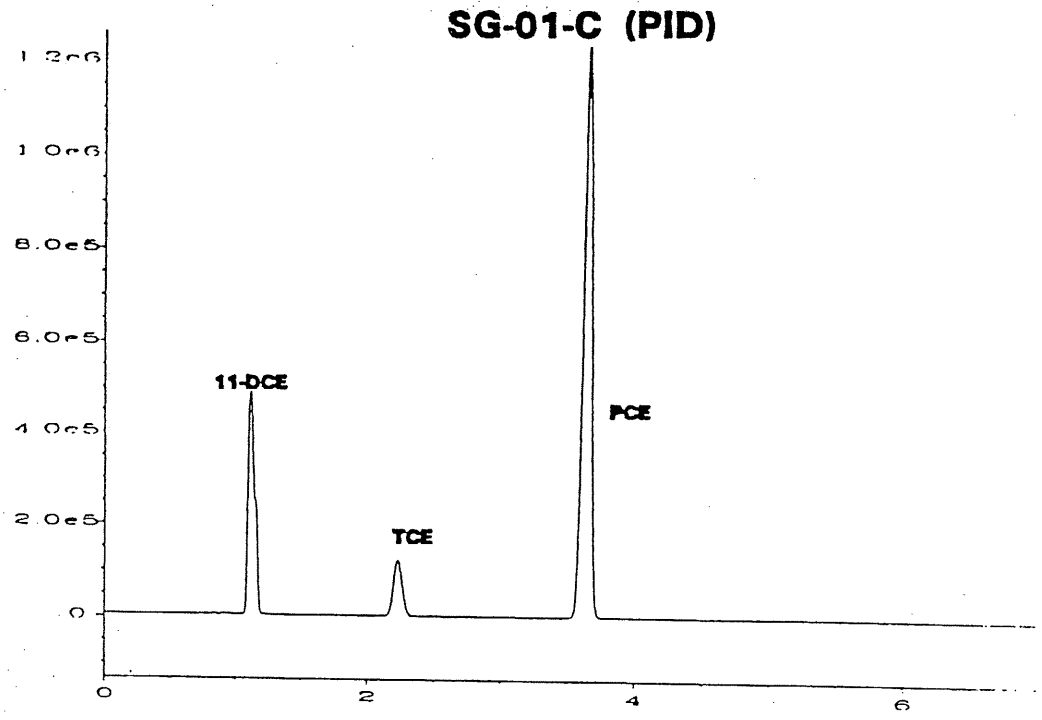
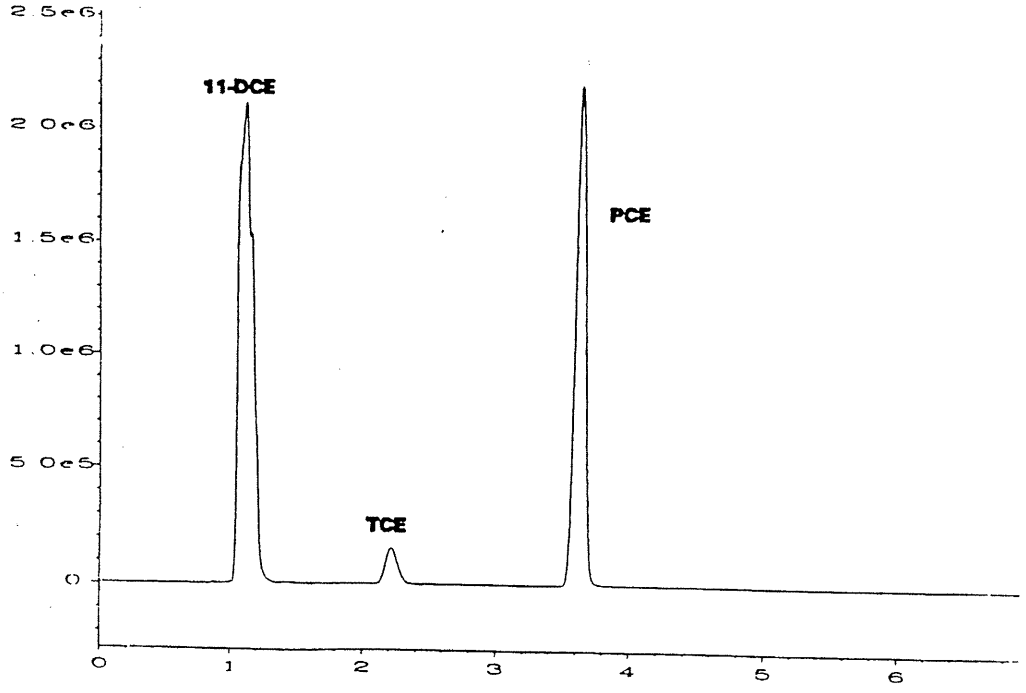
SG-01-C (PID)



Sig. 2 in B:\PHL-11.D

SG-40-A (PID)



Sig. 2 in B:\PHL-121.D

DISTRIBUTION

1 copy:	Utility Trailer Manufacturing Company 17295 East Railroad Street City of Industry, California 91749 Attention: Mr. Bob Dixon
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QUALITY CONTROL REVIEWER:

Donald A. Pape
Principal Hydrogeologist

PS/TAK/lf/xj

91UTM022.rpt

Harding Lawson Associates

August 9, 1991

20368,003.11

California Regional Water Quality Control Board
Los Angeles Region
101 Centre Plaza Drive
Monterey Park, California 91754-2156

Attention: Mr. Samuel Yu

Gentlemen:

Extension for Submission of
Soil-Gas Survey Report
Utility Trailer Manufacturing Company
City of Industry, California

This letter confirms that, based on discussions held on August 9, 1991, between Ms. Peggy Seracuse of Harding Lawson Associates (HLA) and Mr. Samuel Yu of the California Regional Water Quality Control Board, the submittal deadline for HLA's Soil-Gas Survey report for Utility Trailer Manufacturing Company has been extended to August 30, 1991.

If you have any questions or comments please call the undersigned.

Very truly yours,

HARDING LAWSON ASSOCIATES

Peggy Seracuse
Staff Chemist

Ted A. Koelsch, Ph.D., R.G.
Principal Hydrogeologist

PS/TAK/ps
[EXUT.LTR]

cc: Mr. Bob Dixon, Utility Trailer Manufacturing Company
Mr. Dominic Holzhaus, Esq., Latham & Watkins