California Environmental Protection Agency
AIR RESOURCES BOARD

State of California
California Environmental Protection Agency
AIR RESOURCES BOARD

Ambient Pesticide Air Monitoring For Diazinon and Diazoxon In Monterey, San Benito and Santa Clara Counties During July and August of 2009

Prepared by

Steve Rider, Air Pollution Specialist
Special Purpose Monitoring Section
Air Quality Surveillance Branch
Monitoring and Laboratory Division

August 5, 2010

Monitoring Report Approval

Report Title: Ambient Pesticide Air Monitoring For Diazinon and Diazoxon In Monterey, San Benito and Santa Clara Counties during July and August of 2009

Project Lead: Steve Rider, Air Pollution Specialist

Approval: The following monitoring report has been reviewed and approved by the Monitoring and Laboratory Division.

Signatures:

Mac McDougall, Manager Special Purpose Monitoring Section	Date
Kenneth R. Stroud, Chief Air Quality Surveillance Branch	Date

Executive Summary

Ambient Pesticide Air Monitoring For Diazinon and Diazoxon in Monterey, San Benito and Santa Clara Counties during July and August of 2009

At the request of the Department of Pesticide Regulation (DPR), the Air Resources Board (ARB) conducted ambient air monitoring for the insecticide O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate (Diazinon) and the Oxygen analog (Diazoxon) in Monterey, San Benito and Santa Clara Counties from July 1 through August 20, 2009. This insecticide is generally used for controlling sucking and leaf eating insects and its CAS Registry Number is 333-41-5. Sampling was performed in King City, Soledad, Chualar, Salinas, Hollister and the background site was in Gilroy.

A total of 211 air samples which included 48 collocated pairs and 19 quality control (QC) samples were collected by staff of the Air Quality Surveillance Branch. One (1) sampler, which had two (2) each independently plumbed rotameters and pumps, was located at each site. Samples were collected on XAD-2 resin sorbent tubes with an air sampling flow rate of three (3) liters per minute (LPM). The resin sorbent tube air samples were analyzed using gas chromatography/mass spectrometer (GC/MS) in the selected ion-monitoring mode (SIM) by ARB's Northern Laboratory Branch in Sacramento for both Diazinon and Diazoxon.

Diazinon resin sorbent tube results: The reported Diazinon results from 192 resin sorbent tube samples indicated ambient concentrations ranging from less than the method detection limit (MDL) to a maximum of 17.3 ng/m^3 at the Gilroy background site. Elevated levels at Gilroy were most likely caused by pesticides containing Diazinon which were applied to control a major flea outbreak in the area surrounding the site. The highest measured value at a non-background site was 13.5 ng/m^3 at Salinas during the seventh week.

Diazoxon resin sorbent tube results: Reported Diazoxon results from 192 resin sorbent tube air samples ranged from less than the MDL to a maximum of 12.0 ng/m^3 at the Chualar site which was below the estimated quantitation level (EQL) of 18.0 ng/m3.

Table of Contents

APPENDICES:

1.0 Introduction

At the request of the Department of Pesticide Regulation (DPR) (January 2009 Memorandum, Warmerdam to Goldstene), the Air Resources Board (ARB) conducted ambient air monitoring for the insecticide O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate (Diazinon) and the Oxygen analog (Diazoxon). This insecticide is generally used for controlling sucking and leaf eating insects and its Chemical Abstract Service (CAS) Registry Number is 333-41-5.

One hundred ninety two air samples and nineteen quality control (QC) samples were collected at six (6) sites in Monterey, San Benito and Santa Clara Counties. Ambient Air monitoring for these pesticides occurred over a period of eight (8) weeks from July 1 through August 20 of 2009. This monitoring was performed under the requirements of the California Code of Regulation, Food and Agriculture Code, Section 14022(c) which requires the ARB, "…to document the level of airborne emissions…of pesticides that may be determined to pose a present or potential hazard...", when requested by the DPR. Monitoring was conducted to coincide with the use of Diazinon as an insecticide on lettuce and other food crops for human consumption. The "Sampling Protocol for Diazinon and Propyzamide Ambient Study" dated July 7, 2009, and the "Standard Operating Procedure Sampling and Analysis of O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate (Diazinon) and the Oxygen analog (Diazoxon)" dated June 2009, are located in Appendix A.

2.0 Deviations From Protocol

No significant deviations occurred during this Diazinon/Diazoxon ambient study as stated in the "Sampling Protocol for Diazinon and Propyzamide Ambient Study".

3.0 Sampling Sites

Diazinon is used throughout the State of California and throughout the calendar year. 2007 data generated by DPR shows that Monterey County has the highest Diazinon use by a factor of three (3) over the second highest use county (Fresno). In Monterey County, Diazinon use is highest during the months of June through August and therefore DPR requested that ARB perform ambient air monitoring for Diazinon during these summer months.

Pesticide air monitoring sites were determined using historical pesticide use information supplied by the DPR's 2009 monitoring recommendations. Six (6) sampling sites (five (5) air monitoring sites and one (1) urban background site) were selected in relatively high-population areas and/or areas frequented by people (e.g., schools or school district offices, fire stations or other public buildings). Each air monitoring site, except the urban background site, is located in areas with historically high Diazinon pesticide use. DPR requested that the background site be located in Gilroy and that at least one of the air monitoring sites be in Hollister.

Exact placement and details are given in Table 1 (Sampler Waypoints) and can be seen located on the aerial photos, Figures 1-7. Soledad's aerial photo has not yet been updated to show the new school. The closest farmed fields to Soledad were 0.2 miles to the east, but upwind fields were approximately 0.6 miles to the north northeast during the study. For more detailed views see Appendix B for site photographs and close-up aerial photos.

TABLE 1: SAMPLER WAYPOINTS

Site ID	Site Location Name and Address	Waypoints
GIL (Gilroy) (Background)	BAAQMD Station @ Glen View Elementary School, 695 9th Street. Elevation = 206', Inlet = 11.9'	N 36° 59' 57.8" W 121° 34' 28.9"
KCY (King City)	MBUAPCD Station @ San Lorenzo Elementary School, 421 Pearl Street. Elevation = 318', Inlet = 14.5'	N 36° 12' 32.1" W 121° 07' 33.7"
SOL (Soledad)	Roof of Cafeteria @ Jack Franscioni Elementary School, 779 Orchard Lane. Elevation = 369', Inlet = 16.8'	N 36° 26' 10.8" W 121° 18' 52.0"
CHU (Chualar)	Roof of Salinas Rural Fire Station, 24281 Washington Street. Elevation = 138', Inlet = 24.0'	N 36° 34' 17.3" W 121° 31' 03.3"
SAL (Salinas)	Roof of Cafeteria @ La Joya Elementary School, 56 Rogge Road, Bolsa Knolls area. Elevation = 143', Inlet = 17.4'	N 36° 43' 57.8" W 121° 38' 02.7"
HOL (Hollister)	Roof of classrooms @ R.O. Hardin K-5 School, 761 South Street. Elevation = 287', Inlet = 16.6'	N 36° 50' 53.1" W 121° 24' 39.3"

Note: Elevation is Topo map ground level and inlet is feet above ground level.

FIGURE 1: AERIAL PHOTO OVERVIEW OF MONITORED AREA

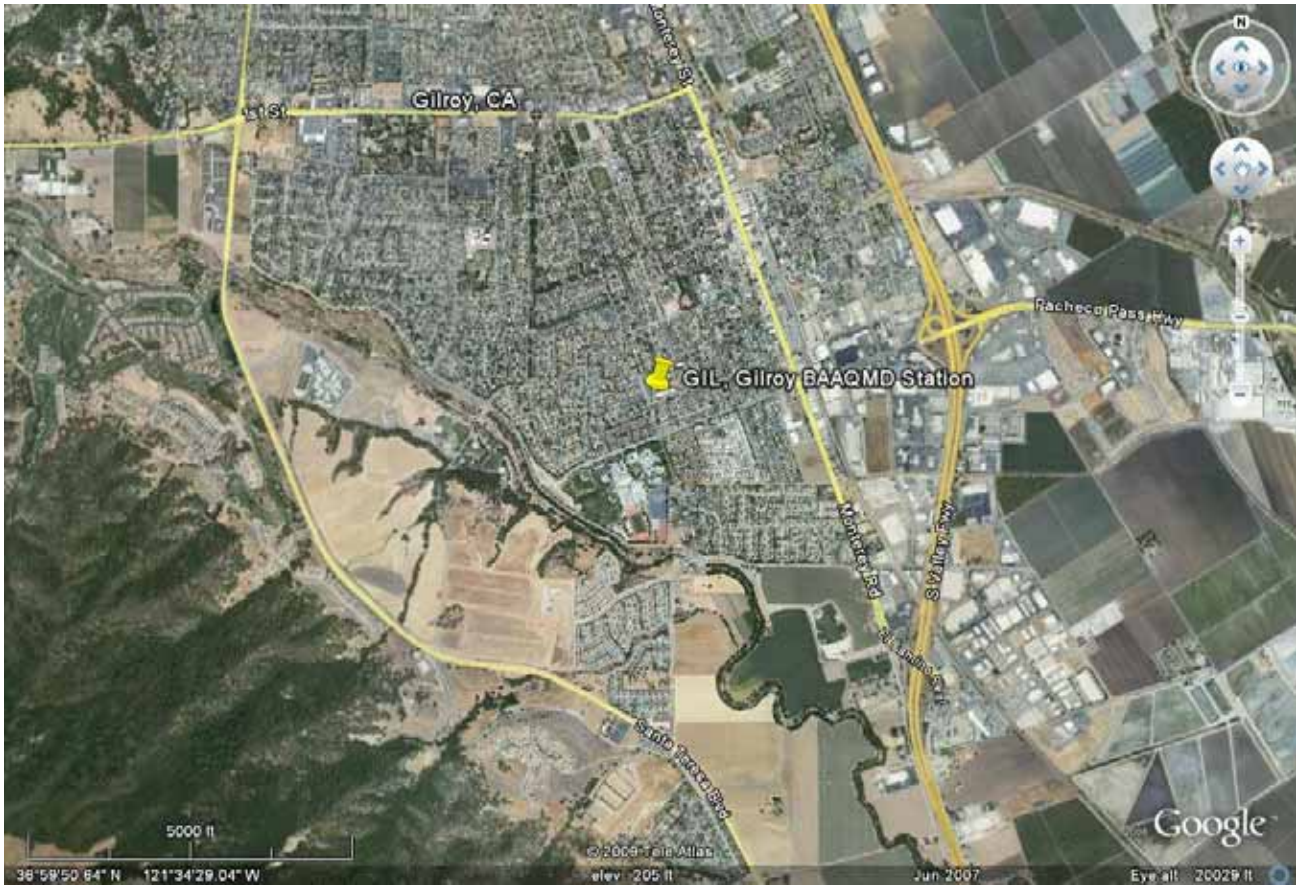

FIGURE 2: AERIAL PHOTO OVERVIEW OF THE GIL SITE

FIGURE 3: AERIAL PHOTO OVERVIEW OF THE KCY SITE

FIGURE 4: AERIAL PHOTO OVERVIEW OF THE SOL SITE

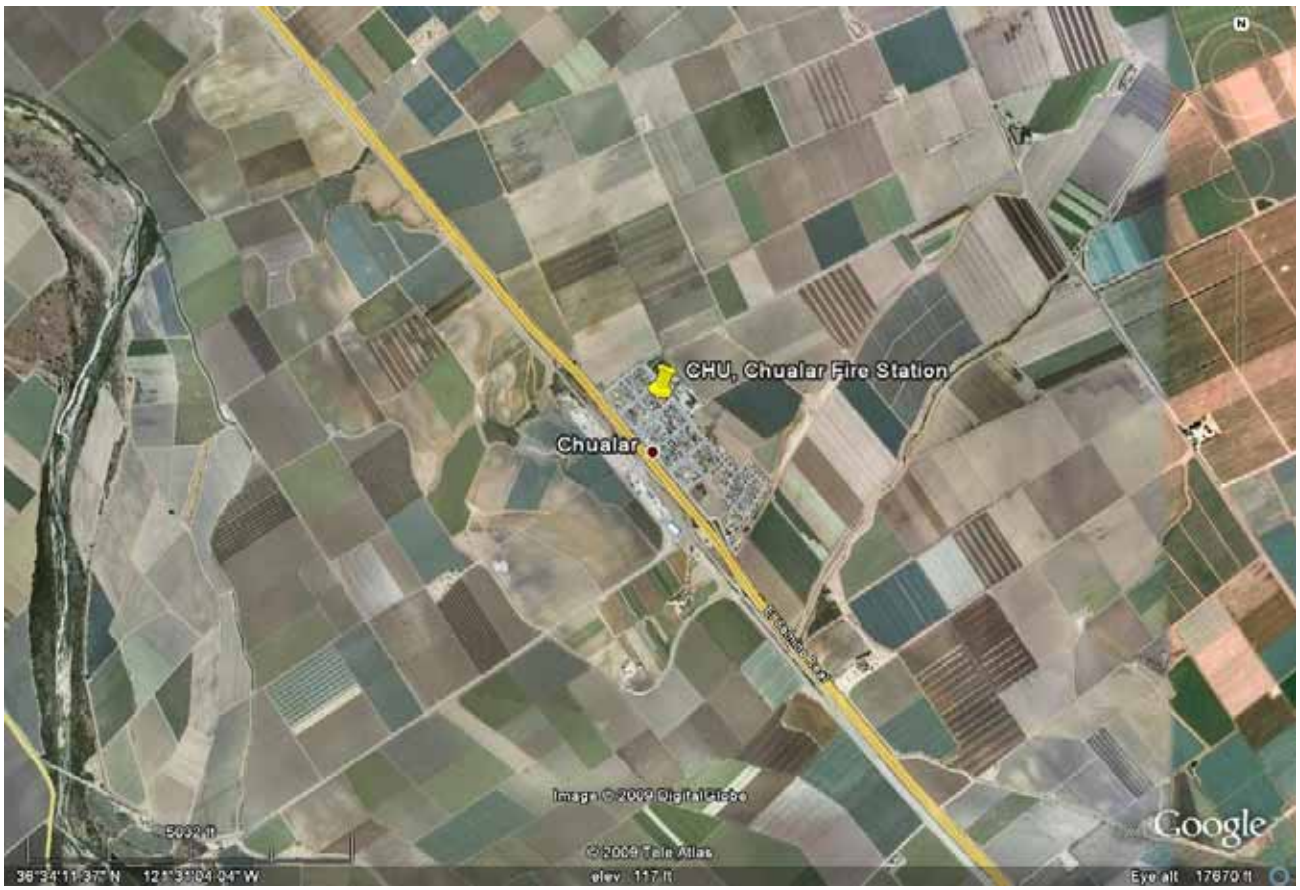

FIGURE 5: AERIAL PHOTO OVERVIEW OF THE CHU SITE

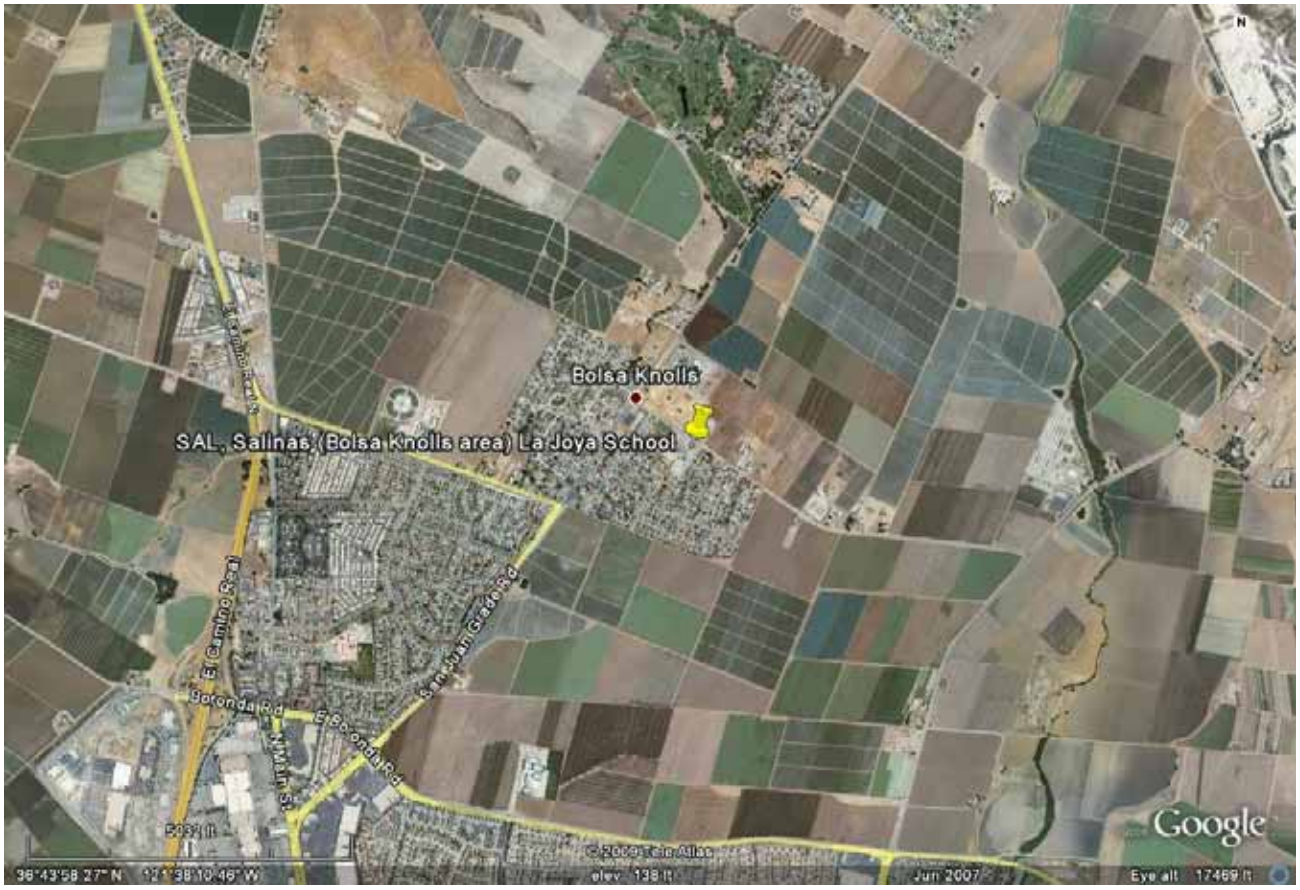

FIGURE 6: AERIAL PHOTO OVERVIEW OF THE SAL SITE

FIGURE 7: AERIAL PHOTO OVERVIEW OF THE HOL SITE

4.0 Methods

Typical ambient pesticide studies consist of four (4) samples per week for 24-hour periods ± one (1) hour. Due to current furlough and overtime policies all but the fifth week consisted of three (3) 23-hour samples. The first sample was started around midday on Monday and collected 23 hours later. This procedure was repeated for each subsequent sample period and the final sample was retrieved on Thursday around midday in time for the ARB staff to return to Sacramento without acquiring overtime.

A total of 211 air samples were collected from July 1st through August 20th. Sixty-seven quality control (QC) XAD resin tube samples were collected consisting of seven (7) field spikes, four (4) trip spikes, eight (8) trip blanks and 48 collocated samples.

The sampling process was designed to collect Diazinon, Diazoxon and Propyzamide on a single XAD resin sorbent tube. Results of Propyzamide sampling will be presented in a separate report. The Monitoring and Laboratory Division (MLD) laboratory extracted all pesticides from each sample tube for analysis.

Samples were collected by passing a measured volume of ambient air through one XAD resin sorbent tube that is mounted on a sampling tree. The sampling flow rates of 3.0 liters per minute (LPM) were accurately measured and the sampling system operated continuously for 23 hours ± 1 hour with the exact operating interval recorded on the log sheet. At the end of each sampling period, the tubes were placed in culture tubes with an identification label affixed and placed in a dry ice cooler. At least once a week, collected samples were transported on dry ice to ARB's MLD laboratory for analysis. The exposed XAD-2 resin sorbent tubes (SKC #226-30-06) were stored in a freezer until extracted in the laboratory with organic solvent.

Sample flow was controlled by an inline rotameter (flow range of 0-5 LPM). Each site had one (1) collocated sample per week. Prior to each sampling period, the sampler was leak checked with an unopened resin sorbent tube. After the sample resin sorbent tube was installed, the flow rate was set at 3.0 LPM using a digital mass flow meter. The flow rate was again checked just prior to removal the next day. The average flow rate was within ± 20% of 3.0 LPM (± 0.6 LPM or 2.4–3.6 LPM) or the sample was considered invalid.

For details of the monitoring method, please refer to Appendix A, "Sampling Protocol for Diazinon and Propyzamide Ambient Study" dated July 7, 2009.

Collected resin sorbent tube samples were analyzed using the laboratory method titled, "Standard Operating Procedure Sampling and Analysis of O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate (Diazinon) and the Oxygen Analog (Diazoxon)", located in Appendix A as part of, "Sampling Protocol for Diazinon and Propyzamide Ambient Study". Appendix C contains the laboratory results report titled, "O,O-diethyl O-2-isopropyl-6-methylpyrimidin-4-yl phosphorothioate (Diazinon) and the Oxygen Analog (Diazoxon) Method Development and Analytical Results for Ambient Air Monitoring Samples" (October 2009).

5.0 Results

Diazinon and Diazoxon sample resin sorbent tube results are presented in Table 2 (Diazinon/Diazoxon Ambient Monitoring Results) by site name. These analytical results were obtained from the laboratory's raw data which had up to six (6) decimal places. Thus, Table 2's results differ slightly from the laboratory's data located in Appendix C due to rounding. Appendix D contains the Diazinon/Diazoxon Ambient Field Log Sheets which contain pertinent data covering the operations during the study.

Site nomenclature for this study was based upon the location of each site and the run number. Additional letters were added, after inserting a dash to identify the type of sample collected (background, collocated, blank or spike).

Examples:

GIL3 = Gilroy run 3
GIL3-FS = Gilroy run 3 Field Spike
KCY3 = King City run 3
SOL3 = Soledad run 3
CHU3 = Chualar run 3
SAL3 = Salinas (Bolsa Knolls) run 3
HOL3 = Hollister run 3
TB2 = Trip Blank 2
TS2 = Trip Spike 2
GIL4-C = Gilroy run 4 collocated

For exact sampling dates and times refer to appendix D.

Table 2: Diazinon/Diazoxon Ambient Results (1 of 4)

Log #	Sample Name	Sampler ID #	Elapsed Time (Hours)	Avg. Flow (LPM)	Total Volume (m^3)	Diazinon ng/sample	Diazinon ng/m^3	Diazoxon ng/sample	Diazoxon ng/m^3
003	CHU1	PS14A	23.00	3.12	4.302	<6.48	<1.51	<15.12	<3.51
012	CHU2	PS14A	23.20	3.00	4.179	<6.48	<1.55	<15.12	<3.62
013	CHU2-C	PS14B	23.24	3.02	4.214	<6.48	<1.54	<15.12	<3.59
024	CHU3	PS14A	23.23	2.98	4.156	<6.48	<1.56	<15.12	<3.64
035	CHU4	PS14A	23.01	2.98	4.110	<6.48	<1.58	<15.12	<3.68
036	CHU4-C	PS14B	23.01	2.99	4.124	<6.48	<1.57	<15.12	<3.67
044	CHU5	PS14A	23.01	2.98	4.110	<6.48	<1.58	<15.12	<3.68
053	CHU6	PS14A	23.45	2.97	4.181	28.62	6.84	50.22	12.01
054	CHU6-C	PS14B	23.45	2.96	4.167	26.73	6.41	48.57	11.66
062	CHU7	PS14A	22.96	3.02	4.163	<6.48	<1.56	<15.12	<3.63
068	CHU8	PS14A	23.40	2.98	4.187	<6.48	<1.55	<15.12	<3.61
074	CHU9	PS14A	23.41	3.00	4.210	<6.48	<1.54	<15.12	<3.59
082	CHU10	PS14A	23.47	3.01	4.242	<6.48	<1.53	<15.12	<3.56
083	CHU10-C	PS14B	23.48	3.01	4.236	<6.48	<1.53	<15.12	<3.57
093	CHU11	PS14A	23.01	3.04	4.193	<6.48	<1.55	<15.12	<3.61
106	CHU12	PS14A	23.00	3.19	4.404	18.87	4.29	<15.12	<3.43
107	CHU12-C	PS14B	23.00	3.19	4.404	21.39	4.86	<15.12	<3.43
115	CHU13	PS14A	23.50	3.00	4.233	14.10	3.33	<15.12	<3.57
121	CHU14	PS14A	23.40	3.02	4.236	<6.48	<1.53	<15.12	<3.57
128	CHU15	PS14A	23.36	3.01	4.222	21.78	5.16	<15.12	<3.58
137	CHU16	PS14A	23.15	3.01	4.177	21.51	5.15	<15.12	<3.62
149	CHU17	PS14A	23.04	3.02	4.171	12.81	3.07	<15.12	<3.63
150	CHU17-C	PS14B	23.04	3.02	4.171	11.73	2.81	<15.12	<3.63
156	CHU18	PS14A	22.98	3.02	4.160	23.94	5.75	<15.12	<3.63
165	CHU19	PS14A	23.00	3.02	4.164	<6.48	<1.56	<15.12	<3.63
166	CHU19-C	PS14B	23.00	3.02	4.164	<6.48	<1.56	<15.12	<3.63
174	CHU20	PS14A	23.00	3.00	4.136	21.45	5.19	<15.12	<3.66
180	CHU21	PS14A	23.08	3.01	4.164	24.84	5.97	<15.12	<3.63
188	CHU22	PS14A	23.40	3.01	4.222	<6.48	<1.53	<15.12	<3.58
201	CHU23	PS14A	23.18	3.00	4.168	<6.48	<1.55	<15.12	<3.63
202	CHU23-C	PS14B	23.21	3.01	4.188	<6.48	<1.55	<15.12	<3.61
209	CHU24	PS14A	23.05	3.01	4.159	<6.48	<1.56	<15.12	<3.64
007	GIL1	PS01A	23.47	3.27	4.609	<6.48	<1.41	<15.12	<3.28
017	GIL2	PS01A	23.00	2.99	4.122	<6.48	<1.57	<15.12	<3.67
018	GIL2-C	PS01B	23.00	2.99	4.129	<6.48	<1.57	<15.12	<3.66
020	GIL3	PS01A	23.50	2.97	4.190	<6.48	<1.55	<15.12	<3.61
029	GIL4	PS01A	22.99	3.02	4.162	<6.48	<1.56	<15.12	<3.63
030	GIL4-C	PS01B	22.99	3.00	4.141	<6.48	<1.56	<15.12	<3.65
041	GIL5	PS01A	22.99	2.96	4.086	<6.48	<1.59	<15.12	<3.70
047	GIL6	PS01A	23.16	2.97	4.130	<6.48	<1.57	<15.12	<3.66
048	GIL6-C	PS01B	23.16	3.00	4.165	<6.48	<1.56	<15.12	<3.63
059	GIL7	PS01A	23.25	3.00	4.188	<6.48	<1.55	<15.12	<3.61
065	GIL8	PS01A	23.77	3.03	4.317	<6.48	<1.50	<15.12	<3.50
077	GIL9	PS01A	23.55	3.01	4.256	<6.48	<1.52	<15.12	<3.55
088	GIL10	PS01A	23.55	3.00	4.235	<6.48	<1.53	<15.12	<3.57
089	GIL10-C	PS01B	23.58	3.00	4.240	<6.48	<1.53	<15.12	<3.57
097	GIL11	PS01A	23.00	3.06	4.225	<6.48	<1.53	<15.12	<3.58
100	GIL12	PS01A	23.00	3.04	4.198	<6.48	<1.54	<15.12	<3.60
101	GIL12-C	PS01B	23.00	3.03	4.184	<6.48	<1.55	<15.12	<3.61
112	**GIL13**	**PS01A**	**23.42**	**3.00**	**4.212**	**72.87**	**17.30**	20.16	4.79
118	GIL14	PS01A	23.40	3.00	4.215	<6.48	<1.54	<15.12	<3.59

Note: BOLDED = Analytical results $\geq$ EQL.

Table 2: Diazinon/Diazoxon Ambient Results Continued (2 of 4)

Log #	Sample Name	Sampler ID #	Elapsed Time (Hours)	Avg. Flow (LPM)	Total Volume (m^3)	Diazinon ng/sample	Diazinon ng/m^3	Diazoxon ng/sample	Diazoxon ng/m^3
125	GIL15	PS01A	23.38	3.01	4.225	13.71	3.24	<15.12	<3.58
131	GIL16	PS01A	23.04	3.01	4.157	15.27	3.67	<15.12	<3.64
145	GIL17	PS01A	22.99	3.02	4.162	<6.48	<1.56	<15.12	<3.63
146	GIL17-C	PS01B	22.99	3.02	4.162	<6.48	<1.56	<15.12	<3.63
153	GIL18	PS01A	23.00	3.00	4.136	<6.48	<1.57	<15.12	<3.66
159	GIL19	PS01A	23.00	3.05	4.212	<6.48	<1.54	<15.12	<3.59
160	GIL19-C	PS01B	23.00	3.06	4.218	<6.48	<1.54	<15.12	<3.58
171	GIL20	PS01A	23.00	3.01	4.150	<6.48	<1.56	<15.12	<3.64
177	GIL21	PSO1A	23.08	3.01	4.171	<6.48	<1.55	<15.12	<3.62
184	GIL22	PS01A	23.17	3.02	4.194	<6.48	<1.54	<15.12	<3.60
195	GIL23	PS01A	23.13	3.01	4.180	<6.48	<1.55	<15.12	<3.62
196	GIL23-C	PS01B	23.17	3.01	4.180	<6.48	<1.55	<15.12	<3.62
206	GIL24	PS01A	23.31	3.00	4.192	<6.48	<1.55	<15.12	<3.61
005	HOL1	PS02A	23.18	3.08	4.280	<6.48	<1.51	<15.12	<3.53
006	HOL1-C	PS02B	23.21	3.13	4.362	<6.48	<1.49	<15.12	<3.47
016	HOL2	PS02A	23.00	2.99	4.129	<6.48	<1.57	<15.12	<3.66
026	HOL3	PS02A	23.01	2.98	4.117	<6.48	<1.57	<15.12	<3.67
039	HOL4	PS02A	23.01	2.96	4.089	<6.48	<1.58	<15.12	<3.70
040	HOL4-C	PS02B	22.99	2.97	4.099	<6.48	<1.58	<15.12	<3.69
046	HOL5	PS02A	22.99	3.00	4.134	<6.48	<1.57	<15.12	<3.66
057	HOL6	PS02A	23.65	3.01	4.274	<6.48	<1.52	<15.12	<3.54
058	HOL6-C	PS02B	23.65	2.98	4.231	<6.48	<1.53	<15.12	<3.57
064	HOL7	PS02A	23.11	3.03	4.197	<6.48	<1.54	<15.12	<3.60
070	HOL8	PS02A	22.96	3.02	4.163	<6.48	<1.56	<15.12	<3.63
076	HOL9	PS02A	23.51	3.01	4.242	<6.48	<1.53	<15.12	<3.56
086	HOL10	PS02A	23.75	2.99	4.264	<6.48	<1.52	<15.12	<3.55
087	HOL10-C	PS02B	23.79	3.00	4.278	<6.48	<1.51	<15.12	<3.53
096	HOL11	PS02A	22.97	3.02	4.158	<6.48	<1.56	<15.12	<3.64
110	HOL12	PS02A	23.00	3.39	4.678	<6.48	<1.39	<15.12	<3.23
111	HOL12-C	PS02B	23.00	3.36	4.637	<6.48	<1.40	<15.12	<3.26
117	HOL13	PS02A	23.42	3.00	4.219	<6.48	<1.54	<15.12	<3.58
123	HOL14	PS02A	23.41	3.01	4.231	<6.48	<1.53	<15.12	<3.57
130	HOL15	PS02A	23.37	3.00	4.203	<6.48	<1.54	<15.12	<3.60
141	HOL16	PS02A	23.32	2.99	4.187	<6.48	<1.55	<15.12	<3.61
142	HOL16-C	PS02B	23.32	2.96	4.138	<6.48	<1.57	<15.12	<3.65
152	HOL17	PS02A	23.03	3.02	4.169	<6.48	<1.55	<15.12	<3.63
158	HOL18	PS02A	22.99	3.01	4.148	<6.48	<1.56	<15.12	<3.65
169	HOL19	PS02A	23.00	3.01	4.157	<6.48	<1.56	<15.12	<3.64
170	HOL19-C	PS02B	23.00	3.01	4.150	<6.48	<1.56	<15.12	<3.64
176	HOL20	PS02A	23.00	2.99	4.122	<6.48	<1.57	<15.12	<3.67
182	HOL21	PS02A	23.08	3.00	4.157	<6.48	<1.56	<15.12	<3.64
192	HOL22	PS02A	23.66	3.01	4.276	<6.48	<1.52	<15.12	<3.54
193	HOL22-C	PS02B	23.66	3.01	4.276	<6.48	<1.52	<15.12	<3.54
204	HOL23	PS02A	23.56	2.99	4.223	<6.48	<1.53	<15.12	<3.58
211	HOL24	PS02A	23.01	2.96	4.083	<6.48	<1.59	<15.12	<3.70
001	KCY1	PS-12A	23.25	2.94	4.097	<6.48	<1.58	<15.12	<3.69
008	KCY2	PS12A	23.29	3.05	4.265	<6.48	<1.52	<15.12	<3.54
009	KCY2-C	PS12B	23.29	3.02	4.216	<6.48	<1.54	<15.12	<3.59
022	KCY3	PS12A	23.39	2.98	4.177	<6.48	<1.55	<15.12	<3.62
031	KCY4	PS12A	23.00	3.08	4.254	<6.48	<1.52	<15.12	<3.55
032	KCY4-C	PS12B	23.00	3.05	4.212	<6.48	<1.54	<15.12	<3.59
042	KCY5	PS12A	23.01	2.98	4.109	<6.48	<1.58	<15.12	<3.68

Table 2: Diazinon/Diazoxon Ambient Results Continued (3 of 4)

Log #	Sample Name	Sampler ID #	Elapsed Time (Hours)	Avg. Flow (LPM)	Total Volume (m^3)	Diazinon ng/sample	Diazinon ng/m^3	Diazoxon ng/sample	Diazoxon ng/m^3
049	KCY6	PS12A	23.17	2.96	4.111	<6.48	<1.58	<15.12	<3.68
050	KCY6-C	PS12B	23.17	2.99	4.152	<6.48	<1.56	<15.12	<3.64
060	KCY7	PS12A	23.17	3.00	4.165	<6.48	<1.56	<15.12	<3.63
066	KCY8	PS12A	23.63	3.01	4.271	<6.48	<1.52	<15.12	<3.54
072	KCY9	PS12A	23.28	3.06	4.270	<6.48	<1.52	<15.12	<3.54
078	KCY10	PS12A	23.27	3.02	4.212	<6.48	<1.54	<15.12	<3.59
079	KCY10-C	PS12B	23.27	3.04	4.240	<6.48	<1.53	<15.12	<3.57
091	KCY11	PS12A	23.00	3.02	4.164	<6.48	<1.56	<15.12	<3.63
102	KCY12	PS12A	23.00	3.17	4.376	<6.48	<1.48	<15.12	<3.46
103	KCY12-C	PS12B	23.00	3.11	4.287	<6.48	<1.51	<15.12	<3.53
113	KCY13	PS12A	23.45	3.02	4.244	<6.48	<1.53	<15.12	<3.56
119	KCY14	PS12A	23.42	3.01	4.225	<6.48	<1.53	<15.12	<3.58
126	KCY15	PS12A	23.37	3.01	4.223	<6.48	<1.53	<15.12	<3.58
133	KYC16	PS12A	23.45	2.98	4.196	<6.48	<1.54	<15.12	<3.60
134	KYC16-C	PS12B	23.45	3.09	4.343	<6.48	<1.49	<15.12	<3.48
147	KYC17	PS12A	22.99	3.02	4.161	<6.48	<1.56	<15.12	<3.63
154	KYC18	PS12A	23.00	3.02	4.163	<6.48	<1.56	<15.12	<3.63
161	KYC19	PS12A	23.00	3.05	4.205	<6.48	<1.54	<15.12	<3.60
162	KYC19-C	PS12B	23.00	3.05	4.212	<6.48	<1.54	<15.12	<3.59
172	KYC20	PS12A	23.00	3.01	4.150	<6.48	<1.56	<15.12	<3.64
178	KYC21	PS12A	23.08	3.01	4.171	<6.48	<1.55	<15.12	<3.62
186	KCY22	PS12A	23.40	3.02	4.236	<6.48	<1.53	<15.12	<3.57
197	KCY23	PS12A	23.06	3.01	4.167	<6.48	<1.55	<15.12	<3.63
198	KCY23-C	PS12B	23.06	3.01	4.167	<6.48	<1.55	<15.12	<3.63
207	KCY24	PS12A	23.35	3.01	4.213	<6.48	<1.54	<15.12	<3.59
004	SAL1	PS03A	23.38	3.13	4.394	<6.48	<1.47	<15.12	<3.44
014	SAL-2	PS03A	23.05	3.01	4.166	<6.48	<1.56	<15.12	<3.63
015	SAL2-C	PS03B	23.08	3.01	4.171	<6.48	<1.55	<15.12	<3.63
025	SAL3	PS02A	23.11	3.03	4.204	<6.48	<1.54	<15.12	<3.60
037	SAL4	PS03A	23.00	2.74	3.776	<6.48	<1.72	<15.12	<4.00
038	SAL4-C	PS03B	23.00	2.76	3.804	<6.48	<1.70	<15.12	<3.98
045	SAL5	PS03A	22.99	2.97	4.099	<6.48	<1.58	<15.12	<3.69
055	SAL6	PS03A	23.60	3.00	4.251	16.41	3.86	41.49	9.76
056	SAL6-C	PS03B	23.60	3.00	4.244	15.84	3.73	41.91	9.88
063	SAL7	PS03A	23.10	2.96	4.098	<6.48	<1.58	<15.12	<3.69
069	SAL8	PS03A	23.25	3.04	4.243	<6.48	<1.53	<15.12	<3.59
075	SAL9	PS03A	23.43	3.01	4.227	<6.48	<1.53	<15.12	<3.58
084	SAL10	PS03A	23.66	3.00	4.255	<6.48	<1.52	<15.12	<3.55
085	SAL10-C	PS03B	22.97	3.00	4.138	<6.48	<1.57	<15.12	<3.65
095	SAL11	PS03A	23.00	2.98	4.109	<6.48	<1.58	<15.12	<3.68
108	SAL12	PS03A	23.00	3.26	4.493	18.39	4.09	<15.12	<3.37
109	SAL12-C	PS03B	23.00	3.28	4.527	20.37	4.50	<15.12	<3.34
116	SAL13	PS03A	23.40	3.01	4.222	<6.48	<1.53	<15.12	<3.58
122	SAL14	PS03A	23.42	3.02	4.240	<6.48	<1.53	<15.12	<3.57
129	SAL15	PS03A	23.37	3.01	4.217	<6.48	<1.54	<15.12	<3.59
139	SAL16	PS03A	23.09	3.02	4.180	<6.48	<1.55	<15.12	<3.62
140	SAL16-C	PS03B	23.09	2.99	4.139	<6.48	<1.57	<15.12	<3.65
151	SAL17	PS03A	23.01	3.01	4.158	28.92	6.95	<15.12	<3.64
157	**SAL18**	**PS03A**	**22.98**	**3.01**	**4.146**	**45.72**	**11.03**	<15.12	<3.65
167	SAL19	PS03A	23.00	3.02	4.164	<6.48	<1.56	<15.12	<3.63
168	SAL19-C	PS03B	23.04	3.01	4.164	<6.48	<1.56	<15.12	<3.63

Note: BOLDED = Analytical results ≥ EQL.

Table 2: Diazinon/Diazoxon Ambient Results Continued (4 of 4)

Log #	Sample Name	Sampler ID #	Elapsed Time (Hours)	Avg. Flow (LPM)	Total Volume (m^3)	Diazinon ng/sample	Diazinon ng/m^3	Diazoxon ng/sample	Diazoxon ng/m^3
175	**SAL20**	**PS03A**	**22.99**	**3.00**	**4.141**	**55.71**	**13.45**	<15.12	<3.65
181	SAL21	PS03A	23.09	3.02	4.180	22.50	5.38	<15.12	<3.62
190	SAL22	PS03A	23.46	3.00	4.226	23.52	5.57	<15.12	<3.58
191	SAL22-C	PS03B	23.46	3.02	4.254	22.47	5.28	<15.12	<3.55
203	SAL23	PS03A	23.40	2.99	4.201	<6.48	<1.54	<15.12	<3.60
210	SAL24	PS03A	23.05	2.99	4.138	<6.48	<1.57	<15.12	<3.65
002	SOL1	PS11A	23.08	3.13	4.338	<6.48	<1.49	<15.12	<3.49
010	SOL2	PS11A	23.28	2.97	4.143	<6.48	<1.56	<15.12	<3.65
011	SOL2-C	PS11B	23.30	3.00	4.196	<6.48	<1.54	<15.12	<3.60
023	SOL3	PS11A	23.28	2.98	4.165	<6.48	<1.56	<15.12	<3.63
033	SOL4	PS11A	23.00	2.97	4.101	<6.48	<1.58	<15.12	<3.69
034	SOL4-C	PS11B	23.00	3.05	4.212	<6.48	<1.54	<15.12	<3.59
043	SOL5	PS11B	23.03	3.06	4.223	<6.48	<1.53	<15.12	<3.58
051	SOL6	PS11A	23.26	3.01	4.203	15.66	3.73	45.06	10.72
052	SOL6-C	PS11B	23.26	3.01	4.203	15.75	3.75	44.82	10.66
061	SOL7	PS11A	23.17	3.01	4.180	25.26	6.04	41.01	9.81
067	SOL8	PS11A	23.45	3.00	4.216	<6.48	<1.54	<15.12	<3.59
073	SOL9	PS11A	23.37	2.99	4.195	<6.48	<1.54	<15.12	<3.60
080	SOL10	PS11A	23.50	3.00	4.233	<6.48	<1.53	<15.12	<3.57
081	SOL10-C	PS11B	23.50	3.01	4.247	<6.48	<1.53	<15.12	<3.56
092	SOL11	PS11A	23.00	3.02	4.170	<6.48	<1.55	<15.12	<3.63
104	SOL12	PS11A	23.00	3.22	4.445	<6.48	<1.46	<15.12	<3.40
105	SOL12-C	PS11B	23.00	3.20	4.417	<6.48	<1.47	<15.12	<3.42
114	SOL13	PS11A	23.43	3.02	4.241	<6.48	<1.53	<15.12	<3.57
120	SOL14	PS11A	23.42	3.04	4.267	<6.48	<1.52	<15.12	<3.54
127	SOL15	PS11A	23.37	3.01	4.223	<6.48	<1.53	<15.12	<3.58
135	SOL16	PS11A	23.29	3.01	4.208	<6.48	<1.54	<15.12	<3.59
136	SOL16-C	PS11B	23.29	3.00	4.195	<6.48	<1.54	<15.12	<3.60
148	SOL17	PS11A	23.01	3.02	4.165	<6.48	<1.56	<15.12	<3.63
155	SOL18	PS11A	22.99	3.00	4.142	<6.48	<1.56	<15.12	<3.65
163	SOL19	PS11A	23.00	3.06	4.226	14.73	3.49	<15.12	<3.58
164	SOL19-C	PS11B	23.00	3.06	4.226	17.49	4.14	<15.12	<3.58
173	SOL20	PS11A	23.00	3.00	4.136	<6.48	<1.57	<15.12	<3.66
179	SOL21	PS11A	23.08	3.01	4.165	15.90	3.82	<15.12	<3.63
187	SOL22	PS11A	23.28	3.01	4.208	<6.48	<1.54	<15.12	<3.59
199	SOL23	PS11A	23.25	3.01	4.202	<6.48	<1.54	<15.12	<3.60
200	SOL23-C	PS11B	23.29	3.00	4.196	<6.48	<1.54	<15.12	<3.60
208	SOL24	PS11A	23.03	3.01	4.161	<6.48	<1.56	<15.12	<3.63

Note: BOLDED = Analytical results $\geq$ EQL.

With an average air volume sample of 4.20 m^3 the Method Detection Limit (MDL) for Diazinon during this study was 1.54 ng/m^3 and the Estimated Quantitative Level (EQL) was 7.70 ng/m^3. For Diazoxon the MDL was 3.60 ng/m^3 and the EQL was 18.0 ng/m^3. Data completeness for this study was 100%.

For Diazinon, approximately 84% of the 192 ambient samples were less than the MDL. The laboratory's analytical results reported detectable levels (below the EQL) of 2.81 ng/m^3 (Chualar) to a maximum of 17.30 ng/m^3 (Gilroy background site). A major infestation of fleas was reported in the area surrounding the site and at least one tenant nearby stated that Diazinon was used during this period. The nearest fields that could have possibly had Diazinon applied were just beyond one (1) mile to the south and southwest. The highest measured value at a non-background site was

13.45 ng/m^3 at Salinas during the seventh week. Only three (3) samples exceeded the EQL of 7.70 ng/m^3 (GIL13, SAL20 and SAL18).

For Diazoxon, approximately 96% of the 192 ambient samples were less than the MDL. The laboratory's analytical results reported levels from 4.79 ng/m^3 (Gilroy) to a maximum of 12.01 ng/m^3 (Chualar during the third week). No samples exceeded the EQL of 18.00 ug/m^3.

Further reference material can be found in Appendix D which presents the field log sheets and Appendix F which presents the calibration/certification reports.

6.0 Quality Control Results

Quality control field samples included 48 collocated pairs, seven (7) field spikes, four (4) trip spikes and eight (8) trip blanks. The Relative Percent Difference (RPD) of the collocated samples for Diazinon ranged from -8.8% to +17.1% with an average of 2.0%. The RPD of the collocated samples for Diazoxon ranged from -3.0% to +1.2% with an average of -0.8%. See Table 3 (Diazinon and Diazoxon Ambient QC Collocated Results) on the following page. General lab practice takes every tenth sample and analyzes the sample again which is called a duplicate sample. The RPD of the duplicate samples for Diazinon ranged from +1.6% to +3.9% with an average of 2.7%. The RPD of the one duplicate sample above the MDL for Diazoxon was -0.1%. The average Diazinon field spike recovery was 116%. The average Diazoxon field spike recovery was 99%. See Tables 4 (Diazinon Ambient QC Field Spike Results) and 5 (Diazoxon Ambient QC Field Spike Results) on the following pages. The average Diazinon trip spike recovery was 127%. The average Diazoxon trip spike recovery was 106%. The values recovered from the trip blanks were all less than the MDL. See Table 6 (Diazinon and Diazoxon Ambient QC Trip Spike and Blank Results) on the following pages for trip spike and trip blank results.

The formula for calculating the RPD for Table three (3) is as follows:

$$RPD = \frac{(Collocated(ng/m^3) - Sample(ng/m^3)}{(Collocated(ng/m^3) + Sample(ng/m^3) \div 2)}$$

Table 3: Diazinon and Diazoxon Ambient QC Collocated Results

Collocated Sample Results									
Diazinon & Diazoxon				Diazinon			Diazoxon		
Log #	Sample Name	Date Collected	Date Analyzed	Collocated (ng/m3)	Sample (ng/m3)	Rel. % Difference	Collocated (ng/m3)	Sample (ng/m3)	Rel. % Difference
013	CHU2-C	7/3/2009	7/7/2009	<1.54	<1.55	N.A.	<3.59	<3.62	N.A.
036	CHU4-C	7/9/2009	7/14/2009	<1.57	<1.58	N.A.	<3.67	<3.68	N.A.
054	CHU6-C	7/16/2009	7/20/2009	6.41	6.84	-6.5%	11.66	12.01	-3.0%
083	CHU10-C	7/23/2009	7/28/2009	<1.53	<1.53	N.A.	<3.57	<3.56	N.A.
107	CHU12-C	7/31/2009	8/3/2009	4.86	4.29	12.5%	<3.43	<3.43	N.A.
150	CHU17-C	8/6/2009	8/11/2009	2.81	3.07	-8.8%	<3.63	<3.63	N.A.
166	CHU19-C	8/13/2009	8/17/2009	<1.56	<1.56	N.A.	<3.63	<3.63	N.A.
202	CHU23-C	8/20/2009	8/25/2009	<1.55	<1.55	N.A.	<3.61	<3.63	N.A.
018	GIL2-C	7/3/2009	7/7/2009	<1.57	<1.57	N.A.	<3.66	<3.67	N.A.
030	GIL4-C	7/9/2009	7/14/2009	<1.56	<1.56	N.A.	<3.65	<3.63	N.A.
048	GIL6-C	7/16/2009	7/20/2009	<1.56	<1.57	N.A.	<3.63	<3.66	N.A.
089	GIL10-C	7/23/2009	7/28/2009	<1.53	<1.53	N.A.	<3.57	<3.57	N.A.
101	GIL12-C	7/31/2009	8/3/2009	<1.55	<1.54	N.A.	<3.61	<3.60	N.A.
146	GIL17-C	8/6/2009	8/11/2009	<1.56	<1.56	N.A.	<3.63	<3.63	N.A.
160	GIL19-C	8/13/2009	8/17/2009	<1.54	<1.54	N.A.	<3.58	<3.59	N.A.
196	GIL23-C	8/20/2009	8/25/2009	<1.55	<1.55	N.A.	<3.62	<3.62	N.A.
006	HOL1-C	7/3/2009	7/6/2009	<1.49	<1.51	N.A.	<3.47	<3.53	N.A.
040	HOL4-C	7/9/2009	7/15/2009	<1.58	<1.58	N.A.	<3.69	<3.70	N.A.
058	HOL6-C	7/16/2009	7/20/2009	<1.53	<1.52	N.A.	<3.57	<3.54	N.A.
087	HOL10-C	7/23/2009	7/28/2009	<1.51	<1.52	N.A.	<3.53	<3.55	N.A.
111	HOL12-C	7/31/2009	8/3/2009	<1.4	<1.39	N.A.	<3.26	<3.23	N.A.
142	HOL16-C	8/6/2009	8/10/2009	<1.57	<1.55	N.A.	<3.65	<3.61	N.A.
170	HOL19-C	8/13/2009	8/17/2009	<1.56	<1.56	N.A.	<3.64	<3.64	N.A.
193	HOL22-C	8/20/2009	8/25/2009	<1.52	<1.52	N.A.	<3.54	<3.54	N.A.
009	KCY2-C	7/3/2009	7/7/2009	<1.54	<1.52	N.A.	<3.59	<3.54	N.A.
032	KCY4-C	7/9/2009	7/14/2009	<1.54	<1.52	N.A.	<3.59	<3.55	N.A.
050	KCY6-C	7/16/2009	7/20/2009	<1.56	<1.58	N.A.	<3.64	<3.68	N.A.
079	KCY10-C	7/23/2009	7/27/2009	<1.53	<1.54	N.A.	<3.57	<3.59	N.A.
103	KCY12-C	7/31/2009	8/3/2009	<1.51	<1.48	N.A.	<3.53	<3.46	N.A.
134	KYC16-C	8/6/2009	8/10/2009	<1.49	<1.54	N.A.	<3.48	<3.60	N.A.
162	KYC19-C	8/13/2009	8/17/2009	<1.54	<1.54	N.A.	<3.59	<3.60	N.A.
198	KCY23-C	8/20/2009	8/25/2009	<1.55	<1.55	N.A.	<3.63	>3.63	N.A.
015	SAL2-C	7/3/2009	7/7/2009	<1.55	<1.56	N.A.	<3.63	<3.63	N.A.
038	SAL4-C	7/9/2009	7/15/2009	<1.70	<1.72	N.A.	<3.98	<4.00	N.A.
056	SAL6-C	7/16/2009	7/20/2009	3.73	3.86	-3.4%	9.88	9.76	1.2%
085	SAL10-C	7/23/2009	7/28/2009	<1.57	<1.52	N.A.	<3.65	<3.55	N.A.
109	SAL12-C	7/31/2009	8/3/2009	4.50	4.09	9.5%	<3.34	<3.37	N.A.
140	SAL16-C	8/6/2009	8/10/2009	<1.57	<1.55	N.A.	<3.65	<3.62	N.A.
168	SAL19-C	8/13/2009	8/17/2009	<1.56	<1.56	N.A.	<3.63	<3.63	N.A.
191	SAL22-C	8/20/2009	8/25/2009	5.28	5.57	-5.2%	<3.55	<3.58	N.A.
011	SOL2-C	7/3/2009	7/7/2009	<1.54	<1.56	N.A.	<3.60	<3.65	N.A.
034	SOL4-C	7/9/2009	7/14/2009	<1.54	<1.58	N.A.	<3.59	<3.69	N.A.
052	SOL6-C	7/16/2009	7/20/2009	3.75	3.73	0.6%	10.66	10.72	-0.5%
081	SOL10-C	7/23/2009	7/27/2009	<1.53	<1.53	N.A.	<3.56	<3.57	N.A.
105	SOL12-C	7/31/2009	8/3/2009	<1.47	<1.46	N.A.	<3.42	<3.40	N.A.
136	SOL16-C	8/6/2009	8/10/2009	<1.54	<1.54	N.A.	<3.60	<3.59	N.A.
164	SOL19-C	8/13/2009	8/17/2009	4.14	3.49	17.1%	<3.58	<3.58	N.A.
200	SOL23-C	8/20/2009	8/25/2009	<1.54	<1.54	N.A.	<3.60	<3.60	N.A.

Field spike percent recoveries are shown in Table 4 for Diazinon and Table 5 for Diazoxon below. Spiked XAD resin sorbent tubes were prepared at the laboratory and placed in the freezer the Thursday preceding the start of next weeks sampling. The laboratory spike values were 72 ng/sample for Diazinon and 130 ng/sample for Diazoxon. While viewing Field Spike Tables 4 and 5, reference the below equations describing the calculations necessary to determine the percent recovery of each field spike.

$$Field\ Spike\ \frac{ng}{m^3} = Field\ Recovery\left(\frac{ng}{sample}\right) \times Total\ Volume\left(\frac{sample}{m^3}\right)$$

$$Net\ Spike\ \frac{ng}{m^3} = Field\ Spike\ Concentration\left(\frac{ng}{m^3}\right) - Primary\ Sample\left(\frac{ng}{m^3}\right)$$

$$Net\ Spike\ \frac{ng}{sample} = Net\ Spike\left(\frac{ng}{m^3}\right) \times Total\ Volume\left(\frac{m^3}{sample}\right)$$

$$Spike\ Percent\ Recovery\ \frac{ng}{sample} = Net\ Spike\left(\frac{ng}{sample}\right) \div Lab\ Spike\ Value\left(\frac{ng}{sample}\right) \times 100\%$$

Table 4: Diazinon Ambient QC Field Spike Results

Log #	Sample ID	Field Recovery (ng/sample)	Total Volume (m^3)	Field Spike Concentration (ng/m^3)	Primary Sample (ng/m^3)	Net Spike (ng/m^3)	Net Spike (ng/sample)	Lab Spike Value (ng/sample)	Spike Percent Recovery
020	GIL3	<6.48	4.190	N.A.	<1.55	N.A.	N.A.	N.A.	N.A.
021	GIL3-FS	74.520	4.197	17.755	N.A.	17.755	74.518	72	103%
093	CHU11	<6.48	4.193	N.A.	<1.55	N.A.	N.A.	N.A.	N.A.
094	CHU11-FS	75.480	4.110	18.363	N.A.	18.363	75.472	72	105%
097	GIL11	<6.48	4.225	N.A.	<1.53	N.A.	N.A.	N.A.	N.A.
098	GIL11-FS	68.820	4.232	16.261	N.A.	16.261	68.817	72	96%
131	GIL16	15.270	4.157	N.A.	3.673	N.A.	N.A.	N.A.	N.A.
132	GIL16-FS	101.010	4.171	24.218	N.A.	20.545	85.693	72	119%
137	CHU16	21.510	4.177	N.A.	5.150	N.A.	N.A.	N.A.	N.A.
138	CHU16-FS	108.990	4.170	26.137	N.A.	20.987	87.516	72	122%
184	GIL22	<6.48	4.194	N.A.	<1.54	N.A.	N.A.	N.A.	N.A.
185	GIL22-FS	92.040	4.187	21.980	N.A.	21.980	92.030	72	128%
188	CHU22	<6.48	4.222	N.A.	<1.53	N.A.	N.A.	N.A.	N.A.
189	CHU22-FS	99.570	4.229	23.545	N.A.	23.545	99.572	72	138%

Table 5: Diazoxon Ambient QC Field Spike Results

Log #	Sample ID	Field Recovery (ng/sample)	Total Volume (m^3)	Field Spike Concentration (ng/m^3)	Primary Sample (ng/m^3)	Net Spike (ng/m^3)	Net Spike (ng/sample)	Lab Spike Value (ng/sample)	Spike Percent Recovery
020	GIL3	<15.12	4.190	N.A.	<3.61	N.A.	N.A.	N.A.	N.A.
021	GIL3-FS	135.510	4.197	32.287	N.A.	32.287	135.509	130	104%
093	CHU11	<15.12	4.193	N.A.	<3.61	N.A.	N.A.	N.A.	N.A.
094	CHU11-FS	106.890	4.110	26.004	N.A.	26.004	106.876	130	82%
097	GIL11	<15.12	4.225	N.A.	<3.58	N.A.	N.A.	N.A.	N.A.
098	GIL11-FS	106.290	4.232	25.115	N.A.	25.115	106.287	130	82%
131	GIL16	<15.12	4.157	N.A.	<3.64	N.A.	N.A.	N.A.	N.A.
132	GIL16-FS	136.590	4.171	32.749	N.A.	32.749	136.596	130	105%
137	CHU16	<15.12	4.177	N.A.	<3.62	N.A.	N.A.	N.A.	N.A.
138	CHU16-FS	132.660	4.170	31.813	N.A.	31.813	132.660	130	102%
184	GIL22	<15.12	4.194	N.A.	<3.60	N.A.	N.A.	N.A.	N.A.
185	GIL22-FS	143.970	4.187	34.382	N.A.	34.382	143.957	130	111%
188	CHU22	<15.12	4.222	N.A.	<3.58	N.A.	N.A.	N.A.	N.A.
189	CHU22-FS	141.630	4.229	33.490	N.A.	33.490	141.629	130	109%

The formula for calculating the Recovery % for Table six (6) is as follows:

$$Recovery\,\% = \left(\left(Measured\left(\frac{ng}{sample}\right) - Expected\left(\frac{ng}{sample}\right) \right) \div Expected\left(\frac{ng}{sample}\right) \right) \times 100\%$$

Table 6: Diazinon and Diazoxon Ambient QC Spike and Blank Results

Trip Spike Results									
Diazinon & Diazoxon				Diazinon			Diazoxon		
Log #	Sample Name	Date Collected	Date Analyzed	Expected (ng/sample)	Measured (ng/sample)	Recovery (%)	Expected (ng/sample)	Measured (ng/sample)	Recovery (%)
028	TS1	7/7/2009	7/13/2009	72	84.63	117.5%	130	135.78	104.4%
099	TS2	7/23/2009	7/29/2009	72	87.00	120.8%	130	130.62	100.5%
143	TS3	8/3/2009	8/10/2009	72	101.70	141.3%	130	133.98	103.1%
205	TS4	8/18/2009	8/25/2009	72	92.46	128.4%	130	152.46	117.3%
Trip Blank Results									
Diazinon & Diazoxon				Diazinon			Diazoxon		
Log #	Sample Name	Date Collected	Date Analyzed	MDL (ng/sample)	Blank (ng/sample)	Recovery (%)	MDL (ng/sample)	Blank (ng/sample)	Recovery (%)
019	TB1	7/3/2009	7/6/2009	6.47	<6.47	N.A.	15.12	<15.12	N.A.
027	TB2	7/7/2009	7/13/2009	6.47	<6.47	N.A.	15.12	<15.12	N.A.
071	TB3	7/16/2009	7/21/2009	6.47	<6.47	N.A.	15.12	<15.12	N.A.
090	TB4	7/21/2009	7/28/2009	6.47	<6.47	N.A.	15.12	<15.12	N.A.
124	TB5	7/30/2009	8/5/2009	6.47	<6.47	N.A.	15.12	<15.12	N.A.
144	TB6	8/3/2009	8/10/2009	6.47	<6.47	N.A.	15.12	<15.12	N.A.
183	TB7	8/13/2009	8/18/2009	6.47	<6.47	N.A.	15.12	<15.12	N.A.
194	TB8	8/17/2009	8/25/2009	6.47	<6.47	N.A.	15.12	<15.12	N.A.

Calculated values in all the above tables were produced from original laboratory data using six (6) decimal places when available. QC results were all within expected parameters except for Diazinon trip spike results in which two (2) samples exceeded 125%.

7.0 Summary

The highest Diazinon concentration reported was collected at the Gilroy ambient background site during week five (5) with a concentration of 17.3 ng/m^3. Elevated concentrations at the Gilroy site may be due to a major flea infestation in the area. The school and local residents responded to the infestation by hiring professionals to spray the area for fleas. In addition to the Gilroy results, the only two (2) samples to exceed the EQL concentration of 7.7 ng/m^3 for Diazinon were at Salinas during weeks six (6) and seven (7) with concentrations of 11.03 ng/m^3 and 13.45 ng/m^3 respectively.

The Chualar site was surrounded by farming activity and reported 12 Diazinon results between the MDL and the EQL. Likewise, the Salinas site was in close proximity to farming activity and reported ten (10) results between the MDL and the EQL. Soledad was approximately 0.6 miles away from upwind farming activity and reported six (6) Diazinon results between the MDL and the EQL. The Hollister and King City sites had less upwind farming activity nearby than Salinas, Chualar and Soledad which may explain why they did not receive any measureable samples. Similar, but lower and fewer results were noted for Diazoxon. All Diazoxon results above the MDL were collected during weeks three (3) and five (5), week five (5) having a singular result coinciding with Gilroy's highest Diazinon value. No samples above the MDL for either Diazinon or Diazoxon were collected during weeks one (1), two (2) or four (4).