California Environmental Protection Agency

Air Resources Board

APPENDICES

For Report

Ambient Air Monitoring for Chloropicrin and Breakdown Products of Metam Sodium in Kern County – Summer 2001

Prepared by
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Quality Management Branch
Monitoring and Laboratory Division

Project No. P01-004

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Protocol for the Ambient Air Monitoring
For Methyl Bromide, 1,3-Dichloropropene, Chloropicrin and
Breakdown Products of Metam Sodium
In Kern, Monterey and Santa Cruz Counties
During Summer/Fall, 2001

State of California
California Environmental Protection Agency
AIR RESOURCES BOARD

Protocol for the Ambient Air Monitoring for Methyl Bromide, 1,3-Dichloropropene, Chloropicrin and Breakdown Products of Metam Sodium In Kern, Monterey and Santa Cruz Counties During Summer/Fall, 2001

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This protocol has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

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for Methyl Bromide, 1,3-Dichloropropene, Chloropicrin and
Breakdown Products of Metam Sodium
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During Summer/Fall, 2001

I. Introduction

At the request of the California Department of Pesticide Regulation (DPR) (June 28, 2000 Memorandum, Helliker to Lloyd), the Air Resources Board (ARB) staff will conduct ambient air monitoring for the pesticides methyl bromide, 1,3-dichloropropene (Telone), chloropicrin and two breakdown products of metam sodium (methyl isothiocyanate and methyl isocyanate). Monitoring will occur in Kern County over an eight week ambient monitoring period, tentatively scheduled from June 30, 2001 to August 30, 2001 and also in Monterey and Santa Cruz Counties over an eight week ambient monitoring period, tentatively scheduled from September 10, 2001 to November 8, 2001. This is the second consecutive year the DPR has requested monitoring for methyl bromide and 1,3-dichloropropene at these locations. This monitoring will be done to fulfill the requirements of AB 1807/3219 (Food and Agricultural Code, Division 7, Chapter 3, Article 1.5) which requires the ARB "to document the level of airborne emissions...of pesticides which may be determined to pose a present or potential hazard..." when requested by the DPR. Monitoring is being conducted to coincide with the primary use of these fumigants prior to planting carrots in Kern County and prior to planting strawberries in Monterey and Santa Cruz Counties.

The sampling and analysis will follow the procedures outlined in this protocol as well as the quality assurance guidelines described in the "Quality Assurance Plan for Pesticide Air Monitoring" (May 11, 1999 version)(Attachment I).

The draft method, "Standard Operating Procedures for the Sampling and Analysis of Bromomethane and Telone by GC/MS using a Varian Cryogenic Sampler and Silco™ Canisters," is included as Attachment II (May 2001 Version). This method will be used as the primary analysis method for methyl bromide (bromomethane) and 1,3-dichloropropene. Samples with concentrations above the calibration range of the primary method will be analyzed on a secondary method, "Standard Operating Procedure Sampling and Analysis of Bromomethane In Silco Canisters", included as Attachment III.

The draft ARB method, "Standard Operating Procedure, Sampling and Analysis of 1,3-dichloropropene (Telone) and Methyl Isothiocyanate (MITC) in Application and Ambient Air using Gas Chromatography/Mass Selective Detector (06/25/01 Version)," is enclosed as Attachment IV.

The draft ARB method, "Standard Operating Procedure, Sampling and Analysis of

Methyl Isocyanate in Application and Ambient Air using High Performance Liquid Chromatography with a Fluorescence Detector (06/25/01 Version)," is enclosed as Attachment V.

The draft ARB method, "Standard Operating Procedure, Sampling and Analysis of Trichloronitromethane (Chloropicrin) in Application and Ambient Air using Gas Chromatography/Mass Selective Detector (06/25/01 Version)," is enclosed as Attachment VI.

II. Sampling

The collection media used for monitoring of methyl bromide and 1,3-dichloropropene will involve Silcosteel® canister sampling. The media used for chloropicrin will be *XAD-4* sampling cartridges. The media used for methyl isocyanate (MIC) will be *XAD-7* sampling cartridges. The media used for methyl isothiocyanate (MITC) will be charcoal sampling cartridges (1,3-dichloropropene results from the charcoal samples will also be reported). Individual samples will be collected for 24-hour periods. For pesticide ambient monitoring conducted in 2000, 24-hour samples were collected four days per week, Monday through Friday. However, for the 2001 monitoring the DPR has requested that: "At each site, 4 samples per week should be collected randomly over the full seven-day week during the sampling period". To accommodate this request the sampling schedule will be arranged, generally in groups of four consecutive sampling periods separated by one, two or three off-days, to add sampling days during most of the weekends during the eight week monitoring studies.

Caution should be used during field monitoring, transportation, storage, and lab analysis to minimize exposure of samples to sunlight in order to prevent photo degradation of chloropicrin, MIC and MITC.

Chloropicrin, MIC and MITC Sampling:

The sampling methods for three of the compounds require passing measured quantities of ambient air through adsorbent sampling tubes. For chloropicrin, the tubes are 8 mm x 150 mm, XAD-4, with 400 mg in the primary section, and 200 mg in the secondary section (SKC special order). For MIC, the tubes are 6 mm x 90 mm, XAD-7, 1-(2-pyridyl)piperazine coated, with 80 mg in the primary section, and 40 mg in the secondary section (Supelco special order). Two tubes will be used in sequence for the MIC sampling. For MITC, the tubes are 8 mm x 110 mm, coconut shell charcoal with 400 mg in the primary section, and 200 mg in the secondary section (SKC catalogue #226-09). (The coconut base charcoal tube samples will also be analyzed for 1,3-dichloropropene to be compared with the canister results).

Sample collection for chloropicrin is at a flow rate of 90 standard cubic centimeters per

minute (sccpm); at 75 sccpm for MIC; and at 2.5 standard liters per minute (slpm) for MITC. All samples are 24 hours in duration. Subsequent to sampling, the tubes are capped, labeled, placed in a culture tube and stored and transported to the ARB laboratory in Sacramento in an insulated container with dry ice. The DPR recommended target 24-hour estimated quantitation limits (EQLs) were 0.1 ug/m^3, 0.05 ug/m^3 and 0.5 ug/m^3 for chloropicrin, MIC, and MITC, respectively. The ARB 24-hour EQLs are 0.15 ug/m^3, 0.42 ug/m^3 and 0.18 ug/m^3 for chloropicrin, MIC, and MITC, respectively. The MIC EQL is approximately 8 times higher than requested. The DPR directed that the monitoring for MIC should be conducted as planned even with the higher than requested quantitation limit.

Each sample train consists of an adsorbent tube, Teflon fittings and tubing, rain/sun shield, rotameter, train support and a 115 volt AC vacuum pump (Figure 1). Tubes are prepared for use by breaking off the sealed glass end and immediately inserting the tube into the Teflon fitting. The tubes are oriented in the sample train according to a small arrow printed on the side indicating the direction of flow. A 0-5 lpm rotameter is used to control sample flow for the MITC sampling and 0-240 ccpm rotameters will be used to control the flow for the chloropicrin and MIC sampling. The flow rates will be set using a calibrated digital mass flow meter (MFM) before the start of each sampling period. A MFM scaled from 0-5 slpm is used for MITC and a 0-100 sccpm MFM is used for the chloropicrin and MIC samplers. The flow rate is also checked and recorded, using the MFM, at the end of each sampling period. Samplers will be leak checked prior to each sampling period with the sampling tubes installed. Any change in flow rates will be recorded in the field logbook. The pesticide ambient sampling procedures for adsorbent tubes are attached as Attachment VIII. The adsorbent tube sampling field log sheet is enclosed as Attachment X.

Methyl Bromide (MeBr) and 1,3-Dichloropropene Sampling

Integrated ambient air samples will be collected using passive air sampling into evacuated six liter, Silcosteel® canisters (from Restec Corporation). The flow rate of 3 sccpm will be set using a battery operated mass flow meter. The sampling system will be operated continuously for 24 hours with the exact operating interval recorded on the log and field data sheets (see Attachment IX). The canister vacuum reading will be recorded at the start and end of each sampling period using the –30 to 0 inHg gauge on the passive sampler. The start and end canister vacuum readings will be approximately -30 inHg and -8 inHg, respectively. The canister vacuum reading will also be measured using a more accurate gauge in the lab before and after transport to/from the field. The laboratory gauge readings will be used to calculate the sample volume collected. The 3 sccpm sampling rate will yield a sample volume of 4.32 liters over the 24 hour sampling period. The EQL for MeBr is 0.036 ug/m^3 (target EQL was 0.4 ug/m^3) and the EQLs for cis and trans 1,3-dichloropropene are 0.015 and 0.03 ug/m^3, respectively (target EQL for Telone was 0.01 ug/m^3).

The critical orifice flow controllers (Silcosteel treated Veriflo SC423XL) will be attached to the valve fitting on the canister using a Silcosteel treated swagelock connector (Figure 2). A six foot section of 1/8 inch O.D, Silcosteel tubing will be attached to the inlet end of an in-line, 7 micron filter, which will be attached to the inlet end of the flow controller. The inlet end of the tubing will be bent into a U shape (to prevent rain from entering) and supported about six feet above the building roof tops for the ambient monitoring. At the end of each sampling period, the canisters will be placed in shipping containers, with a sample identification/chain of custody sheet, and will be shipped as soon as reasonably possible to the ARB Monitoring and Laboratory Division laboratory for analysis. The samples will be stored at ambient laboratory temperature prior to analysis.

When using a critical orifice flow restrictor for passive integrated sampling, the potential decrease in flow rate as the vacuum in the canister changes must be taken into account. This condition is resolved by using the Veriflo SC423XL flow controller. The controller uses a metal diaphram downstream of the critical orifice to regulate the flow as the pressure the canister changes. It is capable of maintaining a continuous low flow with vacuum ranges from -29.9 to approximately -5 inHg. The in-line filter prevents particles from entering the critical orifice of the flow controller, which could clog the critical orifice and affect the flow through the controller. The outside temperature can also affect the flow rate. For example, there could be an approximately six percent flow drop when the temperature changes from 80 °F to 125 °F (according to manufacturer's specifications).

The pesticide ambient sampling procedures for canisters are enclosed as Attachment VII. The canister sampling field log sheet and canister data sheet are enclosed as Attachment IX. These forms will be used to record start and stop times, start and stop vacuum readings, sample identifications, weather conditions, sampler's initials and any other significant data.

Ambient Monitoring

The DPR has directed that monitoring site selection in Kern County should focus on 1,3-dichloropropene and metam sodium, but that samples be collected and analyzed for all five compounds. The historical use patterns for 1,3-dichloropropene and metam sodium suggest that monitoring should occur over a two-month period during July and August in Kern County. As was done in 2000, five sampling sites will be selected in relatively high-population areas or in areas frequented by people. At each site, a target of 32 discrete 24-hour sampling periods will be monitored during the study. Collocated (field duplicate) samples will be collected for 1 day/week at each sampling location.

The DPR has directed that monitoring site selection in Monterey and Santa Cruz Counties should focus on methyl bromide and chloropicrin, but that samples be collected and analyzed for all five compounds. In Monterey and Santa Cruz Counties,

historical use patterns indicate that monitoring for methyl bromide and chloropicrin should take place during September and October. As was done in 2000, five sampling sites will be selected in relatively high-population areas or in areas frequented by people (e.g., schools or school district offices, fire stations or other public buildings). Also, samples will again be collected in an urban area in Salinas. At each site, a target of 32 discrete 24-hour samples will be taken during the sampling period. Collocated (duplicate) samples will be collected for eight dates at each sampling location. Samples will also be collected for a one-week period in an area which is distant to fumigant applications. The location of this 'background' sampling site will be determined after consultation with the County Agricultural Commissioner's offices.

The sites were selected by ARB personnel from the areas of Kern County where carrot (and roses for one site) farming is predominant and from areas of Monterey and Santa Cruz Counties where strawberry farming is predominant. Sites were selected for their proximity to the fields and the presence of residents or students, with considerations for both accessibility and security of the sampling equipment. The sites are near areas of historical use of methyl bromide, 1,3-dichloropropene, chloropicrin and metam sodium. ARB understands that DPR staff will verify and quantify the actual use of these fumigants that takes place during the study when the information becomes available.

III. Analysis

The draft method, "Standard Operating Procedures for the Sampling and Analysis of Bromomethane and Telone by GC/MS using a Varian Cryogenic Sampler and Silco™ Canisters," is included as Attachment II (May 2001 Version). This method will be used as the primary analysis method for methyl bromide (bromomethane) and 1,3-dichloropropene. Samples with concentrations above the calibration range of the primary method will be analyzed on a secondary method, "Standard Operating Procedure Sampling and Analysis of Bromomethane In Silco Canisters" (Attachment III), using a higher calibration range. The procedures are based on EPA Method TO-15 and consist of cryogenic pre-concentration of an aliquot of the whole air sample followed by GC/MS analysis. The canisters arrive from the field at sub-ambient pressure and are pressurized (diluted) in the laboratory before analysis. The analyses will be performed by the ARB laboratory in Sacramento.

The ARB method, "Standard Operating Procedure, Sampling and Analysis of 1,3-dichloropropene (Telone) and Methyl Isothiocyanate (MITC) in Application and Ambient Air using Gas Chromatography/Mass Selective Detector (06/25/00 Version)," is enclosed as Attachment IV. The exposed charcoal tubes are stored in an ice chest or refrigerator until desorbed with 3 ml of dichloromethane. The attached SOP specifies that a gas chromatograph with a mass selective detector is used for analysis. The analyses will be performed by the ARB laboratory in Sacramento.

The draft ARB method, "Standard Operating Procedure, Sampling and Analysis of Methyl Isocyanate in Application and Ambient Air using High Performance Liquid Chromatography with a Fluorescence Detector (06/25/01 Version)," is enclosed as Attachment V. As outlined in the SOP, the sampling efficiency/recovery is low using this method, ranging from 50% to 70% at low levels. The sampling stability study will be run concurrently with analyses of samples. The analyses will be performed by the ARB laboratory in Sacramento.

The draft ARB method, "Standard Operating Procedure, Sampling and Analysis of Trichloronitromethane (Chloropicrin) in Application and Ambient Air using Gas Chromatography/Mass Selective Detector (06/25/01 Version)," is enclosed as Attachment VI. The analyses will be performed by the ARB laboratory in Sacramento.

IV. Quality Assurance

Field Quality Control for the ambient monitoring will include the following for each of the sampling methods (and for each of the sampling regions).

1) Field Spikes: For the 2000 ambient monitoring, field spikes were prepared (spiked) at approximately 0.6 ug/m^3 for both methyl bromide and 1,3-dichloropropene. The 2000 field spikes were collocated with samples collected at the urban sampling sites of Bakersfield and Salinas for the two respective studies. However, the pesticide levels observed in the collocated ambient samples were significantly higher than the spike levels, causing poor results in the recovery calculation. For 2001, the field spikes will be prepared (spiked) at levels of approximately 10 ug/m^3 each for methyl bromide and cis and trans 1,3-dichloropropene in the canister samples.

   The spike levels for MIC, MITC and chloropicrin in the adsorbent tube samples have not yet been determined.

   The four field spikes will be obtained by sampling ambient air at the urban background monitoring site for 24 hour periods (i.e., collocated with a background sample at the same environmental and experimental conditions). The four field spikes will be collected over the eight-week monitoring period. For example, one each of the field spikes will be collected every other week.

   For the 2001 Monterey/Santa Cruz Counties study, a field spike sample will also be collected at a site (to-be-determined) distant to methyl bromide applications. Levels of methyl bromide at this 'background' site are expected to be lower than in Salinas.

2) Four trip spikes will be prepared at the same level as the field spikes. A trip spike will be transported and analyzed along with each of the field spikes.

3) Four lab spikes will be prepared at the same level as the field and trip spikes. A lab spike will be analyzed along with each of the field and trip spike sets.

4) Collocated samples will be taken for eight dates at each sampling location.

5) A trip blank will be obtained each week of sampling.

V. Personnel

ARB sampling personnel will consist of staff from the ARB Air Quality Surveillance Branch. Laboratory personnel will consist of staff from the ARB Northern Laboratory Branch.

FIGURE 1. SAMPLE TREE

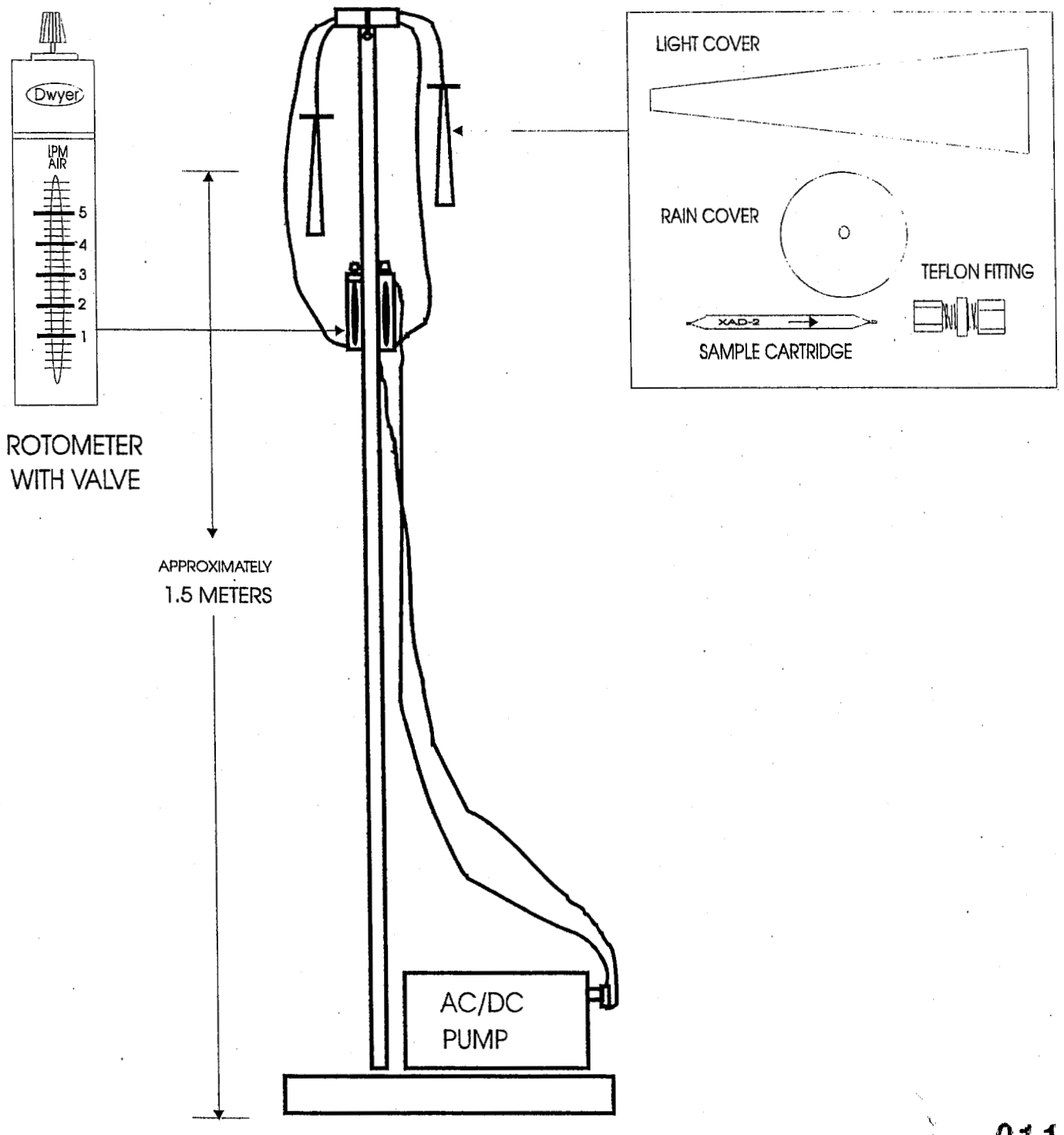
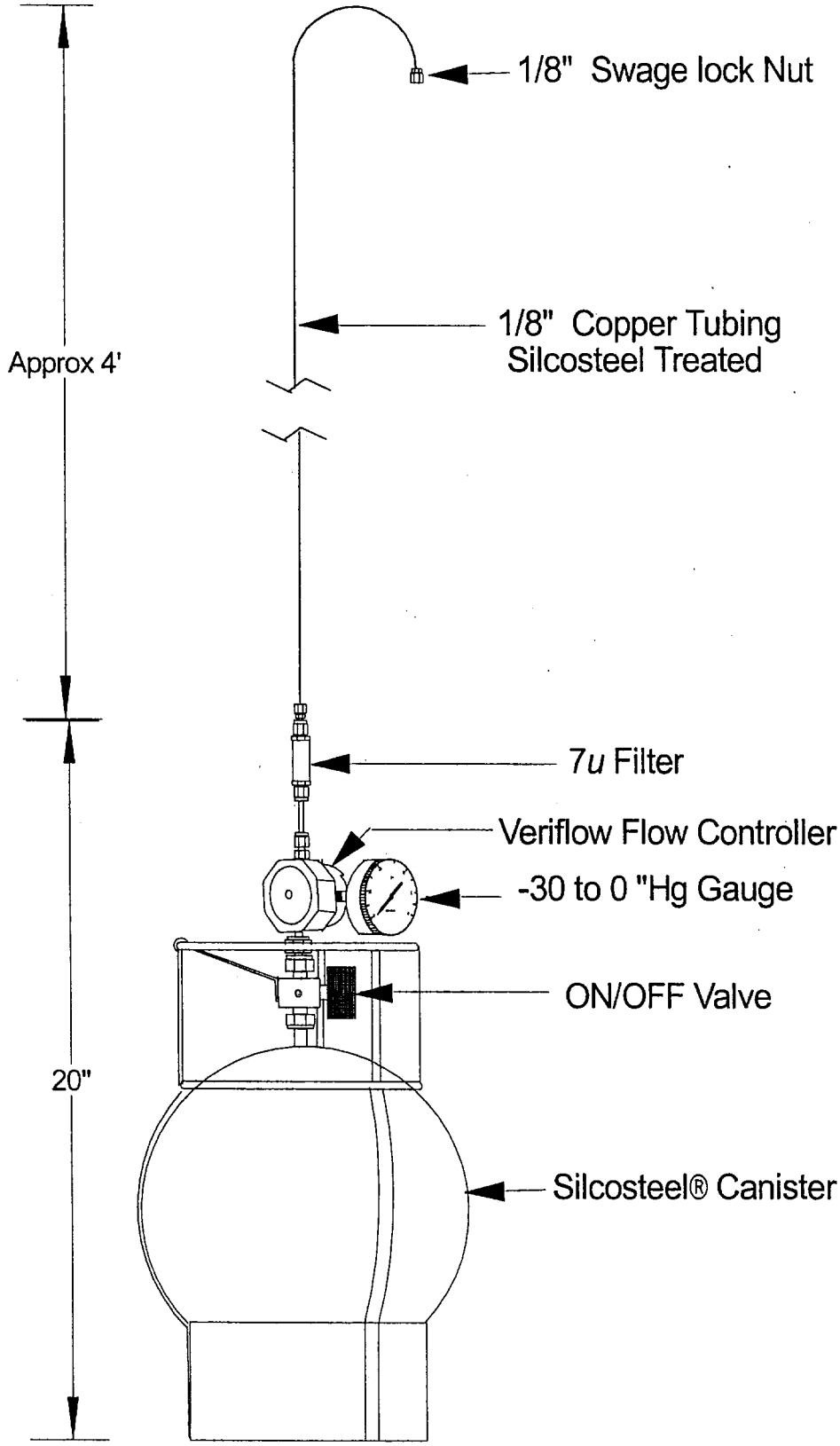


Figure 2

Passive Canister Sampling Train



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APPENDIX II

Air Sampling Cartridge Method Development and Analytical Results for Ambient Monitoring in Kern County

California Environmental Protection Agency

Air Resources Board

Air Sampling Cartridge Method Development and Analytical Results for Ambient Monitoring in Kern County

DATE: May 10, 2002
Revision 1

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1.0 INTRODUCTION

The Department of Pesticide Regulation (DPR) requested the Air Resources Board (ARB) to conduct ambient air monitoring for Telone (1,3-dichloropropene), chloropicrin (trichloronitromethane), and the breakdown products of metam-sodium, methyl isothiocyanate (MITC) and methyl isocyanate (MIC). 1,3-Dichloropropene (DCP) is present as a mixture of the cis and trans isomer. This report covers the method development, analytical, and quality assurance results for the: charcoal cartridge analysis of both cis and trans isomers of DCP and MITC; XAD-4 cartridge analysis of trichloronitromethane (TCNM); and derivatized XAD-7 cartridge analysis of MIC. DPR's requested estimated quantiation limits (EQL) are: DCP, 0.01 micrograms per cubic meter ($\mu g/m^3$); MITC, 0.5 $\mu g/m^3$; TCNM, 0.1 $\mu g/m^3$; and MIC, 0.05$\mu g/m^3$.

DPR's request for the ambient air analysis of several fumigant pesticides concurrently necessitates methodology that would optimize sample analysis while minimizing field sampling requirements. For the 2001 monitoring, staff maximized the analytical methods in two ways. One, the method was developed to include the most analytes while minimizing procedural variation. Two, the number of cartridges required by the field sampling team was minimized.

2.0 METHOD DEVELOPMENT AND STANDARD OPERATING PROCEDURE.

2.1 Overview

Staff modified the DCP method from the year 2000. The 2001 pesticide analysis uses a column that optimizes chromatographic separation of the cis and trans-DCP isomers, MITC, and TCNM. The DCP, MITC, and TCNM extraction used 3 milliliters (ml) of dichloromethane (DCM). The instrument analysis was on a gas chromatograph/mass selective detector (GC/MSD) operating in the selected ion monitoring (SIM) mode. MIC was collected on derivatized XAD-7 and extracted with 3ml of acetonitrile (ACN). MIC instrumental analysis was on a high performance liquid chromatograph (HPLC) with a fluorescence detector.

2.2 Instrument Reproducibility

Determination of instrumental reproducibility on the GC/MS uses seven individual injections of 1 µl each of the DCP, MITC and TCNM at three concentrations. Table 1A shows the results and area responses for DCP and MITC with the average and standard deviation of the determined value at 10, 40, and 100 nanograms/ml (ng/ml) for DCP and 0.5, 2.0 and 10.0 µg/ml for MITC. Table 1B shows the results and area responses for TCNM and MIC with the average and standard deviation of the determined values at 5, 20, and 50 ng/ml and 0.013, 0.078, and 0.260 µg/ml, respectively.

2.3 Calibration

The DCP analysis used standard concentrations of 10, 20, 40, 60, and 100 ng/ml for a 5-point calibration. The MITC analysis uses standard concentrations of 0.5, 1.0, 2.0, 3.0, and 5.0 μg/ml. For TCNM the calibration concentration are 5, 10, 20, 30, and 50 ng/ml. For the HPLC analysis of MIC, the calibration concentrations were 0.013, 0.026, 0.052, 0.078, 0.130, and 0.260 μg/ml. A calibration run was made before each analytical sample batch. All the calibration curves are linear with a correlation coefficient (r^2) of 0.995 or greater.

2.4. Minimum Detection Limit (MDL) and Estimated Quantitation Limits (EQL)

The EQL requested for DCP is 10.0 ng/m^3, which corresponds to 12.0 ng/ml when using a 3 ml extract and a flow rate of 2.5 liters per minute (LPM). Analytically an EQL of 10.0 ng/ml (5 ng/ml per isomer) was achieved. This corresponds to 15.0 ng/sample. For MITC, the requested EQL is 0.5 μg/m^3 or 1.5 μg/sample using a 3 ml extract. Analytically an EQL of 0.22 μg/ml was achieved. The low standard concentration was set at 0.5 μg/ml, which provides for accurate quantification of samples with concentrations at or above the requested EQL. For TCNM, the requested EQL is 100 ng/m^3. Analytically the EQL that was achieved was 137.5 ng/m^3, which corresponds to 19.8 ng/sample when using a 3 ml extraction volume and a flow rate of 0.1 LPM. The requested EQL for MIC is 0.05 μg/m^3. Analytically the EQL achieved was 0.42 μg/m^3, which corresponds to 0.045 μg/sample when using a 3 ml extraction volume and a flow rate of 0.075 LPM.

Staff reports results above the EQL to three (3) significant figures; results below the EQL but greater than or equal to the MDL, are reported as detected (DET); results less than MDL are reported as <MDL.

2.5. Collection and Extraction Efficiency (Recovery)

The extraction recovery for DCP, based on historical data, ranged from 82 to 110% with a mean of 92% and a standard deviation of 12%. The recovery of MITC ranges from 61 to 68%. The recovery for TCNM from the XAD-4 cartridges averaged 85%. The data on MIC showed a recovery of approximately 69%. The table below presents the results.

Compound Spikes	Mean Percent (%) Recovery	Percent (%) Std Dev
DCP	92	12
MITC	64	4
TCNM	85	10
MIC	69	14

2.6. *Storage Stability*

Staff completed storage stability studies on TCNM only. XAD-4 was spiked at 15 and 150 ng per cartridge. They were stored in the freezer, with one set analyzed weekly for up to 4 weeks. Results are shown below. Storage stability studies were previously done with DCP and MITC and not repeated here. No MIC storage stability studies were completed.

Days Stored	XAD Blank	Low #1	Low #2	Low #3	High #1	High #2	High #3
0	<MDL	4.91	5.43	5.20	43.12	43.62	43.31
9	<MDL	6.20	6.06	5.94	43.12	49.34	43.65
14	<MDL	6.71	6.50	6.14	54.38	52.40	54.07
20	<MDL	5.18	6.01	4.57	40.72	41.97	39.12
28	<MDL	5.42	4.26	4.07	43.19	42.66	42.11
Average		5.68	5.65	5.18	44.91	46.00	44.45
Std dev		0.75	0.87	0.88	5.40	4.61	5.66
Percent Recovery		113.7	113.0	103.7	89.81	92.00	88.90

2.7. *Breakthrough*

Staff completed breakthrough studies for TCNM. Results are shown below. Two to four XAD-4 cartridges were spiked at 1500 ng and placed on field samplers for 24 hours at different flow rates. The front and back beds were analyzed as described in the method. Flow rate is a critical factor in the field sampling for TCNM. The flow rate for field sampling is set at 0.1 LPM based on the breakthrough results.

Flow Rate	Amount Front Bed	% Recovery	Amount Back Bed	% Recovery
1.0 LPM				
Average	186.8	37.4	81.8	16.4
Std Dev	19.1	3.8	12.0	2.4
0.5 LPM				
Average	111.8	22.4	89.9	18.0
Std Dev	8.5	1.7	4.6	0.9
0.2 LPM				
Average	362.6	72.5	36.9	7.4
Std Dev	9.4	1.9	6.6	1.3
0.1 LPM				
Average	408.4	81.7	<MDL	NA
Std Dev	18.9	3.8		

Work on MIC to optimize field sampling and minimize interference from the derivatizing agent indicates that two cartridges placed in tandem were needed to retain MIC. No further work was completed on MIC before the start of monitoring.

3.0 AMBIENT AIR MONITORING SAMPLE RESULTS

Extraction and analysis of all samples was complete within 7 days of receipt.

The laboratory received a total of 263 charcoal cartridges for the analysis of DCP and MITC including four (4) field spikes, four (4) trip spikes (one of which was not assigned a log number), and eight (8) trip blanks from 06/30/01 to 08/30/01. Table 2 presents the results of the analysis of the cis and trans-DCP and the MITC ambient air samples by site. For TCNM the laboratory received a total of 263 XAD-4 ambient air samples including four (4) field spikes, four (4) trip spikes (one of which was not assigned a log number), and eight (8) trip blanks from 06/30/01 to 08/30/01. Table 3 presents the TCNM results by site. For MIC the laboratory received a total of 514 derivatized XAD-7 ambient air samples including four (4) field spikes, four (4) trip spikes (one of which was not assigned a log number), and eight (8) trip blanks from 06/30/01 to 08/30/01. The front and back cartridges were each assigned a separate log number. Table 4 presents the MIC results by site.

4.0 ANALYTICAL QUALITY CONTROL SAMPLES

4.1 Laboratory solvent blanks

Staff analyzes a laboratory solvent blank, DCM or ACN, with each of the ambient analytical sample batches. This is to insure there are no reagent interferences in the analysis. An analytical batch for this study are all the samples received during one field sampling week. All blanks were less than the MDL.

4.2 Laboratory spiking solutions

A spiking solution of the target compounds is analyzed with each analytical batch. Three mls of DCM is spiked at the following concentrations: DCP, 240 ng; MITC, 12.0 μg; and TCNM, 120 ng. For MIC, 3 ml of ACN is added to the contents of one of the XAD-7 cartridges to solubilize the 2-PP. To this is then added the 0.6 μg of MIC. The results of the analysis of the spiking solutions are in Table 5.

The data shows inconsistencies in the spiking and recoveries early in the monitoring. For TCNM, the spiking solution on 7/23 was made with an incorrect standard. The MIC analysis was still in the development stage and staff observed shifting of retention time and subsequent interferences. This resulted in inaccurate area determination for the MIC recovery.

4.3 Laboratory method blanks

Each analytical batch includes a laboratory method blank. This method blank consists of a charcoal, an XAD-4, or an XAD-7 cartridge prepared and analyzed as described in the SOP's. Analysis did not detect any of the target compounds above the MDL in these blanks. Table 6 shows the analytical results of the laboratory method blanks.

4.4 Laboratory control samples

Each analytical batch includes a laboratory control sample (LCS). These are cartridges (charcoal, XAD-4, XAD-7) spiked with the respective target compounds. The LCS is prepared and analyzed as described in the method SOP's. The average recoveries are as follows; cis and trans-DCP are 72.70 and 71.84%, respectively; MITC is 50.89%; TCNM is 86.70%; and MIC is 130.5% (see Table 7). For MIC, unlike the laboratory spiking solutions, the LCS cartridge is spiked directly.

As observed with the laboratory spiking solution, the initial spikes and recoveries are inconsistent. The TCNM spike on 7/23 was made with the incorrect spiking solution. The MIC recoveries are high as expected from the results of the spiking solution and arise from interferences in the method.

4.5 Calibration check standards

Following standard operating procedures, a calibration check standard is run after the initial calibration and every tenth (10) sample in an analytical batch. The calibration check standard must be within ± 25% of the target value. If any of the checks are outside the limit, the associated samples are re-analyzed. The calibration check concentration is 40 ng/ml for cis and trans-DCP; 4.0 μg/ml for MITC; 40.0 ng/ml for TCNM; and 0.13 μg/ml for MIC. All calibration checks standards were within range.

5.0 FIELD, TRIP, AND LABORATORY SPIKES AND TRIP BLANKS

For the Kern County analysis four (4) field spikes, four (4) trip spikes, four (4) laboratory spikes and eight (8) trip blanks were analyzed during the eight week ambient air testing. The cartridges were spiked about every two weeks.

5.1 Field spikes

The field spike results are in Table 8. The field spikes are sampled at the ARB ambient air monitoring station in Bakersfield (ARB). An unspiked collocated sample is run on the same day and is subtracted from the field spike sample to determine the actual spike recovery values. The average percent recovery of the field spikes were 79.8%±11.6 and 85.1%±16.7 for the cis and trans-DCP, respectively. The MITC recoveries are 47.9%±6.4. TCNM field spike recoveries were 61.7%±8.8. The TCNM spikes run on 7/13 and 8/16 are lower than observed and indicate a possibe spiking

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problem. The field spikes correlate with the low recoveries and inconsistencies seen in the spiking solutions and LCS. MIC recoveries are 100%±29. The field spike for 8/13 (ARBM19FS log #292) was broken on receipt in the laboratory.

5.2 Trip spikes

Table 9 presents the results of the trip spikes. Trip spikes are sent into the field but are not placed on samplers. The third trip spike for all the cartridges was not assigned a log number when received in the laboratory. The average recoveries are 68.5±13.4% and 67.7±12.7% for cis and trans-DCP, respectively. For MITC, the recovery is 49.0±6.2%. Low recoveries were determined for the first spike. For TCNM, the recovery is 89.5±9.5%. This is considerably higher than the recoveries observed for the field spikes. This may indicate possible loss on sampling. The trip spike run on 8/30 was non-detect (ARB28TS log#224). The respective field spike for date is 68%, however, the laboratory spike for this date is also low. Recovery for MIC is 110±18%. The spike run on 8/29 is very high and results from the interference observed with the method.

5.3 Laboratory spikes

Table 10 presents the results of the laboratory spikes. The laboratory spikes are spiked at the same time as the field and trip. These are stored in the refrigerator and analyzed with the respective field and trip spike for that week. The recoveries for cis and trans-DCP were 63.9±11.7% and 63.4±12.6%, respectively. For MITC recovery is 45.4±7.2%. The first two spikes being low as observed with the field and trip spikes. For TCNM recovery is 70.3±28.3%. The spike run on 8/30 is low, consistent with the nondetect observed for the trip spike. This may be from spiking errors. Recovery for MIC is 125±25%. The spike for 8/13 is high, as observed for the trip spike and not quantitated due to interference.

5.4 Trip blanks

Table 11 shows the analytical results for the trip blanks. During each week of monitoring, a cartridge is sent back to the lab as a designated blank. This cartridge is treated and analyzed as for the samples. All of the trip blank results are less than the MDL for the target compounds.

6.0 DISCUSSION

Staff looked at sampling methods to optimize the target compound analysis on the gas chromatograph/ mass selective detector (GC/MSD). The ARB 2000 air monitoring of DCP in Kern and Monterey counties showed MITC present. To optimize the separation of DCP, MITC, and TCNM the GC/MSD column used in 2000 was replaced with a Rtx-200. In the selective ion monitoring (SIM) mode, the target compounds are well resolved. Spikes of all the compounds made on charcoal cartridges and extracted with

DCM showed that TCNM was not extractable from these cartridges. Analysis of the compounds on XAD-4 showed poor extraction recovery of the DCP. If DCP and MITC were to be analyzed on the charcoal, then the MITC had to be retained using the flow rate of at least 3 LPM. Field sampling analysis for breakthrough at this flow rate showed no MITC detected in the back bed. The field sampling flow rate for the charcoal cartridge was set at 2.5 LPM ($3.6m^3$ for 24 hour sampling). This meets the requested EQL for DCP corresponding to 12.0 ng/ml and for MITC at 0.5 μg/ml.

Inconsistencies in the spikes and recoveries were observed in the beginning of the study. The DCP laboratory spike recoveries for the analytical batches are 63.9% and 63.4% for the cis and trans isomer, respectively. The field spikes recovery after subtracting the collocated background is 79.8% and 85.1%, respectively, for the cis/trans isomers. The chromatographs indicate that there may be some interference near the retention time of the cis isomer. This is particularly noticeable at a lower concentration. The average cis and trans concentrations are $3.07x10^3$ and $2.00x10^3$ ng/sample, respectively. The median concentration is $2.81x10^2$ and $2.24x10^2$ ng/sample for the cis/trans isomers, respectively. The maximum concentration observed is at the ARV-C, log #42 with a concentration of $1.49x10^5$ and $0.83x10^5$ ng/sample for the cis and trans. The average concentration of the MITC is 6.9 ng/sample. The median concentration is 4.0 ng/sample. The highest concentration is 78 ng/sample at MVS14 log#113. The recovery of MITC for this method averages 50%. Using a different solvent may help improve average recovery, but would necessitate using an additional cartridge for field sampling.

TCNM was quantitated in only six (6) of the samples received. The samples were: MVS15 log#119, 33.7 ng/sample; VSD15 log#120, 96.0 ng/sample; CRS24 log#189, 51.6 ng/sample; CRS24C log#190, 58.4 ng/sample; CRS25 log#200, 27.8 ng/sample; and CRS32 log#251, 31.9 ng/sample. The TCNM recovery for the laboratory spikes is 70.3%. Field spike recovery after subtracting the collocated background is 61.7%. As mentioned some of the differences could be from spiking issues or in the field sampling.

Methyl isocyanate analysis requires derivatization with 1-(2-pyridyl)piperazine (2-PP). The derivatived sample is analyzed on the HPLC using a fluorescence detector. Due to instrumental and procedural problems, staff was not able to complete all of the method development and stability testing before monitoring took place. One of the critical factors was the bed size for the cartridges and the concomitant amount of 2-PP that went on the column. Too much of the 2-PP swamped the detection area for MIC. Two of the 120 mg cartridges were placed in tandem for field sampling. Both front and back cartridges were analyzed. A flow rate of 0.075 LPM resulted in a volume of sample that would theoretically meet the requested EQL of 0.002 μg/ml. The actual analytical EQL was 0.015 μg/ml (0.045 μg/sample). MIC was present as a DET in several of the front tubes, particularly on days 4 and 5 of the monitoring. The field, trip, and laboratory spike recoveries are all high for the MIC. This is due to the narrow window for the detection of the derivatized MIC and the presence of interfering peaks.

Table 1A. Instrument Reproducibility for DCP and MITC

Amount	Cis-dichloropropene Area Response	ng/ml	Trans-dichloropropene Area Response	ng/ml	Methyl isothiocyanate Area Response	µg/ml
10 ng/ml	1268	5.83	1292	5.73	132155	0.66
	1333	6.17	1318	5.87	125575	0.63
MITC	1293	5.96	1320	5.88	125767	0.63
0.5 µg/ml	1331	6.16	1329	5.92	125180	0.63
	1320	6.10	1347	6.02	128640	0.65
	1369	6.36	1352	6.04	131013	0.65
	1381	6.43	1404	6.31	130935	0.65
Average	**1328**	**6.14**	**1337**	**5.97**	**128466**	**0.64**
Standard Dev.	**40**	**0.21**	**35**	**0.18**	**2963**	**0.01**
Rel. Standard Dev.	**3.01**	**3.42**	**2.62**	**3.02**	**2.31**	**1.56**
40 ng/ml	3635	18.31	3696	18.15	485841	2.13
	3685	18.57	3829	18.84	493414	2.16
MITC	3616	18.21	3715	18.25	508214	2.22
2.0 µg/ml	3655	18.41	3733	18.34	507438	2.22
	3613	18.19	3693	18.13	508384	2.22
	3630	18.28	3721	18.28	503662	2.20
	3585	18.05	3632	17.82	478385	2.10
Average	**3631**	**18.29**	**3717**	**18.26**	**497905**	**2.18**
Standard Dev.	**32**	**0.17**	**59**	**0.31**	**12158**	**0.05**
Rel. Standard Dev.	**0.88**	**0.93**	**1.59**	**1.70**	**2.44**	**2.29**
100 ng/ml	18383	96.07	18577	95.02	2249613	9.46
	18602	97.22	18910	96.74	2345638	9.85
MITC	18553	96.96	18642	95.35	2312210	9.72
10 µg/ml	18398	96.14	18612	95.20	2239236	9.41
	18216	95.18	18407	94.14	2276994	9.57
	18138	94.77	18418	94.20	2211034	9.30
	18295	95.60	18449	94.36	2283279	9.60
Average	**18369**	**95.99**	**18574**	**95.00**	**2274001**	**9.56**
Standard Dev.	**169**	**0.89**	**176**	**0.91**	**45561**	**0.19**
Rel. Standard Dev.	**0.92**	**0.93**	**0.95**	**0.96**	**2.00**	**1.99**

Table 1B. Instrument Reproducibility for TCNM and MIC

Amount	TCNM-XAD-4 Area Response	ng/ml	Amount	Methyl isocyanate-XAD-7 Area Response	µg/ml
5 ng/ml	184	5.59	0.013 ug/m	1.838	0.013
	183	5.56		1.867	0.012
	176	5.35		1.879	0.012
	165	5.51		1.854	0.012
	160	5.38		1.913	0.012
	162	5.43			
	148	5.07			
Average	**168**	**5.41**	**Average**	**1.870**	**0.012**
Standard Dev.	**13**	**0.18**	**Standard Dev**	**0.028**	**0.000**
Rel. Standard Dev.	**8**	**3.33**	**Rel. Standard Dev**	**1.49**	**0**
20 ng/ml	764	20.91	0.078 ug/ml	11.912	0.075
	763	20.88		11.827	0.075
	706	19.42		11.882	0.075
	700	19.26		11.927	0.075
	720	19.78		11.866	0.075
	736	20.19			
	724	19.88			
Average	**730**	**20.05**	**Average**	**11.891**	**0.075**
Standard Dev.	**25**	**0.65**	**Standard Dev**	**0.052**	**0.00**
Rel. Standard Dev.	**3**	**3.24**	**Rel. Standard dev.**	**0.44**	**0**
50 ng/ml	1970	51.91	0.260 ug/ml	41.254	0.261
	1903	50.19		40.253	0.255
	1994	52.53		40.455	0.256
	1967	51.83		40.603	0.257
	1885	49.73		43.821	0.278
	1913	50.45			
	1848	48.78			
Average	**1926**	**50.77**	**Average**	**41.277**	**0.261**
Standard Dev.	**53**	**1.35**	**Standard Dev**	**1.471**	**0.010**
Rel. Standard Dev.	**3**	**2.66**	**Rel. Standard Dev.**	**3.56**	**3.83**

Table 2. Ambient Monitoring Results of cis and trans-DCP and MITC

Site: ARB

Log Number	Sample Identification	Date Sampled	Date Analyzed	Results: c-DCP ng/sample	t-DCP ng/sample	MITC µg/sample
1	ARB	6/30/01	7/5/01	<MDL	<MDL	DET
7	ARB	7/1/01	7/5/01	<MDL	<MDL	DET
13	ARB	7/2/01	7/5/01	<MDL	<MDL	2.04E+00
14	ARB-C	7/2/01	7/5/01	<MDL	<MDL	1.98E+00
26	ARB	7/6/01	7/11/01	2.57E+01	1.52E+01	4.53E+00
33	ARB	7/7/01	7/11/01	<MDL	<MDL	DET
34	ARB-C	7/7/01	7/11/01	<MDL	<MDL	DET
47	ARB	7/8/01	7/11/01	<MDL	<MDL	<MDL
53	ARB-7	7/13/01	7/19/01	3.30E+02	2.47E+02	4.47E+00
60	ARB-8	7/14/01	7/19/01	2.64E+02	1.61E+02	2.10E+00
61	ARB-8C	7/14/01	7/19/01	2.59E+02	1.58E+02	2.04E+00
72	ARB-9	7/15/01	7/19/01	DET	DET	<MDL
78	ARB-10	7/16/01	7/19/01	<MDL	<MDL	<MDL
84	ARBT-11	7/21/01	7/27/01	4.01E+02	3.55E+02	DET
93	ARBT-12	7/22/01	7/27/01	6.86E+02	6.15E+02	DET
99	ARBT-13	7/23/01	7/27/01	1.10E+02	1.35E+02	1.92E+00
100	ARBT-13C	7/23/01	7/27/01	1.03E+02	1.29E+02	1.98E+00
111	ARBT-14	7/24/01	7/27/01	5.21E+01	4.20E+01	DET
117	ARBT15	7/29/01	8/3/01	3.80E+01	2.46E+01	<MDL
124	ARBT16	7/30/01	8/3/01	DET	<MDL	<MDL
125	ARBT16-C	7/30/01	8/3/01	DET	<MDL	<MDL
136	ARBT17	7/31/01	8/3/01	7.82E+02	6.78E+02	1.92E+00
142	ARBT18	8/1/01	8/3/01	1.06E+03	7.97E+02	2.43E+00
148	ARBT19	8/6/01	8/13/01	3.02E+01	2.97E+01	3.66E+00
155	ARBT20	8/7/01	8/13/01	6.87E+01	6.81E+01	5.97E+00
156	ARBT20C	8/7/01	8/13/01	6.94E+01	7.40E+01	6.18E+00
168	ARBT21	8/8/01	8/13/01	2.58E+02	1.19E+02	DET
174	ARBT22	8/9/01	8/13/01	9.29E+02	7.02E+02	DET
180	ARBT23	8/14/01	8/20/01	DET	DET	2.76E+00
187	ARBT24	8/15/01	8/20/01	1.04E+03	6.27E+02	2.52E+00
188	ARBT24C	8/15/01	8/20/01	1.17E+03	7.15E+02	2.97E+00
199	ARBT25	8/16/01	8/20/01	6.59E+02	5.15E+02	2.37E+00
205	ARBT26	8/17/01	8/20/01	7.35E+01	5.72E+01	DET
211	ARBT27	8/22/01	8/28/01	3.54E+02	3.13E+02	DET
218	ARBT28	8/23/01	8/28/01	1.98E+02	2.02E+02	1.59E+00
226	ARBT29	8/24/01	8/28/01	3.83E+02	2.21E+02	DET
227	ARBT29C	8/24/01	8/28/01	3.91E+02	2.20E+02	DET
238	ARBT30	8/25/01	8/28/01	3.74E+02	2.24E+02	DET
244	ARBT31	8/28/01	9/4/01	3.08E+02	2.52E+02	2.49E+00
250	ARBT32	8/29/01	9/4/01	1.54E+02	1.35E+02	DET
257	ARBT33	8/30/01	9/4/01	8.04E+01	4.54E+01	<MDL

025

Table 2. Ambient Monitoring Results of cis and trans-DCP and MITC

Site: CRS

Log Number	Sample Identification	Date Sampled	Date Analyzed	Results: c-DCP ng/sample	t-DCP ng/sample	MITC µg/sample
2	CRS	6/30/01	7/5/01	<MDL	<MDL	<MDL
8	CRS	7/1/01	7/5/01	<MDL	<MDL	<MDL
15	CRS	7/2/01	7/5/01	<MDL	<MDL	<MDL
16	CRS-C	7/2/01	7/5/01	<MDL	<MDL	<MDL
28	CRS	7/6/01	7/11/01	DET	DET	DET
35	CRS	7/7/01	7/11/01	<MDL	<MDL	DET
36	CRS-C	7/7/01	7/11/01	<MDL	<MDL	DET
48	CRS	7/8/01	7/11/01	<MDL	<MDL	<MDL
55	CRS-7	7/13/01	7/19/01	<MDL	<MDL	DET
62	CRS-8	7/14/01	7/19/01	3.84E+01	1.85E+01	DET
63	CRS-8C	7/14/01	7/19/01	3.66E+01	1.70E+01	DET
73	CRS-9	7/15/01	7/19/01	DET	DET	<MDL
79	CRS-10	7/16/01	7/19/01	<MDL	<MDL	<MDL
86	CRST-11	7/21/01	7/27/01	<MDL	<MDL	<MDL
94	CRST-12	7/22/01	7/27/01	2.25E+01	2.70E+01	<MDL
101	CRST-13	7/23/01	7/27/01	3.41E+01	3.75E+01	DET
102	CRST-13C	7/23/01	7/27/01	3.22E+01	3.45E+01	DET
112	CRST-14	7/24/01	7/27/01	<MDL	<MDL	<MDL
118	CRST15	7/29/01	8/3/01	1.63E+01	DET	DET
126	CRST16	7/30/01	8/3/01	DET	<MDL	<MDL
127	CRST16-C	7/30/01	8/3/01	DET	DET	DET
137	CRST17	7/31/01	8/3/01	<MDL	<MDL	DET
143	CRST18	8/1/01	8/3/01	<MDL	<MDL	<MDL
150	CRST19	8/6/01	8/13/01	DET	<MDL	<MDL
157	CRST20	8/7/01	8/13/01	<MDL	<MDL	<MDL
158	CRST20C	8/7/01	8/13/01	<MDL	<MDL	<MDL
169	CRST21	8/8/01	8/13/01	4.87E+03	2.58E+03	<MDL
175	CRST22	8/9/01	8/13/01	5.28E+02	4.25E+02	<MDL
181	CRST23	8/14/01	8/20/01	4.99E+01	4.91E+01	<MDL
189	CRST24	8/15/01	8/20/01	3.42E+02	2.39E+02	DET
190	CRST24C	8/15/01	8/20/01	3.32E+02	2.45E+02	DET
200	CRST25	8/16/01	8/20/01	3.02E+02	2.47E+02	DET
206	CRST26	8/17/01	8/20/01	1.02E+02	8.72E+01	DET
212	CRST27	8/22/01	8/28/01	DET	DET	<MDL
219	CRST28	8/23/01	8/28/01	DET	<MDL	<MDL
228	CRST29	8/24/01	8/28/01	4.38E+02	1.41E+02	<MDL
229	CRST29C	8/24/01	8/28/01	4.70E+02	1.58E+02	<MDL
239	CRST30	8/25/01	8/28/01	4.89E+02	2.17E+02	<MDL
245	CRST31	8/28/01	9/4/01	1.04E+02	8.19E+01	DET
251	CRST32	8/29/01	9/4/01	5.68E+02	4.67E+02	<MDL
258	CRST33	8/30/01	9/4/01	7.56E+01	6.03E+01	<MDL

026

Table 2. Ambient Monitoring Results of cis and trans-DCP and MITC

Site: MVS

Log Number	Sample Identification	Date Sampled	Date Analyzed	Results: c-DCP ng/sample	t-DCP ng/sample	MITC µg/sample
3	MVS	6/30/01	7/5/01	<MDL	<MDL	1.71E+00
9	MVS	7/1/01	7/5/01	<MDL	<MDL	2.67E+00
17	MVS	7/2/01	7/5/01	<MDL	<MDL	9.78E+00
18	MVS-C	7/2/01	7/5/01	<MDL	<MDL	7.68E+00
29	MVS	7/6/01	7/11/01	5.96E+02	2.94E+02	1.94E+01
37	MVS	7/7/01	7/11/01	1.09E+04	6.71E+03	3.03E+00
38	MVS-C	7/7/01	7/11/01	7.23E+03	4.55E+03	3.00E+00
49	MVS	7/8/01	7/11/01	3.08E+03	2.58E+03	1.77E+00
56	MVS-7	7/13/01	7/19/01	3.18E+03	2.79E+03	1.60E+01
64	MVS-8	7/14/01	7/19/01	1.62E+03	1.22E+03	1.71E+01
65	MVS-8C	7/14/01	7/19/01	1.61E+03	1.19E+03	1.79E+01
74	MVS-9	7/15/01	7/19/01	4.56E+02	3.63E+02	<MDL
80	MVS-10	7/16/01	7/19/01	1.16E+03	9.06E+02	DET
87	MVST-11	7/21/01	7/27/01	3.44E+03	3.14E+03	3.93E+00
95	MVST-12	7/22/01	7/27/01	6.85E+02	8.21E+02	6.09E+00
103	MVST-13	7/23/01	7/27/01	1.11E+02	1.14E+02	4.40E+01
104	MVST-13C	7/23/01	7/27/01	1.05E+02	1.07E+02	3.89E+01
113	MVST-14	7/24/01	7/27/01	1.12E+04	7.85E+03	7.80E+01
119	MVST15	7/29/01	8/3/01	1.79E+03	1.87E+03	3.06E+00
128	MVST16	7/30/01	8/3/01	DET	DET	DET
129	MVST16-C	7/30/01	8/3/01	DET	DET	DET
138	MVST17	7/31/01	8/3/01	6.55E+03	5.68E+03	2.23E+01
144	MVST18	8/1/01	8/3/01	3.20E+03	3.23E+03	6.12E+00
151	MVST19	8/6/01	8/13/01	1.69E+02	2.06E+02	5.04E+00
159	MVST20	8/7/01	8/13/01	8.06E+01	9.38E+01	3.57E+00
160	MVST20C	8/7/01	8/13/01	8.02E+01	9.21E+01	3.69E+00
170	MVST21	8/8/01	8/13/01	1.30E+03	9.63E+02	1.65E+00
176	MVST22	8/9/01	8/13/01	5.41E+02	4.39E+02	DET
182	MVST23	8/14/01	8/20/01	3.89E+01	3.42E+01	3.30E+00
191	MVST24	8/15/01	8/20/01	3.59E+03	2.29E+03	7.14E+00
192	MVST24C	8/15/01	8/20/01	3.81E+03	2.50E+03	7.08E+00
201	MVST25	8/16/01	8/20/01	1.01E+03	7.94E+02	6.36E+00
207	MVST26	8/17/01	8/20/01	1.11E+03	1.03E+03	1.98E+00
213	MVST27	8/22/01	8/28/01	2.06E+02	1.72E+02	7.32E+00
220	MVST28	8/23/01	8/28/01	1.59E+01	DET	2.37E+00
230	MVST29	8/24/01	8/28/01	1.65E+02	1.15E+02	DET
231	MVST29C	8/24/01	8/28/01	1.69E+02	1.18E+02	DET
240	MVST30	8/25/01	8/28/01	6.87E+01	2.41E+01	<MDL
246	MVST31	8/28/01	9/4/01	4.68E+01	2.91E+01	3.72E+00
252	MVST32	8/29/01	9/4/01	1.54E+02	1.72E+02	7.56E+00
259	MVST33	8/30/01	9/4/01	5.26E+02	3.31E+02	2.70E+00

027

Table 2. Ambient Monitoring Results of cis and trans-DCP and MITC

Site: VSD

Log Number	Sample Identification	Date Sampled	Date Analyzed	Results: c-DCP ng/sample	t-DCP ng/sample	MITC µg/sample
4	VSD	6/30/01	7/5/01	<MDL	<MDL	DET
10	VSD	7/1/01	7/5/01	<MDL	<MDL	DET
19	VSD	7/2/01	7/5/01	<MDL	<MDL	2.20E+01
20	VSD-C	7/2/01	7/5/01	<MDL	<MDL	2.12E+01
30	VSD	7/6/01	7/11/01	5.13E+03	2.59E+03	4.08E+00
39	VSD	7/7/01	7/11/01	2.38E+03	1.28E+03	2.07E+00
40	VSD-C	7/7/01	7/11/01	2.29E+03	1.21E+03	2.07E+00
50	VSD	7/8/01	7/11/01	2.28E+03	1.69E+03	DET
57	VSD-7	7/13/01	7/19/01	7.11E+01	1.01E+02	3.37E+01
66	VSD-8	7/14/01	7/19/01	1.64E+03	9.15E+02	5.67E+00
67	VSD-8C	7/14/01	7/19/01	1.91E+03	1.07E+03	5.40E+00
75	VSD-9	7/15/01	7/19/01	2.70E+02	2.07E+02	DET
81	VSD-10	7/16/01	7/19/01	9.48E+02	5.70E+02	DET
88	VSDT-11	7/21/01	7/27/01	8.62E+03	7.92E+03	8.40E+00
96	VSDT-12	7/22/01	7/27/01	6.53E+02	9.14E+02	5.97E+00
105	VSDT-13	7/23/01	7/27/01	2.34E+02	2.73E+02	9.36E+00
106	VSDT-13C	7/23/01	7/27/01	2.26E+02	2.64E+02	8.82E+00
114	VSDT-14	7/24/01	7/27/01	5.13E+04	3.59E+04	2.01E+01
120	VSDT15	7/29/01	8/3/01	3.79E+03	3.90E+03	3.36E+00
130	VSDT16	7/30/01	8/3/01	8.68E+01	5.56E+01	DET
131	VSDT16-C	7/30/01	8/3/01	8.99E+01	5.60E+01	DET
139	VSDT17	7/31/01	8/3/01	1.31E+04	1.18E+04	5.94E+00
145	VSDT18	8/1/01	8/3/01	3.08E+02	3.27E+02	2.28E+00
152	VSDT19	8/6/01	8/13/01	7.71E+01	9.26E+01	4.11E+00
161	VSDT20	8/7/01	8/13/01	1.37E+02	1.72E+02	6.12E+00
162	VSDT20C	8/7/01	8/13/01	1.36E+02	1.71E+02	5.79E+00
171	VSDT21	8/8/01	8/13/01	1.30E+03	9.73E+02	DET
177	VSDT22	8/9/01	8/13/01	6.71E+02	4.91E+02	DET
183	VSDT23	8/14/01	8/20/01	2.90E+01	2.61E+01	4.05E+00
193	VSDT24	8/15/01	8/20/01	1.94E+03	1.15E+03	2.91E+00
194	VSDT24C	8/15/01	8/20/01	2.02E+03	1.22E+03	2.91E+00
202	VSDT25	8/16/01	8/20/01	2.27E+03	1.85E+03	7.20E+00
208	VSDT26	8/17/01	8/20/01	DET	DET	DET
214	VSDT27	8/22/01	8/28/01	3.41E+01	3.11E+01	2.70E+00
221	VSDT28	8/23/01	8/28/01	DET	DET	4.86E+00
232	VSDT29	8/24/01	8/28/01	1.12E+02	8.00E+01	DET
233	VSDT29C	8/24/01	8/28/01	1.16E+02	8.09E+01	DET
241	VSDT30	8/25/01	8/28/01	6.71E+01	2.33E+01	<MDL
247	VSDT31	8/28/01	9/4/01	1.02E+02	5.32E+01	DET
253	VSDT32	8/29/01	9/4/01	2.19E+02	2.27E+02	4.47E+00
260	VSDT33	8/30/01	9/4/01	3.55E+01	3.57E+01	3.84E+00

028

Table 2. Ambient Monitoring Results of cis and trans-DCP and MITC

Site: ARV

Log Number	Sample Identification	Date Sampled	Date Analyzed	Results: c-DCP ng/sample	t-DCP ng/sample	MITC µg/sample
5	ARV	6/30/01	7/5/01	<MDL	<MDL	5.19E+00
11	ARV	7/1/01	7/5/01	<MDL	<MDL	8.58E+00
21	ARV	7/2/01	7/5/01	<MDL	<MDL	9.09E+00
22	ARV-C	7/2/01	7/5/01	<MDL	<MDL	8.82E+00
31	ARV	7/6/01	7/11/01	1.28E+02	8.70E+01	4.29E+00
41	ARV	7/7/01	7/11/01	1.17E+05	6.35E+04	3.24E+00
42	ARV-C	7/7/01	7/11/01	1.49E+05	8.34E+04	3.06E+00
51	ARV	7/8/01	7/11/01	2.12E+04	1.58E+04	3.12E+00
58	ARV-7	7/13/01	7/19/01	4.03E+02	4.01E+02	1.53E+01
68	ARV-8	7/14/01	7/19/01	1.38E+04	8.07E+03	7.41E+00
69	ARV-8C	7/14/01	7/19/01	1.71E+04	9.93E+03	6.60E+00
76	ARV-9	7/15/01	7/19/01	3.27E+03	2.30E+03	DET
82	ARV-10	7/16/01	7/19/01	5.08E+03	4.17E+03	4.92E+00
89	ARVT-11	7/21/01	7/27/01	8.78E+02	8.50E+02	2.28E+00
97	ARVT-12	7/22/01	7/27/01	3.74E+02	3.98E+02	1.06E+01
107	ARVT-13	7/23/01	7/27/01	1.83E+02	2.15E+02	3.45E+00
108	ARVT-13C	7/23/01	7/27/01	1.82E+02	2.12E+02	3.45E+00
115	ARVT-14	7/24/01	7/27/01	7.65E+02	5.75E+02	5.76E+00
121	ARVT15	7/29/01	8/3/01	4.33E+02	4.29E+02	DET
132	ARVT16	7/30/01	8/3/01	7.92E+02	6.11E+02	1.50E+00
133	ARVT16-C	7/30/01	8/3/01	7.97E+02	6.11E+02	1.53E+00
140	ARVT17	7/31/01	8/3/01	7.20E+02	6.10E+02	1.65E+00
146	ARVT18	8/1/01	8/3/01	2.39E+02	2.45E+02	2.01E+00
153	ARVT19	8/6/01	8/13/01	3.69E+02	4.83E+02	2.97E+00
163	ARVT20	8/7/01	8/13/01	8.67E+01	9.72E+01	1.56E+00
164	ARVT20C	8/7/01	8/13/01	8.37E+01	9.63E+01	DET
172	ARVT21	8/8/01	8/13/01	7.10E+02	5.84E+02	DET
178	ARVT22	8/9/01	8/13/01	4.11E+02	3.16E+02	2.73E+00
184	ARVT23	8/14/01	8/20/01	2.78E+01	2.03E+01	DET
195	ARVT24	8/15/01	8/20/01	8.27E+02	3.77E+02	2.28E+00
196	ARVT24C	8/15/01	8/20/01	8.79E+02	4.05E+02	2.28E+00
203	ARVT25	8/16/01	8/20/01	2.81E+02	2.09E+02	5.79E+00
209	ARVT26	8/17/01	8/20/01	3.71E+01	2.57E+01	DET
215	ARVT27	8/22/01	8/28/01	3.63E+01	3.36E+01	DET
222	ARVT28	8/23/01	8/28/01	DET	<MDL	DET
234	ARVT29	8/24/01	8/28/01	8.28E+01	5.39E+01	<MDL
235	ARVT29C	8/24/01	8/28/01	8.19E+01	5.09E+01	<MDL
242	ARVT30	8/25/01	8/28/01	8.78E+01	3.31E+01	<MDL
248	ARVT31	8/28/01	9/4/01	1.60E+02	7.49E+01	<MDL
254	ARVT32	8/29/01	9/4/01	1.44E+02	1.03E+02	DET
261	ARVT33	8/30/01	9/4/01	2.73E+01	2.48E+01	DET

029

Table 2. Ambient Monitoring Results of cis and trans-DCP and MITC

Site: MET

Log Number	Sample Identification	Date Sampled	Date Analyzed	Results: c-DCP ng/sample	t-DCP ng/sample	MITC µg/sample
6	MET	6/30/01	7/5/01	<MDL	<MDL	<MDL
12	MET	7/1/01	7/5/01	<MDL	<MDL	<MDL
23	MET	7/2/01	7/5/01	<MDL	<MDL	<MDL
24	MET-C	7/2/01	7/5/01	<MDL	<MDL	<MDL
32	MET	7/6/01	7/11/01	1.83E+01	1.77E+01	DET
43	MET	7/7/01	7/11/01	4.28E+01	6.47E+01	DET
44	MET-C	7/7/01	7/11/01	4.12E+01	6.37E+01	DET
52	MET	7/8/01	7/11/01	3.57E+01	2.78E+01	<MDL
59	MET-7	7/13/01	7/19/01	8.28E+01	9.75E+01	DET
70	MET-8	7/14/01	7/19/01	9.18E+01	1.07E+02	1.92E+00
71	MET-8C	7/14/01	7/19/01	8.93E+01	9.92E+01	1.92E+00
77	MET-9	7/15/01	7/19/01	1.88E+01	2.35E+01	DET
83	MET-10	7/16/01	7/19/01	DET	DET	DET
90	METT-11	7/21/01	7/27/01	9.57E+01	8.25E+01	DET
98	METT-12	7/22/01	7/27/01	DET	DET	DET
109	METT-13	7/23/01	7/27/01	DET	DET	DET
110	METT-13C	7/23/01	7/27/01	DET	DET	DET
116	METT-14	7/24/01	7/27/01	3.62E+01	2.52E+01	DET
122	METT15	7/29/01	8/3/01	6.48E+01	6.17E+01	<MDL
134	METT16	7/30/01	8/3/01	2.18E+03	1.72E+03	<MDL
135	METT16-C	7/30/01	8/3/01	2.78E+03	2.13E+03	<MDL
141	METT17	7/31/01	8/3/01	4.59E+03	3.67E+03	<MDL
147	METT18	8/1/01	8/3/01	2.46E+02	2.67E+02	1.50E+01
154	METT19	8/6/01	8/13/01	DET	DET	DET
165	METT20	8/7/01	8/13/01	1.26E+03	6.46E+02	DET
166	METT20C	8/7/01	8/13/01	1.35E+03	6.95E+02	DET
173	METT21	8/8/01	8/13/01	1.73E+04	1.24E+04	DET
179	METT22	8/9/01	8/13/01	2.67E+04	1.67E+04	DET
185	METT23	8/14/01	8/20/01	5.38E+02	5.02E+02	3.54E+00
197	METT24	8/15/01	8/20/01	4.19E+02	4.10E+02	3.51E+00
198	METT24C	8/15/01	8/20/01	4.22E+02	4.13E+02	3.45E+00
204	METT25	8/16/01	8/20/01	1.06E+02	1.05E+02	2.34E+00
210	METT26	8/17/01	8/20/01	1.20E+02	1.19E+02	DET
216	METT27	8/22/01	8/28/01	4.24E+01	3.53E+01	DET
223	METT28	8/23/01	8/28/01	4.84E+01	3.77E+01	DET
236	METT29	8/24/01	8/28/01	1.63E+02	7.47E+01	<MDL
237	METT29C	8/24/01	8/28/01	1.56E+02	7.39E+01	<MDL
243	METT30	8/25/01	8/28/01	8.83E+01	4.94E+01	DET
249	METT31	8/28/01	9/4/01	5.02E+02	4.81E+02	DET
255	METT32	8/29/01	9/4/01	7.71E+01	7.17E+01	DET
262	METT33	8/30/01	9/4/01	6.86E+01	7.23E+01	<MDL

030

Table 3. Ambient Monitoring Results of TCNM

Site: ARB

Log Number	Sample Identification	Date Sampled	Date Analyzed	TCNM ng/sample
1	ARB	6/30/01	7/6/01	<MDL
7	ARB	7/1/01	7/6/01	<MDL
13	ARB	7/2/01	7/6/01	<MDL
14	ARB-C	7/2/01	7/6/01	<MDL
26	ARB	7/6/01	7/13/01	<MDL
33	ARB	7/7/01	7/13/01	<MDL
34	ARB-C	7/7/01	7/13/01	<MDL
47	ARB	7/8/01	7/13/01	<MDL
53	ARB-7	7/13/01	7/23/01	<MDL
60	ARB-8	7/14/01	7/23/01	<MDL
61	ARB-8C	7/14/01	7/23/01	<MDL
72	ARB-9	7/15/01	7/23/01	<MDL
78	ARB-10	7/16/01	7/23/01	<MDL
84	ARBL-11	7/21/01	7/30/01	<MDL
93	ARBL-12	7/22/01	7/30/01	<MDL
99	ARBL-13	7/23/01	7/30/01	<MDL
100	ARBL-13C	7/23/01	7/30/01	<MDL
111	ARBL-14	7/27/01	7/30/01	<MDL
117	ARBL15	7/29/01	8/6/01	<MDL
124	ARBL16	7/30/01	8/6/01	<MDL
125	ARBL16-C	7/30/01	8/6/01	<MDL
136	ARBL17	7/31/01	8/6/01	<MDL
142	ARBL18	8/1/01	8/6/01	<MDL
148	ARBL19	8/6/01	8/16/01	<MDL
155	ARBL20	8/7/01	8/16/01	<MDL
156	ARBL20C	8/7/01	8/16/01	<MDL
168	ARBL21	8/8/01	8/16/01	<MDL
174	ARBL22	8/9/01	8/16/01	<MDL
180	ARBL23	8/14/01	8/23/01	<MDL
187	ARBL24	8/15/01	8/23/01	<MDL
188	ARBL24C	8/15/01	8/23/01	<MDL
199	ARBL25	8/16/01	8/23/01	<MDL
205	ARBL26	8/17/01	8/23/01	<MDL
211	ARBL27	8/22/01	8/30/01	<MDL
218	ARBT28	8/23/01	8/30/01	<MDL
226	ARBL29	8/24/01	8/30/01	<MDL
227	ARBL29C	8/24/01	8/30/01	<MDL
238	ARBL30	8/25/01	8/30/01	<MDL
244	ARBL31	8/28/01	9/5/01	<MDL
250	ARBL32	8/29/01	9/5/01	DET
257	ARBL33	8/30/01	9/5/01	<MDL

Table 3. Ambient Monitoring Results of TCNM

Site: CRS

Log Number	Sample Identification	Date Sampled	Date Analyzed	TCNM ng/sample
2	CRS	6/30/01	7/6/01	<MDL
8	CRS	7/1/01	7/6/01	<MDL
15	CRS	7/2/01	7/6/01	<MDL
16	CRS-C	7/2/01	7/6/01	<MDL
28	CRS	7/6/01	7/13/01	<MDL
35	CRS	7/7/01	7/13/01	<MDL
36	CRS-C	7/7/01	7/13/01	<MDL
48	CRS	7/8/01	7/13/01	<MDL
55	CRS-7	7/13/01	7/23/01	<MDL
62	CRS-8	7/14/01	7/23/01	<MDL
63	CRS-8C	7/14/01	7/23/01	<MDL
73	CRS-9	7/15/01	7/23/01	<MDL
79	CRS-10	7/16/01	7/23/01	<MDL
86	CRSL-11	7/21/01	7/30/01	<MDL
94	CRSL-12	7/22/01	7/30/01	<MDL
101	CRSL-13	7/23/01	7/30/01	<MDL
102	CRSL-13C	7/23/01	7/30/01	<MDL
112	CRSL-14	7/27/01	7/30/01	<MDL
118	CRSL15	7/29/01	8/6/01	<MDL
126	CRSL16	7/30/01	8/6/01	<MDL
127	CRSL16-C	7/30/01	8/6/01	<MDL
137	CRSL17	7/31/01	8/6/01	<MDL
143	CRSL18	8/1/01	8/6/01	<MDL
150	CRSL19	8/6/01	8/16/01	<MDL
157	CRSL20	8/7/01	8/16/01	<MDL
158	CRSL20C	8/7/01	8/16/01	<MDL
169	CRSL21	8/8/01	8/16/01	<MDL
175	CRSL22	8/9/01	8/16/01	<MDL
181	CRSL23	8/14/01	8/23/01	<MDL
189	CRSL24	8/15/01	8/23/01	5.16E+01
190	CRSL24C	8/15/01	8/23/01	5.84E+01
200	CRSL25	8/16/01	8/23/01	2.78E+01
206	CRSL26	8/17/01	8/23/01	DET
212	CRSL27	8/22/01	8/30/01	<MDL
219	CRSL28	8/23/01	8/30/01	<MDL
228	CRSL29	8/24/01	8/30/01	<MDL
229	CRSL29C	8/24/01	8/30/01	<MDL
239	CRSL30	8/25/01	8/30/01	<MDL
245	CRSL31	8/28/01	9/5/01	<MDL
251	CRSL32	8/29/01	9/5/01	3.19E+01
258	CRSL33	8/30/01	9/5/01	<MDL

Table 3. Ambient Monitoring Results of TCNM

Site: MVS

Log Number	Sample Identification	Date Sampled	Date Analyzed	TCNM ng/sample
3	MVS	6/30/01	7/6/01	<MDL
9	MVS	7/1/01	7/6/01	<MDL
17	MVS	7/2/01	7/6/01	<MDL
18	MVS-C	7/2/01	7/6/01	<MDL
29	MVS	7/6/01	7/13/01	<MDL
37	MVS	7/7/01	7/13/01	<MDL
38	MVS-C	7/7/01	7/13/01	<MDL
49	MVS	7/8/01	7/13/01	<MDL
56	MVS-7	7/13/01	7/23/01	<MDL
64	MVS-8	7/14/01	7/23/01	<MDL
65	MVS-8C	7/14/01	7/23/01	<MDL
74	MVS-9	7/15/01	7/23/01	<MDL
80	MVS-10	7/16/01	7/23/01	<MDL
87	MVSL-11	7/21/01	7/30/01	<MDL
95	MVSL-12	7/22/01	7/30/01	<MDL
103	MVSL-13	7/23/01	7/30/01	<MDL
104	MVSL-13C	7/23/01	7/30/01	<MDL
113	MVSL-14	7/27/01	7/30/01	<MDL
119	MVSL15	7/29/01	8/6/01	3.37E+01
128	MVSL16	7/30/01	8/6/01	<MDL
129	MVSL16-C	7/30/01	8/6/01	<MDL
138	MVSL17	7/31/01	8/6/01	<MDL
144	MVSL18	8/1/01	8/6/01	<MDL
151	MVSL19	8/6/01	8/16/01	<MDL
159	MVSL20	8/7/01	8/16/01	<MDL
160	MVSL20C	8/7/01	8/16/01	<MDL
170	MVSL21	8/8/01	8/16/01	<MDL
176	MVSL22	8/9/01	8/16/01	<MDL
182	MVSL23	8/14/01	8/23/01	<MDL
191	MVSL24	8/15/01	8/23/01	<MDL
192	MVSL24C	8/15/01	8/23/01	<MDL
201	MVSL25	8/16/01	8/23/01	<MDL
207	MVSL26	8/17/01	8/23/01	<MDL
213	MVSL27	8/22/01	8/30/01	<MDL
220	MVSL28	8/23/01	8/30/01	<MDL
230	MVSL29	8/24/01	8/30/01	<MDL
231	MVSL29C	8/24/01	8/30/01	<MDL
240	MVSL30	8/25/01	8/30/01	<MDL
246	MVSL31	8/28/01	9/5/01	<MDL
252	MVSL32	8/29/01	9/5/01	<MDL
259	MVSL33	8/30/01	9/5/01	<MDL

Table 3. Ambient Monitoring Results of TCNM

Site: VSD

Log Number	Sample Identification	Date Sampled	Date Analyzed	TCNM ng/sample
4	VSD	6/30/01	7/6/01	<MDL
10	VSD	7/1/01	7/6/01	<MDL
19	VSD	7/2/01	7/6/01	<MDL
20	VSD-C	7/2/01	7/6/01	<MDL
30	VSD	7/6/01	7/13/01	<MDL
39	VSD	7/7/01	7/13/01	<MDL
40	VSD-C	7/7/01	7/13/01	<MDL
50	VSD	7/8/01	7/13/01	<MDL
57	VSD-7	7/13/01	7/23/01	<MDL
66	VSD-8	7/14/01	7/23/01	<MDL
67	VSD-8C	7/14/01	7/23/01	<MDL
75	VSD-9	7/15/01	7/23/01	<MDL
81	VSD-10	7/16/01	7/23/01	<MDL
88	VSDL-11	7/21/01	7/30/01	<MDL
96	VSDL-12	7/22/01	7/30/01	<MDL
105	VSDL-13	7/23/01	7/30/01	<MDL
106	VSDL-13C	7/23/01	7/30/01	<MDL
114	VSDL-14	7/27/01	7/30/01	<MDL
120	VSDL15	7/29/01	8/6/01	9.60E+01
130	VSDL16	7/30/01	8/6/01	<MDL
131	VSDL16-C	7/30/01	8/6/01	<MDL
139	VSDL17	7/31/01	8/6/01	DET
145	VSDL18	8/1/01	8/6/01	<MDL
152	VSDL19	8/6/01	8/16/01	<MDL
161	VSDL20	8/7/01	8/16/01	<MDL
162	VSDL20C	8/7/01	8/16/01	<MDL
171	VSDL21	8/8/01	8/16/01	<MDL
177	VSDL22	8/9/01	8/16/01	<MDL
183	VSDL23	8/14/01	8/23/01	<MDL
193	VSDL24	8/15/01	8/23/01	<MDL
194	VSDL24C	8/15/01	8/23/01	<MDL
202	VSDL25	8/16/01	8/23/01	<MDL
208	VSDL26	8/17/01	8/23/01	<MDL
214	VSDL27	8/22/01	8/30/01	<MDL
221	VSDL28	8/23/01	8/30/01	<MDL
232	VSDL29	8/24/01	8/30/01	<MDL
233	VSDL29C	8/24/01	8/30/01	<MDL
241	VSDL30	8/25/01	8/30/01	<MDL
247	VSDL31	8/28/01	9/5/01	<MDL
253	VSDL32	8/29/01	9/5/01	<MDL
260	VSDL33	8/30/01	9/5/01	<MDL

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Table 3. Ambient Monitoring Results of TCNM

Site: ARV

Log Number	Sample Identification	Date Sampled	Date Analyzed	TCNM ng/sample
5	ARV	6/30/01	7/6/01	<MDL
11	ARV	7/1/01	7/6/01	<MDL
21	ARV	7/2/01	7/6/01	<MDL
22	ARV-C	7/2/01	7/6/01	<MDL
31	ARV	7/6/01	7/13/01	<MDL
41	ARV	7/7/01	7/13/01	<MDL
42	ARV-C	7/7/01	7/13/01	<MDL
51	ARV	7/8/01	7/13/01	<MDL
58	ARV-7	7/13/01	7/23/01	<MDL
68	ARV-8	7/14/01	7/23/01	<MDL
69	ARV-8C	7/14/01	7/23/01	<MDL
76	ARV-9	7/15/01	7/23/01	<MDL
82	ARV-10	7/16/01	7/23/01	<MDL
89	ARVL-11	7/21/01	7/30/01	<MDL
97	ARVL-12	7/22/01	7/30/01	<MDL
107	ARVL-13	7/23/01	7/30/01	<MDL
108	ARVL-13C	7/23/01	7/30/01	<MDL
115	ARVL-14	7/27/01	7/30/01	<MDL
121	ARVL15	7/29/01	8/6/01	DET
132	ARVL16	7/30/01	8/6/01	<MDL
133	ARVL16-C	7/30/01	8/6/01	<MDL
140	ARVL17	7/31/01	8/6/01	<MDL
146	ARVL18	8/1/01	8/6/01	<MDL
153	ARVL19	8/6/01	8/16/01	<MDL
163	ARVL20	8/7/01	8/16/01	<MDL
164	ARVL20C	8/7/01	8/16/01	<MDL
172	ARVL21	8/8/01	8/16/01	<MDL
178	ARVL22	8/9/01	8/16/01	<MDL
184	ARVL23	8/14/01	8/23/01	<MDL
195	ARVL24	8/15/01	8/23/01	<MDL
196	ARVL24C	8/15/01	8/23/01	<MDL
203	ARVL25	8/16/01	8/23/01	<MDL
209	ARVL26	8/17/01	8/23/01	<MDL
215	ARVL27	8/22/01	8/30/01	<MDL
222	ARVL28	8/23/01	8/30/01	<MDL
234	ARVL29	8/24/01	8/30/01	<MDL
235	ARVL29C	8/24/01	8/30/01	<MDL
242	ARVL30	8/25/01	8/30/01	<MDL
248	ARVL31	8/28/01	9/5/01	<MDL
254	ARVL32	8/29/01	9/5/01	<MDL
261	ARVL33	8/30/01	9/5/01	<MDL

Table 3. Ambient Monitoring Results of TCNM

Site: MET

Log Number	Sample Identification	Date Sampled	Date Analyzed	TCNM ng/sample
6	MET	6/30/01	7/6/01	<MDL
12	MET	7/1/01	7/6/01	<MDL
23	MET	7/2/01	7/6/01	<MDL
24	MET-C	7/2/01	7/6/01	<MDL
32	MET	7/6/01	7/13/01	<MDL
43	MET	7/7/01	7/13/01	<MDL
44	MET-C	7/7/01	7/13/01	<MDL
52	MET	7/8/01	7/13/01	<MDL
59	MET-7	7/13/01	7/23/01	<MDL
70	MET-8	7/14/01	7/23/01	<MDL
71	MET-8C	7/14/01	7/23/01	<MDL
77	MET-9	7/15/01	7/23/01	<MDL
83	MET-10	7/16/01	7/23/01	<MDL
90	METL-11	7/21/01	7/30/01	<MDL
98	METL-12	7/22/01	7/30/01	<MDL
109	METL-13	7/23/01	7/30/01	<MDL
110	METL-13C	7/23/01	7/30/01	<MDL
116	METL-14	7/27/01	7/30/01	<MDL
122	METL15	7/29/01	8/6/01	<MDL
134	METL16	7/30/01	8/6/01	<MDL
135	METL16-C	7/30/01	8/6/01	<MDL
141	METL17	7/31/01	8/6/01	<MDL
147	METL18	8/1/01	8/6/01	<MDL
154	METL19	8/6/01	8/16/01	<MDL
165	METL20	8/7/01	8/16/01	<MDL
166	METL20C	8/7/01	8/16/01	<MDL
173	METL21	8/8/01	8/16/01	<MDL
179	METL22	8/9/01	8/16/01	<MDL
185	METL23	8/14/01	8/23/01	<MDL
197	METL24	8/15/01	8/23/01	<MDL
198	METL24C	8/15/01	8/23/01	<MDL
204	METL25	8/16/01	8/23/01	<MDL
210	METL26	8/17/01	8/23/01	<MDL
216	METL27	8/22/01	8/30/01	<MDL
223	METL28	8/23/01	8/30/01	<MDL
236	METL29	8/24/01	8/30/01	<MDL
237	METL29C	8/24/01	8/30/01	<MDL
243	METL30	8/25/01	8/30/01	<MDL
249	METL31	8/28/01	9/5/01	<MDL
255	METL32	8/29/01	9/5/01	<MDL
262	METL33	8/30/01	9/5/01	<MDL

Table 4. Ambient Monitoring Results of MIC

Site: ARB

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
1	ARB-F	6/30/01	7/9/01	<MDL
2	ARB-B	6/30/01	7/9/01	<MDL
13	ARB-F	7/1/01	7/9/01	<MDL
14	ARB-B	7/1/01	7/9/01	<MDL
25	ARB-F	7/2/01	7/11/01	<MDL
26	ARB-B	7/2/01	7/11/01	<MDL
27	ARB-C-F	7/2/01	7/11/01	<MDL
28	ARB-C-B	7/2/01	7/11/01	<MDL
51	ARB-F	7/6/01	7/17/01	DET
52	ARB-B	7/6/01	7/17/01	DET
65	ARB-F	7/7/01	7/17/01	<MDL
66	ARB-B	7/7/01	7/17/01	<MDL
67	ARB-C-F	7/7/01	7/17/01	DET
68	ARB-C-B	7/7/01	7/17/01	DET
92	ARB-F	7/8/01	7/18/01	DET
93	ARB-B	7/8/01	7/18/01	<MDL
104	ARB-7F	7/13/01	7/25/01	<MDL
105	ARB-7B	7/13/01	7/25/01	<MDL
117	ARB-8F	7/14/01	7/25/01	<MDL
118	ARB-8B	7/14/01	7/25/01	<MDL
119	ARB-8CF	7/14/01	7/25/01	<MDL
120	ARB-8CB	7/14/01	7/25/01	<MDL
141	ARB-9F	7/15/01	7/25/01	<MDL
142	ARB-9B	7/15/01	7/25/01	<MDL
153	ARB-10F	7/16/01	7/25/01	<MDL
154	ARB-10B	7/16/01	7/25/01	<MDL
165	ARBM11-F	7/21/01	7/31/01	<MDL
166	ARBM11-B	7/21/01	7/31/01	<MDL
181	ARBM12-F	7/22/01	7/31/01	<MDL
182	ARBM12-B	7/22/01	7/31/01	<MDL
193	ARBM13-F	7/23/01	8/1/01	<MDL
194	ARBM13-B	7/23/01	8/1/01	<MDL
195	ARBM13-FC	7/23/01	8/1/01	<MDL
196	ARBM13-BC	7/23/01	8/1/01	<MDL
217	ARBM14-F	7/24/01	8/1/01	<MDL
218	ARBM14-B	7/24/01	8/1/01	<MDL
229	ARBM15-F	7/29/01	8/6/01	<MDL
230	ARBM15-B	7/29/01	8/6/01	<MDL
242	ARBM16-F	7/30/01	8/6/01	<MDL
243	ARBM16-B	7/30/01	8/6/01	<MDL
244	ARBM16-FC	7/30/01	8/6/01	<MDL
245	ARBM16-BC	7/30/01	8/6/01	<MDL

Table 4. Ambient Monitoring Results of MIC

Site ARB-Continued

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
266	ARBM17-F	7/31/01	8/7/01	<MDL
267	ARBM17-B	7/31/01	8/7/01	<MDL
278	ARBM18-F	8/1/01	8/7/01	<MDL
279	ARBM18-B	8/1/01	8/7/01	<MDL
290	ARBM19F	8/6/01	8/13/01	<MDL
291	ARBM19B	8/6/01	8/13/01	<MDL
303	ARBM20F	8/7/01	8/13/01	<MDL
304	ARBM20B	8/7/01	8/13/01	<MDL
305	ARBM20FC	8/7/01	8/13/01	<MDL
306	ARBM20BC	8/7/01	8/13/01	<MDL
328	ARBM21F	8/8/01	8/14/01	<MDL
329	ARBM21B	8/8/01	8/14/01	<MDL
340	ARBM22F	8/9/01	8/14/01	<MDL
341	ARBM22B	8/9/01	8/14/01	<MDL
352	ARBM23F	8/14/01	8/22/01	<MDL
353	ARBM23B	8/14/01	8/22/01	<MDL
365	ARBM24F	8/15/01	8/22/01	<MDL
366	ARBM24B	8/15/01	8/22/01	<MDL
367	ARBM24FC	8/15/01	8/22/01	<MDL
368	ARBM24BC	8/15/01	8/22/01	<MDL
389	ARBM25F	8/16/01	8/22/01	<MDL
390	ARBM25B	8/16/01	8/22/01	<MDL
401	ARBM26F	8/17/01	8/22/01	<MDL
402	ARBM26B	8/17/01	8/22/01	<MDL
413	ARBM27F	8/22/01	8/29/01	<MDL
414	ARBM27B	8/22/01	8/29/01	<MDL
427	ARBM28F	8/23/01	8/29/01	<MDL
428	ARBM28B	8/23/01	8/29/01	<MDL
441	ARBM29F	8/24/01	8/31/01	DET
442	ARBM29B	8/24/01	8/31/01	<MDL
443	ARBM29FC	8/24/01	8/31/01	DET
444	ARBM29BC	8/24/01	8/31/01	<MDL
465	ARBM30F	8/25/01	8/31/01	<MDL
466	ARBM30B	8/25/01	8/31/01	<MDL
477	ARBM31F	8/28/01	9/6/01	<MDL
478	ARBM31B	8/28/01	9/6/01	<MDL
489	ARBM32F	8/29/01	9/6/01	<MDL
490	ARBM32B	8/29/01	9/6/01	<MDL
502	ARBM33F	8/30/01	9/6/01	<MDL
503	ARBM33B	8/30/01	9/6/01	<MDL

Table 4. Ambient Monitoring Results of MIC

Site: CRS

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
3	CRS-F	6/30/01	7/9/01	<MDL
4	CRS-B	6/30/01	7/9/01	<MDL
15	CRS-F	7/1/01	7/9/01	<MDL
16	CRS-B	7/1/01	7/9/01	<MDL
29	CRS-F	7/2/01	7/11/01	<MDL
30	CRS-B	7/2/01	7/11/01	<MDL
31	CRS-C-F	7/2/01	7/11/01	<MDL
32	CRS-C-B	7/2/01	7/11/01	<MDL
55	CRS-F	7/6/01	7/17/01	DET
56	CRS-B	7/6/01	7/17/01	<MDL
69	CRS-F	7/7/01	7/17/01	DET
70	CRS-B	7/7/01	7/17/01	<MDL
71	CRS-C-F	7/7/01	7/17/01	DET
72	CRS-C-B	7/7/01	7/17/01	<MDL
94	CRS-F	7/8/01	7/18/01	DET
95	CRS-B	7/8/01	7/18/01	<MDL
107	CRS-7F	7/13/01	7/25/01	<MDL
108	CRS-7B	7/13/01	7/25/01	<MDL
121	CRS-8F	7/14/01	7/25/01	<MDL
122	CRS-8B	7/14/01	7/25/01	<MDL
123	CRS-8CF	7/14/01	7/25/01	<MDL
124	CRS-8CB	7/14/01	7/25/01	<MDL
143	CRS-9F	7/15/01	7/25/01	<MDL
144	CRS-9B	7/15/01	7/25/01	<MDL
155	CRS-10F	7/16/01	7/25/01	<MDL
156	CRS-10B	7/16/01	7/25/01	<MDL
169	CRSM11-F	7/21/01	7/31/01	<MDL
170	CRSM11-B	7/21/01	7/31/01	<MDL
183	CRSM12-F	7/22/01	7/31/01	<MDL
184	CRSM12-B	7/22/01	7/31/01	<MDL
197	CRSM13-F	7/23/01	8/1/01	<MDL
198	CRSM13-B	7/23/01	8/1/01	<MDL
199	CRSM13FC	7/23/01	8/1/01	<MDL
200	CRSM13-BC	7/23/01	8/1/01	<MDL
219	CRSM14-F	7/24/01	8/1/01	<MDL
220	CRSM14-B	7/24/01	8/1/01	<MDL
231	CRSM15-F	7/29/01	8/6/01	<MDL
232	CRSM15-B	7/29/01	8/6/01	<MDL
246	CRSM16-F	7/30/01	8/6/01	<MDL
247	CRSM16-B	7/30/01	8/6/01	<MDL
248	CRSM16-FC	7/30/01	8/6/01	<MDL
249	CRSM16-BC	7/30/01	8/6/01	<MDL

Table 4. Ambient Monitoring Results of MIC

Site: CRS-Continued

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
268	CRSM17-F	7/31/01	8/7/01	<MDL
269	CRSM17-B	7/31/01	8/7/01	<MDL
280	CRSM18-F	8/1/01	8/7/01	<MDL
281	CRSM18-B	8/1/01	8/7/01	<MDL
293	CRSM19F	8/6/01	8/13/01	<MDL
294	CRSM19B	8/6/01	8/13/01	<MDL
307	CRSM20F	8/7/01	8/13/01	<MDL
308	CRSM20B	8/7/01	8/13/01	<MDL
309	CRSM20FC	8/7/01	8/13/01	<MDL
310	CRSM20BC	8/7/01	8/13/01	<MDL
330	CRSM21F	8/8/01	8/14/01	<MDL
331	CRSM21B	8/8/01	8/14/01	<MDL
342	CRSM22F	8/9/01	8/14/01	<MDL
343	CRSM22B	8/9/01	8/14/01	<MDL
354	CRSM23F	8/14/01	8/22/01	<MDL
355	CRSM23B	8/14/01	8/22/01	<MDL
369	CRSM24F	8/15/01	8/22/01	<MDL
370	CRSM24B	8/15/01	8/22/01	<MDL
371	CRSM24FC	8/15/01	8/22/01	<MDL
372	CRSM24BC	8/15/01	8/22/01	<MDL
391	CRSM25F	8/16/01	8/22/01	<MDL
392	CRSM25B	8/16/01	8/22/01	<MDL
403	CRSM26F	8/17/01	8/22/01	<MDL
404	CRSM26B	8/17/01	8/22/01	<MDL
415	CRSM27F	8/22/01	8/29/01	<MDL
416	CRSM27B	8/22/01	8/29/01	<MDL
429	CRSM28F	8/23/01	8/29/01	<MDL
430	CRSM28B	8/23/01	8/29/01	<MDL
445	CRSM29F	8/24/01	8/31/01	<MDL
446	CRSM29B	8/24/01	8/31/01	<MDL
447	CRSM29FC	8/24/01	8/31/01	<MDL
448	CRSM29BC	8/24/01	8/31/01	<MDL
467	CRSM30F	8/25/01	8/31/01	<MDL
468	CRSM30B	8/25/01	8/31/01	<MDL
479	CRSM31F	8/28/01	9/6/01	<MDL
480	CRSM31B	8/28/01	9/6/01	<MDL
491	CRSM32F	8/29/01	9/6/01	<MDL
492	CRSM32B	8/29/01	9/6/01	<MDL
504	CRSM33F	8/30/01	9/6/01	<MDL
505	CRSM33B	8/30/01	9/6/01	<MDL

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Table 4. Ambient Monitoring Results of MIC

Site: MVS

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
5	MVS-F	6/30/01	7/9/01	<MDL
6	MVS-B	6/30/01	7/9/01	<MDL
17	MVS-F	7/1/01	7/9/01	<MDL
18	MVS-B	7/1/01	7/9/01	<MDL
33	MVS-F	7/2/01	7/11/01	<MDL
34	MVS-B	7/2/01	7/11/01	<MDL
35	MVS-C-F	7/2/01	7/11/01	<MDL
36	MVS-C-B	7/2/01	7/11/01	<MDL
57	MVS-F	7/6/01	7/17/01	DET
58	MVS-B	7/6/01	7/17/01	<MDL
73	MVS-F	7/7/01	7/17/01	DET
74	MVS-B	7/7/01	7/17/01	<MDL
75	MVS-C-F	7/7/01	7/17/01	DET
76	MVS-C-B	7/7/01	7/17/01	<MDL
96	MVS-F	7/8/01	7/18/01	<MDL
97	MVS-B	7/8/01	7/18/01	<MDL
109	MVS-7F	7/13/01	7/25/01	DET
110	MVS-7B	7/13/01	7/25/01	<MDL
125	MVS-8F	7/14/01	7/25/01	<MDL
126	MVS-8B	7/14/01	7/25/01	<MDL
127	MVS-8CF	7/14/01	7/25/01	<MDL
128	MVS-8CB	7/14/01	7/25/01	<MDL
145	MVS-9F	7/15/01	7/25/01	<MDL
146	MVS-9B	7/15/01	7/25/01	<MDL
157	MVS-10F	7/16/01	7/25/01	<MDL
158	MVS-10B	7/16/01	7/25/01	<MDL
171	MVSM11-F	7/21/01	7/31/01	<MDL
172	MVSM11-B	7/21/01	7/31/01	<MDL
185	MVSM12-F	7/22/01	7/31/01	<MDL
186	MVSM12-B	7/22/01	7/31/01	<MDL
201	MVSM13-F	7/23/01	8/1/01	<MDL
202	MVSM13-B	7/23/01	8/1/01	<MDL
203	MVSM13-FC	7/23/01	8/1/01	<MDL
204	MVSM13-BC	7/23/01	8/1/01	<MDL
221	MVSM14-F	7/24/01	8/1/01	<MDL
222	MVSM14-B	7/24/01	8/1/01	<MDL
233	MVSM15-F	7/29/01	8/6/01	<MDL
234	MVSM15-B	7/29/01	8/6/01	<MDL
250	MVSM16-F	7/30/01	8/6/01	<MDL
251	MVSM16-B	7/30/01	8/6/01	<MDL
252	MVSM16-FC	7/30/01	8/6/01	<MDL
253	MVSM16-BC	7/30/01	8/6/01	<MDL

Table 4. Ambient Monitoring Results of MIC

Site: MVS-Continued

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
270	MVSM17-F	7/31/01	8/7/01	<MDL
271	MVSM17-B	7/31/01	8/7/01	<MDL
282	MVSM18-F	8/1/01	8/7/01	<MDL
283	MVSM18-B	8/1/01	8/7/01	<MDL
295	MVSM19F	8/6/01	8/13/01	<MDL
296	MVSM19B	8/6/01	8/13/01	<MDL
311	MVSM20F	8/7/01	8/13/01	<MDL
312	MVSM20B	8/7/01	8/13/01	<MDL
313	MVSM20FC	8/7/01	8/13/01	<MDL
314	MVSM20BC	8/7/01	8/13/01	<MDL
332	MVSM21F	8/8/01	8/14/01	<MDL
333	MVSM21B	8/8/01	8/14/01	<MDL
344	MVSM22F	8/9/01	8/14/01	<MDL
345	MVSM22B	8/9/01	8/14/01	<MDL
356	MVSM23F	8/14/01	8/22/01	<MDL
357	MVSM23B	8/14/01	8/22/01	<MDL
373	MVSM24F	8/15/01	8/22/01	<MDL
374	MVSM24B	8/15/01	8/22/01	<MDL
375	MVSM24FC	8/15/01	8/22/01	<MDL
376	MVSM24BC	8/15/01	8/22/01	<MDL
393	MVSM25F	8/16/01	8/22/01	<MDL
394	MVSM25B	8/16/01	8/22/01	<MDL
405	MVSM26F	8/17/01	8/22/01	<MDL
406	MVSM26B	8/17/01	8/22/01	<MDL
417	MVSM27F	8/22/01	8/29/01	<MDL
418	MVSM27B	8/22/01	8/29/01	<MDL
431	MVSM28F	8/23/01	8/29/01	<MDL
432	MVSM28B	8/23/01	8/29/01	<MDL
449	MVSM29F	8/24/01	8/31/01	<MDL
450	MVSM29B	8/24/01	8/31/01	<MDL
451	MVSM29FC	8/24/01	8/31/01	<MDL
452	MVSM29BC	8/24/01	8/31/01	<MDL
469	MVSM30F	8/25/01	8/31/01	<MDL
470	MVSM30B	8/25/01	8/31/01	<MDL
481	MVSM31F	8/28/01	9/6/01	<MDL
482	MVSM31B	8/28/01	9/6/01	<MDL
493	MVSM32F	8/29/01	9/6/01	<MDL
494	MVSM32B	8/29/01	9/6/01	<MDL
506	MVSM33F	8/30/01	9/6/01	<MDL
507	MVSM33B	8/30/01	9/6/01	<MDL

Table 4. Ambient Monitoring Results of MIC

Site: VSD

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
7	VSD-F	6/30/01	7/9/01	<MDL
8	VSD-B	6/30/01	7/9/01	<MDL
19	VSD-F	7/1/01	7/9/01	<MDL
20	VSD-B	7/1/01	7/9/01	<MDL
37	VSD-F	7/2/01	7/11/01	<MDL
38	VSD-B	7/2/01	7/11/01	<MDL
39	VSD-C-F	7/2/01	7/11/01	<MDL
40	VSD-C-B	7/2/01	7/11/01	<MDL
59	VSD-F	7/6/01	7/17/01	<MDL
60	VSD-B	7/6/01	7/17/01	<MDL
77	VSD-F	7/7/01	7/18/01	DET
78	VSD-B	7/7/01	7/18/01	<MDL
79	VSD-C-F	7/7/01	7/18/01	DET
80	VSD-C-B	7/7/01	7/18/01	<MDL
98	VSD-F	7/8/01	7/18/01	DET
99	VSD-B	7/8/01	7/18/01	<MDL
111	VSD-7F	7/13/01	7/25/01	<MDL
112	VSD-7B	7/13/01	7/25/01	<MDL
129	VSD-8F	7/14/01	7/25/01	<MDL
130	VSD-8B	7/14/01	7/25/01	<MDL
131	VSD-8CF	7/14/01	7/25/01	<MDL
132	VSD-8CB	7/14/01	7/25/01	<MDL
147	VSD-9F	7/15/01	7/25/01	<MDL
148	VSD-9B	7/15/01	7/25/01	<MDL
159	VSD-10F	7/16/01	7/25/01	<MDL
160	VSD-10B	7/16/01	7/25/01	<MDL
173	VSDM11-F	7/21/01	7/31/01	<MDL
174	VSDM11-B	7/21/01	7/31/01	<MDL
187	VSDM12-F	7/22/01	7/31/01	<MDL
188	VSDM12-B	7/22/01	7/31/01	<MDL
205	VSDM13-F	7/23/01	8/1/01	<MDL
206	VSDM13-B	7/23/01	8/1/01	<MDL
207	VSDM13-FC	7/23/01	8/1/01	<MDL
208	VSDM13-BC	7/23/01	8/1/01	<MDL
223	VSDM14-F	7/24/01	8/1/01	<MDL
224	VSDM14-B	7/24/01	8/1/01	<MDL
235	VSDM15-F	7/29/01	8/6/01	<MDL
236	VSDM15-B	7/29/01	8/6/01	<MDL
254	VSDM16-F	7/30/01	8/6/01	<MDL
255	VSDM16-B	7/30/01	8/6/01	<MDL
256	VSDM16-FC	7/30/01	8/6/01	<MDL
257	VSDM16-BC	7/30/01	8/6/01	<MDL

Table 4. Ambient Monitoring Results of MIC

Site: VSD-Continued

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
272	VSDM17-F	7/31/01	8/7/01	<MDL
273	VSDM17-B	7/31/01	8/7/01	<MDL
284	VSDM18-F	8/1/01	8/7/01	<MDL
285	VSDM18-B	8/1/01	8/7/01	<MDL
297	VSDM19F	8/6/01	8/13/01	<MDL
298	VSDM19B	8/6/01	8/13/01	<MDL
315	VSDM20F	8/7/01	8/13/01	<MDL
316	VSDM20B	8/7/01	8/13/01	<MDL
317	VSDM20FC	8/7/01	8/13/01	<MDL
318	VSDM20BC	8/7/01	8/13/01	<MDL
334	VSDM21F	8/8/01	8/14/01	<MDL
335	VSDM21B	8/8/01	8/14/01	<MDL
346	VSDM22F	8/9/01	8/14/01	<MDL
347	VSDM22B	8/9/01	8/14/01	<MDL
358	VSDM23F	8/14/01	8/22/01	<MDL
359	VSDM23B	8/14/01	8/22/01	<MDL
377	VSDM24F	8/15/01	8/22/01	<MDL
378	VSDM24B	8/15/01	8/22/01	<MDL
379	VSDM24FC	8/15/01	8/22/01	<MDL
380	VSDM24BC	8/15/01	8/22/01	<MDL
395	VSDM25F	8/16/01	8/22/01	<MDL
396	VSDM25B	8/16/01	8/22/01	<MDL
407	VSDM26F	8/17/01	8/22/01	<MDL
408	VSDM26B	8/17/01	8/22/01	<MDL
419	VSDM27F	8/22/01	8/29/01	<MDL
420	VSDM27B	8/22/01	8/29/01	<MDL
433	VSDM28F	8/23/01	8/29/01	<MDL
434	VSDM28B	8/23/01	8/29/01	<MDL
453	VSDM29F	8/24/01	8/31/01	<MDL
454	VSDM29B	8/24/01	8/31/01	<MDL
455	VSDM29FC	8/24/01	8/31/01	<MDL
456	VSDM29BC	8/24/01	8/31/01	<MDL
471	VSDM30F	8/25/01	8/31/01	<MDL
472	VSDM30B	8/25/01	8/31/01	<MDL
483	VSDM31F	8/28/01	9/6/01	<MDL
484	VSDM31B	8/28/01	9/6/01	<MDL
495	VSDM32F	8/29/01	9/6/01	<MDL
496	VSDM32B	8/29/01	9/6/01	<MDL
508	VSDM33F	8/30/01	9/6/01	<MDL
509	VSDM33B	8/30/01	9/6/01	<MDL

044

Table 4. Ambient Monitoring Results of MIC

Site: ARV

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
9	ARV-F	6/30/01	7/9/01	<MDL
10	ARV-B	6/30/01	7/9/01	<MDL
21	ARV-F	7/1/01	7/9/01	<MDL
22	ARV-B	7/1/01	7/9/01	<MDL
41	ARV-F	7/2/01	7/11/01	<MDL
42	ARV-B	7/2/01	7/11/01	<MDL
43	ARV-C-F	7/2/01	7/11/01	<MDL
44	ARV-C-B	7/2/01	7/11/01	<MDL
61	ARV-F	7/6/01	7/17/01	<MDL
62	ARV-B	7/6/01	7/17/01	<MDL
81	ARV-F	7/7/01	7/18/01	DET
82	ARV-B	7/7/01	7/18/01	<MDL
83	ARV-C-F	7/7/01	7/18/01	DET
84	ARV-C-B	7/7/01	7/18/01	<MDL
100	ARV-F	7/8/01	7/18/01	DET
101	ARV-B	7/8/01	7/18/01	<MDL
113	ARV-7F	7/13/01	7/25/01	<MDL
114	ARV-7B	7/13/01	7/25/01	<MDL
133	ARV-8F	7/14/01	7/25/01	<MDL
134	ARV-8B	7/14/01	7/25/01	<MDL
135	ARV-8CF	7/14/01	7/25/01	<MDL
136	ARV-8CB	7/14/01	7/25/01	<MDL
149	ARV-9F	7/15/01	7/25/01	<MDL
150	ARV-9B	7/15/01	7/25/01	<MDL
161	ARV-10F	7/16/01	7/25/01	<MDL
162	ARV-10B	7/16/01	7/25/01	<MDL
175	ARVM11-F	7/21/01	7/31/01	<MDL
176	ARVM11-B	7/21/01	7/31/01	<MDL
189	ARVM12-F	7/22/01	7/31/01	<MDL
190	ARVM12-B	7/22/01	7/31/01	<MDL
209	ARVM13-F	7/23/01	8/1/01	<MDL
210	ARVM13-B	7/23/01	8/1/01	<MDL
211	ARVM13-FC	7/23/01	8/1/01	<MDL
212	ARVM13-BC	7/23/01	8/1/01	<MDL
225	ARVM14-F	7/24/01	8/1/01	<MDL
226	ARVM14-B	7/24/01	8/1/01	<MDL
237	ARVM15-F	7/29/01	8/6/01	<MDL
238	ARVM15-B	7/29/01	8/6/01	<MDL
258	ARVM16-F	7/30/01	8/6/01	<MDL
259	ARVM16-B	7/30/01	8/6/01	<MDL
260	ARVM16-FC	7/30/01	8/6/01	<MDL
261	ARVM16-BC	7/30/01	8/6/01	<MDL

Table 4. Ambient Monitoring Results of MIC

Site: ARV-Continued

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
274	ARVM17-F	7/31/01	8/7/01	<MDL
275	ARVM17-B	7/31/01	8/7/01	<MDL
286	ARVM18-F	8/1/01	8/7/01	<MDL
287	ARVM18-B	8/1/01	8/7/01	<MDL
299	ARVM19F	8/6/01	8/13/01	<MDL
300	ARVM19B	8/6/01	8/13/01	<MDL
319	ARVM20F	8/7/01	8/14/01	<MDL
320	ARVM20B	8/7/01	8/14/01	<MDL
321	ARVM20FC	8/7/01	8/14/01	<MDL
322	ARVM20BC	8/7/01	8/14/01	<MDL
336	ARVM21F	8/8/01	8/14/01	<MDL
337	ARVM21B	8/8/01	8/14/01	<MDL
348	ARVM22F	8/9/01	8/14/01	<MDL
349	ARVM22B	8/9/01	8/14/01	<MDL
360	ARVM23F	8/14/01	8/22/01	<MDL
361	ARVM23B	8/14/01	8/22/01	<MDL
381	ARVM24F	8/15/01	8/22/01	<MDL
382	ARVM24B	8/15/01	8/22/01	<MDL
383	ARVM24FC	8/15/01	8/22/01	<MDL
384	ARVM24BC	8/15/01	8/22/01	<MDL
397	ARVM25F	8/16/01	8/22/01	<MDL
398	ARVM25B	8/16/01	8/22/01	<MDL
409	ARVM26F	8/17/01	8/22/01	<MDL
410	ARVM26B	8/17/01	8/22/01	<MDL
421	ARVM27F	8/22/01	8/29/01	<MDL
422	ARVM27B	8/22/01	8/29/01	<MDL
435	ARVM28F	8/23/01	8/29/01	<MDL
436	ARVM28B	8/23/01	8/29/01	<MDL
457	ARVM29F	8/24/01	8/31/01	<MDL
458	ARVM29B	8/24/01	8/31/01	<MDL
459	ARVM29FC	8/24/01	8/31/01	<MDL
460	ARVM29BC	8/24/01	8/31/01	<MDL
473	ARVM30F	8/25/01	8/31/01	<MDL
474	ARVM30B	8/25/01	8/31/01	<MDL
485	ARVM31F	8/28/01	9/6/01	<MDL
486	ARVM31B	8/28/01	9/6/01	<MDL
497	ARVM32F	8/29/01	9/6/01	<MDL
498	ARVM32B	8/29/01	9/6/01	<MDL
510	ARVM33F	8/30/01	9/6/01	<MDL
511	ARVM33B	8/30/01	9/6/01	<MDL

Table 4. Ambient Monitoring Results of MIC

Site: MET

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
11	MET-F	6/30/01	7/9/01	<MDL
12	MET-B	6/30/01	7/9/01	<MDL
23	MET-F	7/1/01	7/9/01	<MDL
24	MET-B	7/1/01	7/9/01	<MDL
45	MET-F	7/2/01	7/11/01	<MDL
46	MET-B	7/2/01	7/11/01	<MDL
47	MET-C-F	7/2/01	7/11/01	<MDL
48	MET-C-B	7/2/01	7/11/01	<MDL
63	MET-F	7/6/01	7/17/01	<MDL
64	MET-B	7/6/01	7/17/01	<MDL
85	MET-F	7/7/01	7/18/01	DET
86	MET-B	7/7/01	7/18/01	<MDL
87	MET-C-F	7/7/01	7/18/01	DET
88	MET-C-B	7/7/01	7/18/01	<MDL
102	MET-F	7/8/01	7/18/01	DET
103	MET-B	7/8/01	7/18/01	<MDL
115	MET-7F	7/13/01	7/25/01	<MDL
116	MET-7B	7/13/01	7/25/01	<MDL
137	MET-8F	7/14/01	7/25/01	<MDL
138	MET-8B	7/14/01	7/25/01	<MDL
139	MET-8CF	7/14/01	7/25/01	<MDL
140	MET-8CB	7/14/01	7/25/01	<MDL
151	MET-9F	7/15/01	7/25/01	<MDL
152	MET-9B	7/15/01	7/25/01	<MDL
163	MET-10F	7/16/01	7/25/01	<MDL
164	MET-10B	7/16/01	7/25/01	<MDL
177	METM11-F	7/21/01	7/31/01	<MDL
178	METM11-B	7/21/01	7/31/01	<MDL
191	METM12-F	7/22/01	7/31/01	<MDL
192	METM12-B	7/22/01	7/31/01	<MDL
213	METM13-F	7/23/01	8/1/01	<MDL
214	METM13-B	7/23/01	8/1/01	<MDL
215	METM13-FC	7/23/01	8/1/01	<MDL
216	METM13-BC	7/23/01	8/1/01	<MDL
227	METM14-F	7/24/01	8/1/01	<MDL
228	METM14-B	7/24/01	8/1/01	<MDL
239	METM15-F	7/29/01	8/6/01	<MDL
240	METM15-B	7/29/01	8/6/01	<MDL
262	METM16-F	7/30/01	8/6/01	<MDL
263	METM16-B	7/30/01	8/6/01	<MDL
264	METM16-FC	7/30/01	8/6/01	<MDL
265	METM16-BC	7/30/01	8/6/01	<MDL

Table 4. Ambient Monitoring Results of MIC

Site: MET-Conintued

Log Number	Sample Identification	Date Sampled	Date Analyzed	MIC µg/sample
276	METM17-F	7/31/01	8/7/01	<MDL
277	METM17-B	7/31/01	8/7/01	<MDL
288	METM18-F	8/1/01	8/7/01	<MDL
289	METM18-B	8/1/01	8/7/01	<MDL
301	METM19F	8/6/01	8/13/01	<MDL
302	METM19B	8/6/01	8/13/01	<MDL
323	METM20F	8/7/01	8/14/01	<MDL
324	METM20B	8/7/01	8/14/01	<MDL
325	METM20FC	8/7/01	8/14/01	<MDL
326	METM20BC	8/7/01	8/14/01	<MDL
338	METM21F	8/8/01	8/14/01	<MDL
339	METM21B	8/8/01	8/14/01	<MDL
350	METM22F	8/9/01	8/14/01	<MDL
351	METM22B	8/9/01	8/14/01	<MDL
362	METM23F	8/14/01	8/22/01	<MDL
363	METM23B	8/14/01	8/22/01	<MDL
385	METM24F	8/15/01	8/22/01	<MDL
386	METM24B	8/15/01	8/22/01	<MDL
387	METM24FC	8/15/01	8/22/01	<MDL
388	METM24BC	8/15/01	8/22/01	<MDL
399	METM25F	8/16/01	8/22/01	<MDL
400	METM25B	8/16/01	8/22/01	<MDL
411	METM26F	8/17/01	8/22/01	<MDL
412	METM26B	8/17/01	8/22/01	<MDL
423	METM27F	8/22/01	8/29/01	<MDL
424	METM27B	8/22/01	8/29/01	<MDL
437	METM28F	8/23/01	8/29/01	<MDL
438	METM28B	8/23/01	8/29/01	<MDL
461	METM29F	8/24/01	8/31/01	<MDL
462	METM29B	8/24/01	8/31/01	<MDL
463	METM29FC	8/24/01	8/31/01	<MDL
464	METM29BC	8/24/01	8/31/01	<MDL
475	METM30F	8/25/01	8/31/01	<MDL
476	METM30B	8/25/01	8/31/01	<MDL
487	METM31F	8/28/01	9/6/01	<MDL
488	METM31B	8/28/01	9/6/01	<MDL
499	METM32F	8/29/01	9/6/01	<MDL
500	METM32B	8/29/01	9/6/01	<MDL
512	METM33F	8/30/01	9/6/01	<MDL
513	METM33B	8/30/01	9/6/01	<MDL

Ambient Monitoring Notes

If the analytical result is ≥ MDL and < EQL it is reported in the table as detected (DET). Levels ≥ EQL are reported as the actual measured value and are reported to three significant figures.

Site location i.d.:
ARB: APCD monitoring site in Bakersfield
CRS: Cotton Research Station
MVS: Mountain View School
VSD: Vineland School District
ARV: Arvin High School
MET: Mettler Fire Station

Sample Identification:
T: designates the charcoal cartridges
L: designates the XAD-4
M: designates the XAD-7
C: is the collocated site
F or B: for the MIC represents the front and back cartridges.

049

Table 5: Laboratory Spiking Solutions Results

Spiking Solution: Date	80 ng/ml total DCP cDCP	%Recovery	tDCP	%Recovery	4 µg/ml MITC	%Recovery	Date	40 ng/ml TC NM	%Recovery	Date	0.20 µg/ml MIC	%Recovery
7/5	25.50	63.75	26.40	66.00	2.80	70.00	7/6	31.01	77.53	7/9	ND	NA
7/11	28.71	71.78	28.77	71.93	2.92	73.00	7/13	32.41	81.03	7/11	0.28	140.50
7/19	32.79	81.98	32.63	81.58	3.33	83.25	7/23	NA	NA	7/16	0.07	34.50
7/27	31.06	77.65	31.80	79.50	3.41	85.25	7/30	35.74	89.35	7/19	0.21	104.50
8/3	35.00	87.50	35.02	87.55	3.48	87.00	8/6	33.08	82.70	7/25	0.05	24.00
8/13	38.86	97.15	39.09	97.73	3.84	96.00	8/16	31.27	78.18	7/31	0.45	224.50
8/20	35.81	89.53	35.67	89.18	3.51	87.75	8/24	26.93	67.33	8/1	0.18	91.00
8/28	34.99	87.48	34.09	85.23	3.34	83.50	8/30	28.56	71.40	8/6	0.22	109.00
9/4	35.31	88.28	34.86	87.15	3.35	83.75	9/6	30.56	76.40	8/13	ND	NA
										8/22	0.27	133.00
										8/27	0.24	119.50
										8/29	0.24	118.00
										9/4	0.30	149.00
										9/6	0.29	143.50
Average	**33.11**	**82.79**	**33.15**	**82.87**	**3.33**	**83.28**		**31.20**	**77.99**		**0.23**	**115.92**
Std Dev	**4.09**	**10.23**	**3.80**	**9.51**	**0.31**	**7.76**		**2.71**	**6.76**		**0.11**	**52.60**

Table 6: Laboratory Method Blank Results

Date	cDCP	tDCP	MITC	Date	TC NM	Date	MIC
7/5	<MDL	<MDL	<MDL	7/6	<MDL	7/9	<MDL
7/11	<MDL	<MDL	<MDL	7/13	<MDL	7/11	<MDL
7/19	<MDL	<MDL	<MDL	7/23	<MDL	7/16	<MDL
7/27	<MDL	<MDL	<MDL	7/30	<MDL	7/19	<MDL
8/3	<MDL	<MDL	<MDL	8/6	<MDL	7/25	<MDL
8/13	<MDL	<MDL	<MDL	8/16	<MDL	7/31	<MDL
8/20	<MDL	<MDL	<MDL	8/24	<MDL	8/1	<MDL
8/28	<MDL	<MDL	<MDL	8/30	<MDL	8/6	<MDL
9/4	<MDL	<MDL	<MDL	9/6	<MDL	8/13	<MDL
						8/22	<MDL
						8/27	<MDL
						8/29	<MDL
						9/4	<MDL
						9/6	<MDL

051

Table 7: Laboratory Control Sample Results

Spiking Solution: Date	80 ng/ml total DCP cDCP	%Recovery	tDCP	%Recovery	4 µg/ml MITC	%Recovery	Date	40 ng/ml TC NM	%Recovery	Date	0.20 µg/ml MIC	%Recovery
7/5	23.80	59.50	23.40	58.50	1.80	45.00	7/6	33.82	84.55	7/9	0.26	130.00
7/11	26.06	65.15	25.42	63.55	1.88	47.00	7/13	32.87	82.18	7/11	0.26	128.50
7/19	30.40	76.00	30.48	76.20	1.98	49.50	7/23	NA	NA	7/16	0.23	114.00
7/27	28.25	70.63	28.16	70.40	1.98	49.50	7/30	37.02	92.55	7/19	0.20	97.50
8/3	28.30	70.75	28.51	71.28	2.07	51.75	8/6	42.41	106.03	7/25	0.21	107.00
8/13	31.55	78.88	31.05	77.63	2.07	51.75	8/16	42.95	107.38	7/31	0.41	206.00
8/20	29.65	74.13	28.14	70.35	1.96	49.00	8/24	28.03	70.08	8/1	0.17	83.00
8/28	30.15	75.38	30.03	75.08	2.34	58.50	8/30	29.88	74.70	8/6	0.27	133.00
9/4	33.56	83.90	33.42	83.55	2.24	56.00	9/6	30.45	76.13	8/13	NA	NA
										8/22	0.27	136.50
										8/27	0.26	128.00
										8/29	0.24	121.00
										9/4	0.31	156.50
										9/6	0.31	156.00
Average	**29.08**	**72.7**	**28.73**	**71.84**	**2.04**	**50.89**		**34.68**	**86.70**		**0.26**	**130.54**
Std Dev	**2.91**	**7.27**	**3.00**	**7.51**	**0.17**	**4.22**		**5.64**	**14.10**		**0.06**	**30.74**

Table 8: Field Spikes

Date	Sample Identification	Log Number	cDCP ng/ml	%Recovery	tDCP ng/ml	%Recovery	MITC µg/ml	%Recovery	Background
7/11	ARB-S	27	25.64	64.10	26.9	67.25	1.54	38.50	ARB#26
7/27	ARBT-11FS	85	35.15	87.88	41.99	104.98	2.03	50.75	ARBt#84
8/13	ARBT19FS	149	35.74	89.35	36.83	92.08	2.11	52.75	ARB#148
8/28	ARBT28FS	217	31.24	78.10	30.51	76.28	1.99	49.75	ARB#218
Average			**31.94**	**79.86**	**34.06**	**85.14**	**1.92**	**47.94**	
Standard Deviation			**4.65**	**11.63**	**6.69**	**16.73**	**0.26**	**6.41**	

Date	Sample Identification	Log Number	TCNM ng/ml	%Recovery	Background
7/13	ARB-S	27	21.87	54.68	ARB#26
7/30	ARBL-11FS	85	28.01	70.03	ARBl11#84
8/16	ARBL19FS	149	21.41	53.53	ARBL19#148
8/30	ARBL28FS	217	27.4	68.50	ARBL28#218
Average			**24.67**	**61.68**	
Standard Deviation			**3.52**	**8.79**	

Date	Sample Identification	Log Number	MIC µg/ml	%Recovery	Background
7/16	ARB-FS	53	0.24	120.00	ARB-F#51
7/31	ARBM11-FSF	167	0.23	113.50	ARBM11-F#165
8/13	ARBM19FS	292	NA-broke	NA	
8/29	ARBM28FSF	425	0.133	66.50	ARBM28F#427
Average			**0.20**	**100.00**	
Standard Deviaton			**0.06**	**29.20**	

See Table 10 for spiking information.
Field spike results are corrected for the respective unspiked collocated sample.

Table 9: Trip Spikes

Date	Sample Identification	Log Number	cDCP ng/ml	%Recovery	tDCP mg/ml	%Recovery	MITC µg/ml	%Recovery
7/11	ARB-Trip S	46	19.99	49.98	20.03	50.08	1.6	40.00
7/27	ARBT-11TS	91	27.82	69.55	27.78	69.45	2.06	51.50
8/13	Trip Spike	No number	29.13	72.83	28.46	71.15	2.17	54.25
8/28	ARBT27TS	224	32.68	81.70	32.08	80.20	2.01	50.25
Average			**27.41**	**68.51**	**27.09**	**67.72**	**1.96**	**49.00**
Standard Deviation			**5.35**	**13.38**	**5.07**	**12.67**	**0.25**	**6.23**

Date	Sample Identification	Log Number	TCNM ng/ml	%Recovery
7/13	ARB-Trip S	46	31.41	78.53
7/30	ARBL-11TS	92	37.83	94.58
8/16	Trip Spike	No number	38.11	95.28
8/30	ARBL28TS	224	<MDL	NA
Average			**35.78**	**89.46**
Standard Deviation			**3.79**	**9.48**

Date	Sample Identification	Log Number	MIC µg/ml	%Recovery
7/19	ARB-TSL	90	0.213	106.50
7/31	ARBM11-TS	180	0.189	94.50
8/13	Trip Spike	No Number	0.963	NA
8/29	ARBM28TS	439	0.26	130.00
Average			**0.41**	**110.33**
Standard Deviation			**0.37**	**18.06**

Table 10: Laboratory Spikes

Date	cDCP ng/ml	%Recovery	tDCP ng/ml	%Recovery	MITC µg/ml	%Recovery	Date	TCNM ng/ml	%Recovery	Date	MIC µg/ml	%Recovery
7/11	20.15	50.38	19.27	48.18	1.52	38.00	7/13	29.31	73.28	7/16	0.254	127.00
7/27	23.22	58.05	23.36	58.40	1.62	40.50	7/30	31.78	79.45	7/31	0.198	99.00
8/13	28.64	71.60	28.54	71.35	2.05	51.25	8/16	39.11	97.78	8/13	0.923	NA
8/28	30.18	75.45	30.35	75.88	2.07	51.75	8/30	12.31	30.78	8/29	0.296	148.00
Average	**25.55**	**63.87**	**25.38**	**63.45**	**1.82**	**45.38**		**28.13**	**70.32**		**0.42**	**124.67**
Std Dev	**4.68**	**11.69**	**5.04**	**12.59**	**0.29**	**7.15**		**11.34**	**28.34**		**0.34**	**24.58**

Spiked values are as follows for all field, trip and laboratory cartridges:
(3 ml extract)
80 ng/ml DCP(40 ng/ml each isomer) and 4.0 µg/ml MITC
40.0 ng/ml TCNM
0.20 µg/ml MIC

Table 11: Trip Blanks

Date	Sample ID	Log Number	cDCP	tDCP	MITC	Date	Sample ID	Log Number	TCNM	Date	Sample ID	Log Number	MIC
7/5	Trip Blank	25	<MDL	<MDL	<MDL	7/6	Trip Blank	25	<MDL	7/11	Trip Blank-FB	49/50	<MDL
7/11	ARB-Trip	45	<MDL	<MDL	<MDL	7/13	ARB-Trip	45	<MDL	7/19	ARB-TB	89	<MDL
7/19	ARB-7 TB	54	<MDL	<MDL	<MDL	7/23	ARB-7 TB	54	<MDL	7/25	ARB-7TB	106	<MDL
7/27	ARBT-11TB	92	<MDL	<MDL	<MDL	7/30	ARBL-11TB	91	<MDL	7/31	ARBM11-TB	179	<MDL
8/3	ARBT15-TB	123	<MDL	<MDL	<MDL	8/6	ARBL15-TB	123	<MDL	8/6	ARBM15-TB	241	<MDL
8/13	ARBT20TB	167	<MDL	<MDL	<MDL	8/16	ARBL20TB	167	<MDL	8/13	ARBM20TB	327	<MDL
8/20	ARBT23TB	186	<MDL	<MDL	<MDL	8/24	ARBL23TB	186	<MDL	8/22	ARBM23TB	364	<MDL
8/28	ARBT27TB	225	<MDL	<MDL	<MDL	8/30	ARBL28TB	225	<MDL	8/29	ARBM28TB	440	<MDL
9/4	ARBT33TB	256	<MDL	<MDL	<MDL	9/6	ARBL33TB	256	<MDL	9/6	ARBM33TB	501	<MDL

Appendix A:

Standard Operating Procedure for DCP and MITC Analysis

California Environmental Protection Agency

Air Resources Board

Standard Operating Procedure
Sampling and Analysis of 1,3-dichloropropene (Telone) and Methyl Isothiocyanate (MITC) in Application and Ambient Air using Gas Chromatography/Mass Selective Detector

Special Analysis Section
Northern Laboratory Branch
Monitoring and Laboratory Division

06/25/01 version

Approved by:

Russell Grace, Manager
Special Analysis Section

1. SCOPE

The method uses resin tubes and a gas chromatograph/mass selective detector for the determination of 1,3- dichloropropene (Telone) and methyl isothiocyanate (MITC), one of the breakdown products of Metam-Sodium, for application and ambient air sample analysis. The Department of Pesticide Regulation (DPR) asked the Air Resources Board (ARB) to do ambient and application monitoring of Telone and MITC at a requested quantitation limit of 0.5 $\mu g/m^3$ for MITC.

2. SUMMARY OF METHOD

Coconut based charcoal tubes are placed on the sampler for 24 hours at 3.0 liters per minute (LPM) flow rate. The samples are stored in an ice chest or refrigerator until extracted with 3 ml of dichloromethane (DCM). The injection volume is 1 µl. A gas chromatograph with a mass selective detector in the selected ion monitoring (SIM) mode is used for analysis.

3. INTERFERENCES/LIMITATIONS

The primary interference encountered with the previous method was the presence of the MITC near the cis-DCP. The retention time difference is only about 0.05 minutes and even operating in SIM mode, similar ions are detected by the instrument. This makes it difficult to accurately quantitate if both cis-DCP and MITC are present. The installation of a different column than that used in the previous method resolved the issue and easily separates the target compounds. As with any method, additional interferences may be caused by contaminants in solvents, reagents, glassware and other processing apparatus that can lead to discrete artifacts or elevated baselines. Method blanks, both solvent and resin, must be run concurrently with each batch of samples to detect any possible interferences.

4. EQUIPMENT AND CONDITIONS

C. Instrumentation:

Hewlett-Packard 6890 Series gas chromatograph
Hewlett-Packard 5973 Network mass selective detector
Hewlett-Packard 6890 Enhanced Parameters ALS

MS Transfer line: 280°C
Injector: 210 °C, Splitless, Liner 4 mm straight liner with glass wool.
Column: Restek Rtx-200, 60 meter, 320 µm i.d., 1.5 µm film thickness.

GC Temperature Program: Oven initial 40 °C, hold 4 min. Ramp to 220 °C @ 12 °C/min., hold 1 min., ramp to 240 °C @ 20 °C/min., hold 2.0 min.

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Retention time: cis-DCP= 11.63 min., trans-DCP= 12.10 min., MITC=12.23 min.

Splitter open @ 1.0 min.
Flows: Column: He, 1.6 ml/min, 9.1psi. (velocity: 32cm/sec)
Splitter: 50 ml/min.

Mass Spectrometer: Electron Ionization
Selective Ion Monitoring: dichloropropene: 75 (quant. Ion 100%), 110 (qual. Ion 30%); methyl isothiocyanate: 73 (quant. Ion 100%), 72 (qual. Ion 46%). Tuning: PFTBA on masses 69, 219, 502.

C. Auxiliary Apparatus

1. Precleaned vials, 8 ml capacity with teflon caps.
2. Whatman filters, 0.45 μm
3. Disposable syringes, 3 ml
4. Sonicator
5. GC vials with septum caps.

C. Reagants

1. Dichloromethane, Pesticide grade or better.
2. 1,3 –Dichloropropene (cis- and trans- mixture), Chem Service PS- 1 52, 99 (+) % or equiv.
3. Methyl Isothiocyanate, Chem Service MET-221A, 99.5%
4. Coconut charcoal sorbent tubes, SKC, Fullerton, CA #226-09.

5. ANALYSIS OF SAMPLES

1. A daily manual tune shall be performed using PFTBA. The instrument is tuned using masses: 69, 219, 502. The criterion for the tune are the peak widths at ½ the peak height, 0.60 ± 0.05, and the criteria for relative abundance: 69:100%, 219:100-120%, and 502: 7-12%.

2. It is necessary to analyze a solvent blank with each batch of samples. The blank must be free of interferences. A solvent blank must be analyzed after any sample which may result in possible carry-over contamination.

3. A 5-point calibration curve shall be analyzed with each batch of samples. For dichloropropene the analysis is calibrated at 10, 20, 40, 60, 100 ng/ml cis and trans. For methyl isothiocyanate the calibration is at 0.5, 1.0, 2.0, 3.0, 5.0 μg/ml.

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4. With each batch of samples analyzed, a laboratory blank and a laboratory control spike will be run concurrently. A laboratory blank is an unexposed charcoal tube prepared and analyzed the same way the field samples are analyzed. A laboratory control spike is a charcoal tube spiked with a known amount of standard. The control sample is prepared and analyzed the same way as the field samples. Laboratory check samples should have recoveries that are at least 70% of the theoretical spiked value.

5. A DCP calibration check sample of 10 ng/ml is run after the calibration and every 10 samples and at the end of each sample batch. The calibration check for MITC is 0.75 μg/ml. The value of the check must be within $\pm 3\sigma$ (the standard deviation) or $\pm 10\%$ of the expected value, whichever is greater. If the calibration check is outside the limit, then those samples in the batch after the last calibration check that was within the limit need to be reanalyzed.

6. Score and snap the sample tube, transfer the charcoal into a 8 ml vial. (Save the back-up bed for future analysis if necessary.) Rinse the tube with 3.0 ml of DCM into the extraction vial. Cap and place the vial in the sonicator for 1 hour.

7. Filter the samples using a 3 ml syringe and 0.45 μm filter directly into a GC vial and cap securely.

8. The atmospheric concentration is calculated according to:

Conc (ng/m^3) = Extract Conc (ng/ml) X 3 ml / Air Volume Sampled (m^3)

6. QUALITY ASSURANCE

A. Instrument Reproducibility

The reproducibility of the instrument and analytical method was established by analyzing five(5) 1.0 μl injections of dichloropropene and methyl isothiocyanate standard at three concentrations (low, mid, and high range). The low, mid and high concentrations of dichloropropene were 10, 40 and 100 ng/ml, respectively. The low, mid and high concentrations of methyl isothiocyanate were 0.5, 2.0 and 5.0 μg/ml, respectively.

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B. Calibration

The five-point calibration curve is constructed for each compound using linear regression analysis. A curve cannot be used if its correlation coefficient is less than 0.995.

C. Calibration Check

A calibration check control is run after the calibration and every 10 samples and at the end of the sample batch to verify the system is in calibration. The value of the check must be within $\pm 3\sigma$ (the standard deviation) or $\pm 10\%$ of the expected value, whichever is greater. If the calibration check is outside the limit, then those samples preceding the out of limit check need to be reanalyzed.

D. Minimum Detection Limit

Detection limits are based on US EPA MDL calculation. Using the analysis of seven (7) replicates of a low-level matrix spike, the method detection limit (MDL) and the estimated quantitation limit (EQL) for 1,3-dichloropropene is calculated by: MDL = 3.14*(std dev values), where std dev = the standard deviation of the concentration calculated for the seven replicate spikes. For dichloropropene, the MDL is 2.0 ng/ml for each isomer. EQL, defined as 5*MDL, is 10 ng/ml based on a 3 ml extraction volume. For methyl isothiocyanate, the MDL is 0.04 μg/ml with an EQL of 0.22 μg/ml. Results above the EQL are reported to 3 significant figures. Results below EQL but above the MDL are reported as DET (detected) and results less than the MDL are ND (nondetect).

E. Collection and Extraction Efficiency (Recovery)

The target compounds at a low and high level are spiked on charcoal tubes (3 at each concentration). The spiked tubes are placed on field samplers with airflows of 3 LPM for 24 hours. The samples are extracted with DCM and prepared as described in section 5, #6-7. The average percent recovery should be $\pm$ 20% of the expected value. Normal recoveries for DCP were found to be greater than 90%. Normal recoveries for MITC are greater than 85%.

F. Storage Stability

Storage stability studies were completed in the previous analysis and not continued further here. All analyses are to be completed within 4 days of receipt.

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G. Breakthrough

No breakthrough analysis was done for DCP. The breakthrough was checked for MITC since the field sampling flow rate was set to 3 LPM. The recovery of charcoal tubes spiked at 5.0 μg/ml was greater than 85% with no MITC detected in the secondary beds.

H. Safety

This procedure does not address all of the safety concerns associated with chemical analysis. It is the responsibility of the analyst to establish appropriate safety and health practices. For hazard information and guidance refer to the material safety data sheets (MSDS) of any chemicals used in this procedure.

Appendix B:

Standard Operating Procedure for TCNM Analysis

California Environmental Protection Agency

Air Resources Board

Standard Operating Procedure
Sampling and Analysis of Trichloronitromethane (Chloropicrin) in Application and Ambient Air using Gas Chromatography/Mass Selective Detector

Special Analysis Section
Northern Laboratory Branch
Monitoring and Laboratory Division

06/25/01 version

Approved by:

Russell Grace, Manager
Special Analysis Section

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1. SCOPE

The current method is for the analysis of trichloronitromethane (TCNM) using a gas chromatograph/mass selective detector. The procedure is for the analysis of application and ambient air monitoring of TCNM using XAD-4 resin tubes. The Department of Pesticide Regulation (DPR) asked the Air Resources Board (ARB) to analyze for TCNM during agricultural/structural application with a requested quantitation limit of 1.0 $\mu g/m^3$ and ambient monitoring with a quantitation limit of 0.1 $\mu g/m^3$.

2. SUMMARY OF METHOD

Resin tubes, XAD-4, are placed on the sampler for 24 hours at a flowrate of 0.1 liters per minute (LPM or 100 mLPM). The samples are stored in an ice chest or refrigerator until extracted with 3 ml of dichloromethane (DCM). The injection volume is 1 µl. A gas chromatograph with a mass selective detector in the selected ion monitoring (SIM) mode is used for analysis.

3. INTERFERENCES/LIMITATIONS

Interferences may be caused by contaminants in solvents, reagents, glassware and other processing apparatus that can lead to discrete artifacts or elevated baselines. A method blank, including both solvent and resin, must be analyzed with each batch of samples to detect any possible interferences.

4. EQUIPMENT AND CONDITIONS

A. Instrumentation:

Hewlett-Packard 6890 Series gas chromatograph
Hewlett-Packard 5973 Network mass selective detector
Hewlett-Packard 6890 Enhanced Parameters ALS

MS Transfer line: 280°C
Injector: 210°C, Splitless, Liner 4 mm straight liner with glass wool.
Column: Restek Rtx-200, 60 meter, 320 µm i.d., 1.5 µm film thickness.

GC Temperature Program: Oven initial 40°C, hold 4 min. Ramp to 220°C @
12°C/min., hold 1 min., ramp to 240°C @ 20°C/min., hold 2.0 min.
Retention time: TCNM 11.93 min.

Splitter open @ 1.0 min.
Flows: Column: He, 1.6 ml/min, 9.1psi. (velocity: 32cm/sec)
Splitter: 50 ml/min.

Mass Spectrometer: Electron Ionization
Selective Ion Monitoring: trichloronitromethane: 117 (quant. ion 100%), 119 (qual. ion 98%); Tuning: PFTBA on masses 69, 219, 502.

B. Auxiliary Apparatus

1 Precleaned vials, 8 ml capacity with teflon caps.
2 Whatman filters, 0.45 μm
3 Disposable syringes, 3 ml
4 Sonicator
5 GC vials with septum caps.

C. Reagants

1 Dichloromethane, Pesticide grade or better.
2 Trichloronitromethane, Chem Service PS-4, 98.8%
3 XAD-4 resin sorbent tubes, 400/200mg. SKC, Fullerton, CA.

5. ANALYSIS OF SAMPLES

1 A daily manual tune shall be performed using PFTBA. The instrument is tuned using masses: 69, 219, 502. The criterion for the tune are the peak widths at ½ the peak height, 0.60 ± 0.05, and the criteria for relative abundance; 69:100%, 219:100-120%, and 502: 7-12%.

2 It is necessary to analyze a solvent blank with each batch of samples. The blank must be free of interferences. A solvent blank must be analyzed after any sample which may result in possible carry-over contamination.

3 A 5-point calibration curve shall be analyzed with each batch of samples. For the ambient studies the calibration will be 0.5-50.0 ng/mL and for the application studies 50.0-500 ng/mL.

4 A calibration check sample of 7.5 ng/ml is run after the calibration and every 10 samples and at the end of the sample batch. The value of the calibration check must be within $\pm 3\sigma$ (the standard deviation) or ±10% of the expected value whichever is greater. If the calibration check is outside this limit, then those samples in the batch after the last calibration check that was within limits need to be reanalyzed.

5 With each batch of samples analyzed, a laboratory blank and a laboratory control spike will be run concurrently. A laboratory blank is XAD-4 extracted and analyzed the same way as the samples. A laboratory control spike is XAD-4 spiked with a known amount of

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standard. The laboratory control sample is extracted and analyzed the same way as the samples. Laboratory control samples should have recoveries that are greater than or equal to 70% of the theoretical spiked value.

6 Score and snap the sample resin tube, transfer the front bed of the resin tube into a 8 ml vial. (Save the back-up bed for future analysis if necessary.) Rinse the tube with 3.0 ml of DCM into the extraction vial. Cap and place the vial in the sonicator for 1 hour.

7 Filter the samples using 0.45 μm filter attached to a 3 ml syringe directly into a GC vial and cap securely.

8 The atmospheric concentration is calculated according to:

Conc (ng/m^3) = Extract Conc (ng/ml) X 3 ml / Air Volume Sampled (m^3)

6. QUALITY ASSURANCE

A. Instrument Reproducibility

The reproducibility of the instrument and analytical method was established by analyzing five (5) 1.0 μl injections of trichloronitromethane standard at three concentrations (low, mid, and high). The low, mid and high concentrations were 5, 20 and 50 ng/ml, respectively.

B. Calibration

A five-point calibration curve is made ranging from 5.0 ng/ml to 50.0 ng/ml for ambient and 50 ng/ml to 500 ng/ml for application.

C. Calibration Check

A calibration check sample is run after the calibration, after every 10 samples and at the end of the sample batch to verify the system is in calibration. The value of the check must be within $\pm 3\sigma$ (the standard deviation) or $\pm 10\%$ of the expected value whichever is larger. If the calibration check is outside the limit, then those samples in the batch after the last calibration check that was within the limit need to be reanalyzed.

D. Minimum Detection Limit

The detection limit is based on US EPA MDL calculation. Using the analysis of seven (7) replicates of a low-level matrix spike, the method detection limit (MDL) and the estimated quantitation limit (EQL) for trichloronitromethane is calculated by: MDL = 3.14*(std dev values) where std dev = the standard deviation of the concentration calculated for the seven replicate spikes. For TCNM the MDL is 3.96 ng/sample (1.32 ng/mL). EQL, defined as 5*MDL, is 19.8 ng/sample (6.60 ng/mL) based on a 3 ml extraction volume. Results are reported to 3 significant figures. Results below EQL but above the MDL are reported as DET (detected) and results less than the MDL are reported as ND (nondetect).

E. Collection and Extraction Efficiency (Recovery)

Trichloronitromethane at a low and high level are spiked on XAD-4 tubes (3 at each concentration). The spiked tubes are placed on field samplers with airflows of 100 mLpm for 24 hours. The samples are extracted with DCM and prepared as described in section 5, #6-7. The average percent recovery of trichloronitromethane should be $\pm$ 20% of the expected value. The recoveries both for the low and high levels are greater than 80.0%.

F. Storage Stability

Storage stability was set up for a 4-week study. Three (3) XAD-4 tubes each were spiked at the low and high-end concentrations. The tubes were stored in the freezer until analyzed. At the low-end concentrations (5 ng/ml), the recovery for the three spikes averaged 106.8 percent, ranging from 103.68 to 113.68 percent. The average percent recovery peaked after fourteen days and was at the lowest after 28 days. At the high end (50 ng/ml), the recovery for the three spikes averaged 90.237 percent, ranging from 88.904 to 91.996 percent. The average percent recovery peaked at 14 days and was at the lowest at 20 days.

H. Breakthrough

The previous analysis of trichloronitromethane (ARB #A5-169-43) was for 4 hour sampling at 1.0 LPM in September/October, 1986. The current study for ambient monitoring for 24 hours will require a low sample flow rate to meet the requested EQL. A breakthrough analysis study was conducted. The flow rates tested were 1.0, 0.5, 0.2 and 0.1 Lpm. To meet the EQL and minimize breakthrough possibility, the flow rate for the field sampling will be at 100 mLpm.

H. Safety

This procedure does not address all of the safety concerns associated with chemical analysis. It is the responsibility of the analyst to establish appropriate safety and health practices. For hazard information and guidance refer to the material safety data sheets (MSDS) of any chemicals used in this procedure.

Appendix C:

Standard Operating Procedure for MIC Analysis

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California Environmental Protection Agency

Air Resources Board

Standard Operating Procedure
Sampling and Analysis of Methyl Isocyanate in Application and Ambient Air using High Performance Liquid Chromatography with a Fluorescence Detector

Special Analysis Section
Northern Laboratory Branch
Monitoring and Laboratory Division

06/25/01 version

Approved by:

Russell Grace, Manager
Special Analysis Section

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1. SCOPE

The analysis of methyl isocyanate (MIC), a degradation product of the soil fumigant metam-sodium, is based on OSHA Method 54 using a high-performance liquid chromatograph with a fluorescence detector. This method analyzes application and ambient air samples for MIC using XAD-7 resin tubes coated with 1-(2-pyridyl) piperazine, a derivatizing agent. The Department of Pesticide Regulation (DPR) asked the Air Resources Board (ARB) to do ambient monitoring of MIC at a requested quantitation limit of 0.05 $\mu g/m^3$ and application monitoring at a quantitation limit of 0.1 $\mu g/m^3$.

2. SUMMARY OF METHOD

Resin tubes, XAD-7 coated with 1-(2-pyridyl)piperazine, are placed on the sampler for 24 hours at a flowrate of 75 milliliters per minute (mLPM). The samples are stored in an ice chest or refrigerator until extracted with 3 ml of acetonitrile (ACN). The injection volume is 0.01 mL. A high performance liquid chromatograph (HPLC) with a fluorescence detector is used for the analysis.

3. INTERFERENCES/LIMITATIONS

Interferences may be caused by contaminants in solvents, reagents, glassware and other processing apparatus that can lead to discrete artifacts or elevated baselines. For this method the derivatizing agent, 1-(2-pyridyl)piperazine, is an additonal factor in possible interfences. A method blank, including both solvent and resin, must be analyzed with each batch of samples to detect any possible interferences.

4. EQUIPMENT AND CONDITIONS

A. Instrumentation:

Dionex LC20 Chromatography Module
Dionex GP50 Gradient Pump
Dionex AS40 Autosampler
Dionex RF-2000 Fluorescence Detector: 240 nm excitation, 370 nm emission.
Sensitivity: medium; Gain: 1

Eluant: Acetonitrile (ACN) and 25 mM Ammonium Acetate (NH_4 AC), pH 6.1. Gradient: 5% ACN/95% NH_4 AC to 30%ACN/70% NH_4 AC in 20 minutes. Flowrate: 1.0 mL/min.

Column: Restek Ultra PFP, 4.6 mm i.d. x 250 mm, 5 μm.

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B. Auxiliary Apparatus

1 Precleaned vials, 8 ml capacity with teflon caps.
2 Whatman filters, 0.45 μm
3 Disposable syringes, 3 ml
4 Sonicator
5 Dionex Polyvials with filter caps, 0.5 mL.

C. Reagants

1 Acetonitrile, HPLC/Pesticide grade or better.
2 Ammonium Acetate, 99.99%.
3 Glacial Acetic Acid, HPLC Grade or better.
4 Nanopure Water, Type I
5. 1-(2-Pyridyl)piperazine, 99.5+% or better.
6. Methyl Isocyanate, Chem Service #O-2179, 99+%.
7. XAD-7 resin sorbent tubes, coated with 1-(2-pyridyl)piperazine. Supelco ORBO 657, 80/40 mg, Bellefonte, PA.

5. ANALYSIS OF SAMPLES

1 The instrument is equilibrated for approximately one (1) hour before analysis of samples. Check that the volume in the eluant reservoirs is sufficient for the sample batch.

2 It is necessary to analyze a solvent blank and a resin blank with each batch of samples to ascertain the presence of possible interferences.

3 A 6-point calibration curve is analyzed with each batch of samples. For the ambient and application studies the calibration will be 0.013 to 0.260 μg/mL of the purified MIC derivative. (See section 6.0 B for the preparation of the purified derivative.)

4 A calibration check sample of 0.078 μg/ml is run after the calibration and every 10 samples and at the end of the sample batch. The value of the calibration check must be within $\pm 3\sigma$ (the standard deviation) or $\pm$10% of the expected value, whichever is greater. If the calibration check is outside this limit then those samples in the batch after the last calibration check that was within limits need to be reanalyzed.

5 With each batch of samples analyzed, a laboratory resin blank and a laboratory control spike will be run concurrently. A laboratory blank is XAD-7 extracted and analyzed the same way as the samples. A laboratory control spike is XAD-7 spiked with a known amount of MIC.

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The laboratory control sample is extracted and analyzed the same way as the samples.

6 Score and snap the sample resin tube, transfer the resin into an 8 ml vial. (Save the second tube for future analysis if necessary.) Rinse the tube with 3.0 ml of ACN into the extraction vial. Cap and place the vial in the sonicator for 1 hour.

7 Filter the samples using 0.45 μm filter attached to a 3 ml syringe directly into a Dionex sampling vial and cap securely. Cap and refrigerate the remaining solution vial if necessary for further analysis.

8 The atmospheric concentration is calculated according to:

Conc ($\mu g/m^3$) = Extract Conc (μg/ml) X 3 ml / Air Volume Sampled (m^3)

6. QUALITY ASSURANCE

A. Instrument Reproducibility

The reproducibility of the instrument has been established by analyzing five (5) injections of MIC-derivative standard at three concentrations (low, mid, and high). The low, mid, and high concentrations were 0.013, 0.078 and 0.260 μg/ml, respectively.

B. Purified Derivative and Calibration

1. The purified MIC derivative is prepared as described in OSHA Method 54, section 3.3.1. A stock standard is prepared by dissolving the MIC derivative into ACN. The derivative is expressed as free MIC by multiplying the amount of MIC urea weighed by the conversion factor 0.2590. (See OSHA Method 54, section 3.3.2)

2. A six (6)-point calibration curve is made at 0.013, 0.026, 0.052, 0.078. 0.134, and 0.260 μg/ml of the MIC derivative.

C. Calibration Check

A calibration check sample is run after the calibration, after every 10 samples and at the end of the sample batch to verify the system is in calibration. The value of the check must be within $\pm 3\sigma$ (the standard deviation) or ±10% of the expected value, whichever is larger. If the calibration check is outside the limit, then those samples in the batch after the last calibration check that was within the limit need to be reanalyzed.

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D. Minimum Detection Limit

The detection limit is based on US EPA MDL calculation. The method detection limit (MDL) and the estimated quantitation limit (EQL) for methyl isocyanate is calculated by the analysis of seven (7) replicates of a low-level matrix spike. The MDL = 3.14*(std dev values), where std dev = the standard deviation of the concentration calculated for the seven replicate spikes. For MIC the MDL is 0.009 μg/sample (0.003 μg/mL). EQL, defined as 5*MDL, is 0.045 μg/sample (0.015 μg/mL) based on a 3 ml extraction volume. Results above the EQL are reported to 3 significant figures. Results below EQL but above the MDL are reported as DET (detected) and results less than the MDL are reported as ND (nondetect).

E. Collection and Extraction Efficiency (Recovery)

Methyl isocyanate at a low and high level are spiked on XAD-7 tubes. The spiked tubes are placed on field samplers with airflows of 75 mLpm for 24 hours. The samples are extracted with ACN and prepared as described in section 5, #6-7. The recovery of MIC for this method is low, ranging 50% to 70%. At concentrations above 1.0 μg/mL the recovery is greater than 70%.

F. Storage Stability

Storage stability will be run concurrent with analysis of samples.

I. Breakthrough

A low sample flow rate is required for this method and optimization of the bed weights with the derivatizing agent is necessary to capture the MIC and minimize interference.

H. Safety

This procedure does not address all of the safety concerns associated with chemical analysis. It is the responsibility of the analyst to establish appropriate safety and health practices. For hazard information and guidance refer to the material safety data sheets (MSDS) of any chemicals used in this procedure.

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APPENDIX III

Field Data Sheets for MIC

MFM # 5346

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
001	ARBM1-F	6/30/01 7/1/01	0838 MST 0631	75.	76	OK	OK	2199.60	2223.46	K1	K / P	JW
002	ARBM1-B	6/30/01 7/1/01	0838 MST 0631	75	76	OK	OK	"	"	K1	K / P	JW
003	CRSM1-F	6/30/01 7/1/01	0847 MST 0816	75	74	OK	OK	1674.02	1698.46	N1	K / K	CQA
004	CRSM1-B	6/30/01 7/1/01	0847 0816	75	74	OK	OK	~~1674.02~~ "	"	N1	K / K	CQA
005	MVSM1-F	6/30/01 7/1/01	0852 0945	76	76	OK	OK	958.56	983.41	A1	K / K	CQA
006	MVSM1-B	6/30/01 7/1/01	0852 0945	76	76	OK	OK	"	~~983.41~~ "	A1	K / K	CQA
007	VSDM1-F	6/30/01 7/1/01	0948 1025	75	75	OK	OK	2300.27	2324.9 CQA ~~OK~~ B1		K / K	CQA
008	VSDM1-B	6/30/01 7/1/01	0948 1025	75	75	OK	OK	"	~~2324.9~~ CQA ~~OK~~ B1		K / K	CQA
009	ARVM1-F	6/30/01 7/1/01	1031 1104	77	82	OK	OK	453.38	478.41	M1	K / K	CQA
010	ARVM1-B	6/30/01 7/1/01	1031 1104	77	82	OK	OK	"	478.41	M1	K / K	CQA
011	METM1-F	6/30/01 7/1/01	1130 1156	74	74.5	OK	OK	1325.51	1349.95	J1	K / K	CQA
012	METM1-B	6/30/01 7/1/01	1130 1156	74	74.5	OK	OK	"	"	J1	K / K	CQA
✓ 013	ARBM2-F	7/1/01 7/2/01	0641 0618	76	75.3	OK	OK	2223.63	2247.24	K1	P / K	JW
✓ 014	ARBM2-B	7/1/01 7/2/01	0641 0618	76	75.3	OK	OK	"	"	K1	P / K	JW
✓ 015	CRSM2-F	7/1/01 7/02/01	0831 0736	76	75.4	OK	OK	1698.72	1721.85	N1	K / K	CQA
✓ 016	CRSM2-B	7/1/01 7/02/01	0831 0736	76	75.4	OK	OK	"	1721.85	N1	K / K	CQA
/ 017	MVSM2-F	7/1/01 7/2/01	0952 0904	76	81	OK	OK	983.53	1006.77	A1	K / K	CQA

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SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

	Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
✓	018	MVSM2-B	07/01/01 07/02/01	0952 0904	76	81	OK	OK	0983.53	1001.77	A1	K / K	CAP / CAP
✓	019	VSDM2-F	7/1/01 7/2/01	1033 1011	74	76	OK	OK	2325.06	2348.69	B1	K /	JW /
✓	020	VSDM2-B	7/1/01 7/2/01	1033 1011	74	76	OK	OK	2325.06 ~~1033~~	2348.69	B1	K /	JW /
✓	021	ARVM2-F	7/1/01 7/2/01	11:11 11:10	75	73	OK	OK	478.53	502.56	M1	K / K	CAP / CAP
✓	022	ARVM2-B	7/1/01 7/2/01	11:11 11:10	75	73	OK	OK	478.53	502.56	M1	K / K	CAP / CAP
✓	023	METM2-F	7/1/01 7/2/01	12:02 1217	74	72	OK	OK	1350.06	1374.31	J1	K / K	JW / JW
✓	024	METM2-B	7/1/01 7/2/01	1202 1217	74	72	OK	OK	"	"	J1	K / K	JW / JW
	025	ARBM3-F	7/2/01 7/3/01	0627 0644	76	75	OK	OK	2247.39	2255.48	K1	K / K	JW / CAP
	026	ARBM3-B	7/2/01 7/3/01	0627 0644	76	75	OK	OK	"	"	K1	K / K	JW / CAP
	027	ARBM3-Fc	07/2/01 7/3/01	0648 0659	75	79	OK	OK	2247.75	2255.76	L1	K / K	JW / CAP
	028	ARBM3-Bc	7/2/01 7/3/01	0648 0659	75	79	OK	OK	"	2255.76	L1	K / K	JW / CAP
	029	CRSM3-F	7/2/01 7/3/01	0750 0801	75	75	OK	OK	1722.09	1746.24	N1	K / K	CAP / JW
	030	CRSM3-B	7/2/01 7/3/01	0750 0801	75	75	OK	OK	1722.09	"	N1	K / K	CAP / JW
	031	CRSM3-Fc	7/2/01 7/3/01	0808 0816	74	73	OK	OK	1722.39	1746.49	I1	K / K	CAP / JW
	032	CRSM3-Bc	7/2/01 7/3/01	0808 0816	74	73	OK	OK	1722.39	"	I1	K / K	CAP / JW
	033	MVSM3-F	7/2/01 7/3/01	0913 0916	74	74	OK	OK	1068.92	1080.99	A1	K / K	CAP / CAP
CAP	034	MVSM3-B	7/2/01 7/3/01	0913 0916	74	74	OK	OK	1068.92	"	A1	K / K	CAP / CAP

AIR RESOURCES BOARD

MLD/ELB/SPM

MFM # 5346

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
035	MVSM3-Fc	7/2/01 7/3/01	0837 0929	77	63	OK	OK	11007. 34	11031. 19	D1	K / K	CV/aqp
036	MVSM3-Bc	7/2/01 7/3/01	0837 0929	77	63	OK	OK	11007. 34	11031. 19	D1	K / K	CV/aqp
037	VSDM3-F	7/2/01 7/3/01	1018 1003	73	72	OK	OK	2348. 80	2372. 56	B1	K / K	JW/JW
038	VSDM3-B	7/2/01 7/3/01	1018 1003	73	72	OK	OK	11	11	B1	K / K	JW/JW
039	VSDM3-Fc	7/2/01 7/3/01	1038 1018	77	66	OK	OK	2349. 14	2372. 81	C1	K / K	JW/JW
040	VSDM3-Bc	7/2/01 7/3/01	1038 1018	77	66	OK	OK	11	11	C1	K / K	JW/JW
041	ARVM3-F	7/2/01 7/3/01	11:18 10:47	75	73	OK	OK	502. 70	526. 18	M1	K / K	aqp/aqp
042	ARVM3-B	7/2/01 7/3/01	11:18 10:47	75	73	OK	OK	502. 70	526. 18	M1	K / K	aqp/aqp
043	ARVM3-Fc	7/2/01 7/3/01	11:36 11:00	75	67.1	OK	OK	503. 00	526. 40	G1	K / K	aqp/aqp
044	ARVM3-Bc	7/2/01 7/3/01	11:36 11:00	75	67.1	OK	OK	503. 00	526. 40	G1	K / K	aqp/aqp
045	METM3-F	7/2/01 7/3/01	1224 1144	73	73	OK	OK	1374. 43	1397. 75	J1	K / K	JW/JW
046	METM3-B	7/2/01 7/3/01	1224 1144	73	73	OK	OK	11	11	J1	K / K	JW/JW
047	METM3-Fc	7/2/01 7/3/01	1239 1153	73	76	OK	OK	1374. 67	1397. 90	E1	K / K	JW/JW
048	METM3-Bc	7/2/01 7/3/01	1239 1153	73	76	OK	OK	11	11	E1	K / K	JW/JW
049	ARBM3-TB (TRIP BLANK)	7/2/01	1449	—	—	—	—	—	—	— J.O.	—	JW
050	ARBM3-TB (TRIP BLANK)	7/2/01	1449	—	—	—	—	—	—	— M.B.	—	JW
051	ARBM4-F	7/6/01 7/7/01	0654 0621	74	74	OK	OK	2255. 97	2279. 14	K1	C / K	WR/AC

AIR RESOURCES BOARD

MFM #5346

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather (k = clear, p = partly, c = cloudy, r = rain)	Initials
052	ARBM4-B	7/6/01 7/7/01	0654 0621	74	74	OK	OK	2255.97	2277.44	K1	c / k	MR / AC
053	ARBM4-FSB	7/6/01 7/7/01	0707 0649	73	73	OK	OK	2256.19	2279.89	L1	c / k	MR / AC
054	ARBM4-FSB	7/6/01 7/7/01	0707 0649	73	73	OK	OK	"	2279.89	L1	c / k	MR / AC
055	CRSM4-F	7/6/01 7/7/01	0805 0801	73	74	OK	OK	1745.75	1770.69	N1	c / k	AC / AC
056	CRSM4-B	7/6/01 7/7/01	0805 0801	73	74	OK	OK	"	1770.69	N1	c / k	AC / AC
057	MVSM4-F	7/6/01 7/7/01	0922 0935	74	75	OK	OK	11031.43	11055.65	A1	c / k	AC / AC
058	MVSM4-B	7/6/01 7/7/01	0922 0935	74	75	OK	OK	"	11055.65	A1	c / k	AC / AC
059	VSDM4-F	7/6/01 7/7/01	0958 1018	76	85	OK	OK	2373.03	2397.36	C1 FLOW GREATER THAN 10% HIGH	c / k	AC / AC
066	VSDM4-B	7/6/01 7/7/01	0958 1018	76	85	OK	OK	"	2397.36	C1 " " " " "	c / k	AC / AC
061	ARVM4-F	7/6/01 7/7/01	1039 1056	75	72.6	OK	OK	526.54	550.81	G1	c / k	AC / AC
062	ARVM4-B	7/6/01 7/7/01	10:39 1056	75	72.6	OK	OK	526.54	550.81	G1	c / k	AC / AC
063	METM4-F	7/6/01 7/7/01	11:39 1204	75	75.3	OK	OK	1469.67	1494.08	J1	c / fc	AC / AC
064	METM4-B	7/6/01 7/7/01	11:39 1204	75	75.3	OK	OK	1469.67	1494.08	J1	c / pc	AC / AC
065	ARBM5-F	7/7/01 7/8/01	0629 0610	73	73.3	OK	OK	2279.57	2303.26	K1	k / k	AC / AC
066	ARBM5-B	7/7/01 7/8/01	0629 0610	73	73.3	OK	OK	2279.57	2303.26	K1	k / k	AC / AC
067	ARBM5-FC	7/7/01 7/8/01	0656 0638	76	76	OK	OK	2280.04	2303.70	L1	k / k	AC / AC
068	ARBM5-BC	7/7/01 7/8/01	0656 0638	76	76	OK	OK	2280.04	2303.70	L1	k / k	AC / AC

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SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
069	CRSM5-F	7/7/01 7/8/01	0807 0825	76	72	OK	OK	1770.05	1794.08	N1	K / k	AC / AR
070	CRSM5-B	7/7/01 7/8/01	0807 0825	76	72	OK	OK	1770.05	"	N1	K / K	AC / AR
071	CRSM5-FC	7/7/01 7/8/01	0827 0744	74	75	OK	OK	1771.12	1794.40	I1	K / K	AC / AR
072	CRSM5-BC	7/7/01 7/8/01	0827 0744	74	75	OK	OK	1771.12	"	I1	K / K	AC / AR
073	MVSM5-F	7/7/01 7/8/01	0940 0843	74	74	OK	OK	11055.72	11078.78	A1	K / K	AC / AC
074	MVSM5-B	7/7/01 7/8/01	0940 0843	74	74	OK	OK	11055.72	11078.78	A1	K / K	AC / AC
075	MVSM5-FC	7/7/01 7/8/01	0954 0913	74	92	OK	OK	11055.97	11079.29	D1 END FLOW CHECK HIGH	K / K	AC / AC
076	MVSM5-BC	7/7/01 7/08/01	0954 0913	74	92	OK	OK	11055.97	11079.29	D1 " " " "	K / K	AC / AC
077	VSDM5-F	7/7/01 7/8/01	1023 0947	74	84	OK	OK	2397.45	2420.84	C1 ~~End flow high~~ OK	K / K	AC / AR
078	VSDM5-B	7/7/01 7/8/01	1023 0947	74	84	OK	OK	2397.45	"	C1 OK	K / K	AC / AR
079	VSDM5-FC	7/7/01 7/8/01	1034 1014	76	78	OK	OK	2397.61	2421.28	~~B1~~ B1RR ~~C1~~ More than likely B1	K / K	AC / AR
080	VSDM5-BC	7/7/01 7/8/01	1034 1014	76	78	OK	OK	2397.61	"	~~B1~~ B1RR " " " "	K / K	AC / AR
081	ARVM5-F	7/7/01 7/8/01	1102 1042	75	77	OK	OK	~~550.95~~ 551.22	~~574.57~~ 574.92	G1	K / K	AC / AC
082	ARVM5-B	7/7/01 7/8/01	1102 1042	75	77	OK	OK	~~550.95~~ 551.22	574.92	G1	K / K	AC / AC
083	ARVM5-FC	7/7/01 7/8/01	1119 1103	75	77	OK	OK	551.22	574.92	M1	K / K	AC / AC
084	ARVM5-BC	7/7/01 7/8/01	1119 1103	75	77	OK	OK	551.22	574.92	M1	K / K	AC / AC
085	METM5-F	7/7/01 7/8/01	1217 1149	76	78	OK	OK	1494.35	1517.84	J1 ~~K~~ K	~~K~~ K / K	AC / AR

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SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
086	METM5-B	7/7/01 7/8/01	1217 1149	76	78	OK	OK	1494.35	1517.84	J1	PC / K	AR / RR
087	METM5-FC	7/7/01 7/8/01	1230 1206	75	73	OK	OK	1494.55	1518.15	E1	PC / K	AR / RR
088	METM5-BC	7/7/01 7/8/01	1230 1206	75	73	OK	OK	1494.55	"	C1	PC / K	AR / RR
089	ARBM5-TB	7/7/01 —	1431 —	—	—	—	—	—	—	Trip Blank	SRR PC	RR
090	ARBM5-TSL	7/7/01 —	1431 —	—	—	—	—	—	—	Trip Spike Low	SRR PC	RR
091	ARBM5-TSH	7/7/01 —	1432 —	—	—	—	—	—	—	" " High	PC	RR
092	ARBM6-F	7/8/01 7/9/01	0617 0612	74.5	77	OK	OK	2303.37	2327.25	K1	K / K	AR / AR
093	ARBM6-B	7/8/01 7/9/01	0617 0612	74.5	77	OK	OK	2303.37	2327.25	K1	K / K	AR / AR
094	CRSM6-F	7/8/01 7/9/01	0830 0801	75	73	OK	OK	1794.76	1817.98	N1	K / K	RR / RR
095	CRSM6-B	7/8/01 7/9/01	0830 0801	75	73	OK	OK	"	"	N1	K / K	RR / RR
096	MVSM6-F	7/8/01 7/9/01	0849 0800	75	75	OK	OK	11078.89	11102.08	A1	K / K	AR / AR
097	MVSM6-B	7/8/01 7/9/01	0849 0800	75	75	OK	OK	11078.89	11102.08	A1	K / K	AR / AR
098	VSDM6-F	7/8/01 7/9/01	0951 0854	76	87	OK	NO	2420.91	2443.95	C1 End flow high Small leak	K / K	RR / RR
099	VSDM6-B	7/8/01 7/9/01	0951 0854	76	87	OK	NO	2420.91	"	C1 " " " Small leak	K / K	RR / RR
100	ARVM6-F	7/8/01 7/9/01	1046 0946	76	76	OK	OK	574.65	597.65	G1	K / K	AR / AR
101	ARVM6-B	7/8/01 7/9/01	1046 0946	76	76	OK	OC	~~5744~~ 574.65	597.65	G1	K / K	AR / AR
102	METM6-F	7/8/01 7/9/01	1153 1056	73	75	OK	Small leak	1517.91	1540.96	O1	K / K	RR / RR

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SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather (k = clear, p = partly, c = cloudy, r = rain)	Initials
103	METM6-B	7/8/01 7/9/01	1153 1056	73	75	OK	Small leak	1517.91	1540.76	J1	K / K	AR / AR
104	ARBM7-F	7/13/01 7/14/01	0638 0555	74	75	OK	OK	2327.49	2350.75	K1	K / K	JW / JW
105	ARBM7-B	7/13/01 7/14/01	0638 0555	74	75	OK	OK	2327.49	2350.75	K1	K / K	JW / JW
106	ARBM7-TB	7/13/01 --	1345 --	--	--	--	--	--	--	TRIP BLANK	/	JW
107	CRSM7-F	7/13/01 7/14/01	0750 0704	75	74.4	OK	OK	1812.99	1841.11	N1	K / K	JW / JW
108	CRSM7-B	7/13/01 7/14/01	0750 0704	75	74.4	OK	OK	1817.89	1841.11	N1	K / K	JW / JW
109	MVSM7-F	7/13/01 7/14/01	0852 0815	75	79	OK	OK	11102.36	11125.72	A1	K / K	JW / JW
110	MVSM7-B	7/13/01 7/14/01	0852 0815	75	79	OK	OK	11102.36	"	A1	K / K	JW / JW
111	VSDM7-F	7/13/01 7/14/01	0939 0900	75	75.8	OK	OK	2444.20	2467.54	B1	K / K	JW / JW
112	VSDM7-B	7/13/01 7/14/01	0939 0900	75	75.8	OK	OK	2444.20	"	B1	K / K	JW / JW
113	ARVM7-F	7/13/01 7/14/01	1027 0941	76	76	OK	OK	597.94	621.19	G1	K / K	JW / JW
114	ARVM7-B	7/13/01 7/14/01	1027 0941	76	76	OK	OK	597.94	"	G1	K / K	JW / JW
115	METM7-F	7/13/01 7/14/01	1203 1109	75	95	OK	OK	1541.22	1564.33	E1	K / K	JW / JW
116	METM7-B	7/13/01 7/14/01	1203 1109	75	95	OK	OK	1541.22	"	E1	K / K	JW / JW
117	ARBM8-F	7/14/01 7/15/01	0610 0603	75	73	OK	OK	2351.80	2367.72	K1	K / K	JW / JW
118	ARBM8-B	7/14/01 7/15/01	0610 0603	75	73	OK	OK	"	"	K1	K / K	JW / JW
119	ARBM8-FC	7/14/01 7/15/01	0618 0619	74	74	OK		2351.11	2367.76	L1	K / K	JW / JW

AIR RESOURCES BOARD
MLD/ELB/SPM

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
120	ARBM8-BC	7/14/01 7/15/01	0618 0619	74	74	OK	OK	2351.11	2367.96	LI	K / K	JW / CJP
121	CRSM8-F	7/14/01 7/15/01	0715 0709	76	76	OK	OK	1841.29	1865.27	N1	K / K	JW / CJP
122	CRSM8-B	7/14/01 7/15/01	0715 0709	76	76	OK	OK	"	"	N1	K / K	JW / CJP
123	CRSM8-FC	7/14/01 7/15/01	0722 0723	75	75.6	OK	NO	1841.39	1865.43	I1 FC - SLACC LEAK	K / K	JW / CJP
124	CRSM8-BC	7/14/01 7/15/01	0722 0723	75	75.6	OK	NO	"	1865.43	I1 " "	K / K	JW / CJP
125	MVSM8-F	7/14/01 7/15/01	0823 0826	76	80.0	OK	OK	11125.87	11149.93	A1	K / K	JW / CJP
126	MVSM8-B	7/14/01 7/15/01	0823 0826	76	"	OK	OK	"	"	A1	K / K	JW / CJP
127	MVSM8-FC	7/14/01 7/15/01	0830 6842	75	76	OK	OK	11125.91	11150.17	D1	K / K	JW / CJP
128	MVSM8-BC	7/14/01 7/15/01	0830 0842	75	76	OK	OK	"	"	D1	K / K	JW / CJP
129	VSDM8-F	7/14/01 7/15/01	0909 0916	74	75	OK	OK	2467.70	2494.84	B1	K / K	JW / CJP
130	VSDM8-B	7/14/01 7/15/01	0909 0916	74	75	OK	OK	"	"	B1	K / K	JW / CJP
131	VSDM8-FC	7/14/01 7/15/01	0915 0933	76	80	OK	OK	2467.80	2492.10	C1	K / K	JW / CJP
132	VSDM8-BC	7/14/01 7/15/01	0915 0933	76	80	OK	OK	"	"	C1	K / K	JW / CJP
133	ARVM8-F	7/14/01 7/15/01	0952 1004	76	78	OK	OK	621.36	645.57	G1	K / K	JW / CJP
134	ARVM8-B	7/14/01 7/15/01	0952 1004	76	78	OK	"	"	"	G1	K / K	JW / CJP
135	ARVM8-FC	7/14/01 7/15/01	0959 1011	74	74.8	OK	OK	621.49	645.76	M1	K / K	JW / CJP
136	ARVM8-BC	7/14/01 7/15/01	0959 1016	74	"	OK	OK	"	"	M1	K / K	JW / CJP

AIR RESOURCES BOARD

MLD/ELB/SPM

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

MFM #5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
137	MET-8-F	7/14/01 7/15/01	1119 1059	74	74	OK	No	1564.49	1588.17	E1 SMALL LEAK	K / K	JW / aqp
138	MET-8-B	7/14/01 7/15/01	1119 1059	74	"	OK	No	"	"	E1 " "	K / K	JW / aqp
139	MET-8-FC	7/14/01 7/15/01	1127 1123	76	79	OK	OK	1564.61	1588.54	J1	K / K	JW / aqp
140	MET-8-BC	7/14/01 7/15/01	1127 1123	76	"	OK	OK	"	"	J1	K / K	JW / aqp
141	ARB-9-F	7/15/01 7/16/01	0628 0615	74	76	OK	OK	2368.10	2391.89	K1	K / K	aqp / aqp
142	ARB-9-B	7/15/01 7/16/01	0628 0615	74	76	OK	OK	2368.10	"	K1	K / K	aqp / aqp
143	CRS-9-F	7/15/01 7/16/01	0736 0717	74	76	OK	OK	1865.65	1889.32	N1	K / K	aqp / aqp
149	CRS-9-B	7/15/01 7/16/01	0736 0717	74	76	OK	OK	1865.65	"	N1	K / K	aqp / aqp
145	MVS-9-F	7/15/01 7/16/01	0851 0824	75	77	OK	OK	11150.31	11173.86	A1	K / K	aqp / aqp
146	MVS-9-B	7/15/01 7/16/01	0851 0824	"	77	"	OK	"	"	A1	K / K	aqp / aqp
147	VSD-9-F	7/15/01 7/16/01	0941 0903	75	77	OK	OK	2492.23	2515.60	B1	K / K	aqp / aqp
148	VSD-9-B	7/15/01 7/16/01	0941 0903	"	77	"	OK	"	"	B1	K / K	aqp / JW
149	ARV-9-F	7/15/01 7/16/01	1023 0945	75	81	OK	OK	645.88	669.23	G1	K / K	aqp / JW
150	ARV-9-B	7/15/01 7/16/01	1023 0945	75	81	"	OK	"	"	G1	K / K	aqp / JW
151	MET-9-F	7/15/01 7/16/01	1130 1038	75	76	OK	OK	1588.67	1611.78	E1	K / K	aqp / JW
152	MET-9-B	7/15/01 7/16/01	1130 1038	75	76	OK	OK	"	"	E1	K / K	aqp / JW
153	ARB-10-F	7/16/01 7/17/01	0626 0626	74	76	OK	OK	2392.07	2416.09	K1	K / K	aqp / aqp

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
154	ARBM10-B	7/16/01 7/17/01	0626 0626	74	76	OK	OK	2392.01	2414.05	K1	K / K	JW / aq
155	CRSM10-F	7/16/01 7/17/01	0729 0714	74	75	OK	OK	1889.52	1913.30	N1	K / K	JW / aq
156	CRSM10-B	7/16/01 7/17/01	0729 0714	74	75	OK	OK	"	"	N1	K / K	JW / aq
157	MVSM10-F	7/16/01 7/17/01	0836 0818	75	79	OK	OK	11174.06	11197.79	A1	K / K	JW / aq
158	MVSM10-B	7/16/01 7/17/01	0836 0818	75	79	OK	OK	"	"	A1	K / K	JW / aq
159	VSDM10-F	7/16/01 7/17/01	0917 0846	75	78	OK	OK	2515.83	2539.34	B1	K / K	JW / aq
160	VSDM10-B	7/16/01 7/17/01	0917 0846	75	78	OK	OK	"	"	B1	K / K	JW / aq
161	ARVM10-F	7/16/01 7/17/01	0956 0919	75	77	OK	OK	669.42	692.82	G1	K / K	JW / aq
162	ARVM10-B	7/16/01 7/17/01	0956 0919	75	77	OK	OK	"	"	G1	K / K	JW / aq
163	METM10-F	7/16/01 7/17/01	1053 0956	74	78	OK	OK	1612.05	1635.12	E1	K / K	JW / aq
164	METM10-B	7/16/01 7/17/01	1053 0956	74	78	OK	OK	"	"	E1	K / K	JW / aq

MEM #5346

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
154	ARB-10-B	7/16/01	0626	74	76	OK	OK	2392.07	2416.05	K1	K / K	JW / aq
		7/17/01	0626									
155	CRS-10-F	7/16/01	0729	74	75	OK	OK	1888.52	1913.30	N1	K / K	JW / aq
		7/17/01	0714									
156	CRS-10-B	7/16/01	0729	74	75	OK	OK	"	"	N1	K / K	JW / aq
		7/17/01	0714									
157	MVS-10-F	7/16/01	0836	75	79	OK	OK	11174.06	11197.79	A1	K / K	JW / aq
		7/17/01	0818									
158	MVS-10-B	7/16/01	0836	75	79	OK	OK	"	"	A1	K / K	JW / aq
		7/17/01	0818									
159	VSD-10-F	7/16/01	0917	75	78	OK	OK	2515.83	2539.34	B1	K / K	JW / aq
		7/17/01	0846									
160	VSD-10-B	7/16/01	0917	75	78	OK	OK	"	"	B1	K / K	JW / aq
		7/17/01	0846									
161	ARV-10-F	7/16/01	0956	75	77	OK	OK	669.42	692.82	G1	K / K	JW / aq
		7/17/01	0919									
162	ARV-10-B	7/16/01	0956	75	77	OK	OK	"	"	G1	K / K	JW / aq
		7/17/01	0919									
163	MET-10-F	7/16/01	1053	74	78	OK	OK	1612.05	1635.12	E1	K / K	JW / aq
		7/17/01	0956									
164	MET-10-B	7/16/01	1053	74	78	OK	OK	"	"	E1	K / K	JW / aq
		7/17/01	0956									
165	ARBM-11-F	7/21/01	0621	75	74	OK	Small leak	2416.27	2439.99	K1	K / K	Ac / JRP
		7/22/01	0606									
166	ARBM11-B	7/21/01	0621	75	74	OK	"	2416.27	"	K1	K / K	Ac / JRP
		7/22/01	0606									
167	ARBM11-FSF	7/21/01	0633	75	77	OK	Small leak	2416.78	2440.34	L1	K / K	Ac / JRP
		7/22/01	0626									
168	ARBM11-BB	7/21/01	0633	75	77	OK	"	2416.45	"	L1	K / K	Ac / JRP
		7/22/01	0626									
169	CRSM11-F	7/21/01	0721	75	75	OK	OK	1913.33	1937.33	N1	K / K	AC / JRP
		7/22/01	0711									
170	CRSM11-B	7/21/01	0721	75	75	OK	OK	1913.33	"	N1	K / K	AC / JRP
		7/22/01	0711									

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AIR RESOURCES BOARD
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SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

MFM #5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
171	MVSM11-F	7/21/01 7/22/01	0815 0816	75	80	OK	11197.90	~~11221.0K~~ 97	11221.17	A1	K / K	AR / JRR
172	MVSM11-B	7/21/01 7/22/01	0815 0816	75	80	OK	11197.90	OK "	"	A1	K / K	AR / JRR
173	VSDM11-F	7/21/01 7/22/01	0845 0900	74	75	OK	2539.52	Small leak	2563.76	B1	K / K	AR / JRR
174	VSDM11-B	7/21/01 7/22/01	0845 0900	74	75	OK	2539.52	"	"	B1	K / K	AR / JRR
175	ARVM11-F	7/21/01 7/22/01	0910 0935	75	75	OK	693.04	~~719.~~ 40	717.40	G1	K / K	AR / JRR
176	ARVM11-B	7/21/01 7/22/01	0910 0935	75	75	OK	693.04	Small leak	"	G1	K / K	AR / JRR
177	METM11-F	7/21/01 7/22/01	1002 1024	75	78	OK	1635.30	Small leak	1659,64	E1	K / K	AR / JRR
178	METM11-B	7/21/01 7/22/01	1002 1024	75	78	OK	1635.30	"	"	E1	K / K	AR / JRR
179	ARBM11-TB	7/21/01	1133	—	—	—	—	—	—	TRIP BLANK	K	AR
180	ARBM11-TS	7/21/01	1155	—	—	—	—	—	—	TRIP SPIKE	K	AR
181	ARBM12-F	7/22/01 7/23/01	0613 0608	75	75	OK	~~2470.0K~~	2470.12	2464.06	K1	K / K	JRR / AR
182	ARBM12-B	7/22/01 7/23/01	0613 0608	75	75	OK	OK "	"	2464.06	K1	K / K	JRR / AR
183	CRS M12-F ARB	7/22/01 7/23/01	0717 0711	75	74.5	OK	OK	1937.42	~~1961.~~ 35	N1	K / K	JRR / AR
184	CRSM12-B	7/22/01 7/23/01	0717 0711	75	74.5	OK	OK	"	"	N1	K / K	JRR / AR
185	MVSM12-F	7/22/01 7/23/01	~~0812~~ ~~0822~~	76	72	Tiny leak	OK	11222.08	~~11246.~~ 04	A1	K / K	JRR / AR
186	MVSM12-B	7/22/01 7/23/01	0822 0822	76	72	"	OK	11222.08	11246.04	A1	K / K	JRR / AR
187	VSDM12-F	7/22/01 7/23/01	0907 0856	75	74	OK	OK	2563.85	2587.71	B1	K	JRR

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SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

MFM #5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather (k = clear, p = partly, c = cloudy, r = rain)	Initials
188	VSDM12-B	7/22/01 7/23/01	0907 0856	75	74	OK	OK	2563.85	2587.71	B1	K / K	JRR / AR
189	ARVM12-F	7/22/01 7/23/01	0940 0933	74	72.6	OK	OK	717.49	741.42	G1	K / K	JRR / AC
190	ARVM12-B	7/22/01 7/23/01	0940 0933	74	72.6	OK	OK	717.49	741.42	G1	K / K	JRR / AC
191	METM12-F	7/22/01 7/23/01	1030 1024	74	74	Small leak	OK	1659.74	1683.66	E1 " " " "	K / K	JRR / AC
192	METM12-B	7/22/01 7/23/01	1030 1024	74	74	" *	OK	1659.74	1683.66	E1 * = Rechecked with redcap. OK	K / K	JRR / AC
193	ARBM13-F	7/23/01 7/24/01	0614 0607	75	73	OK	OK	2464.16	2488.01	K1	K / K	AC / JRR
194	ARBM13-B	7/23/01 7/24/01	0614 0607	75	73	OK	OK	2464.18	"	K1	K / K	AC / JRR
195	ARBM13-FC	7/23/01 7/24/01	0625 0624	75	74	OK	OK	2464.34	2488.29	L1	K / K	AC / AC
196	ARBM13-BC	7/23/01 7/24/01	0625 0624	75	74	OK	OK	2464.34	2488.29	L1	K / K	AC / AC
197	CRSM13-F	7/23/01 7/24/01	0719 0708	75	73	OK	OK	1961.49	1985.28	N1	K / K	AC / JRR
198	CRSM13-B	7/23/01 7/24/01	0719 0708	75	73	OK	OK	1961.49	1985.28	N1	K / K	AC / JRR
199	CRSM13-FC	7/23/01 7/24/01	0731 0726	75	75	OK	OK	1961.68	1985.58	I1	K / K	AC / AC
200	CRSM13-BC	7/23/01 7/24/01	0731 0726	75	75	OK	OK	1961.68	1985.58	I1	K / K	AC / AC
201	MVSM13-F	7/23/01 7/24/01	0833 0821	75	73	OK	OK	11246.30	11270.05	A1	K / K	AC / JRR
202	MVSM13-B	7/23/01 7/24/01	0833 0821	75	73	OK	OK	11246.30	"	A1	K / K	AC / JRR
203	MVSM13-FC	7/23/01 7/24/01	0838 0837	77	77	OK	OK	11246.38	11270.33	D1	K / K	AC / JRR
204	MVSM13-BC	7/23/01 7/24/01	0838 0837	77	77	OK	OK	11246.38	"	D1	K / K	AC / JRR

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

MFM #5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
205	VSDM13-F	7/23/01	0909	74.8	74	OK	OK	2587.91	2611.72	B1	K / K	AC / JRR
		7/24/01	0859									
206	VSDM13-B	7/23/01	0909	74.8	74	OK	OK	2587.91	"	B1	K / K	AC / JRR
		7/24/01	0859									
207	VSDM13-FC	7/23/01	0914	74	78	OK	OK	2588.00	2611.94	C1	K / K	AC / JRR
		7/24/01	0912									
208	VSDM13-BC	7/23/01	0914	74	78	OK	OK	2588.00	2611.94	C1	K / K	AC / JRR
		7/24/01	0912									
209	ARVM13-F	7/23/01	0944	74	75	OK	OK	741.54	765.39	G1	K / K	AC / JRR
		7/24/01	0934									
210	ARVM13-B	7/23/01	0944	74	75	OK	OK	741.54	"	G1	K / K	AC / JRR
		7/24/01	0934									
211	ARVM13-FC	7/23/01	0951	74	75	OK	OK	741.70	765.61	M1	K / K	AC / JRR
		7/24/01	0950									
212	ARVM13-BC	7/23/01	0951	74	75	OK	OK	741.70	765.61	M1	K / K	AC / JRR
		7/24/01	0950									
213	METM13-F	7/23/01	1034	75	86*	OK	OK	1683.84	1707.68	E1 HIGH FLOW	1C / K	AC / JRR
		7/24/01	1026									
214	METM13-B	7/23/01	1034	75	86*	OK	OK	1683.84	1707.68	E1 HIGH FLOW	1C / K	AC / JRR
		7/24/01	1026									
215	METM13-FC	7/23/01	1042	77	98	OK	OK	1683.98	1707.96	J1	K / K	K / AC
		7/24/01	1043									
216	METM13-BC	7/23/01	1042	77	78	OK	OK	1683.98	1707.96	J1	K / K	AC / AC
		7/24/01	1043									
217	ARBM14-F	7/24/01	0611	75	76	OK	OK	2488.08	2512.21	K1	K / K	JRR / AC
		7/25/01	0617									
218	ARBM14-B	7/24/01	0611	75	76	OK	OK	"	2512.21	K1	K / K	JRR / AC
		7/25/01	0617									
219	CRSM14-F	7/24/01	0713	74	75	OK	OK	1985.35	2009.10	N1	K / K	JRR / AC
		7/25/01	0655									
220	CRSM14-B	7/24/01	0713	74	75	OK	OK	"	2009.10	N1	K / K	JRR / AC
		7/25/01	0655									
221	MVSM14-F ~~CRS~~	7/24/01	0825	77	77.8	OK	OK	11270.14	11293.51	A1	K / K	JRR / AC
		7/25/01	0747									

AIR RESOURCES BOARD
MLD/ELB/SPM

NIFM
5346

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
222	MVSM14-B	7/24/01 7/25/01	0825 0747	77	77.8	OK	OK	11270.14	11293.51	A1	K K	
223	VSDM14-F	7/24/01 7/25/01	0903 0824	75	76.4	OK	OK	2611.79	2635.16	B1	K K	
224	VSDM14-B	7/24/01 7/25/01	0903 0824	75	76.4	OK	OK	"	2635.16	B1	K K	
225	ARVM14-F	7/24/01 7/25/01	0939 0845	74	76.4	OK	OK	765.47	788.59	G1	K K	
226	ARVM14-B	7/24/01 7/25/01	0939 0845	74	76.4	OK	OK	"	788.59	G1	K K	
227	METM14-F	7/24/01 7/25/01	1031 0932	75	93.8	OK	OK	1207.77	1730.79	E1 HIGH FLOW	K K	
228	METM14-B	7/24/01 7/25/01	1031 0932	75	93.8	OK	OK	"	1730.79	E1	K K	
229	ARBM15-F	7/29/01 7/30/01	0654 0610	76	78	OK	OK	2512.45	2535.10	K1	K K	
230	ARBM15-B	7/29/01 7/30/01	0654 0610	76	78	OK	OK	2512.45	"	K1	K K	
231	CRSM15-F	7/29/01 7/30/01	0746 0720	75	76	OK	OK	2009.31	2032.84	N1	K K	
232	CRSM15-B	7/29/01 7/30/01	0746 0720	75	76	OK	OK	2009.31	"	N1	K K	
233	MVSM15-F	7/29/01 7/30/01	0849 0835	75	79	OK	OK	11293.67	11317.43	A1	K K	
234	MVSM15-B	7/29/01 7/30/01	0848 0835	75	79	OK	OK	11293.67	11317.43	A1	K K	
235	VSDM15-F	7/29/01 7/30/01	0928 0917	74	77	OK	OK	2635.35	2659.17	B1	K K	
236	VSDM15-B	7/29/01 7/30/01	0928 0917	74	77	OK	OK	2635.35	"	B1	K K	
237	ARVM15-F	7/29/01 7/30/01	1004 0954	74	80	OK	OK	788.74	812.56	G1	K K	
238	ARVM15-B	7/29/01 7/30/01	1004 0954	74	80	OK	OK	"	"	G1	K K	

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

MFM # 5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
239	METM15-F	7/29/01	1101	75	77	OK	OK	1731.03	1754.89	E1	K	AJC JSW
		7/30/01	1054									
240	METM15-B	7/29/01	1101	75	77	OK	OK	1731.03	"	E1	K	AJC JSW
		7/30/01	1054									
241	ARBM15-TB	7/30/01	0557	—	—	—	—	—	—	TRIP BLANK	K	JSW
242	ARBM16-F	7/30/01	0625	75	75	OK	OK	2535.94	2559.62	K1	K	JSW AQP
		7/31/01	0604								K	
243	ARBM16-B	7/30/01	0625	75	75	OK	OK	"	"	K1	K	JSW AQP
		7/31/01	0604								K	
244	ARBM16-FC	7/30/01	0631	75	81.7	OK	OK	2536.05	2559.85	L1	K	JSW AQP
		7/31/01	0618								K	
245	ARBM16-BC	7/30/01	0631	75	81.7	OK	OK	"	"	L1	K	JSW AQP
		7/31/01	0618								K	
246	CRSM16-F	7/30/01	0734	75	76	OK	OK	2033.08	2056.73	N1	K	JSW AQP
		7/31/01	0712								K	
247	CRSM16-B	7/30/01	0734	75	76	OK	OK	"	"	N1	K	JSW AQP
		7/31/01	0712								K	
248	CRSM16-FC	7/30/01	0742	75	78	OK	OK	2033.31	2056.94	I1	K	JSW AQP
		7/31/01	0724								K	
249	CRSM16-BC	7/30/01	0742	75	78	OK	OK	"	2056 94	I1	K	JSW AQP
		7/31/01	0724								K	
250	MVSM16-F	7/30/01	0849	76	81	OK	OK	11317.66	11341.38	A1	K	JSW AQP
		7/31/01	0830								K	
251	MVSM16-B	7/30/01	0849	76	81	OK	OK	"	"	A1	K	JSW AQP
		7/31/01	0830								K	
252	MVSM16-FC	7/30/01	0853	75	78	OK	OK	11317.74	11341.55	D1	K	JSW AQP
		7/31/01	0841								K	
253	MVSM16-BC	7/30/01	0853	75	78	OK	OK	"	"	D1	K	JSW AQP
		7/31/01	0841								K	
254	VSDM16-F	7/30/01	0926	75	78	OK	OK	2659.30	2683.14	B1	K	JSW AQP
		7/31/01	0915								K	
255	VSDM16-B	7/30/01	0926	75	78	OK	OK	"	"	B1	K	JSW AQP
		7/31/01	0915								K	

SAMPLE FIELD LOG SHEET

MFM
5346

Project: MIC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
256	VSDM16-Fc	7/30/01 7/31/01	0932 0932	76	87	OK	OK	2659.39	2683.39	C1	K / K	JW / aqp
257	VSDM16-Bc	7/30/01 7/31/01	0932 0932	76	"	OK	"	"	"	C1	K / K	JW / aqp
258	ARVM16-F	7/30/01 7/31/01	1005 1000	76	77.2	OK	OK	812.75	836.68	G1	K / K	JW / aqp
259	ARVM16-B	7/30/01 7/31/01	1005 1000	76	"	OK	"	"	"	G1	K / K	JW / aqp
260	ARVM16-Fc	7/30/01 7/31/01	1012 1010	76	78	OK	OK	812.85	836.84	M1	K / K	JW / aqp
261	ARVM16-Bc	7/30/01 7/31/01	1012 1010	76	78	OK	OK	"	"	M1	K / K	JW / aqp
262	METM16-F	7/30/01 7/31/01	1102 1055	76	78.9	OK	OK	1755.05	1778.94	E1	K / K	JW / aqp
263	METM16-B	7/30/01 7/31/01	1102	76	"	OK	"	"	"	E1	K / K	JW / aqp
264	METM16-Fc	7/30/01 7/31/01	1112 1105	75	78	OK	OK	1755.19	1779.09	J1	K / K	JW / aqp
265	METM16-Bc	7/30/01 7/31/01	1112 1105	75	78	OK	"	"	"	J1	K / K	JW / aqp
266	ARBM17-F	7/31/01 8/1/01	0626 0622	75	76	OK	OK	2559.98	2583.89	K1	K / K	aqp / JW
267	ARBM17-B	7/31/01 8/1/01	0626 0622	75	76	OK	OK	"	"	K1	K / K	aqp / JW
268	CRSM17-F	7/31/01 8/1/01	0729 0720	75	75	OK	OK	2057.02	2080.83	N1	K / K	aqp / JW
269	CRSM17-B	7/31/01 8/1/01	0729 0720	75	75	OK	OK	"	"	N1	K / K	aqp / JW
270	MVSM17-F	7/31/01 8/1/01	0848 0822	75	77	OK	OK	11341.66	11365.21	A1	K / K	aqp / JW
271	MVSM17-B	7/31/01 8/1/01	0848 0822	75	77	OK	OK	"	"	A1	K / K	aqp / JW
272	VSDM17-F	7/31/01 8/1/01	0938 0854	75	75	OK	OK	2683.51	2706.77	B1	K / K	aqp / JW

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

MFM # 5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather (k = clear, p = partly, c = cloudy, r = rain)	Initials
273	VSDM17-B	7/31/01	0938	75	75	OK	OK	2683.51	2706.77	B1	K / K	QP / JW
		8/1/01	0854									
274	ARVM17-F	7/31/01	1017 aqp	75 aqp	74	OK	OK	836.96 aqp	860.08	G1	K / K	QP / JW
		8/1/01	0925									
275	ARVM17-B	7/31/01	1017 aqp	"	74	OK	OK	"	860.08	G1	K / K	QP / JW
		8/1/01	0925									
276	METM17-F	7/31/01	1111	75	80	OK	OK	1779.21	1802.21	E1	K / K	QP / JW
		8/1/01	1013									
277	METM17-B	7/31/01	1111	"	80	"	OK	"	"	E1	K / K	QP / JW
		8/1/01	1013									
278	ARBM18-F	8/1/01	0634	76	76	OK	OK	2584.09	2607.83	K1	K / K	JW / aqp
		8/2/01	0617									
279	ARBM18-B	8/1/01	0634	76	"	OK	OK	"	"	K1	K / K	JW / aqp
		8/2/01	0617									
280	CRSM18-F	8/1/01	0731	75	74	OK	OK	2081.02	2104.58	N1	K / K	JW / aqp
		8/2/01	0703									
281	CRSM18-B	8/1/01	0731	75	"	OK	OK	"	"	N1	K / K	JW / aqp
		8/2/01	0703									
282	MVSM18-F	8/1/01	0830	76	80	OK	OK	11365.35	11388.89	A1	K / K	JW / aqp
		8/2/01	0801									
283	MVSM18-B	8/1/01	0830	76	"	OK	OK	"	"	A1	K / K	JW / aqp
		8/2/01	0801									
284	VSDM18-F	8/1/01	0905	76	76	OK	OK	2706.94	2730.35	B1	K / K	JW / aqp
		8/2/01	0828									
285	VSDM18-B	8/1/01	0905	76	76	OK	OK	"	"	B1	K / K	JW / aqp
		8/2/01	0828									
286	ARVM18-F	8/1/01	0934	75	75	OK	OK	860.22	883.53	G1	K / K	JW / aqp
		8/2/01	0851									
287	ARVM18-B	8/1/01	0934	75	"	OK	OK	"	"	G1	K / K	JW / aqp
		8/2/01	0851									
288	METM18-F	8/1/01	1024	76	78	OK	OK	1802.41	1825.49	E1	K / K	JW / aqp
		8/2/01	0928									
289	METM18-B	8/1/01	1024	76	78	OK	"	"	"	E1	K / K	JW / aqp
		8/2/01	0928									

SAMPLE FIEL_ LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

MFM # 5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
290	ARBM19F	8/6/01 8/7/01	0617 0613	75	75	OK		2608.01	2631,94	K1	K / K	AC / JRR
291	ARBM19B	8/6/01 8/7/01	0617 0613	75	75	OK		2608.01	"	K1	K / K	AC / JRR
292	ARBM19FFS	8/6/01	—	—	—	—	—	—	—	DID NOT RUN CARTRIDGE WAS BROKEN DURING TRANSIT	— / —	— / —
293	CRSM19F	8/6/01 8/7/01	0716 0719	75	73	OK	OK	2104.81	2128,85	N1	K / K	AC / JRR
294	CRSM19B	8/6/01 8/7/01	0716 0719	75	73	OK	OK	2104.81	2128.85	N1	K / K	AC / JRR
295	MVSM19F	8/6/01 8/7/01	0816 0821	75	76	OK	OK	11289.67	11413,12	A1	K / K	AC / JRR
296	MVSM19B	8/6/01 8/7/01	0816 0821	75	76	OK	OK	11389.07	"	A1	K / K	AC / JRR
297	VSDM19F	8/6/01 8/7/01	0846 0855	75	74	ok	ok	2730.55	2754.71	B1	K / K	AC / JRR
298	VSDM19B	8/6/01 8/7/01	0846 0855	75	74	OK	OK	2730.55	"	B1	K / K	AC / JRR
299	ARVM19F	8/6/01 8/7/01	0910 0929	75	74	OK	OK	883,66	907 .99	G1	K / K	AC / JRR
300	ARVM19B	8/6/01 8/7/01	0910 0929	75	74	OK	OK	887.66	"	G1	K / K	AC / JRR
301	METM19F	8/6/01 8/7/01	0957 1013	75	77	OK	OK	1825.70	1849,97	R1	PC / K	AC / JRR
302	METM19B	8/6/01 8/7/01	0957 10938.	75	77	OK	OK	1825.70	"	R1	PC / K	AC / JRR
303	ARBM20F	8/7/01 8/6/01	0617 0613	74	71	OK	OK	2632 .02	2655.93	K1	K / K	JRR / AC
304	ARBM20B	8/7/01 8/6/01	0617 0613	74	71	OK	OK	"	2655.93	K1	K / K	JRR / AC
305	ARBM20FC	8/7/01 8/8/01	0634 0623	74	74	OK	OK	2632.29	2656 .79	L1	K / K	JRR / AC
306	ARBM20BC	8/7/01 8/8/01	0634 0623	74	74	OK	OK	"	"	L1	K / K	JRR / AC

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

MFM # 5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
307	CRSM20F	8/7/01 8/8/01	0723 0708	75	72	OK	~~3128~~ 3206	2128. 92	2152. 67	N1	K K	JRR AC
308	CRSM20B	8/7/01 8/8/01	0723 0708	75	72	OK	OK	"	2152. 67	N1	K K	JRR AC
309	CRSM20FC	8/7/01 8/8/01	0736 0726	75	74	OK	OK	2129. 13	2152 .97	I1	K K	JRR AC
310	CRSM20BC	8/7/01 8/8/01	0736 0726	75	74	OK	OK	"	"	I1	K K	JRR AC
311	MVSM20F	8/7/01 8/8/01	0826 0814	75	74	OK	OK	11413 .10	11437 02	A1	K K	JRR AC
312	MVSM20B	8/7/01 8/8/01	0826 0814	75	74	OK	OK	"	11437. 02	A1	K K	JRR AC
313	MVSM20FC	8/7/01 8/8/01	0838 0833	75	75	OK	OK	11413. 39	11437. 33	D1	K K	AR AC
314	MVSM20BC	8/7/01 8/8/01	0838 0833	75	75	OK	OK	11413. 39	11437 .33	D1	K K	AR AC
315	VSDM20F	8/7/01 8/8/01	0900 0853	76	73	OK	OK	2754. 79	2778. 67	B1	K K	JRR AR
316	VSDM20B	8/7/01 8/8/01	0900 0853	76	73	OK	OK	"	2778. 67	B1	K K	JRR AC
317	VSDM20FC	8/7/01 8/8/01	0909 0909	75	82	OK	OK	2754 .93	2778 .97	C1	K K	JRR JRR
318	VSDM20BC	8/7/01 8/8/01	0909 ~~0853~~ 0909	75	82	OK	OK	~~2754~~ ~~.06~~ 908.93	"	C1	K K	JRR JRR
319	ARVM20F	8/7/01 8/8/01	0933 ~~0853~~ 0933	74	~~73~~ 82	OK	OK	908 .06	932 06	G1	K K	JRR AC
320	ARVM20B	8/7/01 8/8/01	0933 0933	74	73	OK	OK	908. 06	932. 06	G1	K K	AR AC
321	ARVM20FC	8/7/01 8/8/01	0941 0947	76	75	OK	OK	908. 19	932. 29	M1	K K	AC JRD
322	ARVM20BC	8/7/01 8/8/01	0941 0947	76	75	OK	OK	908. 19	932. 29	M1	K K	AC AC
323	METM20F	8/7/01 8/8/01	1019 1021	75	80	OK	OK	1850 .06	1874. 11	E1	K	JRR

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

MFM # 5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
324	METM20B	8/7/01 8/8/01	1019 1021	75	80	OK	OK	1850.06	1874.11	E1	K / K	LRR / AC
325	METM20FC	8/7/01 8/8/01	1029 1034	75	77	OK	OK	1850.24	1874.32	J1	K / K	LRR / AC
326	METM20BC	8/7/01 8/8/01	1029 1034	75	77	OK	OK	"	"	J1	K / K	LRR / AC
327	ARBM20TB	8/7/01 —	1120 —	—	—	—	—	—	—	TRIP BLANK	K / K	AC / AC
328	ARBM21F	8/8/01 8/9/01	0625 0614	75	76	OK	OK	2656.18	2679.96	K1	K / K	AC / LRR
329	ARBM21B	8/8/01 8/9/01	0625 0614	75	76	OK	OK	2656.18	"	K1	K / K	AC / LRR
330	CRSM21F	8/8/01 8/9/01	0722 0709	75	74	OK	OK	2152.91	2176.68	M1	K / K	AC / LRR
331	CRSM21B	8/8/01 8/9/01	0722 0709	75	74	OK	OK	2152.91	"	M1	K / K	AC / LRR
332	MVSM21F	8/8/01 8/9/01	0820 0816	75	76	OK	OK	11437.12	11461.05	A1	K / K	AC / LRR
333	MVSM21B	8/8/01 8/9/01	0820 0816	75	76	OK	OK	11437.12	"	A1	K / K	AC / LRR
334	VSDM21F	8/8/01 8/9/01	0906 0851	75	78	OK	OK	2728.89	2802.64	B1	K / K	AC / LRR
335	VSDM21B	8/8/01 8/9/01	0906 0851	75	78	OK	OK	"	"	B1	K / K	AC / LRR
336	ARVM21F	8/8/01 8/9/01	0942 0923	75	76	OK	OK	932.22	955.90	G1	K / K	AC / LRR
337	ARVM21B	8/8/01 8/9/01	0942 0923	75	76	OK	OK	932.22	"	G1	K / K	AC / LRR
338	METM21F	8/8/01 8/9/01	1032 1010	75	76	OK	OK	1874.28	1897.91	E1	K / K	AC / LRR
339	METM21B	8/8/01 8/9/01	1032 1010	75	76	OK	OK	"	1897.91	E1	K / K	AC / LRR
340	ARBM22F	8/9/01 8/10/01	0620 0619	75	77	OK	OK	2680.05	2704.05	K1	K / K	LRR / LRR

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SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

MFM #5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
341	ARBM 22 B	8/9/01 8/10/01	0620 0617	75	77	OK	OK	2680.05	2704.05	K1	K / K	MR / AC
342	CRSM22 F ARBM	8/9/01 8/10/01	0714 0700	74	74	OK	OK	2676.77	2200.56	N1	K / K	SRR / AC
343	CRSM22 B	8/9/01 8/10/01	0714 0700	74	71	OK	OK	"	2200.51	N1	K / K	MR / AC
344	MVSM22F	8/9/01 8/10/01	0820 0753	74	77	OK	OK	11461.11	11484.66	A1	K / K	ARR / AC
345	MVSM22B	8/9/01 8/10/01	0826 0753	74	77	OK	OK	"	11484.66	A1	K / K	ARR / AC
346	VSDM22F	8/9/01 8/10/01	0856 0816	75	79	OK	OK	2802.73	2826.07	B1	K / K	ARR / AC
347	VSDM22B	8/9/01 8/10/01	0856 0816	75	79	OK	OK	"	2826.07	B1	K / K	ARR / AC
348	ARVM 22 F	8/9/01 8/10/01	0929 0836	74	80	OK	OK	955.99	979.14	G1	K / K	ARR / AC
349	ARVM 22 B	8/9/01 8/10/01	0929 0836	74	80	OK	OK	"	979.14	G1	K / K	ARR / AC
350	METM22F	8/9/01 8/10/01	1015 0918	75	79	OK	OK	1897.99	1921.05	E1	K / K	ARR / AC
351	METM22B	8/9/01 8/10/01	1015 0918	75	79	OK	OK	"	1921.05	E1	K / K	ARR / AC
352	ARBM23-F	8/14/01 8/15/01	0656 0619	75	76	OK	OK	2704.19	2727.60	K1	K / K	JW / AC
353	ARBM23-B	8/14/01 8/15/01	0656 0619	75	"	OK	"	"	"	K1	K / K	JW / AC
354	CRSM23-F	8/14/01 8/15/01	0747 0720	75	76	OK	OK	2200.67	2224.25	N1	K / K	JW / AC
355	CRSM23-B	8/14/01 8/15/01	0747 0720	75	"	OK	"	"	"	N1	K / K	JW / AC
356	MVSM23 F	8/14/01 8/15/01	0844 0831	75	75	OK	OK	1484.85	1508.65	A1	K / K	JW / AC
357	MVSM 23B	8/14/01 8/15/01	0844 0831	75	"	OK	"	"	"	A1	K / K	JW / AC

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

MFM # 53416

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
358	VSDM23F	8/14/01	0912	75	76	OK	OK	2826.24	2850.26	B1	K / K	JW / CQ
		8/15/01	0912									
359	VSDM23B	8/14/01	0912	75	"	OK	"	"	2850.26	B1	K / K	JW / CQ
		8/15/01	0712									
360	ARVM23F	8/14/01	0943	76	77	OK	OK	979.29	1003.45	G1	K / K	JW / CQ
		8/15/01	0951									
361	ARVM23B	8/14/01	0943	76	"	OK	"	"	"	G1	K / K	JW / CQ
		8/15/01	0951									
362	METM23F	8/14/01	1024	76	83	OK	OK	1921.21	1945.57	E1	K / K	JW / CQ
		7/15/01	1044									
363	METM23B	8/14/01	1024	76	"	OK	"	"	"	E1	K / K	JW / CQ
		7/15/01	1044									
364	ARBM23 TB	8/15/01	0613	—	—	—	—	—	—	TRIP BLANK	K	JW
		8/15/01	~~0619~~									
365	ARBM24F	8/15/01	0630	75	77	OK	OK	2727.78	2751.57	K1	K / K	CQ / JW
		8/16/01	0619									
366	ARBM24B	8/15/01	0630	75	77	"	OK	"	"	K1	K / K	CQ / JW
		8/16/01	0619									
367	ARBM24FC	8/15/01	0638	75	75	OK	OK	2727.93	2751.75	L1	K / K	CQ / JW
		8/16/01	0629									
368	ARBM24BC	8/15/01	0638	"	75	"	OK	"	"	L1	K / K	CQ / JW
		8/16/01	0629									
369	CRSM24F	8/15/01	0736	76	75	OK	OK	2224.51	2248.23	N1	K / K	CQ / JW
		8/16/01	0720									
370	CRSM24B	8/15/01	0736	"	76	"	OK	"	"	N1	K / K	CQ / JW
		8/16/01	0720									
371	CRSM24FC	8/15/01	0742	75	74	OK	OK	2224.62	2248.40	I1	K / K	CQ / JW
		8/16/01	0730									
372	CRSM24BC	8/15/01	0742	"	74	"	OK	"	"	I1	K / K	CQ / JW
		8/16/01	0730									
373	MVSM24F	8/15/01	0843	76	77	OK	OK	11508.84	11532.58	A1	K / K	CQ / JW
		8/16/01	0828									
374	MVSM24B	8/15/01	0843	"	77	"	OK	"	"	A1	K / K	CQ / JW
		8/16/01	0828									

MFM
53446

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
375	MVSM24F$_C$	8/15/01 8/16/01	0848 0837	75	77	OK	OK	11508.93	11532.74	D1	K / K	JW
376	MVSM24B$_C$	8/15/01 8/16/01	0848 0837	"	77	"	OK	"	"	D1	K / K	JW
377	VSDM24F	8/15/01 8/16/01	0924 0912	75	76	OK	OK	2850.47	2874.22	B1	K / K	JW
378	VSDM24B	8/15/01 8/16/01	0924 0912	"	76	"	OK	"	"	B1	K / K	JW
379	VSDM24F$_C$	8/15/01 8/16/01	0929 0921	76	81	OK	OK	2850.56	2874.40	C1	K / K	JW
380	VSDM24B$_C$	8/15/01 8/16/01	0929 0921	"	81	"	OK	"	"	C1	K / K	JW
381	ARVM24F	8/15/01 8/16/01	1002 0949	74	75	OK	OK	1003.64	1027.41	G1	K / K	JW
382	ARVM24B	8/15/01 8/16/01	1002 0949	"	75	"	OK	"	1027.41	G1	K / K	JW
383	ARVM24F$_C$	8/15/01 8/16/01	1007 0957	75	77	OK	OK	1003.72	1027.54	M1	K / K	JW
384	ARVM24B$_C$	8/15/01 8/16/01	1007 0957	"	77	"	OK	"	"	M1	K / K	JW
385	METM24F	8/15/01 8/16/01	1055 1044	76	77	OK	OK	1945.75	1969.55	E1	K / K	JW
386	METM24B	8/15/01 8/16/01	1055 1044	"	77	"	OK	"	"	E1	K / K	JW
387	METM24F$_C$	8/15/01 8/16/01	1100 1052	75	76	OK	OK	1945.84	1969.69	J1	K / K	JW
388	METM24B$_C$	8/15/01 8/16/01	1100 1052	"	76	"	OK	"	"	J1	K / K	JW
389	ARBM25F	8/16/01 8/17/01	0635 0625	75	76	OK	OK	2751.84	2775.71	K1	K / K	JW
390	ARBM25B	8/16/01 8/17/01	0635 0625	75	76	OK	OK	"	"	K1	K / K	JW
391	CRSM25F	8/16/01 8/17/01	0737 0723	76	76	OK	OK	2248.51	2272.29	N1	K / K	JW

AIR RESOURCES BOARD
MLD/ELB/SPM

MFM
5346

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
392	CRSM25B	8/16/01 8/17/01	0731 0723	76	76	OK	OK	2248.51	2272.29	N1	K / K	JW / [illegible]
393	MVSM25F	8/16/01 8/17/01	0844 0821	76	80	OK	OK	11532.85	11556.48	A1	K / K	JW / [illegible]
394	MVSM25B	8/16/01 8/17/01	0844 0821	76	80	OK	OK	"	"	A1	K / K	JW / [illegible]
395	VSDM25F	8/16/01 8/17/01	0927 0853	76	77	OK	OK	2874.50	2897.95	B1	K / K	JW / [illegible]
396	VSDM25B	8/16/01 8/17/01	0927 0853	76	77	OK	OK	"	"	B1	K / K	JW / [illegible]
397	ARVM25F	8/16/01 8/17/01	1004 0923	75	76	OK	OK	1027.65	~~2898.~~ 1050.99	G1	K / K	JW / [illegible]
398	ARVM25B	8/16/01 8/17/01	1004 0923	75	"	OK	OK	"	1050.99	G1	K / K	JW / [illegible]
399	METM25F	8/16/01 8/17/01	1059 1009	75	79	OK	OK	1969.80	1992.98	E1	K / K	JW / [illegible]
400	METM25B	8/16/01 8/17/01	1059 1009	75	79	OK	OK	"	"	E1	K / K	JW / [illegible]
401	ARBM26F	8/17/01 8/18/01	0639 0626	76	78	OK	OK	2775.84	2799.69	K1	K / K	[illegible] / JW
402	ARBM26B	8/17/01 8/18/01	0639 0626	76	78	"	OK	"	"	K1	K / K	[illegible] / JW
403	CRSM26F	8/17/01 8/18/01	0733 0712	75	76	OK	OK	2272.47	2296.10	N1	K / K	[illegible] / JW
404	CRSM26B	8/17/01 8/18/01	0733 0712	"	76	"	OK	"	"	N1	K / K	[illegible] / JW
405	RAVSM26F	8/17/01 8/18/01	0832 0803	74	77	OK	OK	11556.65	11580.16	A1	K / K	[illegible] / JW
406	MVSM26B	8/17/01 8/18/01	0832 0803	"	77	"	OK	"	"	A1	K / K	[illegible] / JW
407	VSDM26F	8/17/01 8/18/01	0904 0825	75	77	OK	OK	2898.12	2921.46	B1	K / K	[illegible] / JW
408	VSDM26B	8/17/01 8/18/01	0904 0825	75	77	"	OK	"	"	B1	K / K	[illegible] / JW

MFM
#5346

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
409	ARVM26F	8/17/01 8/18/01	0933 0848	75	78	OK	OK	1051.16	1074.39	G1	K / K	CJP / JW
410	ARVM26B	8/17/01 8/18/01	0933 0848	"	78	"	OK	"	"	G1	K / K	CJP / JW
411	METM26F	8/17/01 8/18/01	1020 0934	75	79	OK	OK	1993.17	2016.37	E1	K / K	CJP / JW
412	METM26B	8/17/01 8/18/01	1020 0934	"	79	"	OK	"	"	E1	K / K	CJP / JW
413	ARBM27F	8/22/01 8/23/01	0627 0804	75	78	OK	OK	2799.89	2823.51	K1	K / K	AR / AR
414	ARBM27B	8/22/01 8/23/01	0627 0664	75	78	OK	OK	2799.89	2823.51	K1	K / K	AR / AR
415	CRSM27F	8/22/01 8/22/01	0715 0713	75	78	OK	OK	2296 29	2320.26	N1	K / K	AR / AR
416	CRSM27B	8/22/01 8/22/01	0715 0713	75	78	OK	OK	2296 29	2320.26	N1	K / K	AR / AR
417	MUSM27F	8/22/01 8/23/01	0814 0818	76	79	OK	OK	11580 34	11604.41	A1	K / K	AR / AR
418	MUSM27B	8/22/01 8/23/01	0814 0818	76	79	OK	OK	11580 34	11604.41	A1	K / K	AR / AR
419	VSDM27F	8/22/01 8/23/01	0840 0900	75	79	OK	OK	2921.63	2945.99	B1	K / K	AR / AR
420	VSDM27B	8/22/01 8/23/01	0840 0900	75	79	OK	OK	2921.63	2945.99	B1	K / K	AR / AR
421	ARVM27F	8/22/01 8/23/01	0905 0941	75	77	OK	OK	1170.68	1195.29	G1	K / K	AR / AR
422	ARVM27B	8/22/01 8/23/01	0905 0941	75	77	OK	OK	1170.68	1195.29	G1	K / K	AR / AR
423	METM27F	8/22/01 8/23/01	0948 1034	75	79.5	OK	OK	2016 52	2041.49	K1	RC / K	AR / AR
424	METM27B	8/22/01 8/23/01	0948 1034	75	79.5	OK	OK	2016 52	2041.49	K1	RC / K	AR / AR
425	ARBM28F	8/23/01 8/24/01	0616 0612	74	70	OK	OK	2823.72	2847.63	L1	K / K	AR / AR

AIR RESOURCES BOARD

102

MAM # 5346

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
426	ARBM28FSB	8/23/01 8/24/01	0616 0612	74	70	OK	OK	2823.72	2847.63	L1	K / K	AK / AK
427	ARBM28F	8/23/01 8/24/01	0625 0625	75	76	OK	OK	2823.82	2847.85	K1	K / K	AK / AK
428	ARBM28B	8/23/01 8/24/01	0625 0625	75	76	OK	OK	2823 82	2847.85	K1	K / K	AK / AK
429	CRSM28F	8/23/01 8/24/01	0824 0712	75	73	OK	OK	2320.45	2344.24	N1	K / K	AK / AK
430	CRSM28B	8/23/01 8/24/01	0824 0712	75	73	OK	OK	2320.45	"	N1	K / K	AK / AK
431	MVSM28F	8/23/01 8/24/01	0830 0815	76	77	OK	OK	11604.62	11628.36	A1	K / K	AK / AK
432	MVSM28B	8/23/01 8/24/01	0830 0815	76	77	OK	OK	11604.62	"	A1	K / K	AK / AK
433	USDM28F	8/23/01 8/24/01	0911 0849	75	76	OK	OK	2946.16	2969.28	B1	K / K	AK / AK
434	USDM28B	8/23/01 8/24/01	0911 0849	75	76	OK	OK	2946.16	"	B1	K / K	AK / AK
435	ARVM28F	8/23/01 8/24/01	0953 0925	76	74	OK	OK	1195.48	~~2065~~ 1219.03	G1	K / K	AK / AK
436	ARVM28B	8/23/01 8/24/01	0953 0925	76	74	OK	OK	1195.48	1219.03	G1	K / K	AK / AK
437	METM28F	8/23/01 8/24/01	1047 1024	74	77	OK	OK	2041.50	2065.11	E1	K / K	AK / AK
438	METM28B	8/23/01 8/24/01	1047 1024	74	77	OK	OK	2041.50	"	E1	K / K	AK / AK
439	ARBM28TS	8/23/01 —	1209 —	—	—	—	—	—	—	TRIP SPIKE	K / K	AK / AK
440	ARBM28TB	8/23/01 —	1313 —	—	—	—	—	—	—	TRIP BLANK	K / K	AK / AK
441	ARBM29F	8/24/01 8/25/01	0617 0611	74	72	OK	OK	2847.71	2871.62	L1	K / K	AK / AK
442	ARBM-29B	8/24/01 8/25/01	0617 0611	74	72	OK	OK	"	2871.62	L1	K / K	AK / AK

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

MFM #5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
443	ARBM29FC	8/24/01 8/25/01	0629 0625	75	76	OK	2847. 6K9r	2847. 91	2871. .83	K1	K / K	AC / AC
444	ARBM29BC	8/24/01 8/25/01	0629 0625	75	76	OK	OK	2847. 91	"	K1	K / K	AC / AC
445	CRSM29F	8/24/01 8/25/01	0718 0703	76	72	OK	OK	2344. 32	2368. 10	N1	K / K	AC / AC
446	CRSM29B	8/24/01 8/25/01	0718 0703	76	72	OK	OK	2344. 32	2368. 10	N1	K / K	AC / AC
447	CRSM29FC	8/24/01 8/25/01	0728 0719	74	76	OK	OK	2344. 50	2368 .35	I1	K / K	AC / AC
448	CRSM29BC	8/24/01 8/25/01	0728 0719	74	76	OK	OK	2344. 50	"	I1	K / K	AC / AC
449	MVSM29F	8/24/01 8/25/01	0820 0814	74	75	OK	OK	11628. 44	11652. 34	A1	K / K	AC / AC
450	MVSM29B	8/24/01 8/25/01	0820 0814	74	75	OK	OK	11628. 44	11652. 34	A1	K / K	AC / AC
451	MVSM29FC	8/24/01 8/25/01	0831 0831	75	76	OK	OK	11628. 62	11652 .62	X1	K / K	AC / AC
452	MVSM29BC	8/24/01 8/25/01	0831 0831	75	76	OK	OK	11628. 62	"	D1	K / K	AC / AC
453	VSDM29F	8/24/01 8/25/01	0853 0854	74	73	OK	OK	2469. 85	2998. 67	B1	K / K	AC / AC
454	VSDM29B	8/24/01 8/25/01	0853 0854	74	73	OK	OK	2469. 85	2998. 87	B1	K / K	AC / AC
455	VSDM29FC	8/24/01 8/25/01	0904 0907	75	79	OK	OK	2970. 04	2994 .08	C1	K / K	AC / AC
456	VSDM29BC	8/24/01 8/25/01	0904 0907	75	79	OK	OK	2970. 04	"	C1	K / K	AC / AC
457	ARVM29F	8/24/01 8/25/01	0929 0928	74	72	OK	OK	1219. 09	1243. 07	G1	K / K	AC / AC
458	ARVM29B	8/24/01 8/25/01	0929 0928	74	72	OK	OK	1219. 09	1243. 07	G1	K / K	AC / AC
459	ARVM29FC	8/24/01 8/25/01	0939 0941	74	79	OK	OK	1219. 26	1243 .29	M1	K / K	AC / AC

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

MFM # 5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
460	ARVM29BC	8/24/01 8/25/01	0939 0941	74	74	OK	OK	1219.26	1243.29	M1	K / K	AC / JRR
461	METM29F	8/24/01 8/25/01	1029 1022	74	73	OK	OK	2065.19	2089.09	E1	K / K	AC / AC
462	METM29B	8/24/01 8/25/01	1029 1022	74	73	OK	OK	2065.19	2089.09	E1	K / K	AC / AC
463	METM29FC	8/24/01 8/25/01	1040 1038	75	77	OK	OK	2065.39	2089.35	J1	K / K	AC / AC
464	METM29BC	8/24/01 8/25/01	1040 1038	75	77	OK	OK	2065.39	"	J1	K / K	AC / AC
465	ARBM-30F	8/25/01 8/26/01	0621 0620	74	73	OK	OK	2871.78	2895.76	L1	K / K	AC / JRR
466	ARBM-30B	8/25/01 8/26/01	0621 0620	74	73	OK	OK	"	"	L1	K / K	AC / JRR
467	CRSM-ARBM-30F	8/25/01 8/26/01	0714 0704	76	76	OK	OK	2368.27	2392.10	N1	K / K	AC / JRR
468	CRSM-ARBM-30B	8/25/01 8/26/01	0714 0704	76	76	OK	OK	2368.27	"	N1	K / K	AC / JRR
469	MUSM-30F	8/25/01 8/26/01	0825 0755	75	74	OK	OK	11652.53	11676.02	A1	K / K	AC / JRR
470	MUSM-30B	8/25/01 8/26/01	0825 0755	75	74	OK	OK	"	"	A1	K / K	AC / JRR
471	DSDM-30F	8/25/01 8/26/01	0903 0820	75	75	OK	OK	2994.01	3017.29	B1	K / K	AC / JRR
472	DSDM-30B	8/25/01 8/26/01	0903 0820	75	75	OK	OK	"	"	B1	K / K	AC / JRR
473	ARVM-30F	8/25/01 8/26/01	0937 0843	75	77	OK	OK	1243.24	1266.32	G1	K / K	AC / JRR
474	ARVM-30B	8/25/01 8/26/01	0937 0843	75	77	OK	OK	"	"	G1	K / K	AC / JRR
475	METM30F	8/25/01 8/26/01	1033 0933	74	79	OK	OK	2089.27	2112.24	E1	Rotometer extremely sensitive	K / K	AC / JRR
476	METM30B	8/25/01 8/26/01	1033 0933	74	79	OK	OK	2089.27	"	E1	Sprayed Foam on lawn (fire retardant) AM of 8/26/01	K / K	AC / JRR

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project # : P-01-004

MFM # 5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
477	ARBM-31F	8/28/01	0610	76	74	OK	OK	2895.92	2920.54	L1	K / K	aqp / aqp
		8/29/01	0649									
478	ARBM-31B	8/28/01	0610	"	"	"	"	"	"	L1	K / K	aqp / aqp
		8/29/01	0649									
479	CRSM-31F	8/28/01	0704	74	77	OK	OK	2392.31	2416.96	N1	K / K	aqp / aqp
		8/29/01	0743									
480	CRSM-31B	8/28/01	0704	"	"	"	"	"	"	N1	K / K	aqp / aqp
		8/29/01	0743									
481	MVSM-31F	8/28/01	0758	75	76	OK	OK	11676.17	11700.79	A1	K / K	aqp / aqp
		8/29/01	0836									
482	MVSM-31B	8/28/01	0758	"	"	"	OK	"	"	A1	K / K	aqp / aqp
		8/29/01	0836									
483	VSDM-31F	8/28/01	0829	76	77	OK	OK	3017.45	3042.64	B1	K / K	aqp / aqp
		8/29/01	0906									
484	VSDM-31B	8/28/01	0829	"	"	"	OK	"	"	B1	K / K	aqp / aqp
		8/29/01	0906									
485	ARVM-31F	8/28/01	0912	76	79	OK	OK	1266.56	1290.95	G1	K / K	aqp / aqp
		8/29/01	0934									
486	ARVM-31B	8/28/01	0912	"	"	"	"	"	"	G1	K / K	aqp / aqp
		8/29/01	0934									
487	METM-31F	8/28/01	0955	76	83	OK	OK	2112.44	2136.97	E1	K / K	aqp / aqp
		8/29/01	1026									
488	METM-31B	8/28/01	0955	"	"	"	"	"	"	E1	K / K	aqp / aqp
		8/29/01	1026									
489	ARBM-32F	8/29/01	0658	75	75	OK	OK	2920.68	2944.30	L1	K / K	aqp / JW
		8/30/01	0636									
490	ARBM-32B	8/29/01	0658	"	75	"	OK	"	"	L1	K / K	aqp / JW
		8/30/01	0636									
491	CRSM-32F	8/29/01	0751	74	77	OK	OK	2417.10	2440.80	N1	K / K	aqp / JW
		8/30/01	0734									
492	CRSM-32B	8/29/01	0751	"	77	"	OK	"	"	N1	K / K	aqp / JW
		8/30/01	0734									
493	MVSM-32F	8/29/01	0845	74	74	OK	OK	11700.94	11724.66	A1	K / K	aqp / JW
		8/30/01	0829									

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

Project #: P-01-004

MEM # 5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
494	MVSM-32B	8/29/01 8/30/01	0845 0829	74	74	OK	OK	11700.94	11724.66	A1	K / K	CJP / JW
495	VSDM-32F	8/29/01 8/30/01	0915 0906	75	78	OK	OK	3042.19	3066.02	B1	K / K	CJP / JW
496	VSDM-32B	8/29/01 8/30/01	0915 0906	"	78	"	OK	"	"	B1	K / K	CJP / JW
497	ARVM-32F	8/29/01 8/30/01	0945 0934	75	82	OK	OK	1291.12	1314.93	G1	K / K	CJP / JW
498	ARVM-32B	8/29/01 8/30/01	0945 0934	"	82	"	OK	"	"	G1	K / K	CJP / JW
499	MEFM-32F	8/29/01 8/30/01	1036 1016	75	87	OK	OK	2137.13	2160.79	E1	K / K	CJP / JW
500	MEFM-32B	8/29/01 8/30/01	1036 1016	"	87	"	OK	"	"	E1	K / K	CJP / JW
501	ARBM-33TB	8/30/01 —	— —	—	—	—	—	—	—	TRIP BLANK	K / K	JW / CJP
502	ARBM-33F	8/30/01 8/31/01	0649 0616	75	78	OK	OK	2944.51	2967.93	L1	K / K	JW / CJP
503	ARBM-33B	8/30/01 8/31/01	0649 0616	75	"	OK	"	"	"	L1	K / K	JW / CJP
504	CRSM-33F	8/30/01 8/31/01	0742 0704	76	75	OK	OK	2440.92	2464.31	N1	K / K	JW / CJP
505	CRSM-33B	8/30/01 8/31/01	0742 0704	76	"	OK	"	"	"	N1	K / K	JW / CJP
506	MVSM-33F	8/30/01 8/31/01	0841 0800	76	80	OK	OK	11724.86	11748.19	A1	K / K	JW / CJP
507	MVSM-33B	8/30/01 8/31/01	0841 0800	76	"	OK	"	"	"	A1	K / K	JW / CJP
508	VSDM-33F	8/30/01 8/31/01	0914 0836	75	77	OK	OK	3066.15	3089.55	B1	K / K	JW / CJP
509	VSDM-33B	8/30/01 8/31/01	0914 0836	75	"	OK	"	"	"	B1	K / K	JW / CJP
510	ARVM-33F	8/30/01 8/31/01	0942 0910	76	75	OK	OK	1315.05	1338.54	G1	K / K	JW / CJP

SAMPLE FIELD LOG SHEET

Project: MIC Ambient Air Monitoring

MFM #5346

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
511	ARVM-33B	8/30/01 8/31/01	0942 0910	76	75	OK	OK	1315.05	1338.54	GI	K/K	SW/ag
512	METM-33F	8/30/01 8/31/01	1027 1021	76	77	OK	OK	216096	2184.88	EI	K/K	SW/ag
513	METM-33B	8/30/01 8/31/01	1027 1021	76	11	OK	11	11	11	EI	K/K	SW/ag

APPENDIX IV

Field Data Sheets for Chloropicrin

MFM # 5346

SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather (k = clear, p = partly, c = cloudy, r = rain)	Initials
001	ARBL1	6/30/01 7/1/01	0648 0646	91	93	OK	OK	2199.75	2223.70	K2	K / P	JRR / JW
002	CRSL1	6/30/01 7/1/01	0851 0835	92	93	OK	OK	1674.09	1698.80	N2	K / K	JRR / JW
003	MVSL1	6/30/01 7/1/01	0855 0955	90	87	OK	Replaced fittings NO	958.60	983.57	A2	K / K	JRR / CQ
004	VSDL1	06/30/01 7/1/01	1001 1035	91	92	OK	OK	2300.50	2325.10	B2	K / K	CQC / AP
005	ARVL1	6/30/01 7/1/01	1037 1116	90	96	OK	OK	453.68	478.62	M2	K / K	JW / CQC
006	METL1	6/30/01 7/1/01	1137 1205	90	90	OK	OK	1325.62	1350.12	J2	K / K	CQC / JW
007	ARBL2	7/1/01 7/2/01	0651 0631	90	92	OK	OK	2223.81	2247.46	K2	P / K	JW / JW
008	CRSL2	07/01/01 7/2/01	0842 0755	91	93	OK	OK	1698.90	1722.18	N2	K / K	CQC / CQC
009	MVSL2	07/01/01 07/02/01	1010 CDT 1046 CDT	88	89	OK	OK	983.82	1006.99	A2	K / K	CQC / CQC
010	VSDL2	7/01/01 7/02/01	1040 1021	91	90	OK	OK	2325.20	2348.86	B2	K / K	JW / JW
011	ARVL2	7/01/01 7/02/01	1122 CDT 1121	92	91	OK	OK	478.68	502.75 CQC 478.68	M2	K / K	CQC / CQC
012	METL2	7/1/01 7/2/01	1209 1229	90	88	OK	OK	1350.17	1374.51	J2	K / K	JCC / JW
013	ARBL3	7/2/01 7/3/01	0636 0649	90	88	OK	OK	2247.54	2255.58	K2	K / K	JW / CQC
014	ARBL3-C	7/2/01 7/3/01	0653 0706	91	93	OK	OK	2247.83	2255.86	L2	K / K	JW / CQC
015	CRSL3	7/2/01 7/3/01	0900 0807	91	103	OK	OK	1722.24	1746.34	N2	K / K	CQC / JW
016	CRSL3-C	7/2/01 7/3/01	0814 0825	90	94	OK	NO	1722.48	1746.64	I2 POOR SEATING OF SAMPLE	K / K	CQC / JW
017	MVSL3	7/2/01 7/3/01	0922 0923	89	87	OK	OK	1007.05	1031.09	A2	K / K	CQC / CQC

MFM # 5346

SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
018	MVSL3-C	7/2/01	0942	90	74	OK	OK	11007.41	11031.28	D2	K / K	CAP / aqr
		7/3/01	0935									
019	VSDL3	7/2/01	1026	89	88	OK	OK	2348.94	2372.67	B2	K / K	S.W / J.W
		7/3/01	1010									
020	VSDL3-C	7/2/01	1043	89	84	OK	OK	2349.24	2372.89	C2	K / K	SW / J.W
		7/3/01	1023									
021	ARVL3	7/2/01	1126	89	92	OK	OK	502.83	524.27	~~M2~~ M2	K / K	CAP / CAP
		7/3/01	1053									
022	ARVL3-C	7/2/01	1141	89	89	OK	OK	503.07	524.48	G2	K / K	CAP / CAP
		7/3/01	1104									
023	METL3	7/2/01	1232	90	89	OK	OK	1374.56	1397.80	J2	K / K	SW / SW
		7/3/01	1147									
024	METL3-C	7/2/01	1241	90	91	OK	~~OK~~ NO	1374.70	1398.00	E2	K / K	SW / SW
		7/3/01	1159									
025	ARBL3-TB	7/2/01	1453	—	—	—	—	—	—	—		
026	ARBL4	7/6/01	0658	92	94	OK	OK	2256.03	2279.66	K2	C / K	AR / AR
		7/7/01	0634									
027	ARBL4-FS	7/6/01	0711	89	90	OK	OK	2256.26	2280.10	L2	C / K	AR / AR
		7/7/01	0701									
028	CRSL4	7/6/01	0804	89	91	OK	OK	1746.81	1770.89	N2	C / K	AR / AR
		7/7/01	0813									
029	MVSL4	7/6/01	0925	91	90	OK	OK	1103.48	1127.78	A2	C / K	AR / AR
		7/7/01	0942									
030	VSDL4	7/6/01	1002	91	93.3	OK	OK	2373.09	2397.70	C2	C / K	AR / AR
		7/7/01	1026									
031	ARVL4	7/6/01	1046	90	96.9	OK	OK	526.63	550.96	G2	C / K	AR / AR
		7/7/01	1106									
032	METL4	7/6/01	1143	90	90.5	OK	OK	1499.74	1494.16	J2	C / K	AR / AR
		7/7/01	1208									
033	ARBL5	7/7/01	0638	91	92	OK	OK	2279.04	2303.48	K2	K / K	AR / AR
		7/8/01	0624									
034	ARBL5-C	7/7/01	0704	90	90	OK	OK	2280.16	2303.50	L2	K / K	AR / AR
		7/8/01	0643									

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SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
035	CRSL5	7/7/01 7/8/01	0816 0733	90	96	OK	OK	1770.74	1794.20	N2	K / R	AC / ARR
036	CRSL5-C	7/7/01 7/8/01	0531 0749	88	90	OK	OK	1771.19	1794.48	I2	K / R	AC / ARR
037	MVSL5 ~~CRSL5~~	7/7/01 7/8/01	0946 0854	89	89	OK	OK	11055.82	11079.03	A2	K / K	AC / AC
038	MVSL5-C	7/7/01 7/8/01	0957 0915	87	107	OK	OK	1856.01	11079.36	B2	END FLOW READING HIGH	K / K	AC / AC
39	VSDL5	7/7/01 7/8/01	1030 0956	90	95	OK	NO	2347.56	2420.99	C2		K / K	AC / ARR
40	VSDL5-C	7/7/01 7/8/01	1034 1018	90	~~0~~	OK	~~0~~K	2352.61	2421.36	B2	* Trying to get B1 to leak ck. burned flow on B2.? find flow	K / K	AC / ARR
41	ARVL5	7/7/01 7/8/01	1110 1052	90	92	MINOR	OK	551.04	574.73	G2		K / K	AC / ARR
42	ARVL5-C	7/7/01 7/8/01	1119 1108	88	92	OK	OK	~~551.32~~ 551.32	575.01	M2		K / K	AC / ARR
43	METL5	7/7/01 7/8/01	1222 1156	90.4	87	OK	OK	1494.40	1517.97	J2		PC / K	AC / ARR
44	METL5-C	7/7/01 7/8/01	1234 1211	92	88	OK	NO	1494.59	1518.20	E2	Small leak	PC / K	AC / ARR
045	ARBL6-TB	7/7/01 —	1439 —	—	—	—	—	—	—	Trip Blank		PC	ARR
046	ARBL6-TS	7/7/01 —	1441 —	—	—	—	—	—	—	Trip Spike		PC	ARR
047	ARBL6	7/8/01 7/9/01	0627 0615	90	90	OK	OK	2303.53	2327.74	~~K~~2		K / K	AC / AC
648	CRSL6	7/8/01 7/9/01	0736 0706	91	94	OK	OK	1794.26	1817.76	N2		K / K	ARR / ARR
049	MVSL6	7/8/01 7/9/01	0900 0900	90	92.5	OK	OK	11079.06	11102.19	A2		K / K	AC / AC
050	VSDL6	7/8/01 7/9/01	1000 0900	92	87	OK	OK	2421.05	2444.04	C2	* Replaced fittings	K / K	ARR / AC
051	ARVL6	7/8/01 7/9/01	1055 0956	90	89	OK	OK	574.79	597.81	G2		K / K	AC / AC

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SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
052	METL6	7/8/01	1158	90	91	OK		1518.00	1541.02	J2	K / K	JR. / JR
		7/9/01	1059									
053	ARBL7	7/13/01	0643	90	85	OK	OK	2327.55	2350.85	K2	K / K	JW / JW
		7/14/01	0602									
054	ARBL7-TB	7/13/01	1345	--	--	--	--	--	--	TRIP BLANK	/	JW
		--	--									
055	CRSL7	7/13/01	0755	90	95	OK	OK	1911.96	1841.19	N2	K / K	JW / JW
		7/14/01	0709									
056	MVSL7	7/13/01	0856	90	93	OK	OK	11102.44	11125.81	A2	K / K	JW / JW
		7/14/01	0820									
057	VSDL7	7/13/01	0943	89	89	OK	OK	2444.25	2467.62	B2	K / K	JW / JW
		7/14/01	0905									
058	ARVL7	7/13/01	1031	90	76	OK	OK	598.01	621.26	G2 JW	K / K	JW / JW
		7/14/01	0946									
059	METL7	7/13/01	12:11	90	96	OK	OK	1541.35	1564.40	E2	K / K	JW / JW
		7/14/01	1114									
060	ARBL8	7/14/01	0612	90	98	OK	OK	2351.02	2367.84	K2	K / K	JW / JW
		7/15/01	0610									
061	ARBL8-C	7/14/01	0622	91	98	OK	OK	2351.18	2360.00	L2	K / K	JW / JW
		7/15/01	0622									
062	CRSL8	7/14/01	0715	90	95	OK	OK	1841.31	1865.31	N2	K / K	JW / JW
		7/15/01	0714									
063	CRSL8-C	7/14/01	0724	90	104	OK	OK	1841.47	1865.56	I2	K / K	JW / JW
		7/15/01	0731									
064	MVSL8	7/14/01	0825	88	93	OK	OK	11125.90	11150.01	A2	K / K	JW / JW
		7/15/01	0831									
065	MVSL8-C	7/14/01	0835	91	93	OK	OK	11128.05	11150.23	D2	K / K	JW / JW
		7/15/01	0846									
066	VSDL8	7/14/01	0910	89	89	OK	OK	2467.72	2491.94	B2	K / K	JW / JW
		7/15/01	0923									
067	VSDL8-C	7/14/01	0916	90	90	OK	OK	2467.83	2492.15	C2	K / K	JW / JW
		7/15/01	0937									
068	ARVL8	7/14/01	0954	90	89	OK	OK	621.40	645.67	G2	K / K	JW / JW
		7/15/01	1010									

SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
069	ARVL8-C	7/14/01 7/15/01	1001 1019	91	91	OK	OK	621.52	645.80	M2	K / K	JW / CQ
070	METL8	7/14/01 7/15/01	1122 1106	89	90	OK	OK	1564.53	1588.30	E2	K / K	JW / CQ
071	METL8-C	7/14/01 7/15/01	1130 1176	91	93	OK	OK	1564.66	1588.60	J2	K / K	JW / CQ
072	ARBL9	7/15/01 7/16/01	0631 0920	91	95	OK	OK	2368.15	2391.96	K2	K / K	CQ / JW
073	CRSL9	7/15/01 7/16/01	0738 0722	91	96	OK	OK	1865.67	1889.40	N2	K / K	CQ / JW
074	MVSL9	7/15/01 7/16/01	0854 0829	90	127	OK	OK	11150.36	11173.95	A2	K / K	CQ / JW
075	VSDL9	7/15/01 7/16/01	0943 0911	90	92	OK	OK	2492.26	2515.72	B2	K / K	CQ / JW
076	ARVL9	7/15/01 7/16/01	1025 0949	90	93	OK	OK	645.91	669.31	G2	K / K	CQ / JW
077	METL9	7/15/01 7/16/01	1134 1043	90	91	OK	OK	1588.72	1611.87	E2	K / K	CQ / JW
078	ARBL10	7/16/01 7/18/01	0631 0631	90	95 90 CQ	OK	OK	2392.16	2416.18	K2	K / K	JW / CQ
079	CRSL10	7/16/01 7/18/01	0732 0720	90	92.1	OK	OK	1889.59	1913.40	N2	K / K	JW / CQ
080	MVSL10	7/16/01 7/17/01	0839 0823	90	90.0	OK	OK	11174.12	11197.87	A2	K / K	JW / CQ
081	VSDL10	7/16/01 7/17/01	0919 0852	90	95.0	OK	OK	2515.86	2539.42	B2	K / K	JW / CQ
082	ARVL10	7/16/01 7/17/01	0959 0924	90	93.0	OK	OK	669.47	692.91	G2	K / K	JW / CQ
083	METL10	7/16/01 7/17/01	1057 1001	90	94.0	OK	OK	1612.11	1635.70	E2	K / K	JW / CQ
084												
085												

AIR RESOURCES BOARD

MFM
#5346

SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
069	ARV-8c	7/14/01 7/15/01	1001 1019	91	91	OK	OK	621.52	645.80	M2	K / K	JW / CQP
070	MET-8	7/14/01 7/15/01	1122 1106	89	90	OK	OK	1564.53	1588.30	E2	K / K	JW / CQP
071	MET-8-C	7/14/01 7/15/01	1130 1176	91	93	OK	OK	1564.66	1588.60	J2	K / K	JW / CQP
072	ARB-9-[illegible]	7/15/01 7/16/01	0631 0620	91	95	OK	OK	2368.15	2391.96	K2	K / K	CQP / JW
073	CRS-9	7/15/01 7/16/01	0738 0722	91	96	OK	OK	1865.67	1889.40	N2	K / K	CQP / JW
074	MVS-9	7/15/01 7/16/01	0854 0829	90	127	OK	OK	11150.36	11173.95	A2	K / K	CQP / JW
075	VSD-9	7/15/01 7/16/01	0943 0911	90	92	OK	OK	2492.26	2515.72	B2	K / K	CQP / JW
076	ARV-9	7/15/01 7/16/01	1025 0949	90	93	OK	OK	645.91	669.31	G2	K / K	CQP / JW
077	MET-9	7/15/01 7/16/01	1134 1043	90	91	OK	OK	1588.72	1611.87	E2	K / K	CQP / JW
078	ARB-10	7/16/01 7/17/01	0631 0631	90	95 96 CQP	OK	OK	2392.16	2416.18	K2	K / K	JW / CQP
079	CQP ARB CRS-10	7/16/01 7/18/01	0732 0720	90	92.1	OK	OK	1889.58	1913.40	N2	K / K	JW / CQP
080	MVS-10	7/16/01 7/17/01	0839 0823	90	90.0	OK	OK	11174.12	11197.87	A2	K / K	JW / CQP
081	VSD-10	7/16/01 7/17/01	0919 0852	90	95.0	OK	OK	2515.86	2539.42	B2	K / K	JW / CQP
082	ARV-10	7/16/01 7/17/01	0959 0924	90	93.0	OK	OK	669.47	692.91	G2	K / K	JW / CQP
083	MET-10	7/16/01 7/17/01	1057 1001	90	94.0	OK	OK	1612.11	1635.20	E2	K / K	JW / CQP
084	ARBLII	7/21/01 7/22/01	0627 [illegible]	90	90 93	OK	OK	2416.37	2440.[illegible]17	K2	K / K	AR / JRR
085	ARBLII-FS	7/21/01 7/22/01	0640 0631	90	93	OK	OK	2416.58	2440.72	L2	K / K	AR / JRR

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SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather (k = clear, p = partly, c = cloudy, r = rain)	Initials
086	CRSL-11	7/21/01 7/22/01	0729 0719	90	90	OK	OK	1913.00	1937.46	N2	K / K	AC / JRR
087	MVSL-11	7/21/01 7/22/01	0821 0825	89	91	OK	OK	11198.09	11222.12	A2	K / K	AC / JRR
088	VSDL-11	7/21/01 7/22/01	0848 0909	89	99	OK	OK	2539.51	2563.89	B2	K / K	AC / JK
089	ARVL-11	7/21/01 7/22/01	0916 0942	90	89	OK	OK	693.12	717.52	G2	K / K	AC / JRR
090	METL-11	7/21/01 7/22/01	1006 1033	90	95	OK	Small leak	1635.38	1659.80	E2	K / K	AC / JRR
091	ARBL-11-TB	7/21/01	1145	—	—	—	—	—	—	Trip Blank	K / —	AC / —
092	ARBL-11-TS	7/21/01 —	1159 —	—	—	—	—	—	—	Trip Spike	K	JRR
093	ARBL12	7/22/01 7/23/01	0620 0610	92	93	OK	OK	2440.23	2464.10	K2	K / K	JRR / AC
094	CRSL-12	7/22/01 7/23/01	0723 0713	91	102.7	OK	OK	1937.52	1961.39	N2 HIGH FLOW RATE	K / K	JRR / AC
095	MVSL-12	7/22/01 7/23/01	0829 0822	91	90	OK	OK	11222.19	11246.04	A2	K / K	JRR / AC
096	VSDL-12	7/22/01 7/23/01	0913 0856	90	96.2	OK	OK	2563.95	2587.71	B2	K / K	JRR / AC
097	ARVL-12	7/22/01 7/23/01	0945 0935	90	90.6	OK	OK	717.57	741.42	G2	K / K	JRR / AC
098	METL-12	7/22/01 7/23/01	1037 1027	89	88.2	OK	OK	1659.87	1683.73	E2	K / K	JRR / AC
099	ARBL-13	7/23/01 7/24/01	0615 0617	90	87	OK	OK	2464.23	2488.14	K2	K / K	JK / JRR
100	ARBL-13C	7/23/01 7/24/01	0625 0624	91	90	OK	OK	2464.34	2488.29	L2	K / K	AC / JRR
101	CRSL-13	7/23/01 7/24/01	0724 0714	89	85	OK	OK	1961.57	1985.39	N2	K / K	AC / JRR
102	CRSL-13C	7/23/01 7/24/01	0731 0726	89	89	OK	OK	1961.68	1985.58	I2	K / K	AC / AC

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SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
103	MVSL-13	7/23/01 7/24/01	0834 0827	89	90	OK	OK	11246.31	11200.16	A2	K / K	AR / IRR
104	MVSL-13C	7/23/01 7/24/01	0838 0839	92	93	OK	OK	11246.38	11270.39	B2	K / K	AR / IRR
105	VSDL-13	7/23/01 7/24/01	0911 0905	90	100 *	OK	OK	2587.95	2611.82	B2 HIGH FLOW	K / K	AR / IRR
106	VSDL-13C	7/23/01 7/24/01	0914 0903	91	~~100~~ 88	OK	OK	2588.00	2611.93	C2	K / K	AR / IRR
107	ARVL-13	7/23/01 7/24/01	0946 0941	90	90	OK	OK	741.62	765.50	G2	K / K	AR / IRR
108	ARVL-13C	7/23/01 7/24/01	0952 0953	90	91	OK	OK	741.71	765.71	M2	K / K	AR / IRR
109	METL-13	7/23/01 7/24/01	1036 1033	90	92	OK	OK	1683.85	1707.81	K2	K / K	AR / IRR
110	METL-13C	7/23/01 7/24/01	1042 1045	91	91	OK	OK	1683.98	1708.01	J2	K / K	AR / AR
111	ARBL-14	7/24/01 7/25/01	0619 0622	91	100	OK	OK	2488.22	2512.28	K2 HIGH FLOW	K / K	AR / AR
112	CRSL-14	7/24/01 7/25/01	0721 0659	91	90.5	OK	OK	1985.50	2009.19	N2	K / K	AR / AR
113	MVSL-14	7/24/01 7/25/01	0831 0750	92	98.5	OK	OK	11200.21	11293.56	A2	K / K	IRR / AR
114	VSDL-14	7/24/01 7/25/01	0907 0828	92	100	OK	OK	2611.86	2635.23	B2	K / K	AR / AR
115	ARVL-14	7/24/01 7/25/01	0944 0848	92	94.5	OK	OK	765.56	788.64	C2	K / K	AR / AR
116	METL-14	7/24/01 7/25/01	1036 0936	90	91.9	OK	OK	1707.86	1730.85	E2	K / K	AR / AR
117	ARBL15	7/29/01 7/30/01	0659 0616	91	75	OK	OK	2512.53	2535.79	K2 LOW FLOW	K / K	AR / J.W
118	CRSL15	7/29/01 7/30/01	0750 0726	90	92	OK	OK	2009.37	2032.94	N2	K / K	AR / J.W
119	MVSL15	7/29/01 7/30/01	0852 0839	91	94	OK	OK	11293.73	11317.49	A2	K / K	AR / J.W

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SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
120	VSDL15	7/29/01 7/30/01	0931 0921	92	96	OK	OK	2635.40	2659.21	B2	K / K	QA / S.W.
121	ARVL15	7/29/01 7/30/01	1007 0958	91	95	OK	OK	788.80	812.69	G2	K / K	QA / S.W.
122	METL15	7/29/01 7/30/01	1104 1058	91	93	OK	OK	1731.09	1754.96	E2	K / K	QA / S.W.
123	ARBL15-TB	7/30/01 —	0557 —	—	—	—	—	—	—	TRIP BLANK	K / .	JW
124	ARBL16	7/30/01 7/31/01	0627 0610	90	82.2	OK	OK	2535.98	2559.72	K2	K / K	JW / QA
125	ARBL16-C	7/30/01 7/31/01	0632 0622	90	100.0	OK	OK	2536.07	2559.92	L2	K / K	JW / QA
126	CRSL16	7/30/01 7/31/01	0737 0717	90	96	OK	OK	2033.13	2056.81	N2	K / K	JW / QA
127	CRSL16-C	7/30/01 7/31/01	0745 0726	90	90	OK	OK	2033.26	2056.96	I2	K / K	JW / QA
128	MVSL16	7/30/01 07/31/01	0850 0835	89	96	~~OK~~ OK	OK	11317.68	11341.45	A2	K / K	JW / QA
129	MVSL16-C	7/30/01 07/31/01	0854 0844	90	93	OK	OK	11317.76	11341.60	D2	K / K	JW / QA
130	VSDL16	7/30/01 07/31/01	0928 0913	92	98	OK	OK	2659.33	2683.27	B2	K / K	JW / QA
131	VSDL16-C	7/30/01 7/31/01	0933 0934	89	91	OK	OK	2659.41	2683.44	C2	K / K	JW / QA
132	ARVL16	7/30/01 7/31/01	1008 1004	90	92	OK	OK	812.80	836.75	G2	K / K	JW / QA
133	ARVL16-C	7/30/01 7/31/01	1014 1017	91	96	OK	OK	812.88	836.91	M2	K / K	JW / QA
134	METL16	7/30/01 7/31/01	1106 1059	90	92	OK	OK	1755.10	1779.01	E2	K / K	JW / QA
135	METL16-C	7/30/01 7/31/01	1113 1108	91	95	OK	OK	1755.22	1779.13	J2	K / K	JW / QA
136	ARBL17	7/31/01 8/1/01	0629 0627	91	80	OK	OK	2560.03	2583.99	K2	K / K	QA / JW

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SAMPLE FIELD LOG SHEET

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Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
137	CRSL17	7/31/01	0732	90	90	OK	OK	2057.07	2080.90	N2	K / K	aqp / JW
		8/1/01	0724									
138	MVSL17	7/31/01	0850	90	90	OK	OK	11341.70	11365.27	A2	K / K	aqp / JW
		8/1/01	0826									
139	VSDL17	7/31/01	0939	91	96	OK	OK	2683.54	2706.85	B2	K / K	aqp / JW
		8/1/01	0859									
140	ARVL17	7/31/01	1081	90	92	OK	OK	837.03	860.15	G2	K / K	aqp / JW
		8/1/01	0929									
141	METL17	7/31/01	1112	90	92	OK	OK	1779.04	1802.27	E2	K / K	aqp / JW
		8/1/01	1017									
142	ARBL18	8/1/01	0636	90	66	OK	OK	2584.12	2607.91	K2	K / K	JW / K
		8/2/01	0621									
143	CRSL18	8/1/01	0733	92	77	OK	OK	2081.05	2104.68	N2	K / K	JW / aqp
		8/2/01	0709									
144	MVSL18	8/1/01	0832	90	90	OK	OK	11365.39	11388.95	A2	K / K	JW / aqp
		8/2/01	0805									
145	VSDL18	8/1/01	0907	90	99	OK	OK	2706.97	2730.41	B2	K / K	JW / aqp
		8/2/01	0832									
146	ARVL18	8/1/01	0936	91	93	OK	OK	860.25	883.59	G2	K / K	JW / aqp
		8/2/01	0855									
147	METL18	8/1/01	1026	90	88	OK	OK	1802.44	1825.56	E2	K / K	JW / aqp
		8/2/01	0932									
148	ARBL-19	8/6/01	0620	90	63*	OK	OK	2608.07	2632.05	K2 ~~stopped~~ Flow < 25%	K / K	CR / IRR
		8/7/01	0619									
149	ARBL-19FS	8/6/01	0626	91	88	OK	OK	2608.19	2632.32	L2	K / K	AK / IRR
		8/7/01	0636									
150	CRSL-19	8/6/01	0819	90	85	OK	OK	2104.86	2128.97	N2	K / K	AR / IRR
		8/7/01	0827									
151	MVSL-19	8/6/01	0819	90	90	OK	OK	11389.08	11413.22	A2	K / K	AR / IRR
		8/7/01	0827									
152	VSDL-19	8/6/01	0846	90	92	OK	OK	2730.57	2754.82	B2	K / K	AR / IRR
		8/7/01	0902									
153	ARVL-19	8/6/01	0913	90	87	OK	OK	883.74	908.08	G2	K / K	AR / IRR
		8/7/01	0935									

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SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
154	METL 19	8/6/01	0959	90	87	OK	OK	1825.74	1850.11	E2	RC / K	AR / JRR
		8/7/01	1021									
155	ARBL20	8/7/01	0623	92	79	OK	OK	2632.11	2656.03	K2	K / K	JRR / AR
		8/8/01	0616									
156	ARBL20C	8/7/01	0640	89	92	OK	OK	2632.40	2656.23	L2	K / K	JRR / JRR
		8/8/01	0630									
157	CRSL20	8/7/01	0729	91	82	OK	OK	2129.02	2152.80	N2	K / K	JRR / AC
		8/8/01	0715									
158	CRSL20C	8/7/01	0736	90	89	OK	OK	2129.13	2153.00	I2	K / K	JRR / AC
		8/8/01	0728									
159	MVSL20	8/7/01	0830	91	92	OK	OK	11413.27	11437.09	A2	K / K	JRR / AC
		8/8/01	0819									
160	MVSL20C	8/7/01	0838	89	90	OK	OK	11413.39	11437.36	D2	K / K	AC / AC
		8/8/01	0835									
161	MVSL20	8/7/01	0904	92	93	OK	OK	2754.85	2778.79	B2	K / K	JRR / AC
		8/8/01	0900									
162	VSDL20C	8/7/01	0909	90	87	OK	OK	2754.93	2778.02	C2	K / K	JRR / AC
		8/8/01	0914									
163	ARVL20	8/7/01	0937	90	91	OK	OK	908.13	932.13	G2	K / K	JRR / AC
		8/8/01	0937									
164	ARVL20C	8/7/01	0941	90	88	OK	OK	908.19	932.32	M2	K / K	AC / AC
		8/8/01	0948									
165	METL20	8/7/01	1024	90	89	OK	OK	1850.15	1874.19	E2	K / K	JRR / K
		8/7/01	1025									
166	METL20C	8/7/01	1029	90	94	OK	OK	1850.29	1874.34	J2	K / K	JRR / AC
		8/8/01	1036									
167	ARBL20TB	8/7/01	1122	—	—	—	—	—	—	TRIP BLANK	K	AC
		—	—									
168	ARBL20	8/6/01	0623	89	85	OK	OK	2656.12	2680.09	K2	K / K	AC / JRR
		8/9/01	0622									
169	CRSL21	8/8/01	0724	90	88	OK	OK	2152.94	2176.80	N2	K / K	AC / JRR
		8/7/01	0716									
170	MVSL21	8/8/01	0830	90	86	OK	OK	11437.30	11461.19	A2	K / K	AC / JRR
		8/9/01	0826									

SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project #: P-01-004

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Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
171	VSDL21	8/8/01 8/9/01	0907 0859	91	92	OK	OK	2728 .91	2802 .77	B2	K / K	AC / [illegible]
172	ARVL21	8/8/01 8/9/01	0944 0939	89	90	OK	OK	932 .24	956 .02	G2	K / K	AC / [illegible]
173	METL21	8/8/01 8/9/01	1033 1017	90	91	OK	OK	1874 .31	1898 .03	E2	K / K	AC / [illegible]
174	ARBL-22	8/9/01 8/10/01	0624 0622	89	90	OK	OK	2680 .13	2704 05	K2	K / K	[illegible] / AC
175	CRSL-22	8/9/01 8/10/01	0719 0703	89	86	OK	OK	2176 .84	2200. 59	N2	K / K	[illegible] / AC
176	MVSL-22	8/9/01 8/10/01	0829 0757	91	91	OK	OK	11461 .25	11484. 73	A2	K / K	[illegible] / AC
177	VSDL-22	8/9/01 8/10/01	0901 0820	91	99	OK	OK	2802 .81	2826. 12	B2	K / K	[illegible] / AC
178	ARVL-22	8/9/01 8/10/01	0934 0840	91	95	OK	OK	956 .07	979 17	G2	12 / K	[illegible] / AC
179	METL-22	8/9/01 8/10/01	1019 0921	91	94	OK	OK	1898 .07	1921. 11	E2	K / K	[illegible] / AC
180	ARBL 23	8/14/01 8/15/01	0658 [illegible]	90	86	OK	OK	2704. 23	2727. 68	K2	K / QK	JW / [illegible]
181	CRSL 23	8/14/01 8/15/01	0750 0724	91	89	OK	OK	2200. 73	[illegible] 33	N2	K / K	JW / [illegible]
182	MVSL 23	8/14/01 8/15/01	0847 0835	90	87	OK	OK	1484. 89	1508. 72	A2	K / K	JW / [illegible]
183	VSDL 23	8/14/01 8/15/01	0915 0917	91	88	OK	OK	2826. 29	2850. 35	B2	K / K	JW / [illegible]
184	ARVL 23	8/14/01 8/15/01	0945 0955	90	90	OK	OK	979. 33	1003. 52	G2	K / K	JW / [illegible]
185	METL 23	8/14/01 8/15/01	1028 1049	90	90	OK	OK	1921. 27	1945. 64	E2	K / K	JW / [illegible]
186	ARBL23TB	8/15/01 —	0614 —	—	—	—	—	—	—	TRIP BLANK	K / K	JW / [illegible]
187	ARBL24	8/15/01 8/16/01	0634 0624	90	76	OK	OK	2727. 86	2751. 06	K2 LOW END FLOW	K / K2	[illegible] / JW

SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

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Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
188	ARBL24-C	8/15/01	0641	90	92	OK	OK	2727.95	2751.79	K2 L2 aqp	K / K	aqp / JW
		8/16/01	0631									
189	CRSL24	8/15/01	0737	90	87	OK	OK	2224.55	2248.30	N2	K / K	aqp / JW
		8/16/01	0724									
190	CRSL24-C	8/15/01	0745	91	94	OK	OK	2224.66	2248.44	I2	K / K	aqp / JW
		8/16/01	0733									
191	MVSL24	8/15/01	0844	90	87	OK	OK	11508.88	11532.66	A2	K / K	aqp / JW
		8/16/01	0833									
192	MVSL24-C	8/15/01	0850	90	87	OK	OK	11508.96	11532.78	D2	K / K	aqp / JW
		8/16/01	0840									
193	VSDL24	8/15/01	0926	90	91	OK	OK	2850.49	2874.32	B2	K / K	aqp / JW
		8/16/01	0916									
194	VSDL24-C	8/15/01	0932	91	90	OK	OK	2850.59	2874.44	C2	K / K	aqp / JW
		8/16/01	0924									
195	AVRL24	8/15/01	1004	89	90	OK	OK	1003.67	1027.46	G2	K / K	aqp / JW
		8/16/01	0953									
196	AVRL24-C	8/15/01	1009	91	96	OK	OK	1003.77	1027.59	M2	K / K	aqp / JW
		8/16/01	1000									
197	METL24	8/15/01	1057	90	92	OK	OK	1945.78	1969.60	E2	K / K	aqp / JW
		8/16/01	1047									
198	METL24-C	8/15/01	1104	90	89	OK	OK	1945.89	1969.72	J2	K / K	aqp / JW
		8/16/01	1055									
199	ARBL25	8/16/01	0637	90	~~90~~ aqp 83	OK	OK	2751.88	2775.81	K2	K / K	JW / aqp
		8/17/01	0631									
200	CRSL25	8/16/01	0739	90	95	OK	OK	2248.54	2272.37	N2	K / K	JW / aqp
		8/17/01	0727									
201	MVSL25	8/16/01	0848	89	88	OK	OK	11532.91	11556.56	A2	K / K	JW / aqp
		8/17/01	0826									
202	VSDL25	8/16/01	0929	91	106	OK	OK	2874.53	2898.01	B2	K / K	JW / aqp
		8/17/01	0857									
203	ARVL25	8/16/01	1006	90	92	OK	OK	1027.68	1051.07	G2	K / K	JW / aqp
		8/17/01	0928									
204	METL25	8/16/01	1101	90	90	OK	OK	1969.82	1993.07	E2	K / K	JW / aqp
		8/17/01	1014									

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SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
205	ARBL26	8/17/01 8/18/01	0641 0630	90	88	OK	OK	2775.96	2799.76	K2	K / K	QC / JW
206	CRSL26	8/17/01 8/18/01	0734 0716	90	66	OK	OK	2270.48	2296.17	N2 LOW FLOW	K / K	QC / JW
207	MVSL26	8/17/01 8/18/01	0833 0806	90	90	OK	OK	11556.68	11580.21	A2	K / K	QC / JW
208	VSDL26	8/17/01 8/18/01	0906 0827	91	88	OK	OK	2898.15	2921.51	B2	K / K	QC / JW
209	ARVL26	8/17/01 8/18/01	0935 0851	89	92	OK	OK	1051.19	1074.44	G2	K / K	QC / JW
210	METL26	8/17/01 8/18/01	1022 0937	90	89	OK	OK	1993.19	2016.43	E2	K / K	QC / JW
211	ARBL27	8/22/01 8/23/01	0629 0605	91	69	OK	OK	2799.92	2823.52	K2 LOW FLOW	K / K	AR / AR
212	CRSL27	8/22/01 8/23/01	0817 0716	90	87	OK	OK	2296.34	2320.31	N2	K / K	AR / AR
213	MVSL27	8/22/01 8/23/01	0816 0821	89	78	OK	OK	11580.38	11604.46	A2	K / K	AR / AR
214	VSDL27	8/22/01 8/23/01	0842 0903	91	88	OK	OK	2921.74	2946.02	B2 TOUCHY ROTOFLOW METER	K / K	AR / AR
215	ARVL27	8/22/01 8/23/01	0906 0944	90	91	OK	OK	1170.71	1195.34	G2	K / K	AR / AR
216	METL27	8/22/01 8/23/01	0951 1035	90	92	OK	OK	2016.57	2041.30	E2	PC / K	AR / AR
217	ARBL28FS	8/23/01 8/24/01	0620 0618	90	73*	OK	OK	2823.77	2847.73	L2 Low Flow	K / K	AR / AR
218	ARBL28	8/23/01 8/24/01	0626 0620	90	76	OK	OK	2823.90	2847.93	K2 LOW FLOW	K / K	AR / AR
219	CRSL28	8/23/01 8/24/01	0726 0719	91	83	OK	OK	2220.46	2344.35	N2	K / K	AR / AR
220	MVSL28	8/23/01 8/24/01	0834 0821	91	74	OK	OK	11604.67	11628.45	A2 LOW FLOW	K / K	AR / AR
221	VSDL26	8/23/01 8/24/01	0912 0854	92	87	OK	OK	2946.78	2969.87	B2 TOUCHY MTR.	K / K	AR / AR

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SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
222	ARVL28	8/23/01 8/24/01	0954 0931	90	87	OK	OK	1195.51	1219.12	G2	K / K	AC / [illegible]
223	METL28	8/23/01 8/24/01	1050 1030	90	89	OK	OK	2041.55	2065.23	E3	K /	AC
224	ARBL28TS	8/23/01 —	1314 —	—	—	—	—	—	—	TRIP SPIKE	K / K	AC / AC
225	ARBL28TB	8/23/01 —	— —	—	—	—	—	—	—	TRIP BLANK	K / K	AC / AC
226	ARBL29	8/24/01 8/25/01	0621 0617	90	84	OK	OK	2847.79	2871.71	L2	K / K	AC / AC
227	ARBL29C	8/24/01 8/25/01	0623 0626	90	85	OK	OK	2847.98	2871.87	K2	K / K	AC / AC
228	CRSL29	8/24/01 8/25/01	0722 0707	91	86	OK	OK	2344.40	2368.18	N2	K / K	AC / AC
229	CRSL29C	8/24/01 8/25/01	0730 0721	90	94	OK	OK	2345.54	2368.39	I2	K / K	AC / AC
230	MVSL29	8/24/01 8/25/01	0824 0819	90	84	OK	OK	11628.51	11652.41	A2	K / K	AC / AC
231	MVSL29C	8/24/01 8/25/01	0831 0833	90	90	OK	OK	11628.62	11652.66	D2	K / K	AC / AC
232	VSDL29	8/24/01 8/25/01	0857 0857	90	92	OK	OK	2969.93	2993.91	B2	K / K	AC / AC
233	VSDL29C	8/24/01 8/25/01	0904 0909	90	83	OK	OK	2970.04	2994.12	C2	K / K	AC / AC
234	ARVL29	8/24/01 8/25/01	0934 0932	90	90	OK	OK	1219.17	~~1243.~~	G2	K / K	AC / AC
235	ARVL29C	8/24/01 8/25/01	0939 0943	91	92	OK	OK	1219.26	1243.33	N2	K / K	AC / AC
236	METL29	8/24/01 8/25/01	1033 1026	92	95	OK	OK	2065.28	~~2089.~~ 15	E2	K / K	AC / AC
237	METL29C	8/24/01 8/25/01	1040 1039	89	89	OK	OK	~~2065.~~ 39	2089.37	J2	K / K	AC / AC
238	ARBL-30	8/25/01 8/26/01	0622 0623	89	81	OK	OK	2871.86	2895.82	L2	K / K	AC / AC

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SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project #: P-01-004

MFM #5346

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
239	CRSL-30	8/25/01	0817	89	81	OK	OK	2366.31	2392.15	N2	K / K	AC / MR
		8/26/01	0707									
240	MVSL-30	8/25/01	0827	91	89	OK	OK	11652.56	11676.07	A2	K / K	AC / MR
		8/26/01	0758									
241	VSDL-30	8/25/01	0906	90	92	OK	OK	2994.06	3017.34	B2	K / K	AC / MR
		8/26/01	0822									
242	ARVL-30	8/25/01	0938	89	91	OK	OK	1243.25	1266.36	G2	K / K	AC / MR
		8/26/01	0846									
243	METL-30	8/25/01	1036	91	89	OK	OK	2089.32	2112.35	E2	K / K	AC / MR
		8/26/01	0938									
244	ARBL-31	8/29/01	0615	89	91	OK	OK	2895.98	2920.62	L2	K / K	CQP / CQP
		8/29/01	0654									
245	CRSL-31	8/28/01	0707	90	94	OK	OK	2392.35	2417.03	N2	K / K	CQP / CQP
		8/29/01	0743									
246	MVSL-31	8/28/01	0804	89	87	OK	OK	11676.25	11700.87	A2	K / K	CQP / CQP
		8/29/01	0841									
247	VSDL-31	8/28/01	0832	89	86	OK	OK	3017.49	3042.12	B2	K / K	CQP / CQP
		8/29/01	0911									
248	ARVL-31	8/28/01	0915	90	94	OK	OK	1266.63	1291.01	G2	K / K	CQP / CQP
		8/29/01	0939									
249	METL-31	8/28/01	0958	91	93	OK	OK	2112.49	2137.05	E2	K / K	CQP / CQP
		8/29/01	1030									
250	ARBL-32	8/29/01	0700	90	96	OK	OK	2920.71	2944.41	L2	K / K	CQP / JW
		8/30/01	0643									
251	CRSL-32	8/29/01	0752	90	90	OK	OK	2417.12	2440.85	N2	K / K	CQP / JW
		8/30/01	0738									
252	MVSL-32	8/29/01	0846	89	86	OK	OK	11700.91	11724.75	A2	K / K	CQP / JW
		8/30/01	0834									
253	VSDL-32	8/29/01	0917	88	63	OK	OK	3042.22	3066.10	B2 LOW FLOW	K / K	CQP / JW
		8/30/01	0910									
254	ARVL-32	8/29/01	0946	90	93	OK	OK	1291.14	1314.97	G2	K / K	CQP / JW
		8/30/01	0936									
255	METL-32	8/29/01	1037	88	93	OK	OK	2137.14	2160.85	E2	K / K	CQP / JW
		8/30/01	1020									

SAMPLE FIELD LOG SHEET

Project: Chloropicrin Ambient Air Monitoring

Project # : P-01-004

MFM # 5364

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
256	ARBL-33TB	8/30/01	—	—	—	—	—	—	—	TRIP BLANK	K / K	JW / aqp
257	ARBL-33	8/30/01	0650	89	94	OK	OK	2944.53	2968.05	L2	K / K	JW / aqp
258	CRSL-33	8/30/01	0743	89	92	OK	OK	2440.94	2464.38	N2	K / K	JW / aqp
259	MVSL-33	8/30/01	0843	90	69	OK	OK	11724.89	11748.27	A2 LOW FLOW	K / K	JW / aqp
260	VSDL-33	8/30/01	0915	90	81	OK	OK	3066.17	3089.62	B2 LOW FLOW	K / K	JW / aqp
261	ARVL-33	8/30/01	0943	90	91	OK	OK	1315.07	1338.62	C2	K / K	JW / aqp
262	METL-33	8/30/01	1028	91	93	OK	OK	2160.98	2184.94	E2	K / K	JW / aqp

APPENDIX V

Field Data Sheets for MITC and 1,3-Dichloropropene

MFM
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SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
001	ARBT1	6/30/01	0855	2.50	2.41	OK	OK	2199.85	2223.90	K3	K / p	MR / JW
		7/1/01	0658									
002	CRST1	6/30/01	0756	2.51	2.43	OK	OK	1674.18	1698.86	N3, Little water in Rotameter.	K / K	MR / aqp
		7/1/01	0846									
003	MVST1	6/30/01	0858	2.51	2.52	OK	OK	958.66	983.11	A3,	K / K	MR / aqp
		7/1/01	1000									
004	VSDT1	6/30/01	1007	2.50	2.43	OK	OK	2300.58	2325.24	B3	K / K	aqp / AP
		7/1/01	1044									
005	ARVT1	6/30/01	1041	2.50	2.52	OK	OK	454.05	478.74	M3	K / K	JW / aqp
		7/1/01	1124									
006	METT1	6/30/01	1141	2.50	2.53	OK	OK	1325.68	1350.21	J3 aqp	K / K	aqp / JW
		7/1/01	1211									
✓ 007	ARBT2	7/1/01	0702	2.51	2.47	OK	OK	2223.98	2247.61	K3	P / K	JW / JW
		7/2/01	0640									
✓ 008	aqp CRST2	07/01/01	0851	2.51	2.30	OK	OK	1699.05	1722.29	N3	K / K	aqp / aqp
		07/02/01	0802									
✓ 009	MVST2	7/01/01	0959	2.49	3.10	OK	OK	983.68	1007.15	A3	K / K	aqp / aqp
		7/02/01	0926									
✓ 010	VSDT2	7/1/01	1047	2.50	2.36	OK	OK	2325.30	2348.99	B3	K / K	JW / JW
		7/2/01	1029									
✓ 011	ARVT2	7/1/01	1126	2.50	2.45	OK	OK	478.78	502.87	M3	K / K	aqp / aqp
		7/2/01	1129									
✓ 012	METT2	7/1/01	1214	2.50	2.48	OK	OK	1350.24	1374.58	J3	K / K	JW / JW
		7/2/01	1234									
013	ARBT3	7/2/01	0644	2.51	2.4	OK	OK	2247.67	2255.60	K3	K / K	J.W / aqp
		7/3/01	0653									
014	ARBT3-C	7/2/01	0657	2.50	2.4	OK	OK	2247.89	2255.91	L3	K / K	J.W / aqp
		7/3/01	0709									
015	CRST3	7/2/01	0806	2.51	2.43	OK	OK	1722.34	1746.42	N3	K / K	aqp / JW
		7/3/01	0812									
016	CRST3-C	7/2/01	0816	2.51	2.48	OK	OK	1722.53	1746.70	I3	K / K	aqp / JW
		7/3/01	0829									
017	MVST3	7/2/01	0931	2.51	2.50	OK	OK	1007.24	1031.14	A3	K /	aqp /
		7/3/01	0921									

aqp

NFM # 5063

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
018	MVST3-C	07/02/01 7/03/01	0947 0939	2.50	3.00	OK	OK	11067.48	11631.35	D3	K / K	DQP/DQP
019	VSDT3	7/2/01 7/3/01	1033 1015	2.50	2.33	OK	OK	2349.06	2372.75	B3	K / K	J.W/J.W
020	VSDT3-C	7/2/01 7/3/01	1047 1029	2.50	2.45	OK	OK	2349.30	2372.99	C3	K / K	JW/JW
021	ARVT3	7/2/01 7/3/01	1132 1056	2.50	2.47	OK	OK	502.93	526.33	M3	K / K	DQP/DQP
022	ARVT3-C	7/2/01 7/3/01	1143 1106	2.50	2.49	OK	OK	503.11	526.51	G3	K / K	DQP/DQP
023	METT3	7/2/01 7/3/01	1237 1149	2.50	2.50	OK	OK	1374.63	1397.84	J3	K / K	JW/JW
024	METT3-C	7/2/01 7/3/01	1244 1206	2.50	1.20	OK	OK	1374.76	1398.12	E3	K / K	JW/JW
025	ARBT3-TB	7/2/01	1454									
026	ARBT4	7/6/01 7/7/01	0702 0643	2.51	2.60	OK	OK	2256.11	2279.50	K3	C / K	MR/AC
027	ARBT4-FS	7/6/01 7/7/01	0715 0709	2.50	2.52	OK	OK	2256.32	2280.23	L3	C / K	MR/AC
028	CRST4	7/6/01 7/7/01	0820 0814	2.51	2.50	OK	OK	1746.95	1770.93	M3	C / K	AC/AC
029	MVST4	7/6/01 7/7/01	0930 0949	2.5	2.5	OK	OK	11031.57	11055.88	A3	C / K	AC/AC
030	VSDT4	7/6/01 7/7/01	1007 1034	2.5	2.48	OK	OK	2373.17	2397.64	C3	C / K	AC/AC
31	ARVT4	7/6/01 7/7/01	1054 1115	2.5	2.53	OK	OK	526.77	551.12	G3	C / K	AC/AC
032	METT4	7/6/01 7/7/01	1147 1212	2.5	2.48	OK	OK	1469.81	1492.24	J3	C / PC	AC/AC
033	ARBT5	7/7/01 7/8/01	0646 0632	2.5	2.41	OK	OK	2279.60	2303.61	K3	K / K	AC/AC
034	ARBT5-C	7/7/01 7/8/01	0711 0646	2.50	2.45	OK	OK	2280.28	2303.85	L3	K / K	AC/AC

AIR RESOURCES BOARD

MLD/ELR/SPM

MFM #5063

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
035	CRST5	7/7/01 7/8/01	0823 0837	2.5	2.43	OK	OK	1771. 05	1794.29	N3	K / K	AR / HR
036	CRST5-C	7/7/01 7/8/01	0836 0752	2.5	2.45	OK	OK	1771. 27	1794.52	I3	K / K	AR / HR
037	MVST5	7/7/01 7/8/01	0951 0904	2.51	2.53	OK	OK	11055. 92	11079. 14	A3	K / K	AR / AR
038	MVST5-C	7/7/01 7/8/01	0958 0924	2.51	2.46	OK	*	11056. 04	11079. 47	D3 * SMALL LEAK FIXED	K / K	AR / AR
039	VSDT5	7/7/01 7/8/01	1038 1002	2.50	2.49	OK	OK	2397. 69	2421. 08	C3	K / K	AR / HR
040	VSDT5-C	7/7/01 7/8/01	1034 1020	2.50	2.44	OK	OK	2397. 61	2421. 39	BB	K / K	AR / HR
041	ARVT5	7/7/01 7/8/01	1119 1058	2.49	2.49	OK	OK	551. 19	574. 54	G3	K / K	AR / AR
042	ARVT5-C	7/7/01 7/8/01	1117 1112	2.5	2.46	OK	OK	551. 28	575. 06	M3	K / K	AR / AR
043	METT5	7/7/01 7/8/01	1225 1201	2.5	2.47	OK		1494. 45	1518. 04	J3	PC / K	AR / HR
044	METT5-C	7/7/01 7/8/01	1239 1214	2.49	2.44	OK	OK	1494. 69	1518. 26	E3	PC / K	AR / HR
045	ARBT5-TB	7/7/01 —	1443 —	—	—	—	—	—	—	Trip Blank	PC	HR
046	ARBT5-TS	7/7/01 —	1445 —	—	—	—	—	—	—	Trip Spike	PC	SRR
047	ARBT6	7/8/01 7/9/01	0634 0617	2.5	2.41	OK	OK	2303. 64	2327. 49	K3	K	AR
048	CRST6	7/8/01 7/9/01	0740 0707	2.50	2.50	OK	OK	1794. 33	1817. 79	N3	K / K	HR / HA
049	MVST6	7/8/01 7/9/01	0907 0910	2.51	2.51	OK	OK	11079. 19	11102. 24	A3	K / K	AR / AR
050	VSDT6	7/8/01 7/9/01	1005 0906	2.49	2.45	OK	OK	2421. 14	2444. 15	C3	K / K	HR / HR
051	ARVT6	7/8/01 7/9/01	1100 1001	2.50	2.49	OK	OK	574. 87	597. 88	G3	K / K	AR / AR

AIR RESOURCES BOARD

MLD/ELB/SPM

MFM # 5063 / Starting w/ 053 #5286

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
052	METT6	7/8/01	1204	2.49	2.44	OK	OK	1518.08	1541.11	J3	K / K	JW / SBB
		7/9/01	1105									
053	ARBT7	7/13/01	0648	2.50	2.39	OK	OK	2327.65	2350.92	K3	K / K	JW
		7/14/01	0806									
054	ARBT7-TB	7/13/01	1345	--	--	--	--	--	--	TRIP BLANK	/	JW
		--	--									
055	CRST7	7/13/01	0759	2.50	2.35	OK	OK	1818.03	1841.24	N3	K / K	JW / JW
		7/14/01	0712									
056	MVST7	7/13/01	0900	2.50	2.45	OK	OK	11102.50	11125.84	A3	K / K	JW
		7/14/01	0821									
057	VSDT7	7/13/01	0946	2.50	2.28	OK	OK	2444.31	2467.96	B3	K / K	JW / JW
		7/14/01	0908									
058	ARVT7	7/13/01	1033	250	2.49	OK	OK	598.06	621.31	G3	K / K	JW
		7/14/01	0949 12:13									
059	METT7	7/13/01	~~1037~~	2.50	2.50	OK	OK	1541.38	1564.45	E3	K / K	JW
		7/14/01	1117									
060	ARBT8	7/14/01	0615	2.50	2.57	OK	OK	2351.09	2367.91	K3	K / K	JW
		7/15/01	0615									
061	ARBT8-C	7/14/01	0623	2.50	2.41	OK	OK	2351.22	2368.04	L3	K / K	JW
		7/15/01	0624									
062	CRST8	7/14/01	0716	2.50	2.45	OK	OK	1841.34	1865.37	N3	K / K	JW
		7/15/01	0718									
063	CRST8-C	7/14/01	0727	2.50	2.46	OK	OK	1841.51	1865.60	I3	K / K	JW
		7/15/01	0733									
064	MVST8	7/14/01	0828	2.50	2.47	OK	OK	11125.96	11150.08	A3	K / K	JW
		7/15/01	0835									
065	MVST8-C	7/14/01	0836	2.50	2.47	OK	OK	11126.09	11150.26	D3	K / K	JW
		7/15/01	0847									
066	VSDT8	7/14/01	0913	2.50	2.45	OK	OK	2467.78	2492.02	B3	K / K	JW
		7/15/01	0927									
067	VSDT8-C	7/14/01	0918	2.50	2.43	OK	OK	2467.86	2492.17	C3	K / K	JW
		7/15/01	0938									
068	ARVT8	7/14/01	0957	2.51	2.45	OK	OK	621.44	645.72	G3	K / K	JW
		7/15/01	1014									

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
069	ARVT8-C	7/14/01 7/15/01	1004 1022	2.50	2.40	OK	OK	621.55	645.85	M3	K / K	JW / QQP
070	METT8	7/14/01 7/15/01	1124 1114	2.50	.45	OK	OK	1564.57	645Q.4 1588.42	E3 PHOTO METER READING .5 ADJUSTABLE AFTER .45 READING. MAY HAVE BEEN BUMPED	K / K	JW / QQP
071	METT8-C	7/14/01 7/15/01	1132 1128	2.50	2.46	OK	OK	1564.70	1588.63	E3	K / K	JW / QQP
072	ARBT9	7/15/01 7/16/01	0634 0623	2.50	2.56	OK	OK	2368.20	2392.01	K3	K / K	QQP / JW
073	CRST9	7/15/01 7/16/01	0740 0724	2.50	2.38	OK	OK	1805.71	1889.45	N3	K / K	QQP / JW
074	MVST9	7/15/01 7/16/01	0856 0832	2.50	2.68	OK	OK	11150.39	11174.01	A3	K / K	QQP / JW
075	VSDT9	7/15/01 7/16/01	0945 0914	2.50	2.42	OK	OK	2492.29	2515.77	B3	K / K	QQP / JW
076	ARVT9	7/15/01 7/16/01	1027 0952	2.50	2.41	OK	OK	645.95	669.36	G3	K / K	QQP / JW
077	METT9	7/15/01 7/16/01	1135 1047	2.50	2.53	OK	OK	1588.75	1611.95	E3	K / K	QQP / JW
078	ARBT10	7/16/01 7/17/01	0633 0635	2.51	2.48	OK	OK	2392.18	2416.24	K3	K / K	JW / QQP
079	CRST10	7/16/01 7/17/01	0737 0723	2.50	2.47	OK	OK	1889.65	1913.45	N3	K / K	JW / QQP
080	MVST10	7/16/01 7/17/01	0841 0827	2.50	2.65	OK	OK	11174.15	11197.93	A3	K / K	JW / QQP
081	VSDT10	7/16/01 7/17/01	0922 0854	2.50	2.45	OK	OK	2515.90	2539.46	B3	K / K	JW / QQP
082	ARVT10	7/16/01 7/17/01	1002 0926	2.50	2.50	OK	OK	669.52	692.94	G3	K / K	JW / QQP
083	METT10	7/16/01 07/17/01	1059 1003	2.50	2.50	OK	OK	1612.15	1635.24	E3	K / K	JW / QQP
084											/	/
085											/	/

MFM
#5286

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
069	ARV-8-C	7/14/01 7/15/01	1004 1022	2.50	2.40	OK	OK	621.55	645.85	M3	K K	JW QQP
070	MET-8	7/14/01 7/15/01	1124 1114	2.50	.45	OK	OK	1564.57	645QQP 1588.42	E3 ROTO METER READING .5 ADJUSTABLE AFTER .45 READING. MAY HAVE BEEN BUMPED	K K	JW QQP
071	MET-8-C	7/14/01 7/15/01	1132 1128	2.50	2.46	OK	OK	1564.70	1588.63	E3	K K	JW QQP
072	ARB-9	7/15/01 7/16/01	0634 0623	2.50	2.56	OK	OK	2368.20'	2392.01	K3	K K	QQP JW
073	CRS-9	7/15/01 7/16/01	0740 0724	2.50	2.38	OK	OK	1865.71	1889.45	N3	K K	QQP JW
074	MVS-9	7/15/01 7/16/01	0856 0832	2.50	2.68	OK	OK	11150.39	11174.01	A3 see page 5 of 16	K K	QQP JW
075	VSD-9	7/15/01 7/16/01	0945 0914	2.50	2.42	OK	OK	2492.29	2515.77	B3	K K	QQP JW
076	ARV-9	7/15/01 7/16/01	1027 0952	2.50	2.41	OK	OK	645.95	669.36	G3	K K	QQP JW
077	MET-9	7/15/01 7/16/01	1135 1047	2.50	2.53	OK	OK	1588.75	1611.95	E3	K K	QQP JW
078	ARB-10	7/16/01 7/17/01	0633 0635	2.51	2.48	OK	OK	2392.18	2416.24	K3	K K	JW QQP
079	CRS-10	7/16/01 7/17/01	0737 0723	2.50	2.47	OK	OK	1889.65	1913.45	N3	K K	JW QQP
080	MVS-10	7/16/01 7/17/01	0841 0837	2.50	2.65	OK	OK	11174.15	11197.93	A3	K K	JW QQP
081	VSD-10	7/16/01 7/17/01	0922 0854	2.50	2.45	OK	OK	2515.90	2539.46	B3	K K	JW QQP
082	ARV-10	7/16/01 7/17/01	1002 0926	2.50	2.50	OK	OK	669.52	692.94	G3	K K	JW QQP
083	MET-10	7/16/01 07/17/01	1059 1003	2.50	2.50	OK	OK	1612.15	1635.24	E3	K K	JW QQP
084	ARBTII	7/21/01 7/22/01	0630 0621	2.5	2.58	OK	OK	2416.42	2440.25	K3	K K	AE JRR
085	ARBTII-FS	7/21/01 7/22/01	0644 0634	2.5	2.49	OK	OK	2416.66	2440.47	L3	K K	AE JRR

MEM #5286

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow	End Flow	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
086	CRSTII	7/21/01	~~0829~~	~~2.5~~	2.50	OK	OK	1913. ~~69~~	1937. 55	N3	K K	Ae IRR
		7/22/01	0724	~~2.50~~								
087	MVSTII	7/21/01	0825	2.5	2.53	OK	OK	11198. 16	11222. 25	A3	K K	Ae IRR
		7/22/01	0833									
088	VSOTII	7/21/01	0852	2.5	2.53	OK	OK	2539. 62	2563. 97	B3	K K	Ae IRR
		7/22/01	0914									
089	ARVTII	7/21/01	~~0946~~ 0921	2.5	2.53	OK	OK	693. 19	717. 59	G3	K K	Ae IRR
		7/22/01	0946									
090	METTII	7/21/01	1009	2.5	2.59	OK	OK	1635. 45	1659. 89	E3	K K	Ae IRR
		7/22/01	1039									
091	ARBT-II-TS	7/21/01	1212	—	—	—	—	—	—	Trip Spike	K —	IRR —
		—	—									
092	ARBT-II-TB	7/21/01	1214	—	—	—	—	—	—	Trip Blank	K	IRR
		—	—									
093	ARBT-12	7/22/01	0624	2.50	2.6 ~~2.53~~	OK	OK	2440. 29	2464. 29	K3	K K	IRR Ae
		7/23/01	0622									
094	ARST-12	7/22/01	0727	2.50	2.5	OK	OK	1937. 59	1961. 64	N3	K K	IRR Ae
		7/23/01	0727									
095	MVST-12	7/22/01	0835	2.49	2.6	OK	OK	11222. 30	11246. 24	A3	K K	IRR Ae
		7/23/01	0830									
096	VSOT-12	7/22/01	0916	2.49	2.48	OK	OK	2564. 01	2587. 84	B3	K K	IRR Ae
		7/23/01	0905									
097	ARVT-12	7/22/01	0949	2.50	2.5	OK	OK	717. 64	741. 51	G3	K K	IRR Ae
		7/23/01	0940									
098	METT-12	7/22/01	1041	2.50	2.49	OK	OK	1659. 93	1683. 77	E3	K K	IRR Ae
		7/23/01	1030									
099	ARBT-13	7/23/01	0625	2.50	2.52	OK	OK	2464. 33	2488. 18	K3	K K	Ae Ae
		7/24/01	0617									
100	ARBT-13C	7/23/01	~~0625~~	2.50	2.42	OK	OK	2464. 34	2488. 29	L3	K K	Ae Ae
		7/24/01	0624									
101	CRST-13	7/23/01	0729	2.50	2.54	OK	OK	1961. 64	1985. 44	N3	K K	Ae Ae
		7/24/01	0717									
102	CRST-13C	7/23/01	0731	2.50	2.44	OK	OK	1961. 68	1985. 58	I3	K K	Ae Ae
		7/25/01	0726									

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SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
103	MVST-13	7/23/01	0836	2.5	2.46	OK	OK	11246.34	11270.24	A3	K / K	AR / JRR
		7/24/01	0832									
104	MVST-13C	7/23/01	0838	2.5	2.49	OK	OK	11246.36	11270.38	D3	K / K	AR / AR
		7/24/01	0840									
105	VSDT-13	7/23/01	0910	2.5	2.64	OK	OK	2587.97	2611.88	B3	K / K	AR / AR
		7/24/01	0906									
106	VSDT-13C	7/23/01	0914	2.5	2.45	OK	OK	2558.00	2612.01	E3	K / K	AR / AR
		7/24/01	0916									
107	ARVT-13	7/23/01	0949	2.5	2.44	OK	OK	741.60	765.59	G3	K / K	AR / AR
		7/24/01	946									
108	ARVT-13C	7/23/01	0951	2.50	2.41	OK	OK	741.70	765.~~84~~	M3	K / K	AR / AR
		7/24/01	0955									
109	METT-13	7/23/01	1038	2.5	2.50	OK	OK	1683.90	~~765~~ 1707.~~87~~	E3	K / K	AR / AR
		7/24/01	1037									
110	METT-13C	7/23/01	1042	2.5	2.46	OK	OK	1683.97	1708.03	J3	K / K	AR / AR
		7/24/01	1048									
111	ARBT-14	7/24/01	0621	2.49	2.50	OK	OK	2458.25	2512.26	K3	K / K	AR / AR
		7/25/01	0620									
112	CRST-14	7/24/01	0723	2.50	2.49	OK	OK	1985.~~68~~	2009.19	N3	R / K	RR / AR
		7/25/01	0701									
113	MVST-14	7/24/01	0834	2.50	2.46	OK	OK	11270.29	11293.57	A3	K / K	AR / AR
		7/25/01	0750									
114	VSDT-14	7/24/01	0910	2.50	2.50	OK	OK	2611.90	2635.26	B3	K / K	AR / AR
		7/25/01	0829									
115	ARVT-14	7/24/01	0845	2.50	2.54	OK	OK	765.58	788.67	G3	K / K	AR / AR
		7/25/01	0850									
116	METT-14	7/24/01	1040	2.50	2.51	OK	OK	1707.92	1730.93	E3	K / K	CRR / JW
		7/25/01	0946									
117	ARBT15	7/29/01	0703	2.50	2.44	OK	OK	2512.60	2535.84	K3	K / K	CRR / JW
		7/30/01	0619									
118	CRST15	7/29/01	0752	2.50	2.47	OK	OK	2009.40	2033.00	N3	K / K	CRR / JW
		7/30/01	0729									
119	MVST 15	7/29/01	0856	2.50	2.93	OK	OK	11293.86	11317.54	A3		
		7/30/01	0842									

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SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
120	VSDT15	7/29/01 7/30/01	0934 0924	2.50	2.38	OK	OK	2635.45	2659.26	B3	K / K	JW
121	ARVT15	7/29/01 7/30/01	1010 1002	2.50	2.45	OK	OK	788.85	812.67	G3	K	JW
122	METT15	7/29/01 7/30/01	1105 1100	2.50	2.51	OK	OK	1731.13	1754.99	E3	K	JW
123	ARBT15-TB	7/30/01	0557	—	—	—	—	—	—	TRIPBLANK	K	JW
124	ARBT16	7/30/01 7/31/01	0630 0614	2.50	2.50	OK	OK	2536.03	2559 79	K3	K / K	JW
125	ARBT16-C	7/30/01 7/31/01	0636 0624	2.50	2.47	OK	OK	2536.13	2559.95	L3	K / K	JW
126	CRST16	7/30/01 7/31/01	0740 0720	2.50	2.50	OK	OK	2033.17	2056.86	N3	K / K	JW
127	CRST16-C	7/30/01 7/31/01	0748 0727	2.50	2.51	OK	OK	2033.30	2056 98	I3	K / K	JW
128	MVST16	7/30/01 7/31/01	0852 0839	2.50	2.55	OK	OK	11317.71	11341.52	A3	K / K	JW
129	MVST16-C	7/30/01 7/31/01	0857 0846	2.50	2.38	OK	OK	11317.79	11341.63	D3	K / K	JW
130	VSDT16	7/30/01 7/31/01	0930 0928	2.50	2.44	OK	OK	2659.37	2683.35	B3	K / K	JW
131	VSDT16-C	7/30/01 7/31/01	0935 0935	2.50	2.57	OK	OK	2659.45	2683 47	C3	K / K	JW
132	ARVT16	7/30/01 7/31/01	1010 1007	2.50	2.45	OK	OK	812.82	836.80	G3	K / K	JW
133	ARVT16-C	7/30/01 7/31/01	1016 1015	2.51	2.54	OK	OK	812.92	836.94	M3	K / K	JW
134	METT16	7/30/01 7/31/01	1108 1103	2.51	2.41	OK	OK	1755.13	1779.01	E3	K / K	JW
135	METT16-C	7/30/01 7/31/01	1115 1109	2.50	2.46	OK	OK	1755.25	1779.17	J3	K / K	JW
136	ARBT17	7/31/01 8/1/01	0631 0629	2.50	2.53	OK	OK	2560.07	2584.01	K3	K / K	JW

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SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project #: P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
137	CRSTIT	7/31/01 8/1/01	0735 0728	2.50	2.48	OK	OK	2057.10	2080.97	N3	K / K	AQP / JW
138	MVSTIT	7/31/01 8/1/01	0852 0828	2.50	2.87	OK	OK	11341.73	11365.32	A3	K / K	AQP / JW
139	VSDTIT	7/31/01 8/1/01	0941 0901	2.53	2.45	OK	OK	2683.56	2706.88	B3	K / K	AQP / JW
140	ARVTIT	7/31/01 8/1/01	1023 0932	2.50	2.52	OK	OK	837.06	860.20	G3	K / K	AQP / JW
141	METTIT	7/31/01 8/1/01	1114 1020	2.50	2.30	OK	OK	1779.25	1802.34	E3	K / K	AQP / JW
142	ARBT18	8/1/01 8/02/01	0838 0623	2.50	2.52	OK	OK	2584.16	2607.94	K3	K / K	JW / AQP
143	CRST18	8/1/01 8/2/01	0737 0712	2.50	2.55	OK	OK	2081.12	2104.72	N3	K / K	JW / AQP
144	MVST18	8/1/01 8/2/01	0834 0807	2.50	2.70	OK	OK	11365.42	11388.98	A3	K / K	JW / AQP
145	VSDT18	8/1/01 8/2/01	0908 0834	2.50	2.50	OK	OK	2706.99	2730.45	B3	K / K	JW / AQP
146	ARVT18	8/1/01 8/2/01	0937 0856	2.50	2.50	OK	OK	860.27	883.62	G3	K / K	JW / AQP
147	METT18	8/1/01 8/2/01	1029 0934	2.50	2.51	OK	OK	1802.49	1825.55	E3	K / K	JW / AQP
148	ARBT19	8/6/01 8/7/01	0623 0626	2.5	2.43	OK	OK	2608.11	~~2608.11~~ 2632.16	K3	K / K	AR / HR
149	ARBT19 FS	8/6/01 8/7/01	0630 0642	2.5	2.49	OK	OK	2608.22	2632.42	L3	K / K	AR / HR
150	CRST19	8/6/01 8/7/01	0723 0732	2.5	2.50	OK	OK	2104.94	2129.06	N3	K / K	AR / HR
151	MVST19	8/6/01 8/7/01	0821 0831	2.5	2.48	OK	OK	11389.12	11413.30	A3	K / K	AR / HR
152	VSDT19	8/6/01 8/7/01	0849 0905	2.5	2.45	OK	OK	2730.60	2754.88	B3	K / K	AR / HR
153	ARVT19	8/6/01 8/7/01	0916 0939	2.5	2.44	OK	OK	883.78	908.16	G3	K / K	AR / HR

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

MFM#5286

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
154	METT19	8/6/01 8/7/01	1001 1025	2.5	2.47	OK	OK	1825. 79	1850 .17	E3	PC / K	AC / [illegible]
155	ARBT20	8/7/01 8/8/01	0628 0620	2.50	2.5	OK	OK	2632. 20	2656. 05	K3	K / K	[illegible] / AC
156	ARBT20C	8/7/01 8/8/01	0644 0631	2.50	2.52	OK	OK	2637. 41	2696 .25	L3	K / K	AC / AC
157	CRST20	8/7/01 8/8/01	0733 0709	2.51	2.51	OK	OK	2129. 09	2152. 70	N3	K / K	[illegible] / AC
158	CRST20C	8/7/01 8/8/01	0736 0731	2.50	2.40	OK	OK	2129. 13	2153 .05	I3	K / K	[illegible] / AC
159	MVST20	8/7/01 8/8/01	0834 0822	2.50	2.5	OK	OK	11413 .34	11437. 13	A3	K / K	[illegible] / AC
160	MVST20C	8/7/01 8/8/01	0838 0837	2.50	2.42	OK	OK	11413. 39	11437. 38	D3	K / K	[illegible] / AC
161	VSDT20	8/7/01 8/8/01	0907 0854	2.50	2.5	OK	OK	2754 .91	2778. 74	B3	K / K	[illegible] / AC
162	VSDT20C	8/8/01 8/8/01	0909 0909	2.50	2.40	OK	OK	2754 .93	2778 .95	C3	K / K	[illegible] / [illegible]
163	ARVT20	8/7/01 8/8/01	0940 0930	2.50	2.51	OK	OK	908. 17	932. 00	G3	K / K	AC / [illegible]
164	ARVT20C	8/7/01 8/8/01	941 0945	2.50	2.47	OK	OK	908. 19	932 .21	M3	K / K	AC / AC
165	METT20	8/7/01 8/8/01	1027 1027	2.50	2.49	OK	OK	1850. 21	1874. 21	E3	K / K	[illegible] / AC
166	METT20C	8/7/01 8/8/01	1029 1037	2.50	2.41	OK	OK	1850 .24	1874 .38	J3	K / K	[illegible] / AC
167	~~ARBT~~20TB	8/7/01 —	1124 —	—	—	—	—	—	—	TRIP BLANK	K	AC
168	ARBT21	8/8/01 8/9/01	0622 0626	2.5	2.65	OK	OK	2656. 10	2680 .16	K3	K / K	AC / [illegible]
169	CRST21	8/8/01 8/9/01	0720 0720	2.5	2.51	OK	OK	2152 87	2176 .87	N3	K / K	[illegible] / [illegible]
170	MVST21	8/8/01 8/9/01	0828 0830	2.50	2.49	OK	OK	11437 .26	11461. 28	A3	K / K	[illegible] / [illegible]

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

MFM # 5286

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
171	VSDT21	8/8/01 8/9/01	0904 0904	2.5	2.46	OK	OK	2778.86	2802.85	B3	K / K	AC / JRR
172	ARVT21	8/8/01 8/9/01	0941 0935	2.5	2.50	OK	OK	932.19	956.10	G3	K / K	AC / RR
173	METT21	8/8/01 8/9/01	1030 1020	2.50	2.63	OK	OK	1174.25	1898.10	E3	K / K	AC / JRR
174	ARBT-22	8/9/01 8/10/01	0628 0617	2.50	2.47	OK	OK	2680.19	2704.01	K3	K / K	JRR / AR
175	CRST-22	8/9/01 8/10/01	0722 0658	2.50	2.45	OK	OK	2176.90	2200.51	N3	K / K	AR / AR
176	MVST-22	8/9/01 8/10/01	0832 0752	2.50	2.41	OK	OK	11461.31	11484.62	A3	K / K	JRR / AR
177	VSDT-22	8/9/01 8/10/01	0906 0814	2.50	2.41	OK	OK	2802.89	2826.07	B3	K / K	JRR / AR
178	ARVT-22	8/9/01 8/10/01	0939 0842	2.50	2.51	OK	OK	956.13	979.21	G3	K / K	RR / AR
179	METT-22	8/9/01 8/10/01	1022 0923	2.50	2.54	OK	OK	1898.13	1921.13	E3	K / K	JRR / AR
180	ARBT23	8/14/01 8/15/01	0701 0607	2.50	2.53	OK	OK	2704.27	2727.73	K3	K / K	JW / aqr
181	CRST23	8/14/01 8/15/01	0753 0731	2.50	2.40	OK	OK	2200.78	2224.43	N3	K / K	JW / aqr
182	MVST23	8/14/01 8/15/01	0849 0838	2.50	2.56	OK	OK	11484.93	11508.77	A3	K / K	JW / aqr
183	VSDT23	8/14/01 8/15/01	0919 0920	2.50	2.42	OK	OK	2826.35	2850.40	B3	K / K	JW / aqr
184	ARVT23	8/14/01 8/15/01	0947 0957	2.50	2.43	OK	OK	979.36	1003.51	G3	K / K	JW / aqr
185	METT23	8/14/01 8/15/01	1030 1052	2.50	2.39	OK	OK	1921.30	1945.70	E3	K / K	JW / aqr
186	ARBT23TB	8/15/01 —	0614 —	—	—	—	—	—	—	TRIP BLANK	K	JW
187	ARBT24	8/15/01 8/16/01	0636 0624	2.50	2.46	OK	OK	2727.88	2751.70	K3	K / K	aqr / JW

AIR RESOURCES BOARD

MFM
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SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
188	ARBT24-C	8/15/01 8/16/01	0642 0633	2.50	2.86	OK	OK	2729.99	2751.82	L3 HIGH FLOW	K / k	QP / JW
189	CRST24	8/15/01 8/16/01	0739 0727	2.50	2.49	OK	OK	2224.58	2248.35	N3	K / k	QP / JW
190	CRST24-C	8/15/01 8/16/01	0746 0735	2.50	2.42	OK	OK	2224.69	2248.47	I3	K / k	QP / JW
191	MVST24	8/15/01 8/16/01	0846 0836	2.50	2.41	OK	OK	11508.90	11532.71	A3	K / K	QP / JW
192	MVST24-C	8/15/01 8/16/01	0852 0842	2.50	2.38	OK	OK	11509.00	11532.81	D3	K / k	QP / JW
193	VSDT24	8/15/01 8/16/01	0928 0918	2.50	2.54	OK	OK	2850.53	2874.35	B3	K / k	QP / JW
194	VSDT24-C	8/15/01 8/16/01	0934 0926	2.50	2.52	OK	OK	2850.63	2874.47[illegible]	C3	K / k	QP / JW
195	ARVT24	8/15/01 8/16/01	1005 0955	2.50	2.47	OK	OK	1003.69	1027.51	G3	K / k	QP / JW
196	ARVT24-C	8/15/01 8/16/01	1018 1002	2.50	2.47	OK	OK	1003.78	1027.62	M3	K / k	QP / JW
197	METT24	8/15/01 8/16/01	1058 1049	2.50	2.45	OK	OK	1945.80	1969.64	E3	K / k	QP / JW
198	METT24-C	8/15/01 8/16/01	1104 1056	2.50	2.43	OK	OK	1945.91	1969.76	J3	K / k	QP / JW
199	ARBT25	8/16/01 8/17/01	0640 0634	2.50	2.54	OK	OK	2751.92	2775.86	K3	K / K	JW / QP
200	CRST25	8/16/01 8/17/01	0741 0730	2.50	2.57	OK	OK	2248.58	2272.42	N3	K / K	JW / QP
201	MVST25	8/16/01 8/17/01	0852 0828	2.50	2.29	OK	OK	11532.97	11556.62	A3	K / K	JW / QP
202	VSDT25	8/16/01 8/17/01	0931 0900	2.54	2.51	OK	OK	2874.56	2898.07	B3	K / K	JW / QP
203	ARVT25	8/16/01 8/17/01	1007 0931	2.50	2.53	OK	OK	1027.70	1051.13	G3	K / K	JW / QP
204	METT25	8/16/01 8/17/01	1102 1016	2.50	2.51	OK	OK	1969.84	1993.11	E3	K / K	JW / QP

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project #: P-01-004

MFM # 5286

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
205	ARBT26	8/17/01 8/18/01	0645 0632	2.50	2.47	OK	OK	2776.03	2799.80	K3	K / K	CJW / JW
206	CRST26	8/17/01 8/18/01	0738 0718	2.50	2.46	OK	OK	2072.54	2296.19	N3	K / K	CJW / JW
207	MVST26	8/17/01 8/18/01	0834 0807	2.49	2.40	OK	OK	11556.71	11580.22	A3	K / K	CJW / JW
208	VSDT26	8/17/01 8/18/01	0908 0829	2.50	2.47	OK	OK	2898.19	2921.53	B3	K / K	CJW / JW
209	ARVT26	8/17/01 8/18/01	0937 0853	2.50	2.52	OK	OK	1051.22	1074.47	G3	K / K	CJW / JW
210	METT26	8/17/01 8/18/01	1023 0938	2.50	2.49	OK	OK	1993.22	2016.45	E3	K / K	CJW / JW
211	ARBT27	8/22/01 8/23/01	0632 0610	2.50	2.48	OK	OK	2799.97	2823.60	K3	K / K	AR / AR
212	CRST27	8/22/01 8/23/01	0722 0716	2.50	2.49	OK	OK	2296.39	2320.84	N3	Rotameter ball sticks. Clean me. K / K	AR / AR
213	MVST27	8/22/01 8/22/01	0819 0824	2.50	2.55	OK	OK	11580.43	11604.57	A3	K / K	AR / AR
214	VSDT27	8/22/01 8/23/01	0848 0904	2.50	2.43	OK	OK	2921.37	2946.04	B3	K / K	AR / AR
215	ARVT27	8/22/01 8/23/01	0908 0942	2.50	2.57	OK	OK	1170.73	1195.31	G3	K / K	AR / AR
216	METT27	8/22/01 8/22/01	0953 1036	2.50	2.55	OK	OK	2016.66	2041.32	E3	PC / K	AR / AR
217	ARBT28-FS	8/23/01 8/24/01	0615 0622	2.50	2.48	OK	OK	2823.68	2847.81	L3	K / K	AR / AR
218	ARBT28	8/23/01 8/24/01	0623 0635	2.50	2.54	OK	OK	2823.84	2848.01	K3	K / K	AR / AR
219	CRST28	8/23/01 8/24/01	0723 0723	2.49	2.48	OK	OK	2320.42	2344.42	N3	K / K	AR / AR
220	MVST28	8/23/01 8/24/01	0828 0825	2.50	2.49	OK	OK	11604.56	11628.52	A3	K / K	AR / AR
221	VSDT28	8/23/01 8/24/01	0910 0858	2.50	2.49	OK	OK	2946.13	2969.94	B3	K / K	AR / AR

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

MP MM # 5286

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
222	ARVT 28	8/23/01 8/24/01	0951 0935	2.50	2.47	OK	OK	1195.46	1219.18	G3	K / K	AR / AR
223	METT 28	8/23/01 8/24/01	1045 1035	2.50	2.46	OK	OK	2041.46	2065.30	E3	K / K	AR / AC
224	ARBT28TS	8/23/01 —	1320 —	—	—	—	—	—	—	TRIP SPIKE	K / K	AR / AR
225	ARBT28TB	8/23/01 —	1320 —	—	—	—	—	—	—	TRIP BLANK	K / K	AC / AC
226	ARBT29	8/24/01 8/25/01	0624 0619	2.50	2.49	OK	OK	2847.83	2871.75	L3	K / K	AC / AC
227	ARBT29C	8/24/01 8/25/01	0636 0629	2.50	2.49	OK	OK	2848.04	2871.92	K3	K / K	AR / AC
228	CRST29	8/24/01 8/25/01	0725 0710	2.50	2.48	OK	OK	2344.45	2368.21	N3	K / K	AR / AR
229	CRST29C	8/24/01 8/25/01	0732 0723	2.50	2.73	OK	OK	2344.57	2368.42	I3	K / K	AC / AC
230	MVST29	8/24/01 8/25/01	0828 0820	2.50	2.51	OK	OK	11628.58	11652.42	A3	K / K	AR / AC
231	MVST29C	8/24/01 8/25/01	0830 0836	2.50	2.55	OK	OK	11628.60	11652.71	D3	K / K	AR / AC
232	VSDT29	8/24/01 8/25/01	0900 0900	2.50	2.51	OK	OK	2969.97	2993.99	B3	K / K	AC / AC
233	VSDT29C	8/24/01 8/25/01	0903 0910	2.50	2.50	OK	OK	2970.01	2994.14	C3	K / K	AC / AC
234	ARVT29	8/24/01 8/25/01	0936 0935	2.50	2.65	OK	OK	1219.20	1243.18	G3	K / K	AR / AC
235	ARVT29C	8/24/01 8/25/01	0939 0940	2.50	2.40	OK	OK	1219.25	1243.27	M3	K / K	AR / AC
236	METT29	8/24/01 8/25/01	1036 1029	2.50	2.52	OK	OK	2065.32	2089.19	E3	K / K	AC / AC
237	METT29C	8/24/01 8/25/01	1039 1040	2.50	2.44	OK	OK	2065.37	2089.39	J3	K / K	AC / AC
238	ARBT-30	8/25/01 8/26/01	0620 0625	2.50	2.55	OK	OK	2871.77	2895.85	L3	K / K	AC / AR

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

NFH # 5286

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
239	CRST-30	8/25/01 8/26/01	0713 0710	2.50	2.58	OK	NO	2368.25	2392.21	N3 Glass shards in inlet tubing preventing leak chk. pass. cleaned	K / K	AC / JLB
240	MVST-30	8/25/01 8/26/01	0823 0800	2.51	2.50	OK	OK	11652.50	11676.11	A3	K / K	AC / JAP
241	VSDT-30	8/25/01 8/26/01	0902 0825	2.50	2.45	OK	OK	2994.00	3017.38	B3	K / K	AC / JAP
242	ARVT-30	8/25/01 8/26/01	0936 0848	2.50	2.53	OK	OK	1243.20	1266.40	G3	K / K	AC / JAP
243	METT 30	8/25/01 8/26/01	1032 0933	2.50	2.49	OK	NO	2089.25	2112.27	E3 Sprayed foam on lown Tightened fitting on Rotameter. OK now	K / K	AC / JAP
244	ARBT-31	8/28/01 8/29/01	0619 0657	2.50	2.33	OK	OK	2896.05	2920.66	L3	K / K	CQP / CQP
245	CRST-31	8/28/01 8/29/01	0710 0750	2.50	2.43	OK	OK	2392.40	2417.07	N3	K / K	CQP / CQP
246	MVST-31	8/28/01 8/29/01	0810 0843	2.50	2.36	OK	OK	11676.35	11700.91	A3	K / K	CQP / CQP
247	VSDT-31	8/28/01 8/29/01	0835 0913	2.50	2.47	OK	OK	3017.53	3042.14	B3	K / K	CQP / CQP
248	ARVT-31	8/28/01 8/29/01	0917 0943	2.50	2.49	OK	OK	1266.72	1291.07	G3	K / K	CQP / CQP
249	METT-31	8/25/01 8/29/01	0958 1034	2.50	2.42	OK	OK	2112.49	2137.10	E3	K / K	AS / CQP
250	ARBT-32	8/29/01 8/30/01	0701 0646	2.50	2.60	OK	OK	2920.74	2944.45	L3	K / K	CQP / JW
251	CRST-32	8/29/01 8/30/01	0754 0740	2.50	258	OK	OK	2417.14	2440.89	N3	K / K	CQP / JW
252	MVST-32	8/29/01 8/30/01	0849 0838	2.50	2.33	OK	OK	11701.00	11724.81	A3	K / K	CQP / JW
253	VSDT-32	8/29/01 8/30/01	0918 0912	2.50	2.49	OK	OK	3042.25	3066.12	B3	K / K	CQP / JW
254	ARVT-32	8/29/01 8/30/01	0947 0940	2.50	2.50	OK	OK	1291.16	1315.02	G3	K / K	CQP / JW
255	METT-32	8/29/01 8/30/01	1039 1022	2.50	2.56	OK	OK	2137.17	2160.88	E3	K / K	CQP / JW

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

MFM #5 286

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials
256	ARBT-33TB	8/30/01 —	—	—	—	—	—	—	—	TRIP BLANK	K /	JW /
257	ARBT-33	8/30/01 8/31/01	0653 0624	2.50	2.50	OK	OK	2944.57	2968.12	L3	K / K	JW / aqp
258	CRST-33	8/30/01 8/31/01	0744 0711	2.50	2.36	OK	OK	2440.96	2464.43	N3	K / K	JW / aqp
259	MVST-33	8/30/01 8/31/01	0845 0807	2.50	2.50	OK	OK	11724.92	11748.31	A3	K / K	JW / aqp
260	VSDT-33	8/30/01 8/31/01	0916 0843	2.50	2.49	OK	OK	3066.19	3089.67	B3	K / K	JW / aqp
261	ARVT-33	8/30/01 8/31/01	0945 0919	2.50	2.65	OK	OK	1315.10	1338.69	G3	K / K	JW / aqp
262	METT-33	8/30/01 8/31/01	1030 1029	2.50	2.25	OK	OK	2161.01	2185.02	E3	K / K	JW / aqp

APPENDIX VI

Pesticide Ambient Sampling Procedures for Adsorbent Tubes

Pesticide Ambient Sampling Procedures
For Adsorbent Tubes

Overview:

-Collect samples for 24 hour periods; Four sampling periods per week per site; Five sampling sites plus an urban background site (e.g., ARB Bakersfield station).

-Collect a collocated sample from each site on the second or third sampling period per week.

-Submit 1 trip blank per week, per cartridge type.

-With the trip blank there normally will be 31 samples shipped per week, per cartridge type.

-4 field spikes will be run at the ARB site (time collocated exactly with the ambient sample. The field spikes will be distributed over the monitoring period (e.g., 1 per week every other week). A trip spike will also accompany each field spike. These field and trip spikes will be logged in and shipped along with the regular samples. The field and trip spikes will be kept on dry ice during transport to and storage in the field.

-All samples are stored either in an ice-chest on dry ice or in a freezer.

-The field log sheet is filled out as the sampling is conducted. The originals stay in the field binder. Please include a copy with sample shipments. All QA samples must be logged onto the log sheet.

-The chain of custody (COC) forms are filled out prior to sample shipment; the originals are shipped with the samples; make and retain copies if desired (not necessary).

-(Disregard if samples are driven back to Sacramento) The samples are shipped by UPS, next day delivery, to 13th and T. This is normally done each Monday. The original chain of custody sheets must accompany the samples. The samples are shipped on 5 pounds of dry ice. Review the COCs and log sheet to insure that all documentation is correct and that the appropriate QA samples have been included.

Sampling Procedure:

Materials that will be needed on the roof to conduct the sampling include:

- -Clip board with log sheets
- -pencils/pens
- -sample labels
- -sample cartridges
- -end caps
- -plastic test tubes
- -0 to 100 ccpm mass flow meter (MFM) with battery
- -0 to 5 Lpm mass flow meter (MFM) with battery

Figure out your route for sampling the six locations and try to keep this the same throughout the study. In general, try to make each sampling period 24 hours; e.g., if start time is 11:10 then end time should be 11:10. (round off to the nearest 5 minutes.) The sample period may not always be exactly 24 hours; but that is the target time frame.

Preparation and Set-up

On the way to the first site, plug the MFMs into the batteries. It takes the MFMs about 10 minutes to warm up before they can be used. Leave the MFMs plugged in until the last sample for the day is taken; then unplug for the night to minimize drop in battery charge. Recharge the batteries once per week to be on the safe side.

Upon arrival at the site, check in if needed. Fill out the sample labels for that site. I suggest a backpack and/or fannypacks to carry the stuff to the roof.

Securely attach one adsorbent sample cartridge to the sampling tree. MAKE SURE THE ARROW ON THE CARTRIDGE IS POINTING TOWARDS THE SAMPLE LINE.

Set the rotameter roughly to the appropriate flow rate. Perform the leak check on each sample line by placing a plastic tube cap over the inlet of the cartridge (with the pump on). The rotameter ball should fall to zero. The leak check should be performed before setting the flows with the MFMs.

Using the MFMs set the flow rates exactly to 2.5 Lpm, 90 ccpm and 75 ccpm for the different cartridges.

Make sure that the rain/sun cover is pulled down over the sample tube.

Fill out the log sheet, including: log #, start date, time, start counter reading, leak check OK, any comments and the weather conditions.

Sample collection and Shipment

Measure (do not re-set) the flow rates at the end of the sampling period with the MFMs; leak check the sample lines; record the end data on the log sheet.

Remove the sample cartridge and cap the ends. Attach the sample label like a flag on the secondary end of the tube. Make sure that the label does not cover the glass wool separating the primary and secondary beds in the cartridge.

Place the cartridge in the plastic test tube shipping container.

Place all the samples for each day (6) in a zip-lock bag and place on dry ice in a cooler or in a freezer. While driving the route the collected samples need to be kept on dry ice.

Collect the collocated (duplicate) samples from each site on the second or third sampling period per week. These should be started and stopped at the same times as the regular samples.

Collect a trip blank (TB) for each method, once per week, while at one of the field sites. It doesn't matter which site (or which day) but note it in the comment section of the log sheet. The TB is collected by breaking the ends off of a tube, capping and labeling as usual and storing along with the rest of the samples. Log the TB into the log sheet.

APPENDIX VII

Adsorbent Tube Sampling Field Log Sheet

SAMPLE FIELD LOG SHEET

Project: MITC Ambient Air Monitoring

Project # : P-01-004

Log #	Sample ID	Date On/Off	Time On/Off	Start Flow ( )	End Flow ( )	Start Leak Check	End Leak Check	Start Count	End Count	Comments	Weather k = clear p = partly c = cloudy r = rain	Initials

AIR RESOURCES BOARD
MLD/ELB/SPM

APPENDIX VIII

1,3-Dichloropropene Cartridge Results
in Kern County – Summer 2001

1,3-Dichloropropene Cartridge Results
in Kern County – Summer 2001

1. Summary

At the request of the California Department of Pesticide Regulation (DPR), the Air Resources Board (ARB) staff determined the airborne concentration of 1,3-dichloropropene in Kern County from June 30 through August 31, 2001. The monitoring was conducted using two sampling media: SilcoCan canister and coconut based charcoal cartridge. The canister results should be considered as the "official" results for the monitoring study and have been reported separately. The cartridge results reported in this Appendix are reported for comparison with the canister results.

2. 1,3-Dichloropropene Cartridge Results

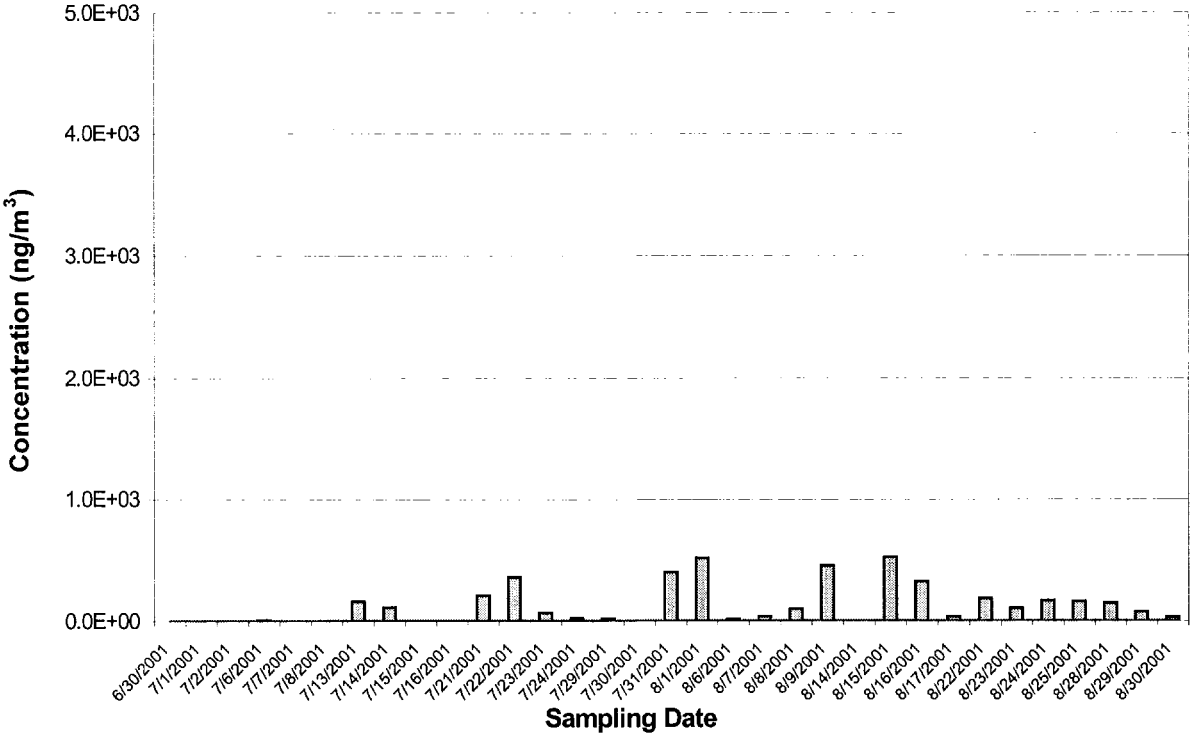
The 1,3-dichloropropene results were reported separately for the cis and trans isomers and also as total (cis + trans) 1,3-dichloropropene. Only values equal to or greater than the estimated quantitation limit (EQL) for the cis and trans isomers were used to calculate the total 1,3- dichloropropene. Table 1 presents the results of ambient air monitoring for 1,3-dichloropropene in units of nanograms per cubic meter of sampled air (ng/m^3) and parts per trillion by volume (pptv). Summaries of the ambient results for total 1,3-dichloropropene are presented in Table 2 and bar graphs (pages 2 through 4). The monitoring period included 198 individual sampling periods (6 sites x 33 sampling days).

The equation used to convert 1,3-dichloropropene (total) air concentration results from units of ng/m^3 to units of pptv at 1 atmosphere and 25°C is shown below:

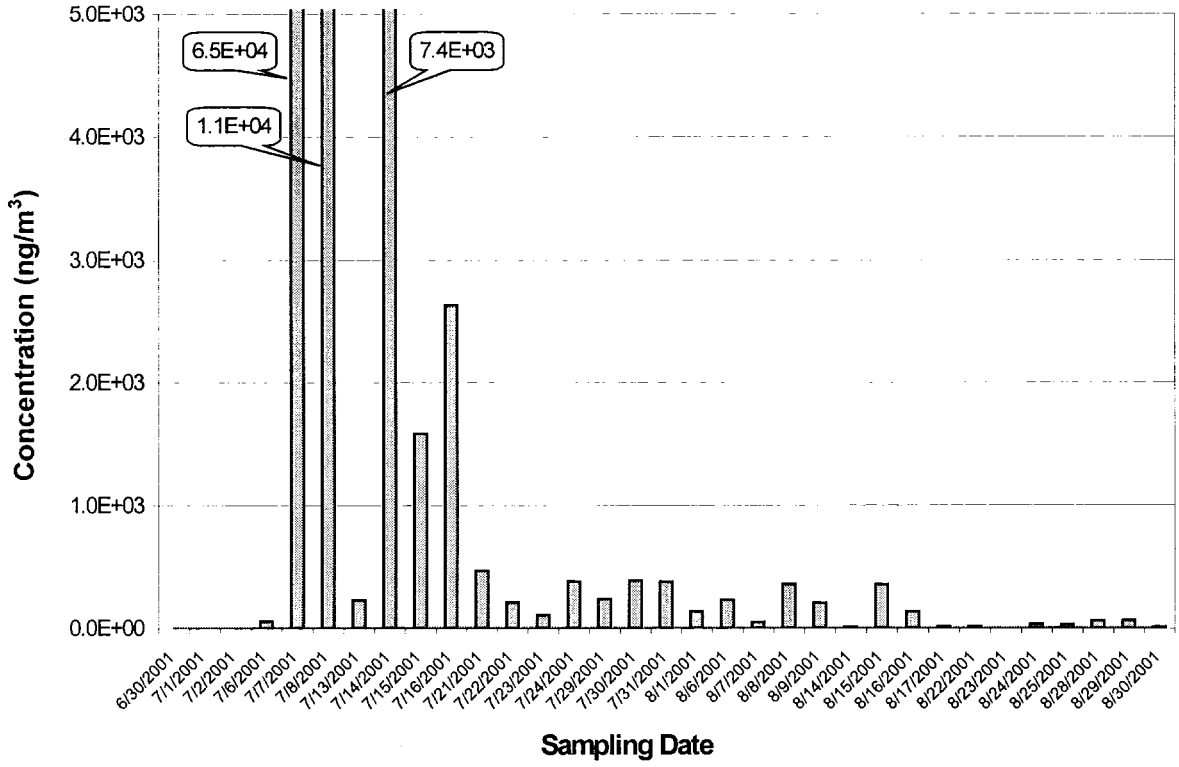
$$pptv = (ng/m^3) \times \frac{(0.0820575 \text{ liter-atm/mole-°K})(298°K)}{(1 \text{ atm})(111.0 \text{ gram/mole})} = (0.2203) \times (ng/m^3)$$

Of the 198 ambient samples collected (spikes, blanks, and the lower value of each collocated pair excluded), 151 were found to be above the EQL of 4.3 ng/m^3 (per isomer), 17 were found to have results of "detected", 29 were below the method detection limit (MDL), 1 was invalid due to the sampling flow rate outside the control limit. Daily concentration of total 1,3-dichloropropene ranged from <MDL to 65,000 ng/m^3 (14,000 pptv). The highest concentration, 65,000 ng/m^3 (14,000 pptv), was observed at the Arvin High School (ARV) sampling site on July 7, 2001. Eight-week average concentrations ranged from 110 ng/m^3 (24 pptv) to 2800 ng/m^3 (6220 pptv). The highest average was also measured at the ARV site.

Total 1,3-Dichloropropene Results (Cartridge) at the ARB Site

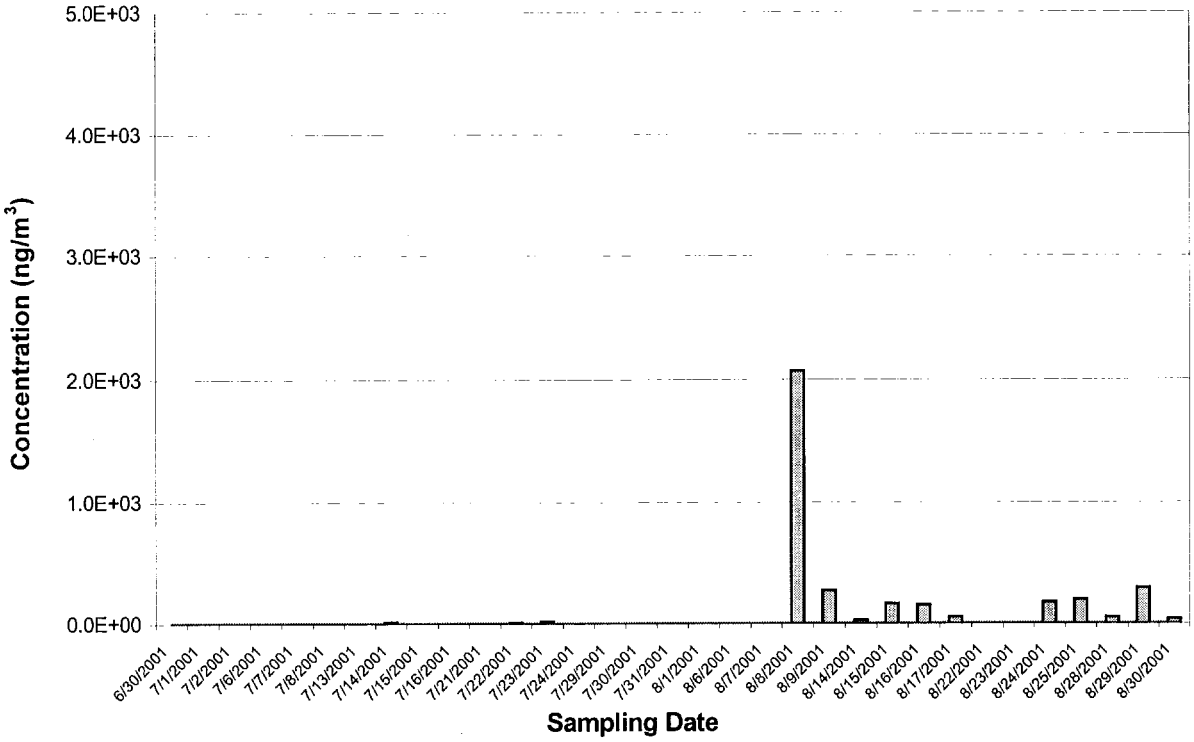


Total 1,3-Dichloropropene Results (Cartridge) at the ARV Site

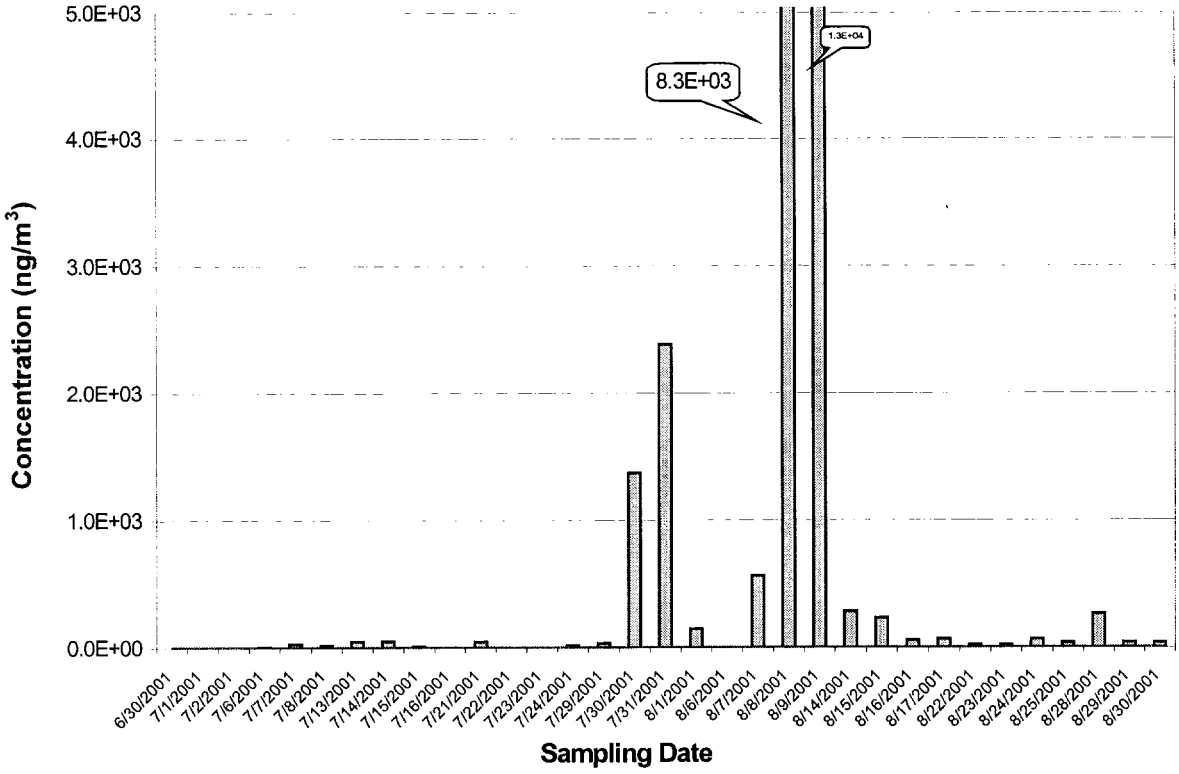


8

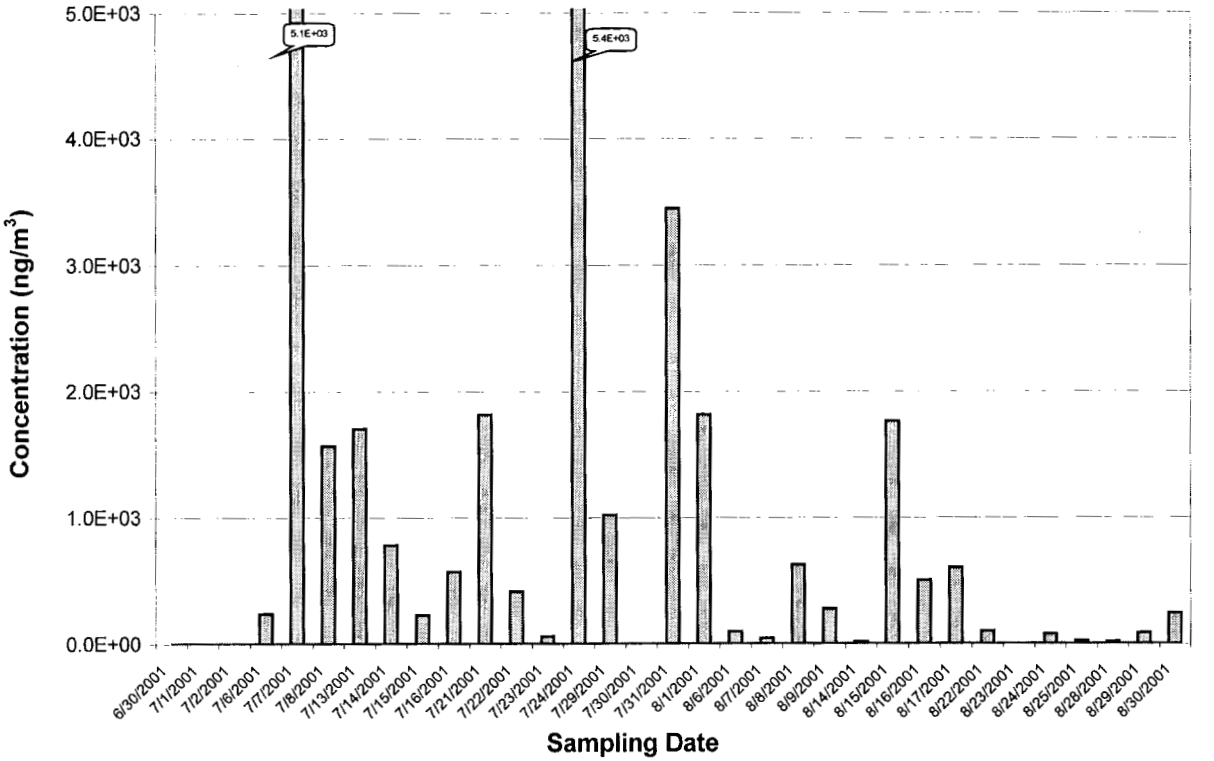
Total 1,3-Dichloropropene Results (Cartridge) at the CRS Site



Total 1,3-Dichloropropene Results (Cartridge) at the MET Site



Total 1,3-Dichloropropene Results (Cartridge) at the MVS Site



Total 1,3-Dichloropropene Results (Cartridge) at the VSD Site

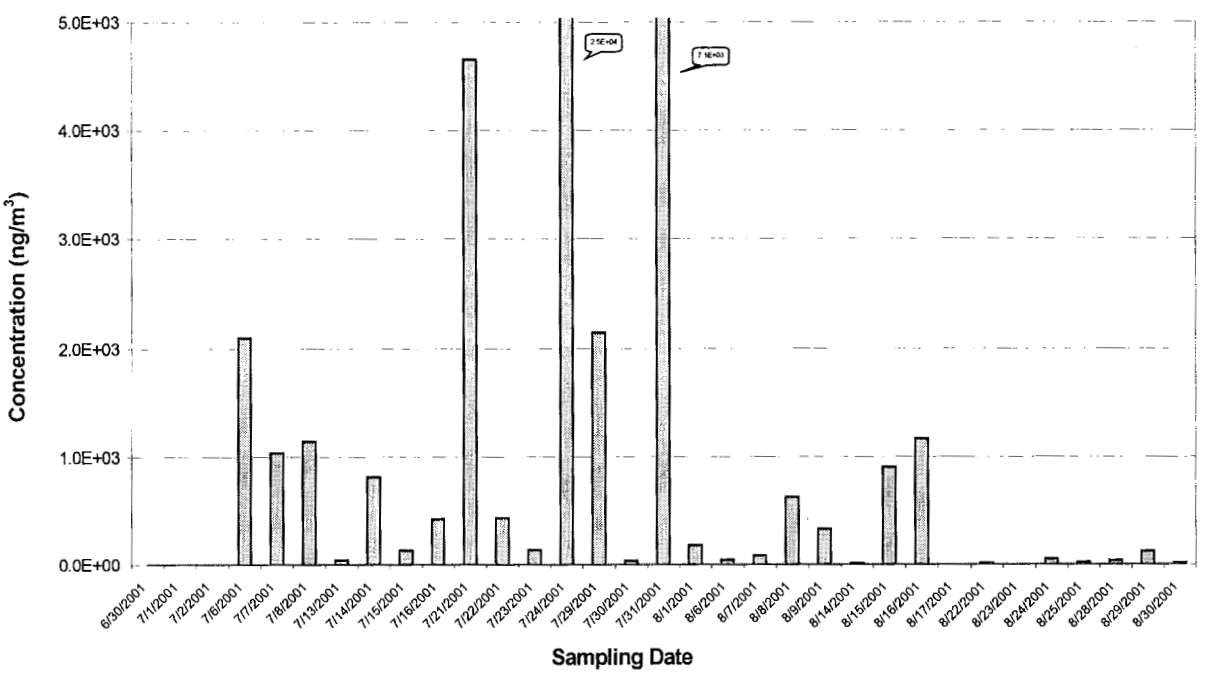


Table 1. 1,3-Dichloropropene Ambient Monitoring Results (Cartridge) for Kern County 2001

Log #	Sample ID	Start Date/Time	End Date/Time	Time (min)	Time (hours)	Volume (m^3)	cis-1,3-DCP (ng/sample)	trans-1,3-DCP (ng/sample)	Total 1,3-Dichloropropene (ng/sample)	Total 1,3-Dichloropropene (ng/m^3)	Total 1,3-Dichloropropene *(pptv)
1	ARBT1	06/30/01 0655	07/01/01 0658	1443	24.0	3.61	<MDL	<MDL	<MDL	<MDL	<MDL
2	CRST1	06/30/01 0756	07/01/01 0846	1490	24.8	3.72	<MDL	<MDL	<MDL	<MDL	<MDL
3	MVST1	06/30/01 0858	07/01/01 1000	1502	25.0	3.75	<MDL	<MDL	<MDL	<MDL	<MDL
4	VSDT1	06/30/01 1007	07/01/01 1044	1477	24.6	3.69	<MDL	<MDL	<MDL	<MDL	<MDL
5	ARVT1	06/30/01 1041	07/01/01 1124	1483	24.7	3.71	<MDL	<MDL	<MDL	<MDL	<MDL
6	METT1	06/30/01 1141	07/01/01 1211	1470	24.5	3.68	<MDL	<MDL	<MDL	<MDL	<MDL
7	ARBT2	07/01/01 0702	07/02/01 0640	1418	23.6	3.55	<MDL	<MDL	<MDL	<MDL	<MDL
8	CRST2	07/01/01 0851	07/02/01 0802	1391	23.2	3.48	<MDL	<MDL	<MDL	<MDL	<MDL
9	MVST2	07/01/01 0959	07/02/01 0926	1407	23.4	3.94	<MDL	<MDL	<MDL	<MDL	<MDL
10	VSDT2	07/01/01 1047	07/02/01 1029	1422	23.7	3.55	<MDL	<MDL	<MDL	<MDL	<MDL
11	ARVT2	07/01/01 1126	07/02/01 1129	1443	24.0	3.61	<MDL	<MDL	<MDL	<MDL	<MDL
12	METT2	07/01/01 1214	07/02/01 1234	1460	24.3	3.65	<MDL	<MDL	<MDL	<MDL	<MDL
13	ARBT3	07/02/01 0644	07/03/01 0653	1449	24.2	3.62	<MDL	<MDL	<MDL	<MDL	<MDL
14	ARBT3-C	07/02/01 0657	07/03/01 0709	1452	24.2	3.63	<MDL	<MDL	<MDL	<MDL	<MDL
15	CRST3	07/02/01 0806	07/03/01 0812	1446	24.1	3.61	<MDL	<MDL	<MDL	<MDL	<MDL
16	CRST3-C	07/02/01 0816	07/03/01 0829	1453	24.2	3.63	<MDL	<MDL	<MDL	<MDL	<MDL
17	MVST3	07/02/01 0931	07/03/01 0926	1435	23.9	3.59	<MDL	<MDL	<MDL	<MDL	<MDL
18	MVST3-C	07/02/01 0947	07/03/01 0939	1432	23.9	3.94	<MDL	<MDL	<MDL	<MDL	<MDL
19	VSDT3	07/02/01 1033	07/03/01 1015	1422	23.7	3.56	<MDL	<MDL	<MDL	<MDL	<MDL
20	VSDT3-C	07/02/01 1047	07/03/01 1029	1422	23.7	3.55	<MDL	<MDL	<MDL	<MDL	<MDL
21	ARVT3	07/02/01 1132	07/03/01 1056	1404	23.4	3.51	<MDL	<MDL	<MDL	<MDL	<MDL
22	ARVT3-C	07/02/01 1143	07/03/01 1106	1403	23.4	3.51	<MDL	<MDL	<MDL	<MDL	<MDL
23	METT3	07/02/01 1237	07/03/01 1149	1392	23.2	3.48	<MDL	<MDL	<MDL	<MDL	<MDL
24	METT3-C	07/02/01 1244	07/03/01 1206	1402	23.4	Inv	NA	NA	NA	NA	NA
26	ARBT4	07/06/01 0702	07/07/01 0643	1421	23.7	3.55	2.57E+01	1.52E+01	4.10E+01	1.2E+01	2.5E+00
28	CRST4	07/06/01 0820	07/07/01 0819	1439	24.0	3.60	DET	DET	DET	DET	DET
29	MVST4	07/06/01 0930	07/07/01 0949	1459	24.3	3.65	5.96E+02	2.94E+02	8.89E+02	2.4E+02	5.4E+01
30	VSDT4	07/06/01 1007	07/07/01 1034	1467	24.5	3.67	5.13E+03	2.59E+03	7.73E+03	2.1E+03	4.6E+02
31	ARVT4	07/06/01 1054	07/07/01 1115	1461	24.3	3.65	1.28E+02	8.70E+01	2.15E+02	5.9E+01	1.3E+01
32	METT4	07/06/01 1147	07/07/01 1212	1465	24.4	3.66	1.83E+01	1.77E+01	3.60E+01	9.8E+00	2.2E+00
33	ARBT5	07/07/01 0646	07/08/01 0632	1426	23.8	3.56	<MDL	<MDL	<MDL	<MDL	<MDL
34	ARBT5-C	07/07/01 0711	07/08/01 0646	1415	23.6	3.54	<MDL	<MDL	<MDL	<MDL	<MDL
35	CRST5	07/07/01 0823	07/08/01 0737	1394	23.2	3.48	<MDL	<MDL	<MDL	<MDL	<MDL
36	CRST5-C	07/07/01 0836	07/08/01 0752	1396	23.3	3.49	<MDL	<MDL	<MDL	<MDL	<MDL
37	MVST5	07/07/01 0951	07/08/01 0904	1393	23.2	3.48	1.09E+04	6.71E+03	1.76E+04	5.1E+03	1.1E+03
38	MVST5-C	07/07/01 0958	07/08/01 0924	1406	23.4	3.52	7.23E+03	4.55E+03	1.18E+04	3.4E+03	7.4E+02

MDL=3.0 ng/sample for each 1,3-dichloropropene isomer

DET=Value was below the EQL of 15 ng/sample but ≥ MDL

*pptv at 1 atm and 25^{0}C

Inv=Invalid sample due to the sampling flow rate outside the control limit.

NA=Not applicable

Table 1. 1,3-Dichloropropene Ambient Monitoring Results (Cartridge) for Kern County 2001

Log #	Sample ID	Start Date/Time	End Date/Time	Time (min)	Time (hours)	Volume (m^3)	cis-1,3-DCP (ng/sample)	trans-1,3-DCP (ng/sample)	Total 1,3-Dichloropropene (ng/sample)	(ng/m^3)	*(pptv)
39	VSDT5	07/07/01 1038	07/08/01 1002	1404	23.4	3.51	2.38E+03	1.28E+03	3.66E+03	1.0E+03	2.3E+02
40	VSDT5-C	07/07/01 1034	07/08/01 1020	1426	23.8	3.56	2.29E+03	1.21E+03	3.50E+03	9.8E+02	2.2E+02
41	ARVT5	07/07/01 1119	07/08/01 1058	1419	23.6	3.55	1.17E+05	6.35E+04	1.80E+05	5.1E+04	1.1E+04
42	ARVT5-C	07/07/01 1119	07/08/01 1112	1433	23.9	3.58	1.49E+05	8.34E+04	2.33E+05	6.5E+04	1.4E+04
43	METT5	07/07/01 1225	07/08/01 1201	1416	23.6	3.54	4.28E+01	6.47E+01	1.07E+02	3.0E+01	6.7E+00
44	METT5-C	07/07/01 1239	07/08/01 1214	1415	23.6	3.54	4.12E+01	6.37E+01	1.05E+02	3.0E+01	6.5E+00
47	ARBT6	07/08/01 0634	07/09/01 0617	1423	23.7	3.56	<MDL	<MDL	<MDL	<MDL	<MDL
48	CRST6	07/08/01 0740	07/09/01 0707	1407	23.4	3.52	<MDL	<MDL	<MDL	<MDL	<MDL
49	MVST6	07/08/01 0907	07/09/01 0910	1443	24.0	3.61	3.08E+03	2.58E+03	5.66E+03	1.6E+03	3.5E+02
50	VSDT6	07/08/01 1005	07/09/01 0906	1381	23.0	3.45	2.28E+03	1.69E+03	3.97E+03	1.1E+03	2.5E+02
51	ARVT6	07/08/01 1100	07/09/01 1001	1381	23.0	3.45	2.12E+04	1.58E+04	3.69E+04	1.1E+04	2.4E+03
52	METT6	07/08/01 1204	07/09/01 1105	1381	23.0	3.45	3.57E+01	2.78E+01	6.35E+01	1.8E+01	4.1E+00
53	ARBT7	07/13/01 0648	07/14/01 0606	1398	23.3	3.49	3.30E+02	2.47E+02	5.78E+02	1.7E+02	3.6E+01
55	CRST7	07/13/01 0759	07/14/01 0712	1393	23.2	3.48	<MDL	<MDL	<MDL	<MDL	<MDL
56	MVST7	07/13/01 0900	07/14/01 0821	1401	23.3	3.50	3.18E+03	2.79E+03	5.97E+03	1.7E+03	3.8E+02
57	VSDT7	07/13/01 0946	07/14/01 0908	1402	23.4	3.51	7.11E+01	1.01E+02	1.72E+02	4.9E+01	1.1E+01
58	ARVT7	07/13/01 1033	07/14/01 0949	1396	23.3	3.49	4.03E+02	4.01E+02	8.04E+02	2.3E+02	5.1E+01
59	METT7	07/13/01 1213	07/14/01 1117	1384	23.1	3.46	8.28E+01	9.75E+01	1.80E+02	5.2E+01	1.1E+01
60	ARBT8	07/14/01 0615	07/15/01 0615	1440	24.0	3.60	2.64E+02	1.61E+02	4.24E+02	1.2E+02	2.6E+01
61	ARBT8-C	07/14/01 0623	07/15/01 0624	1441	24.0	3.60	2.59E+02	1.58E+02	4.17E+02	1.2E+02	2.6E+01
62	CRST8	07/14/01 0716	07/15/01 0718	1442	24.0	3.61	3.84E+01	1.85E+01	5.69E+01	1.6E+01	3.5E+00
63	CRST8-C	07/14/01 0727	07/15/01 0733	1446	24.1	3.61	3.66E+01	1.70E+01	5.36E+01	1.5E+01	3.3E+00
64	MVST8	07/14/01 0828	07/15/01 0835	1447	24.1	3.62	1.62E+03	1.22E+03	2.84E+03	7.9E+02	1.7E+02
65	MVST8-C	07/14/01 0836	07/15/01 0847	1451	24.2	3.63	1.61E+03	1.19E+03	2.80E+03	7.7E+02	1.7E+02
66	VSDT8	07/14/01 0913	07/15/01 0927	1454	24.2	3.64	1.64E+03	9.15E+02	2.55E+03	7.0E+02	1.5E+02
67	VSDT8-C	07/14/01 0918	07/15/01 0938	1460	24.3	3.65	1.91E+03	1.07E+03	2.99E+03	8.2E+02	1.8E+02
68	ARVT8	07/14/01 0957	07/15/01 1014	1457	24.3	3.64	1.38E+04	8.07E+03	2.19E+04	6.0E+03	1.3E+03
69	ARVT8-C	07/14/01 1004	07/15/01 1022	1458	24.3	3.64	1.71E+04	9.93E+03	2.70E+04	7.4E+03	1.6E+03
70	METT8	07/14/01 1124	07/15/01 1114	1430	23.8	Inv	NA	NA	NA	NA	NA
71	METT8-C	07/14/01 1132	07/15/01 1128	1436	23.9	3.59	8.93E+01	9.92E+01	1.89E+02	5.3E+01	1.2E+01
72	ARBT9	07/15/01 0634	07/16/01 0623	1429	23.8	3.57	DET	DET	DET	DET	DET
73	CRST9	07/15/01 0740	07/16/01 0724	1424	23.7	3.56	DET	DET	DET	DET	DET
74	MVST9	07/15/01 0856	07/16/01 0832	1416	23.6	3.54	4.56E+02	3.63E+02	8.19E+02	2.3E+02	5.1E+01
75	VSDT9	07/15/01 0945	07/16/01 0914	1409	23.5	3.52	2.70E+02	2.07E+02	4.77E+02	1.4E+02	3.0E+01
76	ARVT9	07/15/01 1027	07/16/01 0952	1405	23.4	3.51	3.27E+03	2.30E+03	5.57E+03	1.6E+03	3.5E+02
77	METT9	07/15/01 1135	07/16/01 1047	1392	23.2	3.48	1.88E+01	2.35E+01	4.23E+01	1.2E+01	2.7E+00

MDL=3.0 ng/sample for each 1,3-dichloropropene isomer

DET=Value was below the EQL of 15 ng/sample but $\geq$ MDL

Inv=Invalid sample due to the sampling flow rate outside the control limit.

NA=Not applicable

*pptv at 1 atm and 25^0C

Table 1. 1,3-Dichloropropene Ambient Monitoring Results (Cartridge) for Kern County 2001

Log #	Sample ID	Start Date/Time	End Date/Time	Time (min)	Time (hours)	Volume (m^3)	cis-1,3-DCP (ng/sample)	trans-1,3-DCP (ng/sample)	Total 1,3-Dichloropropene (ng/sample)	(ng/m^3)	*(pptv)
78	ARBT10	07/16/01 0633	07/17/01 0635	1442	24.0	3.60	<MDL	<MDL	<MDL	<MDL	<MDL
79	CRST10	07/16/01 0737	07/17/01 0723	1426	23.8	3.56	<MDL	<MDL	<MDL	<MDL	<MDL
80	MVST10	07/16/01 0841	07/17/01 0827	1426	23.8	3.56	1.16E+03	9.06E+02	2.07E+03	5.8E+02	1.3E+02
81	VSDT10	07/16/01 0922	07/17/01 0854	1412	23.5	3.53	9.48E+02	5.70E+02	1.52E+03	4.3E+02	9.5E+01
82	ARVT10	07/16/01 1002	07/17/01 0926	1404	23.4	3.51	5.08E+03	4.17E+03	9.25E+03	2.6E+03	5.8E+02
83	METT10	07/16/01 1059	07/17/01 1003	1384	23.1	3.46	DET	DET	DET	DET	DET
84	ARBT11	07/21/01 0630	07/22/01 0621	1431	23.8	3.58	4.01E+02	3.55E+02	7.57E+02	2.1E+02	4.7E+01
86	CRST11	07/21/01 0729	07/22/01 0724	1435	23.9	3.59	<MDL	<MDL	<MDL	<MDL	<MDL
87	MVST11	07/21/01 0825	07/22/01 0833	1448	24.1	3.62	3.44E+03	3.14E+03	6.59E+03	1.8E+03	4.0E+02
88	VSDT11	07/21/01 0852	07/22/01 0833	1421	23.7	3.55	8.62E+03	7.92E+03	1.65E+04	4.7E+03	1.0E+03
89	ARVT11	07/21/01 0921	07/22/01 0946	1465	24.4	3.66	8.78E+02	8.50E+02	1.73E+03	4.7E+02	1.0E+02
90	METT11	07/21/01 1009	07/22/01 1039	1470	24.5	3.67	9.57E+01	8.25E+01	1.78E+02	4.8E+01	1.1E+01
93	ARBT12	07/22/01 0624	07/23/01 0622	1438	24.0	3.59	6.86E+02	6.15E+02	1.30E+03	3.6E+02	8.0E+01
94	CRST12	07/22/01 0727	07/23/01 0727	1440	24.0	3.60	2.25E+01	2.70E+01	4.95E+01	1.4E+01	3.0E+00
95	MVST12	07/22/01 0835	07/23/01 0830	1435	23.9	3.59	6.85E+02	8.21E+02	1.51E+03	4.2E+02	9.2E+01
96	VSDT12	07/22/01 0916	07/23/01 0905	1429	23.8	3.57	6.53E+02	9.14E+02	1.57E+03	4.4E+02	9.7E+01
97	ARVT12	07/22/01 0949	07/23/01 0940	1431	23.9	3.58	3.74E+02	3.98E+02	7.72E+02	2.2E+02	4.8E+01
98	METT12	07/22/01 1041	07/23/01 1030	1429	23.8	3.57	DET	DET	DET	DET	DET
99	ARBT13	07/23/01 0625	07/24/01 0617	1432	23.9	3.58	1.10E+02	1.35E+02	2.45E+02	6.8E+01	1.5E+01
100	ARBT13-C	07/23/01 0625	07/24/01 0624	1439	24.0	3.60	1.03E+02	1.29E+02	2.31E+02	6.4E+01	1.4E+01
101	CRST13	07/23/01 0729	07/24/01 0717	1428	23.8	3.57	3.41E+01	3.75E+01	7.16E+01	2.0E+01	4.4E+00
102	CRST13-C	07/23/01 0731	07/24/01 0726	1435	23.9	3.59	3.22E+01	3.45E+01	6.67E+01	1.9E+01	4.1E+00
103	MVST13	07/23/01 0836	07/24/01 0832	1436	23.9	3.59	1.11E+02	1.14E+02	2.25E+02	6.3E+01	1.4E+01
104	MVST13-C	07/23/01 0838	07/24/01 0840	1442	24.0	3.60	1.05E+02	1.07E+02	2.12E+02	5.9E+01	1.3E+01
105	VSDT13	07/23/01 0910	07/24/01 0908	1438	24.0	3.60	2.34E+02	2.73E+02	5.07E+02	1.4E+02	3.1E+01
106	VSDT13-C	07/23/01 0914	07/24/01 0916	1442	24.0	3.60	2.26E+02	2.64E+02	4.90E+02	1.4E+02	3.0E+01
107	ARVT13	07/23/01 0949	07/24/01 0946	1437	24.0	3.59	1.83E+02	2.15E+02	3.98E+02	1.1E+02	2.4E+01
108	ARVT13-C	07/23/01 0951	07/24/01 0955	1444	24.1	3.61	1.82E+02	2.12E+02	3.94E+02	1.1E+02	2.4E+01
109	METT13	07/23/01 1038	07/24/01 1037	1439	24.0	3.60	DET	DET	DET	DET	DET
110	METT13-C	07/23/01 1042	07/24/01 1047	1445	24.1	3.61	DET	DET	DET	DET	DET
111	ARBT14	07/24/01 0621	07/25/01 0620	1439	24.0	3.60	5.21E+01	4.20E+01	9.41E+01	2.6E+01	5.8E+00
112	CRST14	07/24/01 0723	07/25/01 0701	1418	23.6	3.55	<MDL	<MDL	<MDL	<MDL	<MDL
113	MVST14	07/24/01 0834	07/25/01 0750	1396	23.3	3.49	1.12E+04	7.85E+03	1.90E+04	5.4E+03	1.2E+03
114	VSDT14	07/24/01 0910	07/25/01 0829	1399	23.3	3.50	5.13E+04	3.59E+04	8.72E+04	2.5E+04	5.5E+03
115	ARVT14	07/24/01 0945	07/25/01 0850	1385	23.1	3.46	7.65E+02	5.75E+02	1.34E+03	3.9E+02	8.5E+01
116	METT14	07/24/01 1040	07/25/01 0940	1380	23.0	3.45	3.62E+01	2.52E+01	6.13E+01	1.8E+01	3.9E+00

MDL=3.0 ng/sample for each 1,3-dichloropropene isomer

Inv=Invalid sample due to the sampling flow rate outside the control limit.

DET=Value was below the EQL of 15 ng/sample but ≥ MDL

NA=Not applicable

*pptv at 1 atm and 25^{0}C

Table 1. 1,3-Dichloropropene Ambient Monitoring Results (Cartridge) for Kern County 2001

Log #	Sample ID	Start Date/Time	End Date/Time	Time (min)	Time (hours)	Volume (m^3)	cis-1,3-DCP (ng/sample)	trans-1,3-DCP (ng/sample)	Total 1,3-Dichloropropene (ng/sample)	(ng/m^3)	*(pptv)
117	ARBT15	07/29/01 0703	07/30/01 0619	1396	23.3	3.49	3.80E+01	2.46E+01	6.26E+01	1.8E+01	4.0E+00
118	CRST15	07/29/01 0752	07/30/01 0729	1417	23.6	3.54	1.63E+01	DET	1.63E+01	4.6E+00	1.0E+00
119	MVST15	07/29/01 0856	07/30/01 0842	1426	23.8	3.57	1.79E+03	1.87E+03	3.65E+03	1.0E+03	2.3E+02
120	VSDT15	07/29/01 0934	07/30/01 0924	1430	23.8	3.58	3.79E+03	3.90E+03	7.69E+03	2.2E+03	4.7E+02
121	ARVT15	07/29/01 1010	07/30/01 1002	1432	23.9	3.58	4.33E+02	4.29E+02	8.62E+02	2.4E+02	5.3E+01
122	METT15	07/29/01 1105	07/30/01 1100	1435	23.9	3.59	6.48E+01	6.17E+01	1.27E+02	3.5E+01	7.8E+00
124	ARBT16	07/30/01 0630	07/31/01 0614	1424	23.7	3.56	DET	<MDL	DET	DET	DET
125	ARBT16-C	07/30/01 0636	07/31/01 0624	1428	23.8	3.57	DET	<MDL	DET	DET	DET
126	CRST16	07/30/01 0740	07/31/01 0720	1420	23.7	3.55	DET	<MDL	DET	DET	DET
127	CRST16-C	07/30/01 0748	07/31/01 0727	1419	23.7	3.55	DET	DET	DET	DET	DET
128	MVST16	07/30/01 0852	07/31/01 0839	1427	23.8	3.57	DET	DET	DET	DET	DET
129	MVST16-C	07/30/01 0857	07/31/01 0846	1429	23.8	3.57	DET	DET	DET	DET	DET
130	VSDT16	07/30/01 0930	07/31/01 0928	1438	24.0	3.59	8.68E+01	5.56E+01	1.42E+02	4.0E+01	8.7E+00
131	VSDT16-C	07/30/01 0935	07/31/01 0935	1440	24.0	3.60	8.99E+01	5.60E+01	1.46E+02	4.1E+01	8.9E+00
132	ARVT16	07/30/01 1010	07/31/01 1007	1437	24.0	3.59	7.92E+02	6.11E+02	1.40E+03	3.9E+02	8.6E+01
133	ARVT16-C	07/30/01 1016	07/31/01 1015	1439	24.0	3.60	7.97E+02	6.11E+02	1.41E+03	3.9E+02	8.6E+01
134	METT16	07/30/01 1108	07/31/01 1103	1435	23.9	3.59	2.18E+03	1.72E+03	3.90E+03	1.1E+03	2.4E+02
135	METT16-C	07/30/01 1115	07/31/01 1109	1434	23.9	3.59	2.78E+03	2.13E+03	4.90E+03	1.4E+03	3.0E+02
136	ARBT17	07/31/01 0631	08/01/01 0629	1438	24.0	3.60	7.82E+02	6.78E+02	1.46E+03	4.1E+02	8.9E+01
137	CRST17	07/31/01 0735	08/01/01 0728	1433	23.9	3.58	<MDL	<MDL	<MDL	<MDL	<MDL
138	MVST17	07/31/01 0852	08/01/01 0828	1416	23.6	3.54	6.55E+03	5.68E+03	1.22E+04	3.5E+03	7.6E+02
139	VSDT17	07/31/01 0941	08/01/01 0901	1400	23.3	3.50	1.31E+04	1.18E+04	2.49E+04	7.1E+03	1.6E+03
140	ARVT17	07/31/01 1023	08/01/01 0932	1389	23.2	3.47	7.20E+02	6.10E+02	1.33E+03	3.8E+02	8.4E+01
141	METT17	07/31/01 1114	08/01/01 1020	1386	23.1	3.47	4.59E+03	3.67E+03	8.26E+03	2.4E+03	5.3E+02
142	ARBT18	08/01/01 0638	08/02/01 0623	1425	23.8	3.56	1.06E+03	7.97E+02	1.86E+03	5.2E+02	1.1E+02
143	CRST18	08/01/01 0737	08/02/01 0712	1415	23.6	3.54	<MDL	<MDL	<MDL	<MDL	<MDL
144	MVST18	08/01/01 0834	08/02/01 0807	1413	23.5	3.53	3.20E+03	3.23E+03	6.43E+03	1.8E+03	4.0E+02
145	VSDT18	08/01/01 0908	08/02/01 0834	1406	23.4	3.51	3.08E+02	3.27E+02	6.35E+02	1.8E+02	4.0E+01
146	ARVT18	08/01/01 0937	08/02/01 0856	1399	23.3	3.50	2.39E+02	2.45E+02	4.84E+02	1.4E+02	3.0E+01
147	METT18	08/01/01 1029	08/02/01 0934	1385	23.1	3.46	2.46E+02	2.67E+02	5.14E+02	1.5E+02	3.3E+01
148	ARBT19	08/06/01 0623	08/07/01 0626	1443	24.0	3.61	3.02E+01	2.97E+01	5.99E+01	1.7E+01	3.7E+00
150	CRST19	08/06/01 0723	08/07/01 0732	1449	24.1	3.62	DET	<MDL	DET	DET	DET
151	MVST19	08/06/01 0821	08/07/01 0831	1450	24.2	3.63	1.69E+02	2.06E+02	3.74E+02	1.0E+02	2.3E+01
152	VSDT19	08/06/01 0844	08/07/01 0905	1461	24.3	3.65	7.71E+01	9.26E+01	1.70E+02	4.6E+01	1.0E+01
153	ARVT19	08/06/01 0916	08/07/01 0939	1463	24.4	3.66	3.69E+02	4.83E+02	8.52E+02	2.3E+02	5.1E+01
154	METT19	08/06/01 1001	08/07/01 1025	1464	24.4	3.66	DET	DET	DET	DET	DET

MDL=3.0 ng/sample for each 1,3-dichloropropene isomer

DET=Value was below the EQL of 15 ng/sample but ≥ MDL

*pptv at 1 atm and 25°C

Inv=Invalid sample due to the sampling flow rate outside the control limit.

NA=Not applicable

Table 1. 1,3-Dichloropropene Ambient Monitoring Results (Cartridge) for Kern County 2001

Log #	Sample ID	Start Date/Time	End Date/Time	Time (min)	Time (hours)	Volume (m^3)	cis-1,3-DCP (ng/sample)	trans-1,3-DCP (ng/sample)	Total 1,3-Dichloropropene (ng/sample)	(ng/m^3)	*(pptv)
155	ARBT20	08/07/01 0628	08/08/01 0620	1432	23.9	3.58	6.87E+01	6.81E+01	1.37E+02	3.8E+01	8.4E+00
156	ARBT20-C	08/07/01 0644	08/08/01 0631	1427	23.8	3.57	6.94E+01	7.40E+01	1.43E+02	4.0E+01	8.9E+00
157	CRST20	08/07/01 0733	08/08/01 0709	1416	23.6	3.54	<MDL	<MDL	<MDL	<MDL	<MDL
158	CRST20-C	08/07/01 0736	08/08/01 0731	1435	23.9	3.59	<MDL	<MDL	<MDL	<MDL	<MDL
159	MVST20	08/07/01 0834	08/08/01 0822	1428	23.8	3.57	8.06E+01	9.38E+01	1.74E+02	4.9E+01	1.1E+01
160	MVST20-C	08/07/01 0838	08/08/01 0837	1439	24.0	3.60	8.02E+01	9.21E+01	1.72E+02	4.8E+01	1.1E+01
161	VSDT20	08/07/01 0907	08/08/01 0854	1427	23.8	3.57	1.37E+02	1.72E+02	3.08E+02	8.6E+01	1.9E+01
162	VSDT20-C	08/07/01 0909	08/08/01 0909	1440	24.0	3.60	1.36E+02	1.71E+02	3.07E+02	8.5E+01	1.9E+01
163	ARVT20	08/07/01 0940	08/08/01 0930	1430	23.8	3.57	8.67E+01	9.72E+01	1.84E+02	5.1E+01	1.1E+01
164	ARVT20-C	08/07/01 0941	08/08/01 0945	1444	24.1	3.61	8.37E+01	9.63E+01	1.80E+02	5.0E+01	1.1E+01
165	METT20	08/07/01 1027	08/08/01 1027	1440	24.0	3.60	1.26E+03	6.46E+02	1.91E+03	5.3E+02	1.2E+02
166	METT20-C	08/07/01 1029	08/08/01 1037	1448	24.1	3.62	1.35E+03	6.95E+02	2.04E+03	5.6E+02	1.2E+02
168	ARBT21	08/08/01 0622	08/09/01 0626	1444	24.1	3.61	2.58E+02	1.19E+02	3.77E+02	1.0E+02	2.3E+01
169	CRST21	08/08/01 0720	08/09/01 0720	1440	24.0	3.60	4.87E+03	2.58E+03	7.45E+03	2.1E+03	4.6E+02
170	MVST21	08/08/01 0828	08/09/01 0830	1442	24.0	3.60	1.30E+03	9.63E+02	2.27E+03	6.3E+02	1.4E+02
171	VSDT21	08/08/01 0904	08/09/01 0904	1440	24.0	3.60	1.30E+03	9.73E+02	2.27E+03	6.3E+02	1.4E+02
172	ARVT21	08/08/01 0941	08/09/01 0935	1434	23.9	3.59	7.10E+02	5.84E+02	1.29E+03	3.6E+02	8.0E+01
173	METT21	08/08/01 1030	08/09/01 1020	1430	23.8	3.57	1.73E+04	1.24E+04	2.97E+04	8.3E+03	1.8E+03
174	ARBT22	08/09/01 0628	08/10/01 0617	1429	23.8	3.57	9.29E+02	7.02E+02	1.63E+03	4.6E+02	1.0E+02
175	CRST22	08/09/01 0722	08/10/01 0658	1416	23.6	3.54	5.28E+02	4.25E+02	9.52E+02	2.7E+02	5.9E+01
176	MVST22	08/09/01 0832	08/10/01 0752	1400	23.3	3.50	5.41E+02	4.39E+02	9.80E+02	2.8E+02	6.2E+01
177	VSDT22	08/09/01 0906	08/10/01 0814	1388	23.1	3.47	6.71E+02	4.91E+02	1.16E+03	3.3E+02	7.4E+01
178	ARVT22	08/09/01 0939	08/10/01 0842	1383	23.1	3.46	4.11E+02	3.16E+02	7.26E+02	2.1E+02	4.6E+01
179	METT22	08/09/01 1022	08/10/01 0923	1381	23.0	3.45	2.67E+04	1.67E+04	4.34E+04	1.3E+04	2.8E+03
180	ARBT23	08/14/01 0701	08/15/01 0627	1406	23.4	3.52	DET	DET	DET	DET	DET
181	CRST23	08/14/01 0753	08/15/01 0731	1418	23.6	3.55	4.99E+01	4.91E+01	9.90E+01	2.8E+01	6.2E+00
182	MVST23	08/14/01 0849	08/15/01 0838	1429	23.8	3.57	3.89E+01	3.42E+01	7.31E+01	2.0E+01	4.5E+00
183	VSDT23	08/14/01 0919	08/15/01 0920	1441	24.0	3.60	2.90E+01	2.61E+01	5.51E+01	1.5E+01	3.4E+00
184	ARVT23	08/14/01 0947	08/15/01 0957	1450	24.2	3.63	2.78E+01	2.03E+01	4.81E+01	1.3E+01	2.9E+00
185	METT23	08/14/01 1030	08/15/01 1052	1462	24.4	3.65	5.38E+02	5.02E+02	1.04E+03	2.8E+02	6.3E+01
187	ARBT24	08/15/01 0636	08/16/01 0626	1430	23.8	3.57	1.04E+03	6.27E+02	1.67E+03	4.7E+02	1.0E+02
188	ARBT24-C	08/15/01 0642	08/16/01 0633	1431	23.9	3.58	1.17E+03	7.15E+02	1.88E+03	5.3E+02	1.2E+02
189	CRST24	08/15/01 0739	08/16/01 0727	1428	23.8	3.57	3.42E+02	2.39E+02	5.81E+02	1.6E+02	3.6E+01
190	CRST24-C	08/15/01 0746	08/16/01 0735	1429	23.8	3.57	3.32E+02	2.45E+02	5.77E+02	1.6E+02	3.6E+01
191	MVST24	08/15/01 0846	08/16/01 0836	1430	23.8	3.57	3.59E+03	2.29E+03	5.88E+03	1.6E+03	3.6E+02
192	MVST24-C	08/15/01 0852	08/16/01 0842	1430	23.8	3.58	3.81E+03	2.50E+03	6.32E+03	1.8E+03	3.9E+02

MDL=3.0 ng/sample for each 1,3-dichloropropene isomer

DET=Value was below the EQL of 15 ng/sample but ≥ MDL

*pptv at 1 atm and 25^{0}C

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NA=Not applicable

Table 1. 1,3-Dichloropropene Ambient Monitoring Results (Cartridge) for Kern County 2001

Log #	Sample ID	Start Date/Time	End Date/Time	Time (min)	Time (hours)	Volume (m^3)	cis-1,3-DCP (ng/sample)	trans-1,3-DCP (ng/sample)	Total 1,3-Dichloropropene (ng/sample)	(ng/m^3)	*(pptv)
193	VSDT24	08/15/01 0928	08/16/01 0918	1430	23.8	3.57	1.94E+03	1.15E+03	3.09E+03	8.6E+02	1.9E+02
194	VSDT24-C	08/15/01 0934	08/16/01 0926	1432	23.9	3.58	2.02E+03	1.22E+03	3.25E+03	9.1E+02	2.0E+02
195	ARVT24	08/15/01 1005	08/16/01 0955	1430	23.8	3.57	8.27E+02	3.77E+02	1.20E+03	3.4E+02	7.4E+01
196	ARVT24-C	08/15/01 1011	08/16/01 1002	1431	23.9	3.58	8.79E+02	4.05E+02	1.28E+03	3.6E+02	7.9E+01
197	METT24	08/15/01 1058	08/16/01 1049	1431	23.9	3.58	4.19E+02	4.10E+02	8.29E+02	2.3E+02	5.1E+01
198	METT24-C	08/15/01 1104	08/16/01 1056	1432	23.9	3.58	4.22E+02	4.13E+02	8.35E+02	2.3E+02	5.1E+01
199	ARBT25	08/16/01 0640	08/17/01 0634	1434	23.9	3.58	6.59E+02	5.15E+02	1.17E+03	3.3E+02	7.2E+01
200	CRST25	08/16/01 0741	08/17/01 0730	1429	23.8	3.57	3.02E+02	2.47E+02	5.49E+02	1.5E+02	3.4E+01
201	MVST25	08/16/01 0852	08/17/01 0828	1416	23.6	3.54	1.01E+03	7.94E+02	1.80E+03	5.1E+02	1.1E+02
202	VSDT25	08/16/01 0931	08/17/01 0900	1409	23.5	3.52	2.27E+03	1.85E+03	4.13E+03	1.2E+03	2.6E+02
203	ARVT25	08/16/01 1007	08/17/01 0931	1404	23.4	3.51	2.81E+02	2.09E+02	4.90E+02	1.4E+02	3.1E+01
204	METT25	08/16/01 1102	08/17/01 1016	1394	23.2	3.48	1.06E+02	1.05E+02	2.12E+02	6.1E+01	1.3E+01
205	ARBT26	08/17/01 0645	08/18/01 0632	1427	23.8	3.57	7.35E+01	5.72E+01	1.31E+02	3.7E+01	8.1E+00
206	CRST26	08/17/01 0738	08/18/01 0718	1420	23.7	3.55	1.02E+02	8.72E+01	1.89E+02	5.3E+01	1.2E+01
207	MVST26	08/17/01 0834	08/18/01 0807	1413	23.5	3.53	1.11E+03	1.03E+03	2.14E+03	6.1E+02	1.3E+02
208	VSDT26	08/17/01 0908	08/18/01 0829	1401	23.3	3.50	DET	DET	DET	DET	DET
209	ARVT26	08/17/01 0938	08/18/01 0853	1395	23.3	3.49	3.71E+01	2.57E+01	6.28E+01	1.8E+01	4.0E+00
210	METT26	08/17/01 1023	08/18/01 0938	1395	23.3	3.49	1.20E+02	1.19E+02	2.38E+02	6.8E+01	1.5E+01
211	ARBT27	08/22/01 0632	08/23/01 0610	1418	23.6	3.55	3.54E+02	3.13E+02	6.66E+02	1.9E+02	4.1E+01
212	CRST27	08/22/01 0722	08/23/01 0718	1436	23.9	3.59	DET	DET	DET	DET	DET
213	MVST27	08/22/01 0819	08/23/01 0824	1445	24.1	3.61	2.06E+02	1.72E+02	3.78E+02	1.0E+02	2.3E+01
214	VSDT27	08/22/01 0848	08/23/01 0904	1456	24.3	3.64	3.41E+01	3.11E+01	6.52E+01	1.8E+01	3.9E+00
215	ARVT27	08/22/01 0908	08/23/01 0942	1474	24.6	3.68	3.63E+01	3.36E+01	7.00E+01	1.9E+01	4.2E+00
216	METT27	08/22/01 0953	08/23/01 1036	1483	24.7	3.71	4.24E+01	3.53E+01	7.77E+01	2.1E+01	4.6E+00
218	ARBT28	08/23/01 0623	08/24/01 0635	1452	24.2	3.63	1.98E+02	2.02E+02	4.00E+02	1.1E+02	2.4E+01
219	CRST28	08/23/01 0723	08/24/01 0723	1440	24.0	3.60	DET	<MDL	DET	DET	DET
220	MVST28	08/23/01 0828	08/24/01 0825	1437	24.0	3.59	1.59E+01	DET	1.59E+01	4.4E+00	9.8E-01
221	VSDT28	08/23/01 0910	08/24/01 0858	1428	23.8	3.57	DET	DET	DET	DET	DET
222	ARVT28	08/23/01 0951	08/24/01 0935	1424	23.7	3.56	DET	<MDL	DET	DET	DET
223	METT28	08/23/01 1045	08/24/01 1035	1430	23.8	3.57	4.84E+01	3.77E+01	8.61E+01	2.4E+01	5.3E+00
226	ARBT29	08/24/01 0624	08/25/01 0619	1435	23.9	3.59	3.83E+02	2.21E+02	6.04E+02	1.7E+02	3.7E+01
227	ARBT29-C	08/24/01 0636	08/25/01 0629	1433	23.9	3.58	3.91E+02	2.20E+02	6.11E+02	1.7E+02	3.8E+01
228	CRST29	08/24/01 0725	08/25/01 0710	1425	23.7	3.56	4.38E+02	1.41E+02	5.79E+02	1.6E+02	3.6E+01
229	CRST29-C	08/24/01 0732	08/25/01 0723	1431	23.9	3.58	4.70E+02	1.58E+02	6.29E+02	1.8E+02	3.9E+01
230	MVST29	08/24/01 0828	08/25/01 0820	1432	23.9	3.58	1.65E+02	1.15E+02	2.79E+02	7.8E+01	1.7E+01
231	MVST29-C	08/24/01 0830	08/25/01 0836	1446	24.1	3.61	1.69E+02	1.18E+02	2.87E+02	7.9E+01	1.7E+01

MDL=3.0 ng/sample for each 1,3-dichloropropene isomer

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*pptv at 1 atm and 25^{0}C

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Log #	Sample ID	Start Date/Time	End Date/Time	Time (min)	Time (hours)	Volume (m^3)	cis-1,3-DCP (ng/sample)	trans-1,3-DCP (ng/sample)	Total 1,3-Dichloropropene (ng/sample)	Total 1,3-Dichloropropene (ng/m^3)	Total 1,3-Dichloropropene *(pptv)
232	VSDT29	08/24/01 0900	08/25/01 0900	1440	24.0	3.60	1.12E+02	8.00E+01	1.92E+02	5.3E+01	1.2E+01
233	VSDT29-C	08/24/01 0903	08/25/01 0910	1447	24.1	3.62	1.16E+02	8.09E+01	1.97E+02	5.4E+01	1.2E+01
234	ARVT29	08/24/01 0936	08/25/01 0935	1439	24.0	3.60	8.28E+01	5.39E+01	1.37E+02	3.8E+01	8.4E+00
235	ARVT29-C	08/24/01 0939	08/25/01 0940	1441	24.0	3.60	8.19E+01	5.09E+01	1.33E+02	3.7E+01	8.1E+00
236	METT29	08/24/01 1036	08/25/01 1029	1433	23.9	3.58	1.63E+02	7.47E+01	2.38E+02	6.6E+01	1.5E+01
237	METT29-C	08/24/01 1039	08/25/01 1040	1441	24.0	3.60	1.56E+02	7.39E+01	2.30E+02	6.4E+01	1.4E+01
238	ARBT30	08/25/01 0620	08/26/01 0625	1445	24.1	3.61	3.74E+02	2.24E+02	5.98E+02	1.7E+02	3.6E+01
239	CRST30	08/25/01 0713	08/26/01 0710	1437	24.0	3.59	4.89E+02	2.17E+02	7.06E+02	2.0E+02	4.3E+01
240	MVST30	08/25/01 0823	08/26/01 0800	1417	23.6	3.54	6.87E+01	2.41E+01	9.28E+01	2.6E+01	5.8E+00
241	VSDT30	08/25/01 0902	08/26/01 0825	1403	23.4	3.51	6.71E+01	2.33E+01	9.03E+01	2.6E+01	5.7E+00
242	ARVT30	08/25/01 0936	08/26/01 0848	1392	23.2	3.48	8.78E+01	3.31E+01	1.21E+02	3.5E+01	7.7E+00
243	METT30	08/25/01 1032	08/26/01 0933	1381	23.0	3.45	8.83E+01	4.94E+01	1.38E+02	4.0E+01	8.8E+00
244	ARBT31	08/28/01 0619	08/29/01 0657	1478	24.6	3.69	3.08E+02	2.52E+02	5.60E+02	1.5E+02	3.3E+01
245	CRST31	08/28/01 0710	08/29/01 0750	1480	24.7	3.70	1.04E+02	8.19E+01	1.86E+02	5.0E+01	1.1E+01
246	MVST31	08/28/01 0810	08/29/01 0843	1473	24.5	3.68	4.68E+01	2.91E+01	7.59E+01	2.1E+01	4.5E+00
247	VSDT31	08/28/01 0835	08/29/01 0913	1478	24.6	3.69	1.02E+02	5.32E+01	1.55E+02	4.2E+01	9.2E+00
248	ARVT31	08/28/01 0917	08/29/01 0943	1466	24.4	3.67	1.60E+02	7.49E+01	2.34E+02	6.4E+01	1.4E+01
249	METT31	08/28/01 0958	08/29/01 1034	1476	24.6	3.69	5.02E+02	4.81E+02	9.82E+02	2.7E+02	5.9E+01
250	ARBT32	08/29/01 0701	08/30/01 0646	1425	23.8	3.56	1.54E+02	1.35E+02	2.89E+02	8.1E+01	1.8E+01
251	CRST32	08/29/01 0754	08/30/01 0740	1426	23.8	3.56	5.68E+02	4.67E+02	1.03E+03	2.9E+02	6.4E+01
252	MVST32	08/29/01 0849	08/30/01 0838	1429	23.8	3.57	1.54E+02	1.72E+02	3.26E+02	9.1E+01	2.0E+01
253	VSDT32	08/29/01 0918	08/30/01 0912	1434	23.9	3.59	2.19E+02	2.27E+02	4.46E+02	1.2E+02	2.7E+01
254	ARVT32	08/29/01 0947	08/30/01 0940	1433	23.9	3.58	1.44E+02	1.03E+02	2.47E+02	6.9E+01	1.5E+01
255	METT32	08/29/01 1039	08/30/01 1022	1423	23.7	3.56	7.71E+01	7.17E+01	1.49E+02	4.2E+01	9.2E+00
257	ARBT33	08/30/01 0653	08/31/01 0624	1411	23.5	3.53	8.04E+01	4.54E+01	1.26E+02	3.6E+01	7.9E+00
258	CRST33	08/30/01 0744	08/31/01 0711	1407	23.4	3.52	7.56E+01	6.03E+01	1.36E+02	3.9E+01	8.5E+00
259	MVST33	08/30/01 0845	08/31/01 0807	1402	23.4	3.50	5.26E+02	3.31E+02	8.57E+02	2.4E+02	5.4E+01
260	VSDT33	08/30/01 0916	08/31/01 0843	1407	23.4	3.52	3.55E+01	3.57E+01	7.12E+01	2.0E+01	4.5E+00
261	ARVT33	08/30/01 0945	08/31/01 0919	1414	23.6	3.53	2.73E+01	2.48E+01	5.21E+01	1.5E+01	3.2E+00
262	METT33	08/30/01 1030	08/31/01 1029	1439	24.0	3.60	6.86E+01	7.23E+01	1.41E+02	3.9E+01	8.6E+00

MDL=3.0 ng/sample for each 1,3-dichloropropene isomer
DET=Value was below the EQL of 15 ng/sample but ≥ MDL
*pptv at 1 atm and 25^0C

Inv=Invalid sample due to the sampling flow rate outside the control limit.
NA=Not applicable

Table 2. Summary of Total 1,3-Dichlororpropene Results (Cartridge) for Kern County 2001 (ng/m^3)

Start Date	ARB	ARV	CRS	MET	MVS	VSD
06/30/01	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
07/01/01	<MDL	<MDL	<MDL	<MDL	<MDL	<MDL
07/02/01	<MDL	<MDL	<MDL	NA	<MDL	<MDL
07/06/01	1.2E+01	5.9E+01	DET	9.8E+00	2.4E+02	2.1E+03
07/07/01	<MDL	6.5E+04	<MDL	3.0E+01	5.1E+03	1.0E+03
07/08/01	<MDL	1.1E+04	<MDL	1.8E+01	1.6E+03	1.1E+03
07/13/01	1.7E+02	2.3E+02	<MDL	5.2E+01	1.7E+03	4.9E+01
07/14/01	1.2E+02	7.4E+03	1.6E+01	5.3E+01	7.9E+02	8.2E+02
07/15/01	DET	1.6E+03	DET	1.2E+01	2.3E+02	1.4E+02
07/16/01	<MDL	2.6E+03	<MDL	DET	5.8E+02	4.3E+02
07/21/01	2.1E+02	4.7E+02	<MDL	4.8E+01	1.8E+03	4.7E+03
07/22/01	3.6E+02	2.2E+02	1.4E+01	DET	4.2E+02	4.4E+02
07/23/01	6.8E+01	1.1E+02	2.0E+01	DET	6.3E+01	1.4E+02
07/24/01	2.6E+01	3.9E+02	<MDL	1.8E+01	5.4E+03	2.5E+04
07/29/01	1.8E+01	2.4E+02	4.6E+00	3.5E+01	1.0E+03	2.2E+03
07/30/01	DET	3.9E+02	DET	1.4E+03	DET	4.1E+01
07/31/01	4.1E+02	3.8E+02	<MDL	2.4E+03	3.5E+03	7.1E+03
08/01/01	5.2E+02	1.4E+02	<MDL	1.5E+02	1.8E+03	1.8E+02
08/06/01	1.7E+01	2.3E+02	DET	DET	1.0E+02	4.6E+01
08/07/01	4.0E+01	5.1E+01	<MDL	5.6E+02	4.9E+01	8.6E+01
08/08/01	1.0E+02	3.6E+02	2.1E+03	8.3E+03	6.3E+02	6.3E+02
08/09/01	4.6E+02	2.1E+02	2.7E+02	1.3E+04	2.8E+02	3.3E+02
08/14/01	DET	1.3E+01	2.8E+01	2.8E+02	2.0E+01	1.5E+01
08/15/01	5.3E+02	3.6E+02	1.6E+02	2.3E+02	1.8E+03	9.1E+02
08/16/01	3.3E+02	1.4E+02	1.5E+02	6.1E+01	5.1E+02	1.2E+03
08/17/01	3.7E+01	1.8E+01	5.3E+01	6.8E+01	6.1E+02	DET
08/22/01	1.9E+02	1.9E+01	DET	2.1E+01	1.0E+02	1.8E+01
08/23/01	1.1E+02	DET	DET	2.4E+01	4.4E+00	DET
08/24/01	1.7E+02	3.8E+01	1.8E+02	6.6E+01	7.9E+01	5.4E+01
08/25/01	1.7E+02	3.5E+01	2.0E+02	4.0E+01	2.6E+01	2.6E+01
08/28/01	1.5E+02	6.4E+01	5.0E+01	2.7E+02	2.1E+01	4.2E+01
08/29/01	8.1E+01	6.9E+01	2.9E+02	4.2E+01	9.1E+01	1.2E+02
08/30/01	3.6E+01	1.5E+01	3.9E+01	3.9E+01	2.4E+02	2.0E+01

	ARB	ARV	CRS	MET	MVS	VSD
Maximum	**5.3E+02**	**6.5E+04**	**2.1E+03**	**1.3E+04**	**5.4E+03**	**2.5E+04**
Average	**1.3E+02**	**2.8E+03**	**1.1E+02**	**8.4E+02**	**8.7E+02**	**1.5E+03**
# Valid Sample	**33**	**33**	**33**	**32**	**33**	**33**
# >EQL	**24**	**29**	**15**	**26**	**29**	**28**
# DET	**3**	**1**	**6**	**4**	**1**	**2**
# <MDL	**6**	**3**	**12**	**2**	**3**	**3**

Only the higher value of each collocated pair was listed in the table.

<MDL results were factored in as MDL/2=0.42 ng/m^3

DET results were factored in as (EQL+MDL)/2=2.5 ng/m^3

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Table 3. Total 1,3-Dichloropropene Collocated Results (Cartridge) for Kern County 2001

Sample ID	Total-DCP (ng/m^3)	Average	Rel % D
ARBT3	<MDL		
ARBT3-C	<MDL	<MDL	NA
CRST3	<MDL		
CRST3-C	<MDL	<MDL	NA
MVST3	<MDL		
MVST3-C	<MDL	<MDL	NA
VSDT3	<MDL		
VSDT3-C	<MDL	<MDL	NA
ARVT3	<MDL		
ARVT3-C	<MDL	<MDL	NA
METT3	<MDL		
METT3-C	<MDL	<MDL	NA
ARBT5	<MDL		
ARBT5-C	<MDL	<MDL	NA
CRST5	<MDL		
CRST5-C	<MDL	<MDL	NA
MVST5	5.1E+03		
MVST5-C	3.4E+03	4.2E+03	40.5
VSDT5	1.0E+03		
VSDT5-C	9.8E+02	1.0E+03	6.1
ARVT5	5.1E+04		
ARVT5-C	6.5E+04	5.8E+04	24.4
METT5	3.0E+01		
METT5-C	3.0E+01	3.0E+01	2.4
ARBT8	1.2E+02		
ARBT8-C	1.2E+02	1.2E+02	1.8
CRST8	1.6E+01		
CRST8-C	1.5E+01	1.5E+01	6.2
MVST8	7.9E+02		
MVST8-C	7.7E+02	7.8E+02	1.8
VSDT8	7.0E+02		
VSDT8-C	8.2E+02	7.6E+02	15.2
ARVT8	6.0E+03		
ARVT8-C	7.4E+03	6.7E+03	20.7
METT8	NA		
METT8-C	5.3E+01	NA	NA
ARBT13	6.8E+01		
ARBT13-C	6.4E+01	6.6E+01	6.3
CRST13	2.0E+01		
CRST13-C	1.9E+01	1.9E+01	7.5
MVST13	6.3E+01		
MVST13-C	5.9E+01	6.1E+01	6.3
VSDT13	1.4E+02		
VSDT13-C	1.4E+02	1.4E+02	3.7
ARVT13	1.1E+02		
ARVT13-C	1.1E+02	1.1E+02	1.5
METT13	DET		
METT13-C	DET	DET	NA

Sample ID	Total-DCP (ng/m^3)	Average	Rel % D
ARBT16	DET		
ARBT16-C	DET	DET	NA
CRST16	DET		
CRST16-C	DET	DET	NA
MVST16	DET		
MVST16-C	DET	DET	NA
VSDT16	4.0E+01		
VSDT16-C	4.1E+01	4.0E+01	2.2
ARVT16	3.9E+02		
ARVT16-C	3.9E+02	3.9E+02	0.2
METT16	1.1E+03		
METT16-C	1.4E+03	1.2E+03	22.9
ARBT20	3.8E+01		
ARBT20-C	4.0E+01	3.9E+01	5.0
CRST20	<MDL		
CRST20-C	<MDL	<MDL	NA
MVST20	4.9E+01		
MVST20-C	4.8E+01	4.8E+01	2.0
VSDT20	8.6E+01		
VSDT20-C	8.5E+01	8.6E+01	1.5
ARVT20	5.1E+01		
ARVT20-C	5.0E+01	5.1E+01	3.1
METT20	5.3E+02		
METT20-C	5.6E+02	5.5E+02	6.3
ARBT24	4.7E+02		
ARBT24-C	5.3E+02	5.0E+02	12.0
CRST24	1.6E+02		
CRST24-C	1.6E+02	1.6E+02	0.8
MVST24	1.6E+03		
MVST24-C	1.8E+03	1.7E+03	7.2
VSDT24	8.6E+02		
VSDT24-C	9.1E+02	8.9E+02	4.8
ARVT24	3.4E+02		
ARVT24-C	3.6E+02	3.5E+02	6.4
METT24	2.3E+02		
METT24-C	2.3E+02	2.3E+02	0.7
ARBT29	1.7E+02		
ARBT29-C	1.7E+02	1.7E+02	1.3
CRST29	1.6E+02		
CRST29-C	1.8E+02	1.7E+02	7.8
MVST29	7.8E+01		
MVST29-C	7.9E+01	7.9E+01	1.7
VSDT29	5.3E+01		
VSDT29-C	5.4E+01	5.4E+01	2.3
ARVT29	3.8E+01		
ARVT29-C	3.7E+01	3.7E+01	3.0
METT29	6.6E+01		
METT29-C	6.4E+01	6.5E+01	4.1
		AVE RPD	7.1

Table 4. 1,3-Dichloropropene (Cartridge) Lab Spike Results

	cis-1,3-Dichloropropene			trans-1,3-Dichloropropene		
Sample ID	Expected (ng/sample)	Actual (ng/sample)	Percent Recovery	Expected (ng/sample)	Actual (ng/sample)	Percent Recovery
Spike1	120	60.5	50%	120	57.81	48%
Spike 2	120	69.7	58%	120	70.08	58%
Spike 3	120	85.9	72%	120	85.62	71%
Spike 4	120	90.5	75%	120	91.05	76%
		Ave.=	**64%**		**Ave.=**	**63%**

Table 5. 1,3-Dichloropropene (Cartridge) Trip Spike Results

	cis-1,3-Dichloropropene			trans-1,3-Dichloropropene		
Sample ID	Expected (ng/sample)	Actual (ng/sample)	Percent Recovery	Expected (ng/sample)	Actual (ng/sample)	Percent Recovery
ARBT5-TS	120.0	60.0	50%	120.0	60.1	50%
ARBT11-TS	120.0	83.5	70%	120.0	83.3	69%
Trip Spike	120.0	87.4	73%	120.0	85.4	71%
ARBT28-TS	120.0	98.0	82%	120.0	96.2	80%
		Ave.=	**69%**		**Ave.=**	**68%**

Table 6. 1,3-Dichloropropene (Cartridge) Field Spike Results

	cis-1,3-Dichloropropene			trans-1,3-Dichloropropene		
Sample ID	Expected (ng/sample)	Actual (ng/sample)*	Percent Recovery	Expected (ng/sample)	Actual (ng/sample)*	Percent Recovery
ARBT4-FS	120.0	76.9	64%	120.0	80.7	67%
ARBT11-FS	120.0	105.5	88%	120.0	125.97	105%
ARBT19-FS	120.0	107.2	89%	120.0	110.49	92%
ARBT28-FS	120.0	93.7	78%	120.0	91.53	76%
		Ave.=	**80%**		**Ave.=**	**85%**

*Corrected by subtracting the concentration found in the corresponding collocated sample.