

**Environmental
Resources
Management**

1777 Botelho Drive
Suite 260
Walnut Creek, CA 94596
(925) 946-0455
(925) 946-9968 (fax)



30 January 2009

Ms. Elizabeth Allen
California Regional Water Quality Control Board
San Francisco Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Subject: 2008 Annual Indoor Air Monitoring Report
Hookston Station Site
Pleasant Hill, California

Dear Ms. Allen:

ERM-West, Inc. (ERM) has prepared this *2008 Annual Indoor Air Monitoring Report* for the Hookston Station Site in Pleasant Hill, California, on behalf of the parties named in paragraph 3 of the California Regional Water Quality Control Board, San Francisco Bay Region (Water Board) Order No. R2-2007-0009, *Adoption of Final Site Cleanup Requirements and Rescission of Order Nos. R2-2003-0035 and R2-2004-0081* (30 January 2007, the "Order"). The named parties include Union Pacific Railroad Company (UPRR), Daniel C. and Mary Lou Helix, Elizabeth Young, John V. Hook, Steven Pucell, Nancy Ellicock, and the Contra Costa Redevelopment Agency.

The 2008 annual indoor air monitoring event was completed in accordance with the Self-Monitoring Program described in the Water Board Order. The following sections describe the indoor air monitoring activities, results of the monitoring event, and status of vapor intrusion prevention systems.

This report has been divided into the following sections:

- Background;
- Indoor Air Monitoring Activities;
- Indoor Air Sampling Results; and
- Vapor Intrusion Prevention Systems.

BACKGROUND

The ground water quality of the area that encompasses the Hookston Station Site has been impacted by multiple contamination sources, which include the following properties:

- Hookston Station property – the Water Board has identified this property as a source for trichloroethene (TCE).
- Walnut Creek Manor property (81 Mayhew Way, Walnut Creek, California); Mayhew Center property (3301-3341 Vincent Road, Pleasant Hill, California); and the Cuff Property Management Company property (3343-3355 Vincent Road, Pleasant Hill, California) – the Water Board has identified each of these properties as a likely or suspected source for tetrachloroethene (PCE).
- Pitcock Petroleum (220 Hookston Road, Pleasant Hill, California) – the Water Board has identified this property as a source for petroleum hydrocarbons, as well as benzene, toluene, ethyl benzene, xylenes, and methyl tert-butyl ether (MTBE).

The solvents PCE and TCE are chlorinated hydrocarbons and may degrade to other chlorinated compounds. The nature and rate of degradation varies depending on site-specific circumstances. Generally speaking, the degradation process of chlorinated solvents proceeds in the following order: PCE, TCE, *cis*-1,2-dichloroethene (*cis*-1,2-DCE) and/or *trans*-1,2-dichloroethene (*trans*-1,2-DCE), 1,1-DCE, vinyl chloride, and finally to ethene. There is no evidence that PCE was ever used at the Hookston Station site. It is possible that degradation of PCE originating from other (non-Hookston) sources may account for some of the TCE and other degradation compounds detected in groundwater beneath Colony Park.

INDOOR AIR MONITORING ACTIVITIES

Air quality samples were collected from 19 private residences during the 2008 Annual Indoor Air Monitoring Event. Samples were collected over a 24-hour period from the crawl space, first floor, and second floor (if present) of each home, as specified in the Self-Monitoring Plan. Ambient air samples were also collected on each day indoor air sampling was completed. All samples were submitted to AirToxics, Ltd. of Folsom,

California, for laboratory analysis of volatile organic compounds (VOCs) by United States Environmental Protection Agency Method TO-15 SIM. All sampling activities were conducted in accordance with the requirements of the Self-Monitoring Program, except as described below.

The Water Board specified that air quality samples be collected from private residences within the designated Study Area that encompasses 38 private residences within the Colony Park neighborhood. The Study Area boundaries are shown on Figure 1. The owners/occupants of 17 homes within the Study Area did not grant access for the monitoring event; therefore, air quality samples were not collected from those homes. The owners/occupants of two homes within the Study area granted access for the monitoring event, but did not respond to ERM's attempts to schedule sampling appointments; therefore, air quality samples were not collected from those homes.

The Water Board specified that the 2008 Annual Indoor Air Monitoring Event be completed by 31 August 2008. All samples were collected between 14 July and 31 August 2007, except the following:

- One home was sampled during September 2008 because the original sampling appointment was postponed and rescheduled.
- Three homes were sampled during October and November 2008 because access was not granted before 31 August 2008.

ERM performed a data quality review of all indoor air analytical results. The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999. The data quality reviews are provided in Attachment A.

INDOOR AIR SAMPLING RESULTS

The analytical results of the 2008 annual indoor air monitoring event are summarized in Table 1. Although the laboratory analysis included 17 chemicals, only the chemicals detected in one or more sample during the 2008 annual event or previous sampling events are included on Table 1. A summary of all air quality data (including both current and previous indoor air sampling events) is provided in Attachment B.

The indoor air quality sample results on the attached table are compared to the residential indoor air Environmental Screening Levels (ESLs) established by the Water Board, as documented in the Water Board's ESL document entitled, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final - November 2007 (revised May 2008)*. The Water Board notes in its ESL document that the ESLs "are considered to be conservative," and that under most circumstances, "risks to human health and the environment can be considered insignificant at sites where concentrations of chemicals of concern do not exceed the respective ESLs." (ESL document at pages ES-1 and 1-1).

In those cases where sample results exceed the respective ESLs, the Water Board indicates that the "presence of chemicals at concentrations above the ESLs does not necessarily indicate that a significant risk exists" and that "[a]dditional evaluation will generally be necessary at sites where a chemical is present at concentrations above the corresponding ESL." The Water Board further notes that "[a]ctive remediation may or may not be required depending on site-specific conditions and considerations." (ESL document at pages ES-1 and 1-1).

The following sections summarize the results for the VOCs detected during the 2008 annual monitoring event.

Trichloroethene

Trichloroethene (TCE) was detected in indoor air at 9 homes and in the crawl space at 9 homes sampled during the 2008 annual indoor air monitoring event. All indoor air TCE concentrations were equal to or less than the residential indoor air ESL for TCE (1.2 micrograms per cubic meter [$\mu\text{g}/\text{m}^3$]), with one exception.

TCE was detected in a second floor bedroom at 1005 Stimel Drive at a concentration of $2.1 \mu\text{g}/\text{m}^3$, slightly greater than the ESL of $1.0 \mu\text{g}/\text{m}^3$. TCE was not detected in the sample collected from the first floor family room; TCE was detected below the ESL at $1.0 \mu\text{g}/\text{m}^3$ in the crawl space. The chemical results of TCE in indoor air are shown on Figure 1. Note that PCE was also detected at $1.6 \mu\text{g}/\text{m}^3$ (above the ESL of $0.41 \mu\text{g}/\text{m}^3$) in the second floor bedroom, at $0.26 \mu\text{g}/\text{m}^3$ (below the ESL) in the second floor bedroom sample, and at $1.0 \mu\text{g}/\text{m}^3$ (above the ESL) in the crawl

space sample (see Table 1). 1005 Stimel has an operating vapor intrusion prevention system in place.

1,1-Dichloroethene

1,1-Dichloroethene (1,1-DCE) was detected in indoor air at two residences and in the crawl space at one home during the 2008 annual indoor air monitoring event. The 1,1-DCE concentrations detected in indoor air at both homes were less than the residential indoor air ESL of $42 \mu\text{g}/\text{m}^3$ (Table 1, Figure 2). 1,1-DCE was detected in the crawl space of one of these homes and was non-detect in the crawl space at the other.

Vinyl Chloride

Vinyl chloride was detected in indoor air at four residences and not in any crawl spaces during the 2008 annual indoor air monitoring event (Figure 3); the concentrations detected were all less than the residential indoor air ESL of $0.031 \mu\text{g}/\text{m}^3$, with one exception.

Vinyl chloride was detected in the second floor bedrooms at 1002 Hampton Drive at concentrations of 0.036 and $0.095 \mu\text{g}/\text{m}^3$, slightly greater than the ESL of $0.031 \mu\text{g}/\text{m}^3$. Vinyl chloride was non-detect in the crawl space, and was detected at concentrations less than the residential indoor air ESL in the downstairs living room. Additional information regarding this home is presented further below in the Vapor Intrusion Prevention Systems Section.

Additional VOCs

Additional VOCs were detected in indoor air during 2008. These chemicals include tetrachloroethene (PCE), 1,2-dichloroethane (1,2-DCA), aromatic hydrocarbons (benzene, toluene, ethylbenzene, and xylenes [BTEX]), 1,1-DCA, and 1,1,1-trichloroethane (1,1,1-TCA). Note that these VOCs do not originate from the Hookston Station property. The results for these chemicals are included on Table 1 and summarized below:

- PCE was detected in indoor air at 13 homes and in seven crawl spaces during the 2008 annual indoor air monitoring event. As shown on Table 1 and Figure 4, seven of those homes contained concentrations of PCE in indoor air above the Residential Indoor Air ESL of $0.41 \mu\text{g}/\text{m}^3$. PCE does not originate from the Hookston

Station site. As reported in the *100% Remedial Design and Implementation Plan for A-Zone Permeable Reactive Barrier* (ERM, 21 November 2008), PCE has been detected in soil vapor in the Colony Park neighborhood at concentrations as great as 1,100 $\mu\text{g}/\text{m}^3$.

- 1,2-DCA was detected in indoor air samples 14 homes and in 5 crawl spaces during 2008. All 1,2-DCA concentrations in indoor air exceeded the residential indoor air ESL (Figure 5). 1,2-DCA is not a chemical of concern that originates from the Hookston Station site.
- One or more aromatic hydrocarbons (e.g., BTEX) were detected in all homes, crawl spaces, and ambient air samples in the 2008 annual indoor air monitoring event. Detected benzene concentrations exceeded the residential indoor air ESL in all indoor air samples with two exceptions (Figure 6 and Table 1). Samples collected at four residences also contained ethylbenzene at concentrations greater than the ESL. BTEX compounds were also found in outdoor ambient air at similar concentrations to those detected indoors. BTEX are not chemicals of concern associated with the Hookston Station site.
- 1,1,1-TCA and 1,1-DCA were detected in several indoor air samples at low concentrations relative to their respective Residential Indoor Air ESLs. These compounds were not detected in outdoor air, nor are they generally found in ground water in the Colony Park neighborhood. 1,1,1-TCA and 1,1-DCA are not chemicals of concern associated with the Hookston Station site.

VAPOR INTRUSION PREVENTION SYSTEMS

The Hookston Station Parties have installed vapor intrusion prevention systems in eight homes in the Colony Park neighborhood. The homes with vapor intrusion prevention systems are indicated on Figures 1 through 6 and Table 1. The Hookston Station Parties have offered to install systems at two additional homes, but the property owners have not granted access.

Indoor air samples were collected in 2008 from all eight properties at which vapor intrusion prevention systems have been installed. The systems were all inspected prior to collecting air quality samples to assure the systems were operating properly. Where access was granted, the systems were inspected again in October 2008. During inspections,

the system fans were examined for defects and air flow in the discharge pipes was measured. Any necessary repairs or modifications to the systems were made during or shortly after inspections.

As stated above, air quality samples were collected during the 2008 annual indoor air monitoring event from each of the homes with vapor intrusion prevention systems. TCE and associated breakdown compounds (cis-1,2-DCE, trans-1,2-DCE, 1,1-DCE, and vinyl chloride) were either non-detect or detected in indoor air at concentrations less than the residential indoor air ESLs in all eight homes, with two exceptions:

- TCE was detected at a concentration slightly greater than the residential indoor air ESL in the second floor sample collected at 1005 Stimel Drive. TCE was non-detect in the first floor sample and was detected in the crawl space at $1.0 \mu\text{g}/\text{m}^3$. Note that PCE was also detected at $1.6 \mu\text{g}/\text{m}^3$ (above the ESL) in the second floor bedroom sample, at $0.26 \mu\text{g}/\text{m}^3$ (below the ESL) in the first floor family room sample, and at $1.0 \mu\text{g}/\text{m}^3$ (above the ESL) in the crawl space sample.
- Vinyl chloride was detected at concentrations slightly greater than the residential indoor air ESL in the second floor samples collected at 1002 Hampton Drive. Vinyl chloride was non-detect in the crawl space and detected less than the residential indoor air ESL in first floor samples. Vinyl chloride has historically been detected above the residential indoor air ESL in second floor samples at this home at concentrations similar to those detected in 2008. The VIPS has been repaired and modified numerous times to ensure proper operation. Repairs and modifications made to the system since it was installed in 2004 include:
 - Extending the discharge pipe further above the roof line;
 - Adding a carbon abatement system to the discharge pipe; and
 - Repairing damages to the crawl space membrane caused by third parties (utility work performed in the crawl space) and rodents.

CLOSING

The 2008 annual indoor air monitoring event and summary report were completed in accordance with the Self-Monitoring Program described in Water Board Order No. R2-2007-0009, *Adoption of Final Site Cleanup Requirements and Rescission of Order Nos. R2-2003-0035 and R2-2004-0081* (30 January 2007). In accordance with the Order, the vapor intrusion prevention systems will be inspected again in spring 2009 and the next annual indoor air monitoring event will be completed by 30 August 2009.

I certify that the information provided in this report is true and correct to the best of my knowledge. If you have any questions regarding this report, please feel free to call Kimberly Lake or me at (925) 946-0455.

Sincerely,

A handwritten signature in black ink, appearing to read "Brian Bjorklund", with a large, stylized flourish at the end.

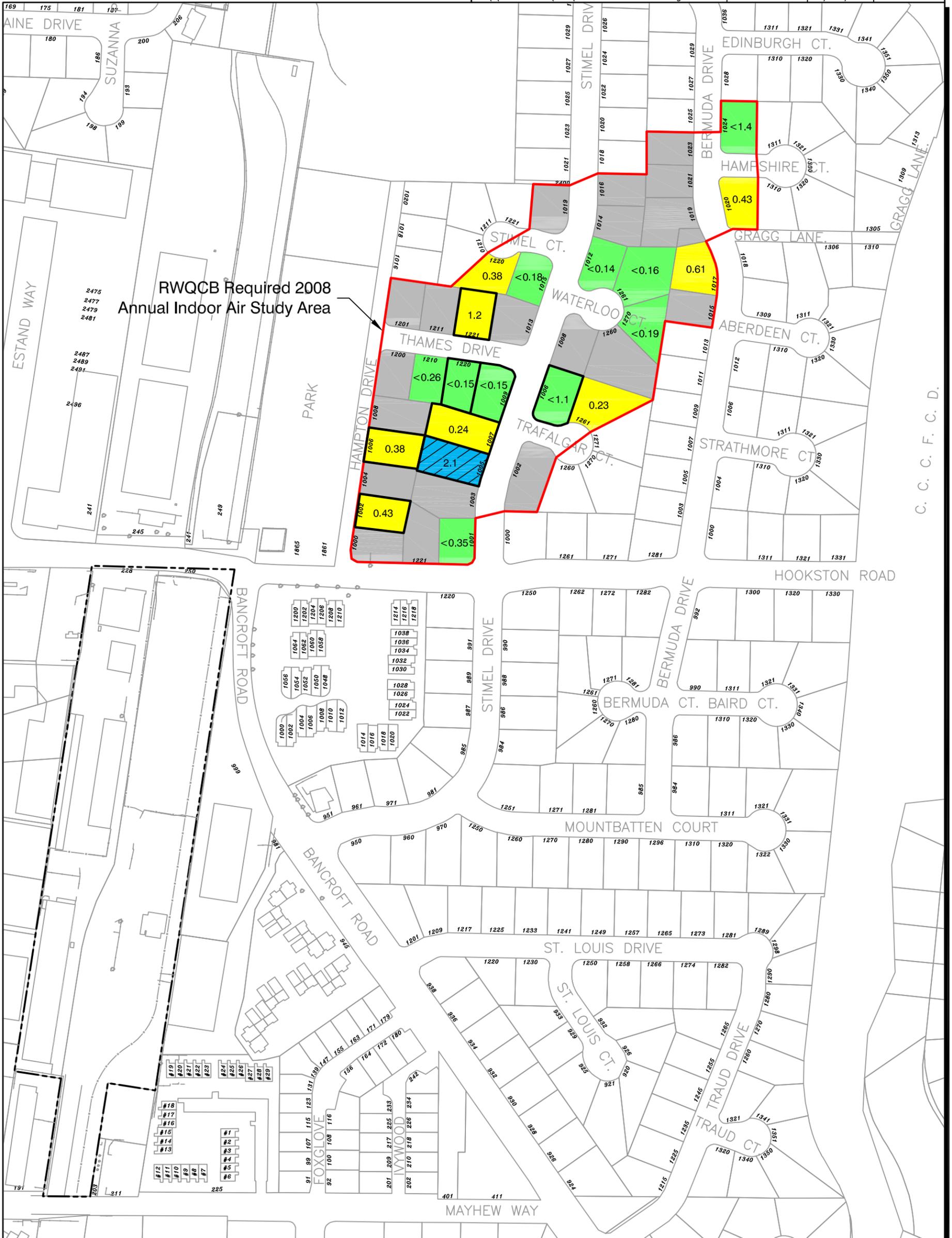
Brian Bjorklund, P.G.
Partner

BSB/kl/0077457.7

enclosures: Figures 1 through 6
Table 1
Attachment A - Data Quality Reviews
Attachment B - Historical Indoor Air Results

cc: Mr. Daniel Helix
Mr. Michael Grant, UPRR
Mr. Jim Kennedy, Contra Costa County Redevelopment Agency
Ms. Lucy Goodell, Colony Park Neighbor's Association
Ms. Barbara Cook, DTSC
Ms. Carol Yuke, Contra Costa County Central Library
Mr. Steve Campbell, Mt. Diablo Unified School District (e-copy)
Mr. Todd Teachout, City of Pleasant Hill (e-copy)

Figures



RWQCB Required 2008 Annual Indoor Air Study Area

LEGEND

- Hookston Station Parcel Property Boundary
- Study Area Boundary
- TCE Not Detected in Indoor Air Above Laboratory Reporting Limit
- TCE Detected in Indoor Air at a Concentration Equal to or Less Than the Residential ESL ($1.2 \mu\text{g}/\text{m}^3$)
- TCE Detected in Indoor Air at a Concentration Greater Than the Residential ESL ($1.2 \mu\text{g}/\text{m}^3$)
- Property owner/resident did not grant access for collecting indoor air quality samples during the 2008 Annual monitoring program
- Although TCE was detected above the ESL in an indoor air sample, TCE was below the ESL or was not detected in the crawl space sample
- Vapor intrusion prevention system was installed at the residence prior to the 2008 Annual monitoring event
- 0.14 - Detected TCE concentration, micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)
- <0.12 - Indicates TCE was not detected above the reporting limit of $0.12 \mu\text{g}/\text{m}^3$
- J - Estimated value

Note: Figure is based on the maximum TCE concentration detected in indoor air at each home sampled during 2008. Crawl space air results are not included.

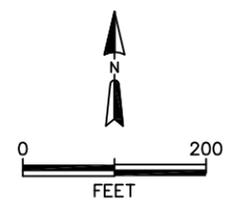
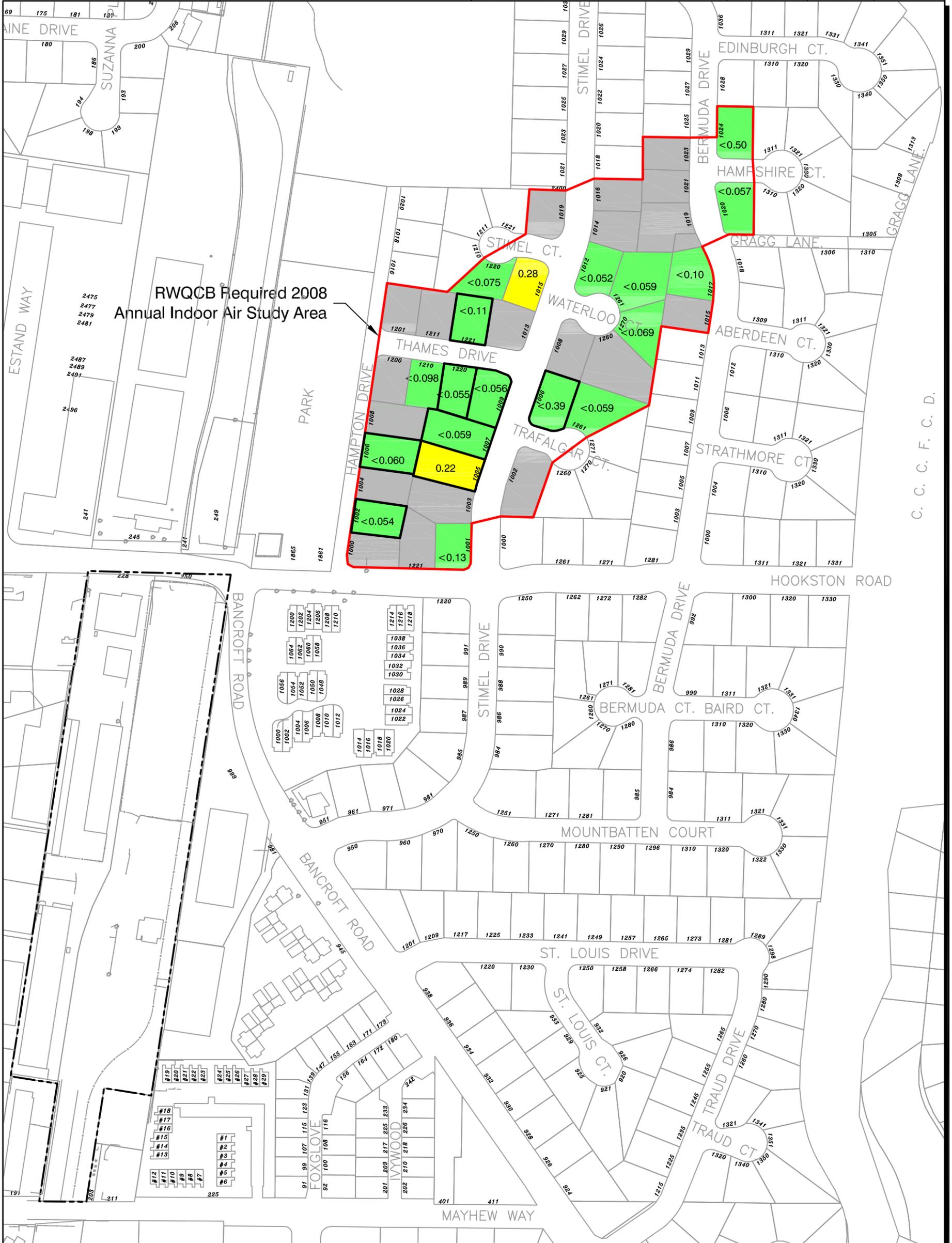


Figure 1
 2008 Indoor Air Results - TCE
 Hookston Station
 Pleasant Hill, California



LEGEND

- Hookston Station Parcel Property Boundary
- Study Area Boundary
- 1,1-DCE Not Detected in Indoor Air Above Laboratory Reporting Limit
- 1,1-DCE Detected in Indoor Air at a Concentration Equal to or Less Than the Residential ESL (42 $\mu\text{g}/\text{m}^3$)
- Property owner/resident did not grant access for collecting indoor air quality samples during the 2008 Annual monitoring program
- Vapor intrusion prevention system was installed at the residence prior to the 2008 Annual monitoring event
- 0.15 - Detected 1,1-DCE concentration, micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)
- <0.10 - Indicates 1,1-DCE was not detected above the reporting limit of 0.10 $\mu\text{g}/\text{m}^3$

Note: Figure is based on the maximum 1,1-DCE concentration detected in indoor air at each home sampled during 2008. Crawl space air results are not included.

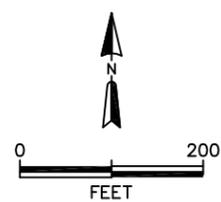
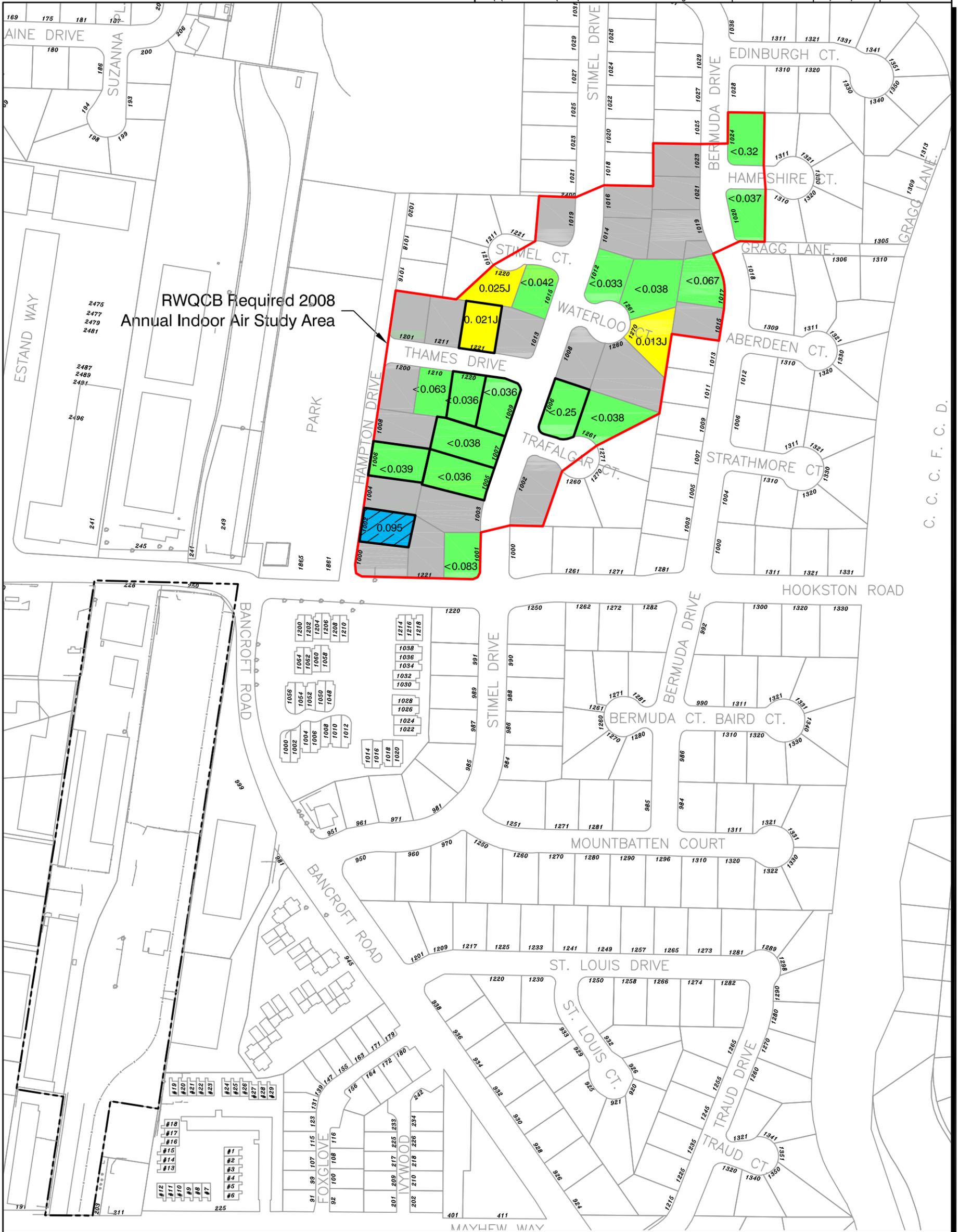


Figure 2
2008 Indoor Air Results - 1,1-DCE
Hookston Station
Pleasant Hill, California



RWQCB Required 2008 Annual Indoor Air Study Area

C. C. C. F. C. D.

LEGEND

- Hookston Station Parcel Property Boundary
- Study Area Boundary
- Vinyl Chloride Not Detected in Indoor Air Above Laboratory Reporting Limit
- Vinyl Chloride Detected in Indoor Air at a Concentration Equal to or Less Than the Residential ESL (0.031 µg/m³)
- Vinyl Chloride Was Detected in Indoor Air at a Concentration Greater Than the Residential ESL (0.031 µg/m³)
- Property owner/resident did not grant access for collecting indoor air quality samples during the 2008 Annual monitoring program
- Although vinyl chloride was detected above the ESL in an indoor air sample, vinyl chloride was not detected in the crawl space sample
- Vapor intrusion prevention system was installed at the residence prior to the 2008 Annual monitoring event
- J - Estimated value
- 0.050 - Detected vinyl chloride concentration, micrograms per cubic meter (µg/m³)
- <0.030 - Indicates vinyl chloride was not detected above the method detection level (MDL) or the laboratory reporting limit (RL). The RL is shown on figure.

Note: Figure is based on the maximum vinyl chloride concentration detected in indoor air at each home sampled during 2008. Crawl space air results are not included.

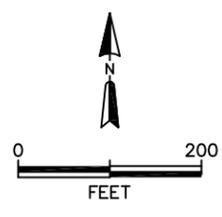


Figure 3
 2008 Indoor Air Results - Vinyl Chloride
 Hookston Station
 Pleasant Hill, California



RWQCB Required 2008 Annual Indoor Air Study Area

LEGEND

- Hookston Station Parcel Property Boundary
 - Study Area Boundary
 - PCE Not Detected in Indoor Air Above Laboratory Reporting Limit
 - PCE Detected in Indoor Air at a Concentration Equal to or Less Than the Residential ESL ($0.41 \mu\text{g}/\text{m}^3$)
 - PCE Detected in Indoor Air at a Concentration Greater Than the Residential ESL ($0.41 \mu\text{g}/\text{m}^3$)
 - Property owner/resident did not grant access for collecting indoor air quality samples during the 2008 Annual monitoring program
 - Although PCE was detected above the ESL in an indoor air sample, PCE was not detected in current (or most recent) crawl space samples
 - Vapor intrusion prevention system was installed at the residence prior to the 2008 Annual monitoring event
 - J - Estimated value
 - 0.14 - Detected PCE concentration, micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)
 - <0.12 - Indicates PCE was not detected above the reporting limit of $0.12 \mu\text{g}/\text{m}^3$
- Note: Figure is based on the maximum PCE concentration detected in indoor air at each home sampled during 2008. Crawl space air results are not included.

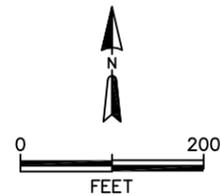
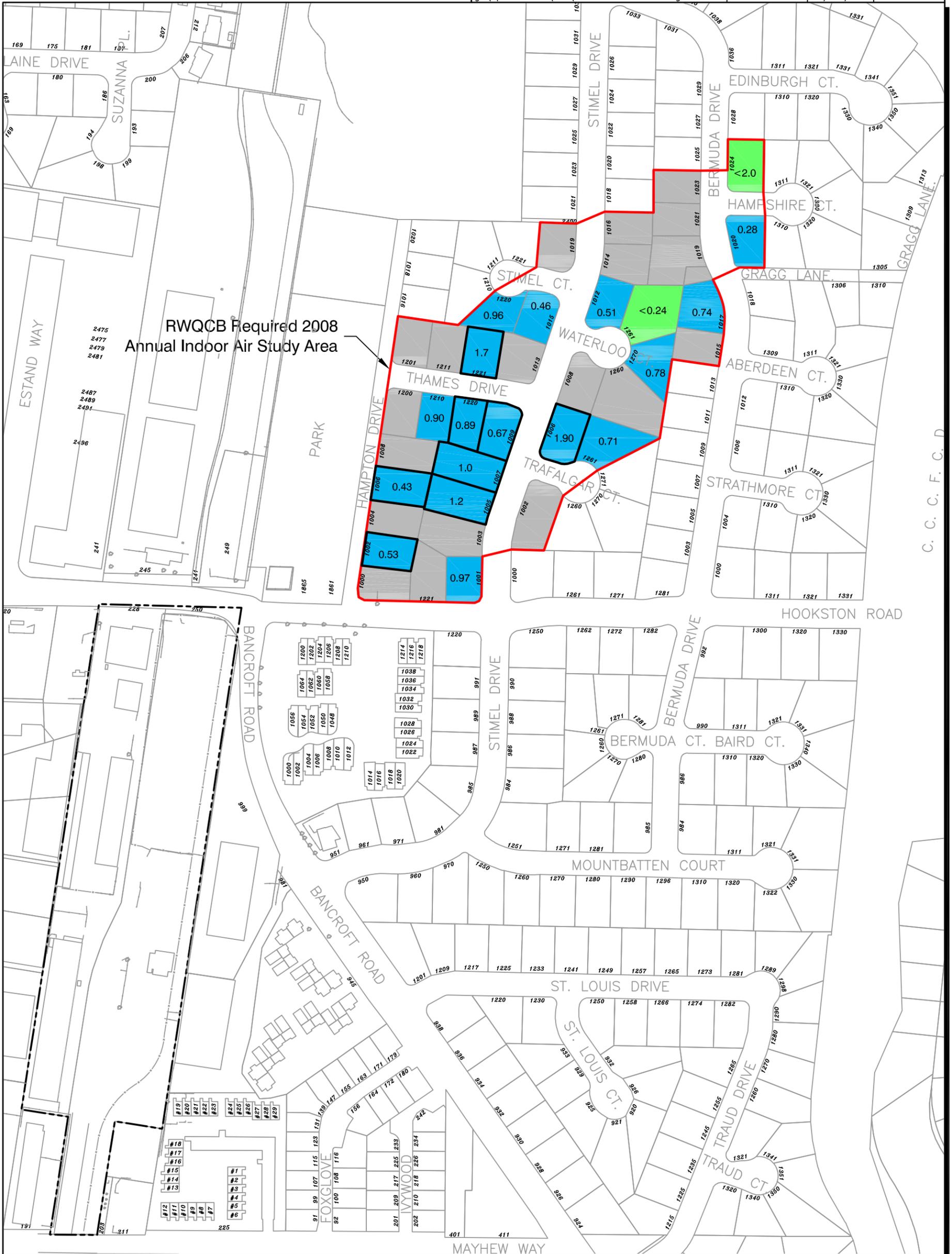


Figure 4
 2008 Indoor Air Results - PCE
 Hookston Station
 Pleasant Hill, California



RWQCB Required 2008 Annual Indoor Air Study Area

LEGEND

- Hookston Station Parcel Property Boundary
 - Study Area Boundary
 - Benzene Detected in Indoor Air At a Concentration Greater Than The Residential ESL ($0.084 \mu\text{g}/\text{m}^3$)
 - Property owner/resident did not grant access for collecting indoor air quality samples during the 2008 Annual monitoring program
 - Vapor intrusion prevention system was installed at the residence prior to the 2008 Annual monitoring event
 - 0.90 - Detected Benzene concentration, micrograms per cubic meter ($\mu\text{g}/\text{m}^3$)
 - J - Estimated Result
- Note: Figure is based on the maximum benzene concentration detected in indoor air at each home sampled during 2008. Crawl space air results are not included.

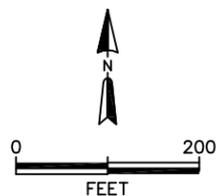


Figure 6
 2008 Indoor Air Results - Benzene
 Hookston Station
 Pleasant Hill, California

Table

Table 1
Volatile Organic Compounds Detected in Air Samples ($\mu\text{g}/\text{m}^3$)
2008 Annual Indoor Air Monitoring Event
Hookston Station Site, Pleasant Hill, California

Sample ID	Address	Date	Sample Location	Vapor Intrusion Prevention System	Final Vacuum (In. Hg)	Vinyl Chloride	1,1-DCE	1,1-DCA	c-1,2-DCE	1,1,1-TCA	Benzene	1,2-DCA	TCE	Toluene	PCE	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE					
						<i>Residential Indoor Air ESL:</i>					0.031	42	1.5	7.3	460	0.084	0.094	1.2	63	0.41	0.98	21	21	9.4
<i>Indoor Air Quality Samples:</i>																								
1017 Bermuda Dr - 2nd Floor	1017 Bermuda Dr	7/15-16/2008	Bedroom		2.5	<0.032	<0.049	<0.10	<0.098	<0.14	0.61	0.26	<0.13	1.9	<0.17	0.28	0.77	0.26	<0.45					
1017 Bermuda Dr - 2nd Floor (duplicate)	1017 Bermuda Dr	7/15-16/2008	Bedroom		0.0	<0.029	<0.044	<0.091	<0.089	<0.12	0.73	0.32	<0.12	1.9	<0.15	0.34	0.87	0.3	<0.40					
1017 Bermuda Dr - 1st floor	1017 Bermuda Dr	7/15-16/2008	Living Room		4.0	<0.067	<0.10	<0.21	<0.21	<0.28	0.74	<0.21	0.61	2.2	<0.36	0.33	0.93	0.33	<0.94					
1020 Bermuda Dr - 1st Floor	1020 Bermuda Dr	7/29-30/2008	Master Bedroom		6.5	<0.037	<0.057	<0.12	<0.11	0.36	0.28	<0.12	0.43	3.5	<0.20	0.17	0.40	0.13	<0.52 UJ					
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	7/16-17/2008	Master Bedroom		3.0	<0.32	<0.50	<1.0	<1.0	<1.4	<2.0	48	<1.4	11	1.8	<1.1	<2.2	<1.1	<4.5					
1024 Bermuda Dr - 1st Floor (duplicate)	1024 Bermuda Dr	7/16-17/2008	Master Bedroom		5.0	<0.23	<0.36	<0.73	<0.72	<0.99	<1.4	41	<0.97	10	1.5	<0.79	1.7	<0.79	<3.3					
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	5/27-28/2008	North Bedroom		2.5	0.036	<0.049	<0.10	<0.098	<0.14	0.5	<0.10	0.81	2.9	<0.17	0.32	0.8	0.26	<0.45					
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	5/28-29/2008	South Bedroom		5.0	0.072	<0.054	<0.11	<0.11	<0.15	0.38	0.11	0.65	2.7	<0.18	0.28	0.65	0.20	<0.49					
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	5/27-28/2008	Living Room	YES	3.0	0.022 J	<0.050	<0.10	<0.10	<0.14	0.71	<0.10	0.68	3.3	<0.17	0.32	0.93	0.28	<0.45					
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	7/15-16/2008	North Bedroom	YES	5.0	0.039	<0.054	<0.11	<0.11	<0.15	0.53	<0.11	0.43	2.3	0.22	0.28	0.67	0.27	<0.49					
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	7/15-16/2008	South Bedroom	YES	3.0	0.095	<0.050	<0.10	<0.10	<0.14	0.49	0.10	0.37	2.7	<0.17	0.40	0.89	0.37	<0.45					
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	7/15-16/2008	Living Room	YES	1.5	0.013 J	<0.048	<0.097	<0.095	<0.13	0.47	<0.097	0.29	1.5	<0.16	0.18	0.5	0.20	<0.43					
1006 Hampton - 2nd Floor	1006 Hampton Dr	7/14-15/2008	Bedroom	YES	7.5	<0.039	<0.060	<0.12	<0.12	<0.16	0.43	0.23	0.25	1.8 U	0.41	0.41	0.95	0.39	<0.55					
1006 Hampton - 1st Floor	1006 Hampton Dr	7/14-15/2008	Living Room	YES	7.0	<0.038	<0.059	<0.12	<0.12	<0.16	0.38	0.2	0.38	1.6 U	0.40	0.29	0.78	0.28	<0.53					
1220 Stimel Ct - 2nd Floor	1220 Stimel Ct	8/12-13/2008	Bedroom		12.0	0.013 J	<0.075	<0.15	<0.15	4.5	0.96	0.59	0.38	36	0.50	1.6	4.1	1.7	<0.68					
1220 Stimel Ct - 1st Floor	1220 Stimel Ct	8/12-13/2008	Dining Room		9.0	0.025 J	<0.064	<0.13	<0.13	1.2	0.70	0.25	<0.17	15	0.83	0.77	2.1	0.80	<0.58					
1001 Stimel Dr - 1st Floor	1001 Stimel Dr	8/27-28/2008	Master Bedroom		0.0	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*					
1001 Stimel Dr - 1st Floor (DUP)	1001 Stimel Dr	8/27-28/2008	Master Bedroom		9.0	<0.083	<0.13	<0.26	<0.26	<0.35	0.97	1.4	<0.35	8.6	3.9	0.98	3.1	1	<1.2					
1005 Stimel Dr - 2nd Floor	1005 Stimel Dr	10/16-17/2008	Bedroom	YES	5.0	<0.035	0.22	0.11	<0.11	1.9	1.1	1.5	2.1	6.8	1.6	1.2	3.8	1.1	<0.49 UJ					
1005 Stimel Dr - 1st Floor	1005 Stimel Dr	10/16-17/2008	Family Room	YES	6.0	<0.036	<0.056	<0.11	<0.11	0.22	1.2	0.2	<0.15	7.3	0.26	1.1	3.6	1.0	<0.51 UJ					
1006 Stimel Dr - 1st Floor	1006 Stimel Dr	11/6-7/2008	Master Bedroom	YES	9.5	<0.24	<0.36	<0.75	<0.73	<1.0	1.80	0.77	<0.99	8.8	<1.2	1.1	4.3	1.5	<3.3					
1006 Stimel Dr - 1st Floor (dup)	1006 Stimel Dr	11/6-7/2008	Master Bedroom	YES	7.0	<0.25	<0.39	<0.80	<0.78	<1.1	1.90	<0.80	<1.1	8.4	<1.3	1.0	3.5	1.2	<3.6					
1007 Stimel Dr - Second Floor	1007 Stimel Dr	10/13-14/2008	Bedroom	YES	5.0	<0.036	<0.056	<0.11	<0.11	<0.15	0.98	<0.11	0.24	6.1	0.19	0.73	2.2	0.72	<0.51					
1007 Stimel Dr - First Floor	1007 Stimel Dr	10/13-14/2008	Living Room	YES	7.0	<0.038	<0.059	<0.12	<0.12	<0.16	1.0	<0.12	0.22	5.9	0.21	0.77	2.3	0.78	<0.53					
1009 Stimel Dr - 1st Floor	1009 Stimel Dr	9/15-16/2008	Master Bedroom	YES	6.0	<0.036	<0.056	<0.11	<0.11	1.9	0.67	0.63	<0.15	14	0.98	0.67	1.8	0.64	<0.51 UJ					
1012 Stimel Dr - 1st Floor	1012 Stimel Dr	7/16-17/2008	Bedroom		4.0	<0.033	<0.052	<0.11	<0.10	<0.14	0.51	0.39	<0.14	4.8	0.28	0.21	0.56	0.22	<0.47					
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	7/24-25/2008	Master Bedroom		9.5	<0.042	0.28	<0.13	<0.13	7.8	0.46	<0.13	<0.18	2.6	<0.22	0.44	0.96	0.30	<0.60 UJ					
1015 Stimel Dr - 1st Floor (duplicate)	1015 Stimel Dr	7/24-25/2008	Master Bedroom		4.5	<0.034	0.12	<0.11	<0.11	6.5	0.45	<0.11	<0.14	2.5	0.18 J	0.44	1.6	0.85	<0.48 UJ					
1210 Thames Dr - 1st Floor	1210 Thames Dr	8/14-15/2008	Master Bedroom		7.0	<0.063	<0.098	<0.20	<0.20	<0.27	0.90	0.84	<0.26	5.7	<0.34	0.50	1.3	0.61	<0.89					
1220 Thames Dr - 2nd Floor	1220 Thames Dr	7/14-15/2008	Bedroom	YES	0.5	<0.030	<0.046	<0.094	<0.092	0.24	0.89	0.16	<0.12	7.0	0.43	0.71	2.2	0.86	<0.42					
1220 Thames Dr - 1st Floor	1220 Thames Dr	7/14-15/2008	Family Room	YES	5.5	<0.036	<0.055	<0.11	<0.11	0.2	0.80	0.12	<0.15	4.0	0.25	0.43	1.4	0.48	<0.50					
1221 Thames Dr - 2nd Floor	1221 Thames Dr	7/23-24/2008	Bedroom	YES	9.5	0.016 J	<0.066	<0.13	<0.13	0.82	1.7	0.46	1.2	18	7.2	3.2	12	4.4	<0.60					
1221 Thames Dr - 1st Floor ⁽⁴⁾	1221 Thames Dr	7/23-24/2008	Master Bedroom	YES	5.5	0.021 J	<0.11	<0.22	<0.22	0.56	1.4	0.45	0.90	14	2.1	2.0	6.9	2.6	<1.0					
1261 Trafalgar Ct - 2nd Floor	1261 Trafalgar Ct	7/23-24/2008	Bedroom		4.5	<0.034	<0.053	<0.11	<0.11	<0.15	0.71	0.14	0.15	1.9	<0.18	0.21	0.48	0.22	<0.48					
1261 Trafalgar Ct - 1st Floor	1261 Trafalgar Ct	7/23-24/2008	Master Bedroom		7.0	<0.038	<0.059	<0.12	<0.12	<0.16	0.61	0.14	0.23	5.3	<0.20	0.43	0.76	0.31	<0.53					
1261 Waterloo Ct - 2nd Floor	1261 Waterloo Ct	7/29-30/2008	Bedroom		7.0	<0.038	<0.059	<0.12	<0.12	<0.16	<0.24	<0.12	<0.16	2.2	<0.20	0.36	0.46	0.16	<0.53 UJ					
1261 Waterloo Ct - 1st Floor	1261 Waterloo Ct	7/29-30/2008	Living Room		5.5	<0.036	<0.055	<0.11	<0.11	<0.15	<0.22	<0.11	<0.15	1.4	<0.19	0.15	0.34	0.12	<0.50 UJ					
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	8/14-15/2008	Bedroom		10.0	0.013 J	<0.067	<0.14	<0.13	0.48	0.78	<0.14	<0.18	14	<0.23	0.58	1.5	0.60	<0.61					
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	8/14-15/2008	Living Room		10.5	<0.045	<0.069	<0.14	<0.14	0.68	0.73	<0.14	<0.19	9.8	0.27	0.93	1.8	0.67	<0.63					
<i>Crawl Space and VIPS Air Quality Samples:</i>																								
1017 Bermuda Dr - Crawl Space	1017 Bermuda Dr	7/15-16/2008	Crawl Space		1.5	<0.031	<0.048	<0.097	<0.095	<0.13	0.46	<0.097	<0.13	0.8	<0.16	0.13	0.40	0.15	<0.12					
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	7/29-30/2008	Crawl Space		0.0	<0.029 UJ	<0.045 UJ	<0.092 UJ	<0.090 UJ	0.14 J	0.36 J	<0.092 UJ	0.54 J	33 J	0.19 J	0.97 J	1.6 J	0.5 J	<0.41 UJ					
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	7/16-17/2008	Crawl Space		3.0	<0.032	<0.050	<0.10	<0.10	<0.14	0.36	0.94	1.7	1.4	0.31	0.16	0.45	0.18	<0.45					
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	5/28-29/2008	Crawl Space	YES	10.0	<0.043	<0.067	<0.14	<0.13	<0.18	<0.27	<0.14	0.93	0.68	<0.23	<0.15	<0.30	<0.15	<0.61					
1002 Hampton Dr - VIPS In	1002 Hampton Dr	5/27-28/2008	Discharge Pipe (no treatment)	YES	4.0	0.025 J	0.22	<0.11	<0.10	0.19	1.4	0.18	19	1.4	<0.18	0.14	0.37	0.15	<0.47					
1002 Hampton Dr - VIPS Mid	1002 Hampton Dr	5/27-28/2008	Discharge Pipe (1 carbon treatment)	YES	1.5	0.029 J	<0.048	<0.097	<0.095	<0.13	0.45	<0.097	<0.13	1.3	<0.16	0.15	0.44	0.16	<0.43					
1002 Hampton Dr - VIPS Eff	1002 Hampton Dr	5/27-28/2008	Discharge Pipe (2 carbon treatment)	YES	3.0	0.06	<0.050	<0.10	<0.10	<0.14	0.87	0.12	<0.14	0.9	<0.17	0.13	0.34	0.13	<0.45					
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	7/15-16/2008	Crawl Space	YES	0.5	<0.030	<0.046	<0.094	<0.092	<0.13	0.58	<0.094	1.0	0.92	<0.16	0.12	0.33	0.13	<0.42					
1002 Hampton Dr - VIPS In ⁽¹⁾	1002 Hampton Dr	7/15-16/2008	Discharge Pipe (no treatment)	YES	3.0	0.016 J	<0.050	<0.10	<0.10	<0.14	0.69	0.15	3.5	0.8	<0.17	0.14	0.39	0.16	<0.45					
1002 Hampton Dr - VIPS Mid ⁽²⁾	1002 Hampton Dr	7/15-16/2008	Discharge Pipe (1 carbon treatment)	YES	2.5	0.018 J	<0.049	<0.10	<0.098	<0.14	0.52	0.15	<0.13	0.47	<0.17	0.12	0.33	0.14	<0.45					
1002 Hampton Dr - VIPS Eff ⁽³⁾	1002 Hampton Dr	7/15-16/2008	Discharge Pipe (2 carbon treatment)	YES	2.5	0.048	<0.049	<0.10	<0.098	<0.14	0.61	0.19	<0.13	0.95	<0.17	0.31	0.46	0.19	<0.45					
1006 Hampton Dr - Crawl Space	1006 Hampton Dr	7/14-15/2008	Crawl Space	YES	5.0	<0.035	<0.054	<0.11	<0.11	<0.15	0.38	<0.11	<0.15	0.79 U	<0.18	0.17	0.35	0.1						

Table 1
Volatile Organic Compounds Detected in Air Samples (µg/m³)
2008 Annual Indoor Air Monitoring Event
Hookston Station Site, Pleasant Hill, California

Sample ID	Address	Date	Sample Location	Vapor Intrusion Prevention System	Final Vacuum (In. Hg)	Vinyl Chloride	1,1-DCE	1,1-DCA	c-1,2-DCE	1,1,1-TCA	Benzene	1,2-DCA	TCE	Toluene	PCE	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
<i>Residential Indoor Air ESL:</i>						0.031	42	1.5	7.3	460	0.084	0.094	1.2	63	0.41	0.98	21	21	9.4
1001 Stimel Dr - Crawl Space	1001 Stimel Dr	8/27-28/2008	Crawl Space		8.5	<0.041	<0.063	<0.13	<0.13	<0.17	0.89	0.8	<0.17	5.3	1.2	0.8	2.8	1	<0.57
1005 Stimel Dr - Crawl Space	1005 Stimel Dr	10/16-17/2008	Crawl Space	YES	3.5	<0.033	0.086	<0.10	<0.10	1.9	1.1	0.21	1.0	4.4	1.0	0.68	2.3	0.72	<0.46 UJ
1006 Stimel Dr - Crawl Space	1006 Stimel Dr	11/6-7/2008	Crawl Space	YES	6.5	<0.037	<0.057	<0.12	<0.11	<0.16	1.0	<0.12	<0.16	2.8	<0.20	0.45	1.4	0.56	<0.52
1007 Stimel Dr - Crawl Space	1007 Stimel Dr	10/13-14/2008	Crawl Space	YES	5.0	<0.035	<0.054	<0.11	<0.11	<0.15	0.8	<0.11	<0.15	3.0	<0.18	0.48	1.6	0.57	<0.49
1009 Stimel Dr - Crawl Space	1009 Stimel Dr	9/15-16/2008	Crawl Space	YES	5.0	<0.035	<0.054	<0.11	<0.11	0.18	0.39	<0.11	<0.15	1.6	<0.18	0.22	0.63	0.21	<0.49 UJ
1012 Stimel Dr - Crawl Space	1012 Stimel Dr	7/16-17/2008	Crawl Space		4.0	<0.033	<0.052	<0.11	<0.10	<0.14	0.46	<0.11	0.31	1.7	<0.18	0.16	0.47	0.48	<0.47
1015 Stimel Dr - Crawl Space	1015 Stimel Dr	7/24-25/2008	Crawl Space		8.0	<0.040	<0.061	<0.12	<0.12	0.47	0.40	<0.12	<0.17	1.2	<0.21	0.20	0.56	0.21	<0.56 UJ
1210 Thames Dr - Crawl Space	1210 Thames Dr	8/14-15/2008	Crawl Space		5.5	<0.036	<0.055	<0.11	<0.11	<0.15	0.58	0.18	0.30	2.5	<0.19	0.29	0.84	0.33	<0.50
1220 Thames Dr - Crawl Space	1220 Thames Dr	7/14-15/2008	Crawl Space	YES	3.5	<0.033	<0.051	<0.10	<0.10	<0.14	0.44	<0.10	<0.14	1.5	0.32	0.18	0.52	0.20	<0.46
1221 Thames Dr - Crawl Space	1221 Thames Dr	7/23-24/2008	Crawl Space	YES	3.5	<0.033	<0.051	<0.10	<0.10	0.25	0.78	0.13	0.27	5.5	0.82	0.84	2.8	1.1	<0.46
1261 Trafalgar Ct - Crawl Space	1261 Trafalgar Ct	7/23-24/2008	Crawl Space		2.5	<0.032	<0.049	<0.10	<0.098	<0.14	0.48	<0.10	0.97	1.8	<0.17	0.18	0.46	0.19	<0.45
1261 Waterloo Ct - Crawl Space	1261 Waterloo Ct	7/29-30/2008	Crawl Space		7.5	<0.039	<0.060	<0.12	<0.12	<0.16	<0.24	<0.12	<0.16	1.0	<0.21	<0.13	0.29	<0.13	<0.55 UJ
1270 Waterloo Ct - Crawl Space	1270 Waterloo Ct	8/14-15/2008	Crawl Space		5.0	<0.035	<0.054	<0.11	<0.11	0.23	0.62	<0.11	<0.15	2.4	0.20	0.35	1.1	0.41	<0.49
<i>Ambient Air Quality Samples:</i>																			
Ambient Air - 5/27/08	1002 Hampton Dr	5/27-28/2008	Back Yard		6.5	<0.043	<0.067	<0.14	<0.13	<0.18	0.38	<0.14	<0.18	0.88	<0.23	<0.14	0.4	<0.14	<0.60
Ambient Air - 7/14/08	1220 Thames Dr	7/14-15/2008	Back Yard		5.5	<0.036	<0.055	<0.11	<0.11	<0.15	0.34	<0.11	<0.15	0.77	<0.19	0.13	0.37	0.13	<0.50 UJ
Ambient Air - 7/15/08	1017 Bermuda Dr	7/15-16/2008	Back Yard		4.0	<0.033	<0.052	<0.11	<0.10	<0.14	0.37	<0.11	<0.14	0.64	<0.18	<0.11	0.26	<0.11	<0.47 UJ
Ambient Air - 7/16/08	1024 Bermuda Dr	7/16-17/2008	Back Yard		5.0	<0.035	<0.054	<0.11	<0.11	<0.15	0.34	<0.11	<0.15	0.76	<0.18	0.12	0.33	0.14	<0.49
Ambient Air - 7/23/08	1221 Thames Dr	7/23-24/2008	Back Yard		8.5	<0.041	<0.063	<0.13	<0.13	<0.17	0.43	<0.13	<0.17	0.97	<0.22	<0.14	0.32	<0.14	<0.57
Ambient Air - 7/24/08	1015 Stimel Dr	7/24-25/2008	Back Yard		9.0	<0.041	<0.064	<0.13	<0.13	<0.18	0.40	<0.13	<0.17	1.0	<0.22	0.14	0.37	<0.14	<0.58 UJ
Ambient Air - 7/29/08	1020 Bermuda Dr	7/29-30/2008	Back Yard		6.5	<0.037	<0.057	<0.12	<0.11	<0.16	<0.23	<0.12	<0.16	0.74	<0.20	<0.12	0.29	<0.12	<0.52 UJ
Ambient Air - 8/12/08	1220 Stimel Ct	8/12-13/2008	Back Yard		12.5	<0.050	<0.077	<0.16	<0.15	<0.21	0.60	<0.16	<0.21	2.0	<0.26	0.30	1.0	0.38	<0.70
Ambient Air - 8/14/08	1210 Thames Drive	8/14-15/2008	Back Yard		5.0	<0.035	<0.054	<0.11	<0.11	<0.15	0.54	<0.11	<0.15	1.7	<0.18	0.27	0.85	0.34	<0.49
Ambient Air - 8/27/08	1001 Stimel Dr	8/27-28/2008	Back Yard		8.0	<0.040	<0.061	<0.12	<0.12	<0.17	0.8	<0.12	<0.17	4	<0.21	0.69	2.5	0.88	<0.56
Ambient Air - 9/15/08	1009 Stimel Dr	9/15-16/2008	Back Yard		4.0	<0.033	<0.052	<0.11	<0.10	<0.14	0.37	<0.11	<0.14	1.30	<0.18	0.19	0.57	0.23	<0.47 UJ
Ambient Air - 10/13/08	1007 Stimel Dr	10/13-14/2008	Back Yard		5.5	<0.036	<0.055	<0.11	<0.11	<0.15	0.76	<0.11	<0.15	2.9	<0.19	0.47	1.6	0.54	<0.50
Ambient Air - 10/16/08	1005 Stimel Dr	10/16-17/2008	Back Yard		6.0	<0.036	<0.056	<0.11	<0.11	<0.15	0.97	<0.11	0.18	3.9	0.26	0.59	1.9	0.61	<0.51 UJ
Ambient Air - 11/6/08	1006 Stimel Dr	11/6-7/2008	Back Yard		5.5	<0.036	<0.055	<0.11	<0.11	<0.15	0.98	<0.11	<0.15	2.7	<0.19	0.49	1.7	0.6	<0.50

Notes:

All samples were analyzed by AirToxics, Ltd. of Folsom, California by Method TO-15 SIM.

All results reported in micrograms per cubic meter (µg/m³). Only the VOCs detected in one or more sample collected during 2008 are summarized above.

Samples collected over a 24-hour interval unless indicated otherwise.

Residential Indoor Air ESLs = Environmental Screening Levels for Residential Indoor Air, from California Regional Water Quality Control Board - San Francisco Bay Region, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1*, Interim Final November 2007.

Highlighted results indicate the detected concentration is greater than the ESL.

Yes - Indicates a vapor intrusion prevention system was operating during time of sample collection.

(1) 1,1,2-Trichloroethane was detected in this sample at 0.22 µg/m³; 1,1,2-TCA has not previously been detected at this location.

(2) 1,1,2-Trichloroethane was detected in this sample at 0.24 µg/m³; 1,1,2-TCA has not previously been detected at this location.

(3) 1,1,2-Trichloroethane was detected in this sample at 0.20 µg/m³; 1,1,2-TCA has not previously been detected at this location.

(4) 1,1,2,2-Tetrachloroethane was detected in this sample at 0.64 µg/m³; 1,1,2,2-Tetrachloroethane has not previously been detected at this location.

n/a = not available

NA = not analyzed

NA* = sample not analyzed; vacuum lost during sample delivery.

UJ = estimated result

J = estimated result

U = sample detections were qualified as nondetect (U) because the constituent was detected at a similar concentration in the trip blank

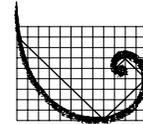
Attachment A
Data Quality Reviews
(on CD)

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Shira DeGrood
Date: 6 August 2008
Subject: Data Review of 1006 Hampton Drive Samples
Collected 14 through 15 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807314

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



ERM®

The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The chain-of-custody included an incorrect canister number for sample 1006 Hampton Dr - 1st Floor. The client was notified of the discrepancy and the information on the canister was used to process and report the sample.

The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

BLANK EVALUATION

The trip and method blank sample results were nondetected for each of the target analytes, with limited exceptions. The trip blank contained toluene at a concentration above the reporting limit. Associated sample data were qualified according to the appropriate 5x and 10x rule. The data are qualified as anomalous (U) and presented in Table 1.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision.

Two laboratory fortified blanks (LFB) were included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL in both LFBs.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

LAB DUPLICATE EVALUATION

One air sample was analyzed in duplicate for volatiles. ERM calculated the RPDs between detected results. All RPDs between the primary sample and the duplicate were less than 20 percent, indicating acceptable precision.

OVERALL ASSESSMENT

No data required rejection. All of the data, including qualified data, can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Blank and Associated Suspect Sample Detections
1006 Hampton Drive
Pleasant Hill, California

Lab Package	Blank ID	Associated Samples	Detected Compound	Reported Concentration	Report Limit	Units	ERM Qualifier
807314	Trip Blank-7/14/08	See below	Toluene	0.18	0.075	µg/m ³	See below
807314	--	1006 Hampton Dr - 1st Floor	Toluene	1.6	0.11	µg/m ³	1.6 U
807314	--	1006 Hampton Dr - 2nd Floor	Toluene	1.8	0.11	µg/m ³	1.8 U
807314	--	1006 Hampton Dr - crawl space	Toluene	0.79	0.10	µg/m ³	0.79 U
807314	--	1006 Hampton Dr - crawl space Lab Duplicate	Toluene	0.78	0.10	µg/m ³	0.78 U

Key:

µg/m³ = Micrograms per cubic meter

U= Non-detected

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Shira DeGrood
Date: 7 August 2008
Subject: Data Review of 1220 Thames Drive Samples
Collected 14 through 15 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807313

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data required rejection or qualification. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Shira DeGrood
Date: 7 August 2008
Subject: Data Review of Ambient Air Sample 7/14/08
Collected 14 through 15 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807312

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance with limited exceptions. The LCS recoveries indicate acceptable laboratory accuracy and precision. The LCS contained a percent recovery of methyl tert-butyl ether of 58%, out of the control limits of 60-140%. Therefore, associated samples were qualified as estimated (UJ) to indicate low bias. The LCS that did not meet control limits and associated samples are presented in Table 1.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data. The CCV contained a percent recovery of methyl tert-butyl ether of 60%, which met the lower end of the control limits of 60-140%. Associated samples did not require qualification based on CCV recoveries.

OVERALL ASSESSMENT

No data required rejection. All of the data, including qualified data, can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Laboratory Control Sample Spike Recoveries Outside of Acceptable Limits
Ambient Air 7/14/08
Pleasant Hill, California

Lab Package	Spike Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Result (µg/m3)	ERM Qualifier
807312	0807312-05A	See below	Methyl tert-butyl ether	58	60	See below	See below
807312	0807312-05A	Ambient Air Sample	Methyl tert-butyl ether			<0.50	UJ

Key:

µg/m3 = Micrograms per cubic meter

UJ = Nondetected, estimated report limit

RPD = Relative percent difference

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Shira DeGrood
Date: 6 August 2008
Subject: Data Review of 1002 Hampton Drive Samples
Collected 15 through 16 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807372

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data required rejection or qualification. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Memorandum

**Environmental
Resources
Management**

To: Chimi Yi
From: Shira DeGrood
Date: 7 August 2008
Subject: Data Review of 1017 Bermuda Drive Samples
Collected 15 through 16 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807376

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

FIELD DUPLICATE EVALUATION

One sample was submitted in duplicate. ERM calculated the relative percent difference (RPD) between detected results. The USEPA has not established control criteria for field duplicate samples; therefore, sample data are not qualified on the basis of field duplicate imprecision. The RPDs are presented in Table 1.

OVERALL ASSESSMENT

No data required rejection or qualification. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Field Duplicate Results and Calculated Relative Percent Differences
1017 Bermuda Drive
Pleasant Hill, California

Lab Package	Sample ID	Compound	Concentration		Report Limit		Units	RPD (%)
			Sample	Duplicate	Sample	Duplicate		
807376	1017 Bermuda DR-2nd Floor	Benzene	0.61	0.73	0.20	0.18	μG/m3	17.9
807376	1017 Bermuda DR-2nd Floor	1,2-Dichloroethane	0.26	0.32	0.10	0.091	μG/m3	20.7
807376	1017 Bermuda DR-2nd Floor	Toluene	1.9	1.9	0.093	0.084	μG/m3	0.0
807376	1017 Bermuda DR-2nd Floor	Ethyl Benzene	0.28	0.34	0.11	0.097	μG/m3	19.4
807376	1017 Bermuda DR-2nd Floor	m,p-Xylene	0.77	0.87	0.22	0.19	μG/m3	12.2
807376	1017 Bermuda DR-2nd Floor	o-Xylene	0.26	0.30	0.11	0.097	μG/m3	14.3

Key:

RPD = Relative percent difference

μG/m3= micrograms per cubic meter

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Shira DeGrood
Date: 7 August 2008
Subject: Data Review of Ambient Air Sample 7/15/08
Collected 15 through 16 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807371

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance with limited exceptions. The LCS recoveries indicate acceptable laboratory accuracy and precision. The LCS contained a percent recovery of methyl tert-butyl ether of 56%, out of the control limits of 60-140%. Therefore, associated samples were qualified as estimated (UJ) to indicate low bias. The LCS that did not meet control limits and associated samples are presented in Table 1.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data. The CCV contained a percent recovery of methyl tert-butyl ether of 60%, which met the lower end of the control limits of 60-140%. Associated samples did not require qualification based on CCV recoveries.

OVERALL ASSESSMENT

No data required rejection. All of the data, including qualified data, can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Laboratory Control Sample Spike Recoveries Outside of Acceptable Limits
Ambient Air 7/15/08
Pleasant Hill, California

Lab Package	Spike Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Result ($\mu\text{g}/\text{m}^3$)	ERM Qualifier
807371	0807371-04A		Methyl tert-butyl ether	58	60		
807371	0807371-04A	Ambient Air Sample	Methyl tert-butyl ether			<0.47	UJ

Key:

$\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

UJ = Nondetected, estimated report limit

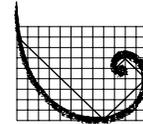
RPD = Relative percent difference

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Shira DeGrood
Date: 6 August 2008
Subject: Data Review of 1012 Stimel Drive Samples Collected
16 through 17 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807377

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



ERM®

The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The chain-of-custody information for sample Trip Blank 7/17/08, did not match the entry on the sample tag with regard to sample identification. The laboratory used the information on the chain-of-custody to process and report the sample.

The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

BLANK EVALUATION

The trip and method blank sample results were nondetected for each of the target analytes, with limited exceptions. The trip blank contained toluene at a concentration above the reporting limit. However, all associated detected sample results were greater than the 5x blank rule. Therefore, no data required qualification. The data are listed in Table 1.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data required rejection or qualification. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Blank and Associated Suspect Sample Detections
1012 Stimel Drive
Pleasant Hill, California

Lab Package	Blank ID	Associated Samples	Detected Compound	Reported Concentration	Report Limit	Units	ERM Qualifier
807377	Trip Blank-7/17/08	NA	Toluene	0.11	0.075	µg/m ³	NA

Key:

NA= Not applicable

µg/ m³ = Micrograms per cubic meter

Memorandum

**Environmental
Resources
Management**

To: Chimi Yi
From: Shira DeGrood
Date: 7 August 2008
Subject: Data Review of 1024 Bermuda Drive Samples
Collected 16 through 17 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807375

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The Chain of Custody (COC) information for samples 1024 Bermuda Dr 1st Floor-Dup and 1024 Bermuda Dr Crawl Space did not match the entries on the sample tags with regard to sample identification. The laboratory used the information on the COC to process and report the samples.

The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

FIELD DUPLICATE EVALUATION

One sample was submitted in duplicate. ERM calculated the relative percent difference (RPD) between detected results. The USEPA has not established control criteria for field duplicate samples; therefore, sample data are not qualified on the basis of field duplicate imprecision. The RPDs are presented in Table 1.

LAB DUPLICATE EVALUATION

One air sample was analyzed in duplicate for volatiles. ERM calculated the RPDs between detected results. All RPDs between the primary sample and the duplicate were less than 20 percent, indicating acceptable precision.

OVERALL ASSESSMENT

No data required rejection or qualification. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Field Duplicate Results and Calculated Relative Percent Differences
1024 Bermuda Drive
Pleasant Hill, California

Lab Package	Sample ID	Compound	Concentration		Report Limit		Units	RPD (%)
			Sample	Duplicate	Sample	Duplicate		
807375	1024 Bermuda Dr 1st Floor	1,2-Dichloroethane	48	41	1.0	0.73	μG/m3	15.7
807375	1024 Bermuda Dr 1st Floor	Toluene	11	10	0.95	0.68	μG/m3	9.5
807375	1024 Bermuda Dr 1st Floor	Tetrachloroethene	1.8	1.5	1.7	1.2	μG/m3	18.2
807375	1024 Bermuda Dr 1st Floor	m,p-Xylene	<2.2	1.7	2.2	1.6	μG/m3	NC

Key:

RPD = Relative percent difference

μG/m3= micrograms per cubic meter

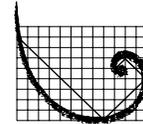
NC = Not calculated, one result was detected and the other result was nondetected

Memorandum

**Environmental
Resources
Management**

To: Chimi Yi
From: Shira DeGrood
Date: 7 August 2008
Subject: Data Review of Ambient Air Sample 7/17/08
Collected 16 through 17 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807374

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



ERM®

The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The Chain of Custody (COC) information for sample Ambient Air-7/17/08 did not match the entry on the sample tag with regard to sample identification. The laboratory used the information on the COC to process and report the sample.

The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

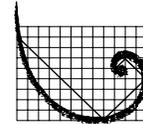
No data required rejection or qualification. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Shira DeGrood
Date: 29 August 2008
Subject: Data Review of 1221 Thames Drive Samples
Collected 23 through 24 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807485

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



ERM®

The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures, therefore none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data required rejection or qualification. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Shira DeGrood
Date: 29 August 2008
Subject: Data Review of 1261 Trafalgar Court Samples
Collected 23 through 24 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807544

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures, therefore none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

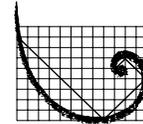
No data required rejection or qualification. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Shira DeGrood
Date: 29 August 2008
Subject: Data Review of Ambient Air Sample Collected 23
through 24 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807484

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



ERM®

The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuum was received at an acceptable pressure, therefore none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

LAB DUPLICATE EVALUATION

One sample was analyzed in duplicate for volatiles. ERM calculated the RPDs between detected results. All RPDs between the primary sample and the duplicate were less than 25 percent, indicating acceptable precision, with limited exceptions. The RPD for benzene was greater than 25 percent. However, because benzene detections in the primary and duplicate sample were less than five times the detection limit, no data required qualification. The data is summarized on Table 1.

OVERALL ASSESSMENT

No data required rejection. All of the data, including qualified data, can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Lab Duplicate Results and Calculated Relative Percent Differences
Ambient Air 7/23/08
Hookston Station
Pleasant Hill, California

Lab Package	Sample ID	Compound	Concentration		Report Limit	Units	RPD (%)	ERM Qualifier
			Sample	Duplicate				
807314	Ambient Air "7/23/08"	Benzene	0.43	0.33	0.25	µg/m3	26.3	--

Key:

RPD = Relative percent difference

µg/m3= micrograms per cubic meter

Memorandum

**Environmental
Resources
Management**

To: Chimi Yi
From: Shira DeGrood
Date: 29 August 2008
Subject: Data Review of 1015 Stimel Drive Samples Collected
24 through 25 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807545

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures, therefore none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance, with limited exceptions. The percent

recovery of one compound was outside the laboratory's lower control limits. Therefore, associated sample results were qualified as estimated nondetected (UJ). The outliers are presented in Table 1.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

FIELD DUPLICATE EVALUATION

One sample was submitted in duplicate. ERM calculated the relative percent difference (RPD) between detected results. The USEPA has not established control criteria for field duplicate samples; therefore, sample data are not qualified on the basis of field duplicate imprecision. The RPDs are presented in Table 2.

OVERALL ASSESSMENT

No data required rejection. All of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Laboratory Control Sample Spike Recoveries Outside of Acceptable Limits
1015 Stimel Drive
Hookston Station
Pleasant Hill, California

Lab Package	Spike Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Result (µg/m3)	ERM Qualifier
	Batch LCS#						
807545	0807545-06A	--	Methyl tert-butyl ether	52	60-140	--	--
807545	--	1015 Stimel Dr.-Crawl space	Methyl tert-butyl ether	--	--	<0.56	UJ
807545	--	1015 Stimel Dr.-1st Floor	Methyl tert-butyl ether	--	--	<0.60	UJ
807545	--	1015 Stimel Dr.-1st Floor-dup	Methyl tert-butyl ether	--	--	<0.48	UJ

Key:

RPD = Relative percent difference
µg/m3 = Micrograms per cubic meter
UJ= Estimated nondetected

Table 2
Field Duplicate Results and Calculated Relative Percent Differences
1015 Stimel Drive
Hookston Station
Pleasant Hill, California

Lab Package	Sample ID	Compound	Concentration		Report Limit		Units	RPD (%)
			Sample	Duplicate	Sample	Duplicate		
807545	1015 Stimel Dr.-1st Floor	1,1-Dichloroethene	0.28	0.12	0.066	0.053	µg/m3	80
807545	1016 Stimel Dr.-1st Floor	1,1,1-Trichloroethane	7.8	6.5	0.18	0.15	µg/m3	18
807545	1017 Stimel Dr.-1st Floor	Benzene	0.46	0.45	0.26	0.21	µg/m3	2.2
807545	1018 Stimel Dr.-1st Floor	Toluene	2.6	2.5	0.12	0.10	µg/m3	3.9
807545	1018 Stimel Dr.-1st Floor	Tetrachloroethene	<0.22	0.18	0.22	0.18	µg/m3	NC
807545	1019 Stimel Dr.-1st Floor	Ethyl Benzene	0.44	0.44	0.14	0.12	µg/m3	0
807545	1020 Stimel Dr.-1st Floor	m,p-Xylene	0.96	1.6	0.29	0.23	µg/m3	50
807545	1020 Stimel Dr.-1st Floor	o-Xylene	0.30	0.85	0.14	0.12	µg/m3	96

Key:

RPD = Relative percent difference

µg/m3= micrograms per cubic meter

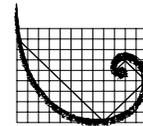
NC = Not calculated, one result was detected and the other result was nondetected

Memorandum

**Environmental
Resources
Management**

To: Chimi Yi
From: Shira DeGrood
Date: 29 August 2008
Subject: Data Review of Ambient Air Sample Collected 24 through 25 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0807546

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



ERM®

The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuum was received at an acceptable pressure, therefore none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance, with limited exceptions. The percent

recovery of one compound was outside the laboratory's lower control limits. Therefore, associated sample results were qualified as estimated nondetected (UJ). The outliers are presented in Table 1.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data required rejection. All of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Laboratory Control Sample Spike Recoveries Outside of Acceptable Limits
Ambient Air 7/24/08
Hookston Station
Pleasant Hill, California

Lab Package	Spike Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Result (µg/m3)	ERM Qualifier
	Batch LCS#						
807546	0807546-04A	--	Methyl tert-butyl ether	52	60-140	--	--
807546	--	Ambient Air-7/24/08	Methyl tert-butyl ether	--	--	<0.58	UJ

Key:

RPD = Relative percent difference
µg/m3 = Micrograms per cubic meter
UJ= Estimated nondetected

Memorandum

**Environmental
Resources
Management**

To: Chimi Yi
From: Shira DeGrood
Date: 29 August 2008
Subject: Data Review of 1020 Bermuda Drive Samples
Collected 29 through 30 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0808035

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures, with one exception. One canister was received with a vacuum pressure of zero. Qualified data are presented in Table 1.

BLANK EVALUATION

The method and trip blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance, with limited exceptions. The percent recovery of one compound was outside the laboratory's lower control limits. Therefore, associated sample results were qualified as estimated nondetected (UJ). The outliers are presented in Table 2.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data required rejection. All of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Samples with Vacuum Pressure Outside of Acceptable Limits
1020 Bermuda Drive
Hookston Station
Pleasant Hill, California

Lab Package	Sample ID	Vacuum Pressure (inches mercury)	Compound	ERM Qualifier
808035	1020 Bermuda Dr.-Crawl	0.0	All	J/UJ

Key:

J/UJ = Detected/nondetected compounds are qualified as estimated

*Table 2
Laboratory Control Sample Spike Recoveries Outside of Acceptable Limits
1020 Bermuda Drive
Hookston Station
Pleasant Hill, California*

Lab Package	Spike Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Result (µg/m3)	ERM Qualifier
	Batch LCS#						
808035	0808035-06A	--	Methyl tert-butyl ether	52	60-140	--	--
808035	--	1020 Bermuda Dr.-Crawl	Methyl tert-butyl ether	--	--	<0.41	UJ
808035	--	1020 Bermuda Dr.-1st FL	Methyl tert-butyl ether	--	--	<0.52	UJ
808035	--	Trip Blank - 7-29-08	Methyl tert-butyl ether	--	--	<0.38	UJ

Key:

RPD = Relative percent difference

µg/m3 = Micrograms per cubic meter

UJ= Estimated nondetected

Memorandum

**Environmental
Resources
Management**

To: Chimi Yi
From: Shira DeGrood
Date: 29 August 2008
Subject: Data Review of 1261 Waterloo Court Samples
Collected 29 through 30 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0808058

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures, therefore none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance, with limited exceptions. The percent

recovery of one compound was outside the laboratory's lower control limits. Therefore, associated sample results were qualified as estimated nondetected (UJ). The outliers are presented in Table 1.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data required rejection. All of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Laboratory Control Sample Spike Recoveries Outside of Acceptable Limits
1261 Waterloo Court
Hookston Station
Pleasant Hill, California

Lab Package	Spike Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Result (µg/m3)	ERM Qualifier
	Batch LCS#						
808058	0808058-06A	--	Methyl tert-butyl ether	52	60-140	--	--
808058	--	1261 Waterloo Crt-2nd Floor	Methyl tert-butyl ether	--	--	<0.53	UJ
808058	--	1261 Waterloo Crt.-crawl space	Methyl tert-butyl ether	--	--	<0.55	UJ
808058	--	1261 Waterloo Crt.-1st Floor	Methyl tert-butyl ether	--	--	<0.50	UJ

Key:

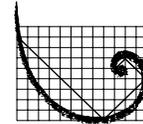
RPD = Relative percent difference
µg/m3 = Micrograms per cubic meter
UJ= Estimated nondetected

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Shira DeGrood
Date: 29 August 2008
Subject: Data Review of Ambient Air Sample Collected 29 through 30 July 2008
Project Number: 0077457.7
Data Package: Air Toxics LTD. Data Package 0808036

101 SW Main Street,
Suite 804
Portland, OR 97204
(503) 488-5282
(503) 488-5124 (fax)



ERM®

The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, October 1999.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The chain-of-custody was not completed with the date and time relinquished by field personnel.

The sample was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuum was received at an acceptable pressure, therefore none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data required qualification based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance, with limited exceptions. The percent recovery of one compound was outside the laboratory's lower control limits. Therefore, associated sample results were qualified as estimated nondetected (UJ). The outliers are presented in Table 1.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for an LFB, however, vinyl chloride was recovered above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE SPIKE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications were required based on surrogate recoveries. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

The continuing calibration verification (CCV) recoveries were within the laboratory's limits of acceptance. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data required rejection. All of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Laboratory Control Sample Spike Recoveries Outside of Acceptable Limits
Ambient Air 7/29/08
Hookston Station
Pleasant Hill, California

Lab Package	Spike Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Result (µg/m3)	ERM Qualifier
	Batch LCS#						
808036	0808036-04A	--	Methyl tert-butyl ether	52	60-140	--	--
808036	--	Ambient Air-7/29/08	Methyl tert-butyl ether	--	--	<0.52	UJ

Key:

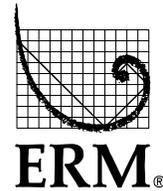
RPD = Relative percent difference
µg/m3 = Micrograms per cubic meter
UJ= Estimated nondetected

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 13 October 2008
Subject: Data Review of Hookston - 1220 Stimel Ct. Indoor
Air Samples Collected 12-13 August 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0808365

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; however, the laboratory reported that two canisters were received with significant vacuum remaining. This residual canister vacuum resulted in elevated reporting limits. None of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank and trip blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits, and no sample data were qualified based on the calibration evaluation. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

FIELD DUPLICATE EVALUATION

One sample was collected and analyzed in duplicate. ERM calculated the relative percent difference (RPD) between detected results. The USEPA has not established control criteria for field duplicate samples; therefore, sample data are not qualified on the basis of field duplicate imprecision. Detected duplicate results and calculated RPDs are presented in Table 1.

ANALYTICAL DUPLICATE EVALUATION

The laboratory prepared and analyzed one sample as an analytical duplicate. ERM calculated RPDs between detected results. All RPDs were less than 15 percent, indicating acceptable precision. The detected duplicate results and RPDs are presented in Table 1.

OVERALL ASSESSMENT

No data required qualification or were determined to be unusable. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Duplicate Results and Calculated Relative Percent Differences
Hookston - Indoor Air Samples
1220 Stimel Court
Pleasant Hill, California

Lab Package	Sample/Duplicate ID	Compound	Concentration		Report Limit	Units	RPD (%)
			Sample	Duplicate			
Field Duplicates							
0808365	1220 Stimel Ct-crawl	Benzene	0.64	0.68	0.54	µg/m ³	6.1
0808365	1220 Stimel Ct-crawl	Toluene	2.8	3.0	0.26	µg/m ³	6.9
0808365	1220 Stimel Ct-crawl	Ethyl benzene	0.36	0.34	0.30	µg/m ³	5.7
0808365	1220 Stimel Ct-crawl	m,p-Xylene	1.3	1.1	0.59	µg/m ³	17
0808365	1220 Stimel Ct-crawl	o-Xylene	0.36	0.41	0.30	µg/m ³	13
Analytical Duplicates							
0808365	1220 Stimiel Ct-1st Floor	Vinyl chloride	0.025	0.022	0.04	µg/m ³	13
0808365	1220 Stimiel Ct-1st Floor	1,1,1-Trichloroethane	1.2	1.3	0.18	µg/m ³	8.0
0808365	1220 Stimiel Ct-1st Floor	Benzene	0.70	0.71	0.26	µg/m ³	1.4
0808365	1220 Stimiel Ct-1st Floor	1,2-Dichloroethane	0.25	0.25	0.13	µg/m ³	0
0808365	1220 Stimiel Ct-1st Floor	Toluene	15	16	0.12	µg/m ³	6.5
0808365	1220 Stimiel Ct-1st Floor	Tetrachloroethene	0.83	0.82	0.22	µg/m ³	1.2
0808365	1220 Stimiel Ct-1st Floor	Ethyl benzene	0.77	0.76	0.14	µg/m ³	1.3
0808365	1220 Stimiel Ct-1st Floor	m,p-Xylene	2.1	2.1	0.28	µg/m ³	0
0808365	1220 Stimiel Ct-1st Floor	o-Xylene	0.80	0.79	0.14	µg/m ³	1.3

Data package reviewed: 0808365

Key:

RPD = Relative percent difference

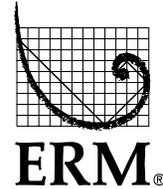
µg/m³ = Micrograms per cubic meter

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 13 October 2008
Subject: Data Review of Hookston Ambient Air Sample
Collected 12-13 August 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0808366

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample shipment was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits, and no sample data were qualified based on the calibration evaluation. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

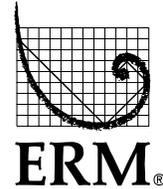
No data required qualification or were determined to be unusable. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 13 October 2008
Subject: Data Review of Hookston - 1210 Thames Dr. Indoor
Air Samples Collected 14-15 August 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0808429

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was above the MDL

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits, and no sample data were qualified based on the calibration evaluation. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

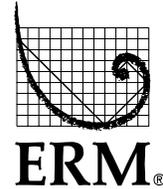
No data required qualification or were determined to be unusable. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 13 October 2008
Subject: Data Review of Hookston - 1270 Waterloo Ct. Indoor
Air Samples Collected 14-15 August 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0808431

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits, and no sample data were qualified based on the calibration evaluation. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

ANALYTICAL DUPLICATE EVALUATION

The laboratory prepared and analyzed one sample as an analytical duplicate. ERM calculated the relative percent difference (RPD) between detected results. All RPDs were less than 15 percent, indicating acceptable precision. The RPDs are presented in Table 1.

OVERALL ASSESSMENT

No data required qualification or were determined to be unusable. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Duplicate Results and Calculated Relative Percent Differences
Hookston - Indoor Air Samples
1270 Waterloo Court
Pleasant Hill, California

Lab Package	Sample/Duplicate ID	Compound	Concentration		Report Limit	Units	RPD (%)
			Sample	Duplicate			
Analytical Duplicates							
0808431	1270 Waterloo Ct-crawl space	1,1,1-Trichloroethane	0.23	0.23	0.15	µg/m ³	0
0808431	1270 Waterloo Ct-crawl space	Benzene	0.62	0.61	0.22	µg/m ³	1.6
0808431	1270 Waterloo Ct-crawl space	Toluene	2.4	2.4	0.10	µg/m ³	0
0808431	1270 Waterloo Ct-crawl space	Tetrachloroethene	0.20	0.20	0.18	µg/m ³	0
0808431	1270 Waterloo Ct-crawl space	Ethyl benzene	0.35	0.34	0.12	µg/m ³	2.9
0808431	1270 Waterloo Ct-crawl space	m,p-Xylene	1.1	1.1	0.24	µg/m ³	0
0808431	1270 Waterloo Ct-crawl space	o-Xylene	0.41	0.41	0.12	µg/m ³	0

Data packages reviewed: 0808431

Key:

RPD = Relative percent difference

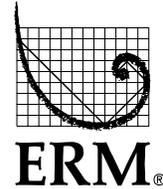
µg/m³ = Micrograms per cubic meter

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 13 October 2008
Subject: Data Review of Hookston Ambient Air Sample
Collected 14-15 August 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0808430

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample shipment was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was above the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits, and no sample data were qualified based on the calibration evaluation. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data required qualification or were determined to be unusable. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Memorandum

Environmental
Resources
Management

To: Chimi Yi

From: Irene Lavigne

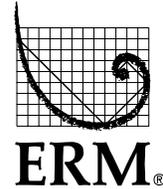
Date: 13 October 2008

Subject: Data Review of Hookston - 1001 Stimel Ct. Indoor
Air Samples Collected 27-28 September 2008

Project Number: 0077457.7

Data Package: Air Toxics Data Package 0808665

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank and trip blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was below the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits, and no sample data were qualified based on the calibration evaluation. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

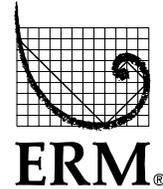
No data required qualification or were determined to be unusable. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 13 October 2008
Subject: Data Review of Hookston Ambient Air Sample
Collected 27-28 August 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0809009

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample shipment was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was below the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits, and no sample data were qualified based on the calibration evaluation. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data required qualification or were determined to be unusable. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Memorandum

Environmental
Resources
Management

To: Chimi Yi

From: Irene Lavigne

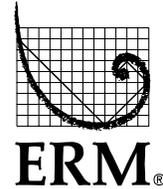
Date: 13 October 2008

Subject: Data Review of Hookston - 1009 Stimel Dr. Indoor
Air Samples Collected 15-16 September 2008

Project Number: 0077457.7

Data Package: Air Toxics Data Package 0809466

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The samples were prepared and analyzed within the method prescribed time period from the date of collection. The sample shipments were received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was below the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits with one exception. The recovery for methyl tert-butyl ether was below acceptable limits. The nondetected sample results associated with this CCV were qualified as estimated (U) for this compound. The outlying CCV recovery and associated data are presented in Table 1.

OVERALL ASSESSMENT

No data were determined to be unusable. All of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Continuing Calibration Verification Recoveries Outside of Acceptable Limits
Hookston - Indoor Air Samples
1009 Stimel Drive
Pleasant Hill, California

Lab Package	CCV Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Sample Result	ERM Qualifier
0809466	0809466-04A	see below	Methyl tert-butyl ether	60	70-130	--	--
0809466	0809466-04A	1009 Stimel Dr-1st Floor	Methyl tert-butyl ether	--	--	<0.51	UJ
0809466	0809466-04A	1009 Stimel Dr-crawl space	Methyl tert-butyl ether	--	--	<0.49	UJ

Data package reviewed: 0809466

Key:

CCV = Continuing calibration verification

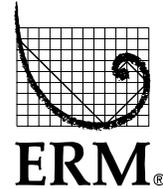
UJ = nondetected, estimated at report limit

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 13 October 2008
Subject: Data Review of Hookston Ambient Air Sample
Collected 15-16 September 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0809465

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample shipment was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was below the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits with one exception. The recovery for methyl tert-butyl ether was below acceptable limits. The nondetected sample result associated with this CCV was qualified as estimated (U) for this compound. The outlying CCV recovery and associated data are presented in Table 1.

OVERALL ASSESSMENT

No data were determined to be unusable. All of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

*Table 1
Continuing Calibration Verification Recoveries Outside of Acceptable Limits
Hookston - Indoor Air Samples
Ambient Air 09/15/2008
Pleasant Hill, California*

Lab Package	CCV Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Sample Result	ERM Qualifier
0809465	0809465-03A	see below	Methyl tert-butyl ether	60	70-130	--	--
0809465	0809465-03A	Ambient Air-9/15/08	Methyl tert-butyl ether	--	--	<0.47	UJ

Data package reviewed: 0809465

Key:

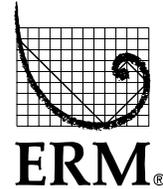
CCV = Continuing calibration verification
UJ = nondetected, estimated at report limit

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 10 November 2008
Subject: Data Review of Hookston 1007 Stimel Dr. Indoor Air Samples Collected 13-14 October 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0810383

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample shipment was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance with one exception. A recovery for methyl-tert butyl ether was below acceptable limits, requiring the qualification of four nondetected sample results as estimated (UJ) for this compound. The LCS outlier and associated data are presented in Table 1.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was below the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits. No sample data were qualified based on the calibration evaluation. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

ANALYTICAL DUPLICATE EVALUATION

The laboratory prepared and analyzed one sample as an analytical duplicate. ERM calculated the relative percent difference (RPD) between detected results. All RPDs were less than 15 percent, indicating acceptable precision. The RPDs are presented in Table 2.

OVERALL ASSESSMENT

No data were determined to be unusable. All of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Spike Recoveries Outside of Acceptable Limits
Hookston - Indoor Air Samples
1007 Stimel Drive
Pleasant Hill, California

Lab Package	Spike Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Sample Result	ERM Qualifier
LCS							
0810383	0810383-06A	See below	Methyl tert-butyl ether	59	60-130	NA	--
0810383	0810383-06A	1007 Stimel Dr-crawl space	Methyl tert-butyl ether	--	--	< 0.49	UJ
0810383	0810383-06A	1007 Stimel Dr-crawl space D	Methyl tert-butyl ether	--	--	< 0.49	UJ
0810383	0810383-06A	1007 Stimel Dr-first floor	Methyl tert-butyl ether	--	--	< 0.53	UJ
0810383	0810383-06A	1007 Stimel Dr-second floor	Methyl tert-butyl ether	--	--	< 0.51	UJ

Data packages reviewed: 0810383

Key:

LCS = Laboratory control sample (blank spike)

NA = Not applicable

UJ = estimated nondetected result

Table 2
Analytical Duplicate Results and Calculated Relative Percent Differences
Hookston - Indoor Air Samples
1007 Stimel Drive
Pleasant Hill, California

Lab Package	Sample/Duplicate ID	Compound	Concentration		Report Limit	Units	RPD (%)
			Sample	Duplicate			
0810383	1007 Stimel Dr-crawl space	Benzene	0.78	0.78	0.04	µg/m ³	0
0810383	1007 Stimel Dr-crawl space	Toluene	3.0	3	0.18	µg/m ³	0
0810383	1007 Stimel Dr-crawl space	Ethyl benzene	0.48	0.48	0.26	µg/m ³	0
0810383	1007 Stimel Dr-crawl space	m,p-Xylene	1.6	1.6	0.13	µg/m ³	0
0810383	1007 Stimel Dr-crawl space	o-Xylene	0.57	0.56	0.12	µg/m ³	1.8

Data package reviewed: 0810383

Key:

RPD = Relative percent difference

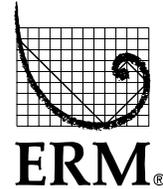
µg/m³ = Micrograms per cubic meter

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 10 November 2008
Subject: Data Review of Hookston Ambient Air Sample
Collected 13-14 October 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0810384

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample shipment was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance with one exception. A recovery for methyl-tert butyl ether was below acceptable limits, requiring the qualification of one nondetected sample result as estimated (UJ) for this compound. The LCS outlier and associated data are presented in Table 1.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was below the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits. No sample data were qualified based on the calibration evaluation. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data were determined to be unusable. All of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Spike Recoveries Outside of Acceptable Limits
Hookston - Indoor Air Samples
Ambient Air 10/13/2008
Pleasant Hill, California

Lab Package	Spike Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Sample Result	ERM Qualifier
LCS							
0810384	0810384-04A	See below	Methyl tert-butyl ether	59	60-130	NA	--
0810384	0810384-04A	Ambient Air-10/13/08	Methyl tert-butyl ether	--	--	< 0.50	UJ

Data packages reviewed: 0810384

Key:

LCS = Laboratory control sample (blank spike)

NA = Not applicable

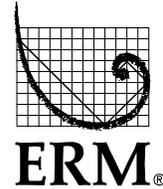
UJ = estimated nondetected result

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 10 November 2008
Subject: Data Review of Hookston 1005 Stimel Dr. Indoor Air Samples Collected 16-17 October 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0810469

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample shipment was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was below the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits with limited exceptions. The recovery for methyl tert-butyl ether was below acceptable limits. Three nondetected sample results associated with this CCV were qualified as estimated (UJ) for this compound. The outlying CCV recovery and associated data are presented in Table 1.

OVERALL ASSESSMENT

No data were determined to be unusable. All of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Continuing Calibration Verification Recoveries Outside of Acceptable Limits
Hookston - Indoor Air Samples
1005 Stimel Drive
Pleasant Hill, California

Lab Package	CCV Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Sample Result	ERM Qualifier
0810469	0810469-05A	See below	Methyl tert-butyl ether	61	70-130	--	--
0810469	0810469-05A	1005 Stimel Dr-crawl space	Methyl tert-butyl ether	--	--	< 0.46	UJ
0810469	0810469-05A	1005 Stimel Dr-1st floor	Methyl tert-butyl ether	--	--	< 0.51	UJ
0810469	0810469-05A	1005 Stimel Dr-2nd floor	Methyl tert-butyl ether	--	--	< 0.49	UJ

Data package reviewed: 0810469

Key:

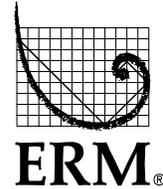
CCV = Continuing calibration verification
 UJ = nondetected, estimated at report limit

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 10 November 2008
Subject: Data Review of Hookston Ambient Air Sample
Collected 16-17 October 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0810470

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample shipment was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was below the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits with one exception. The recovery for methyl tert-butyl ether was below acceptable limits. The nondetected sample result associated with this CCV was qualified as estimated (U) for this compound. The outlying CCV recovery and associated data are presented in Table 1.

OVERALL ASSESSMENT

No data were determined to be unusable. All of the data, including qualified data, can be used for decision-making purposes; however, the limitations indicated by the applied qualifiers should be considered when using the data. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

*Table 1
Continuing Calibration Verification Recoveries Outside of Acceptable Limits
Hookston - Indoor Air Samples
Ambient Air 10/16/2008
Pleasant Hill, California*

Lab Package	CCV Sample ID	Associated Sample	Compound	Recovery (%)	Limit (%)	Sample Result	ERM Qualifier
0810470	0810470-03A	See below	Methyl tert-butyl ether	61	70-130	--	--
0810470	0810470-03A	Ambient Air-10/16/08	Methyl tert-butyl ether	--	--	< 0.51	UJ

Data package reviewed: 0810470

Key:

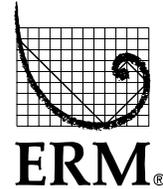
CCV = Continuing calibration verification
UJ = nondetected, estimated at report limit

Memorandum

Environmental
Resources
Management

To: Chimi Yi
From: Irene Lavigne
Date: 01 December 2008
Subject: Data Review of Hookston 1006 Stimel Dr. Indoor Air Samples Collected 06-07 November 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0811190

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample shipment was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was below the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits. No sample data were qualified based on the calibration evaluation. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

FIELD DUPLICATE EVALUATION

One sample was collected and analyzed in duplicate. ERM calculated the relative percent difference (RPD) between detected results. The USEPA has not established control criteria for field duplicate samples; therefore, sample data are not qualified on the basis of field duplicate imprecision. Detected duplicate results and calculated RPDs are presented in Table 1.

OVERALL ASSESSMENT

No data required qualification or were determined to be unusable. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Table 1
Analytical Duplicate Results and Calculated Relative Percent Differences
Hookston - Indoor Air Samples
1006 Stimel Drive
Pleasant Hill, California

Lab Package	Sample/Duplicate ID	Compound	Concentration		Report Limit	Units	RPD (%)
			Sample	Duplicate			
0811190	1006 Stimel Dr-1stFloor	Benzene	1.8	1.9	1.5/1.6	µg/m ³	5.4
0811190	1006 Stimel Dr-1stFloor	Toluene	8.8	8.4	0.69/0.74	µg/m ³	4.7
0811190	1006 Stimel Dr-1stFloor	Ethyl benzene	1.1	1.0	0.80/0.86	µg/m ³	10
0811190	1006 Stimel Dr-1stFloor	m,p-Xylene	4.3	3.5	1.6/1.7	µg/m ³	21
0811190	1006 Stimel Dr-1stFloor	o-Xylene	1.5	1.2	0.80/0.86	µg/m ³	22

Data package reviewed: 0811190

Key:

RPD = Relative percent difference

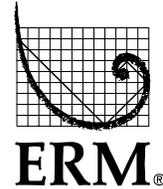
µg/m³ = Micrograms per cubic meter

Memorandum

**Environmental
Resources
Management**

To: Chimi Yi
From: Irene Lavigne
Date: 01 December 2008
Subject: Data Review of Hookston Ambient Air Sample
Collected 06-07 November 2008
Project Number: 0077457.7
Data Package: Air Toxics Data Package 0811189

2875 Michelle Drive
Suite 200
Irvine, CA 92606
(949) 623-4700
(949) 623-4711 (fax)



The quality of the data was assessed and any necessary qualifiers were applied following the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review*, June 2008.

HOLDING TIME AND PRESERVATION EVALUATION

The sample was prepared and analyzed within the method prescribed time period from the date of collection. The sample shipment was received at the laboratory within the method prescribed temperature preservation requirements. None of the data were qualified based on holding time or temperature preservation exceedances.

CANISTER VACUUM EVALUATION

The canister vacuums were received at acceptable pressures; therefore, none of the data were qualified based on canister vacuum pressure exceedances.

BLANK EVALUATION

The method blank sample results were nondetected for each of the target analytes. None of the data were qualified based on blank results.

BLANK SPIKE EVALUATION

The laboratory control sample (LCS) recoveries were within the laboratory's limits of acceptance. The LCS recoveries indicate acceptable laboratory accuracy and precision. The qualification of sample data was not required on the basis of LCS recoveries.

One laboratory fortified blank (LFB) was included to evaluate the recovery of vinyl chloride at the method detection limit (MDL). There are no specified control limits set for a LFB. The laboratory reported the actual concentration of vinyl chloride detected in the LFB; the reported concentration was below the MDL.

MATRIX SPIKE EVALUATION

There were no matrix spike (MS)/matrix spike duplicate (MSD) recoveries presented in the laboratory report.

SURROGATE EVALUATION

The surrogate recoveries were within acceptable limits. No qualifications to the data were made. The surrogate recoveries indicate minimal matrix interference in the samples.

CONTINUING CALIBRATION VERIFICATION EVALUATION

Continuing calibration verification (CCV) data were presented in the data package and reviewed. All CCV recoveries were found to be within acceptable limits. No sample data were qualified based on the calibration evaluation. The CCV recoveries indicate acceptable instrument qualitative and quantitative data.

OVERALL ASSESSMENT

No data required qualification or were determined to be unusable. All of the data can be used for decision-making purposes. The quality of the data generated during this investigation is acceptable for the preparation of technically defensible documents.

Attachment B
Historical Indoor Air Results

Attachment B
 Volatile Organic Compounds Detected in Air Samples (µg/m³)
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	Vapor Intrusion Prevention System	Final Vacuum (In. Hg)	TCE	c-1,2-DCE	1,1-DCE	Vinyl Chloride	PCE	1,1-DCA	1,1,1-TCA	1,2-DCA	Benzene	Toluene	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
<i>Residential Indoor Air ESL:</i>						1.2	7.3	0.049	0.031	0.41	1.5	460	0.094	0.084	63	0.98	21	21	9.4
<i>Indoor Air Quality Samples:</i>																			
1000 Hampton	1000 Hampton Dr	1/21/2004	Living Room		6.0	1.2	<0.14	<0.068	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1000 Hampton Dr - 1st Floor	1000 Hampton Dr	8/29/2005	Master Bedroom		0.0	<0.14 UJ	<0.11 UJ	<0.053 UJ	<0.034 UJ	0.34 J	<0.11	0.25 J	<0.11 UJ	0.70 J	2.1 J	0.54 J	1.1 J	0.26 J	<0.48 UJ
1000 Hampton Dr - 1st Floor	1000 Hampton Dr	10/5/2005	Master Bedroom		4.0	1.4	<0.12	<0.061	<0.040	0.45	<0.12	1.2	<0.12	0.90	5.2	1.1	3.8	0.91	<0.56
1000 Hampton Dr - 1st Floor Duplicate	1000 Hampton Dr	10/5/2005	Master Bedroom		4.0	1.4	<0.12	<0.061	<0.040	0.46	<0.12	1.3	<0.12	0.92	5.4	1.1	3.8	0.95	<0.56
1000 Hampton Dr - 1st Fl.	1000 Hampton Dr	10/4-5/2006	Master Bedroom		1.5	0.21	<0.095	<0.048	0.028 J	0.23	<0.097	0.97	<0.097	0.68	4.8	0.82	2.6	0.62	<0.43
1000 Stimel	1000 Stimel Dr	4/12/2004	Master Bedroom		6.0	<0.19	<0.14	<0.069	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1001 Stimel - 1st Floor	1001 Stimel Dr	9/20-21/2006	Master Bedroom		5.0	<0.15	<0.11	<0.054	<0.035	3.6	<0.11	<0.15	0.12	1.4	7.3	0.94	3.3	1.1	<0.49
1001 Stimel Dr - 1st Floor	1001 Stimel Dr	8/21-22/2007	Master Bedroom		4.0	<0.14	<0.10	0.092	<0.033	2.4	<0.11	<0.14	0.46	0.70	4.9	0.53	1.5	0.54	<0.47
1001 Stimel Dr - 1st Floor (DUP)	1001 Stimel Dr	8/21-22/2007	Master Bedroom		3.5	0.17	<0.10	0.098	<0.033	6.8	<0.10	<0.14	0.45	1.1	4.7	0.58	1.5	0.48	<0.46
1001 Stimel Dr - 1st Floor	1001 Stimel Dr	8/27-28/2008	Master Bedroom		0.0	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*
1001 Stimel Dr - 1st Floor (DUP)	1001 Stimel Dr	8/27-28/2008	Master Bedroom		9.0	<0.35	<0.26	<0.13	<0.083	3.9	<0.26	<0.35	1.4	0.97	8.6	0.98	3.1	1	<1.2
1002 Hampton	1002 Hampton Dr	2/19/2004	Master Bed		6.5	5.0	<0.14	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1002 Hampton Dr - 2nd Floor	1002 Hampton Dr	8/30/2005	South Bedroom	YES	7.0	0.25	<0.14	<0.069	0.11	0.36	<0.14	<0.19	<0.14	0.65	4.2	0.46	1.1	0.36	<0.63 UJ
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	8/30/2005	Living Room	YES	7.0	<0.19	<0.14	<0.069	<0.045	0.36	<0.14	<0.19	<0.14	0.63	4.0	0.38	1.0	0.29	<0.63 UJ
1002 Hampton Dr - 2nd Floor	1002 Hampton Dr	10/5/2005	South Bedroom	YES	8.5	0.24	<0.15	<0.074	0.072	0.36	<0.15	<0.20	<0.15	1.0	4.2	0.77	2.4	0.84	<0.67
1002 Hampton Dr - 2nd Floor Duplicate	1002 Hampton Dr	10/5/2005	South Bedroom	YES	8.5	0.25	<0.15	<0.074	0.068	0.37	<0.15	<0.20	<0.15	1.0	4.2	0.76	2.3	0.80	<0.67
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	10/5/2005	Living Room	YES	7.5	0.21	<0.14	<0.071	<0.046	0.38	<0.14	<0.20	<0.14	0.95	4.4	0.70	2.4	0.78	<0.64
1002 Hampton Ct - 2nd Floor	1002 Hampton Dr	9/13-14/2006	South Bedroom	YES	9.0	0.22	<0.13	<0.064	0.12	<0.22	<0.13	<0.18	<0.13	0.64 U	3.0 U	0.5 U	1.3 U	0.47 U	<0.58
1002 Hampton Ct - 2nd Fl. Dup	1002 Hampton Dr	9/13-14/2006	South Bedroom	YES	6.0	0.20	<0.11	<0.056	0.13	<0.19	<0.11	<0.15	<0.11	0.51 U	2.9 U	0.46 U	1.2 U	0.4 U	<0.51
1002 Hampton Ct - 1st Floor	1002 Hampton Dr	9/13-14/2006	Living Room	YES	1.5	0.13	<0.095	<0.048	<0.031	<0.16	<0.097	<0.13	<0.097	0.54 U	3.0 U	0.41 U	1.2 U	0.44 U	<0.43
1002 Hampton Dr - 2nd Floor Bedroom #2	1002 Hampton Dr	8/29-30/2007	North Bedroom	YES	5.5	7.4	<0.11	<0.055	0.076	0.20	<0.11	<0.15	<0.11	0.68	8.7	1.6	2.7	1.1	<0.50
1002 Hampton Dr - 2nd Floor Bedroom #2 (DUP)	1002 Hampton Dr	8/29-30/2007	North Bedroom	YES	10.0	7.1	<0.13	<0.067	0.076	<0.23	<0.14	<0.18	<0.14	0.71	9.6	1.6	2.7	1.1	<0.61
1002 Hampton Dr - 2nd Floor Bedroom #1	1002 Hampton Dr	8/29-30/2007	South Bedroom	YES	3.5	5.0	<0.10	<0.051	0.11	0.20	<0.10	<0.14	<0.10	0.68	7.6	1.3	2.8	1.1	<0.46
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	8/29-30/2007	Living Room	YES	3	2.3	<0.10	<0.050	0.041	0.21	<0.10	<0.14	<0.10	10	5.4	0.79	2.0	0.74	<0.45
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	10/16-17/2007	North Bedroom	YES	5.5	1.0	<0.11	<0.055	0.044	<0.19	<0.11	<0.15	<0.11	0.80	5.4	0.72	1.6	0.67	<0.50
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	10/16-17/2007	South Bedroom	YES	2.5	0.75	<0.098	<0.049	0.079	<0.17	<0.10	<0.14	<0.10	0.85	0.53	0.71	1.7	0.67	<0.45
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	10/16-17/2007	Living Room	YES	6.5	0.45	<0.11	<0.057	0.020 J	<0.20	<0.12	<0.16	<0.12	0.76	5.4	0.52	1.3	0.51	<0.52
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	12/27-28/2007	North Bedroom	YES	7.0	5.0	0.18	0.15	0.018 J	<0.20	0.12	0.27	<0.12	1.3	8.0	0.82	3.2	0.98	<0.53
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	12/27-28/2007	South Bedroom	YES	7.5	0.51	<0.12	<0.060	0.14	<0.20	<0.12	<0.16	<0.12	1.0	4.2	0.54	1.4	0.50	<0.54
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	12/27-28/2007	Living Room	YES	7.0	0.28	<0.12	<0.059	0.012 J	<0.20	<0.12	<0.16	<0.12	1.0	3.6	0.45	1.4	0.50	<0.53
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	5/27-28/2008	North Bedroom	YES	2.5	0.81	<0.098	<0.049	0.036	<0.17	<0.10	<0.14	<0.10	0.5	2.9	0.32	0.8	0.26	<0.45
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	5/28-29/2008	South Bedroom	YES	5.0	0.65	<0.11	<0.054	0.072	<0.18	<0.11	<0.15	0.11	0.38	2.7	0.28	0.65	0.20	<0.49
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	5/27-28/2008	Living Room	YES	3.0	0.68	<0.10	<0.050	0.022 J	<0.17	<0.10	<0.14	<0.10	0.71	3.3	0.32	0.93	0.28	<0.45
1002 Hampton Dr - 2nd Floor North BR	1002 Hampton Dr	7/15-16/2008	North Bedroom	YES	5.0	0.43	<0.11	<0.054	0.039	0.22	<0.11	<0.15	<0.11	0.53	2.3	0.28	0.67	0.27	<0.49
1002 Hampton Dr - 2nd Floor South BR	1002 Hampton Dr	7/15-16/2008	South Bedroom	YES	3.0	0.37	<0.10	<0.050	0.095	<0.17	<0.10	<0.14	0.10	0.49	2.7	0.40	0.89	0.37	<0.45
1002 Hampton Dr - 1st Floor	1002 Hampton Dr	7/15-16/2008	Living Room	YES	1.5	0.29	<0.095	<0.048	0.013 J	<0.16	<0.097	<0.13	<0.097	0.47	1.5	0.18	0.5	0.20	<0.43
1004 Hampton Dr - 1st Floor	1004 Hampton Dr	8/15-16/2007	Bedroom		0.2	2.8	0.090	<0.044	<0.029	0.22	<0.091	0.22	0.32	1.3	14	2.5	8.7	3.1	<0.40
1004 Hampton Dr - 1st Floor (DUP)	1004 Hampton Dr	8/15-16/2007	Bedroom		3.0	1.2	<0.10	<0.050	<0.032	0.19	<0.10	<0.14	0.23	1.1	14	2.3	7.7	2.7	<0.45
1005 Stimel	1005 Stimel Dr	2/17/2004	Master Bedroom		4.5	0.38	<0.13	<0.064	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1005 Stimel Dr - 2nd Floor	1005 Stimel Dr	9/6/2005	Bedroom		7.5	1.4	<0.14	<0.071	<0.046	0.45	<0.14	0.45	<0.14	1.1	7.1	0.85	2.2	0.55	<0.64 UJ
1005 Stimel Dr - 1st Floor	1005 Stimel Dr	9/6/2005	Family Room		6.5	1.4	<0.14	<0.068	<0.044	0.43	<0.14	0.47	<0.14	1.1	7.6	0.89	2.3	0.54	<0.62 UJ
1005 Stimel - 2nd Floor	1005 Stimel Dr	9/26-27/2006	Bedroom	YES	0.0	0.17 J	<0.090 UJ	<0.045 UJ	<0.029 UJ	0.51 J	<0.092	0.48 J	0.11 J	1.1 J	9.1 J	2.0 J	6.6 J	1.9 J	<0.41 UJ
1005 Stimel - 2nd Floor Dup	1005 Stimel Dr	9/26-27/2006	Bedroom	YES	0.0	0.17 J	<0.090 UJ	<0.045 UJ	<0.029 UJ	0.62 J	<0.092	0.56 J	0.11 J	1.6 J	11 J	2.3 J	7.9 J	2.3 J	<0.41 UJ
1005 Stimel - 1st Floor	1005 Stimel Dr	9/26-27/2006	Family Room	YES	2.5	0.19	<0.098	<0.049	<0.032	0.49	<0.10	0.43	0.11	1.1	9.5	2.0	6.2	1.8	<0.45
1005 Stimel Dr - 2nd Floor	1005 Stimel Dr	8/29-30/2007	Bedroom	YES	4.5	<0.14	<0.11	<0.053	<0.034	0.22	<0.11	0.18	0.19	0.51	3.4	0.61	2.0	0.66	<0.48
1005 Stimel Dr - 1st Floor	1005 Stimel Dr	8/29-30/2007	Family Room	YES	4.5	<0.14	<0.11	<0.053	<0.034	0.26	<0.11	0.18	<0.11	0.53	4.0	0.61	1.9	0.61	<0.48
1005 Stimel Dr - 2nd Floor	1005 Stimel Dr	10/16-17/2008	Bedroom	YES	5.0	2.1	<0.11	0.22	<0.035	1.6	0.11	1.9	1.5	1.1	6.8	1.2	3.8	1.1	<0.49 UJ
1005 Stimel Dr - 1st Floor	1005 Stimel Dr	10/16-17/2008	Family Room	YES	6.0	<0.15	<0.11	<0.056	<0.036	0.26	<0.11	0.22	0.2	1.2	7.3	1.1	3.6	1.0	<0.51 UJ
1006 Hampton	1006 Hampton Dr	2/19/2004	Master Bedroom		6.5	4.3	<0.14	0.13	NA	N	NA	NA	NA	NA	NA	NA	NA	NA	NA
1006 Hampton Dr - 2nd Floor	1006 Hampton Dr	8/23/2005	Bedroom		8.0	2.6	<0.14	<0.072	<0.047	<0.25	<0.15	<0.20	<0.15	0.99	4.3	0.69	1.6	0.55	<0.66
1006 Hampton Dr - 1st Floor	1006 Hampton Dr	8/23/2005	Living Room		7.0	2.4	<0.14	<0.069	<0.045	0.24	<0.14	<0.19	<0.14	0.96	4.5	0.75	1.9	0.62	<0.63
1006 Hampton - 2nd Floor	1006 Hampton Dr	9/20-21/2006	Bedroom	YES	7.0	0.36	<0.12	<0.059	<0.038	<0.20	<0.12	<0.16	<0.12	0.81	5.6	0.86	2.2	0.86	<0.53
1006 Hampton - 1st Floor	1006 Hampton Dr	9/20-21/2006	Living Room	YES	4.5	0.26	<0.11	<0.053	<0.034	<0.18	<0.11	<0.15	<0.11						

Attachment B
 Volatile Organic Compounds Detected in Air Samples (µg/m³)
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	Vapor Intrusion Prevention System	Final Vacuum (In. Hg)	TCE	c-1,2-DCE	1,1-DCE	Vinyl Chloride	PCE	1,1-DCA	1,1,1-TCA	1,2-DCA	Benzene	Toluene	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
<i>Residential Indoor Air ESL:</i>						1.2	7.3	0.049	0.031	0.41	1.5	460	0.094	0.084	63	0.98	21	21	9.4
1006 Stimel Dr - 1st Floor	1006 Stimel Dr	11/6-7/2008	Master Bedroom	YES	9.5	<0.99	<0.73	<0.36	<0.24	<1.2	<0.75	<1.0	0.77	1.80	8.8	1.1	4.3	1.5	<3.3
1006 Stimel Dr - 1st Floor (dup)	1006 Stimel Dr	11/6-7/2008	Master Bedroom	YES	7.0	<1.1	<0.78	<0.39	<0.25	<1.3	<0.80	<1.1	<0.80	1.90	8.4	1.0	3.5	1.2	<3.6
1007 Bermuda Dr - 1st Floor	1007 Bermuda Dr	8/23/2005	Living Room		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	<0.20	<0.14	3.1	17	1.5	5.8	1.5	1.1 J
1007 Bermuda Dr - 1st Floor Duplicate	1007 Bermuda Dr	8/23/2005	Living Room		8.5	<0.20	<0.15	<0.074	<0.048	<0.25	<0.15	<0.20	<0.15	3.1	17	1.6	5.8	1.5	1.1 J
1007 Stimel	1007 Stimel Dr	2/26/2004	Master Bed		6.5	2.0	<0.14	<0.069	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	9/6/2005	Bedroom		8.0	0.62	<0.14	<0.072	<0.047	2.4	<0.15	0.22	<0.15	0.83	6.1	0.61	1.6	0.55	<0.66 UJ
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	9/6/2005	Family Room		7.0	0.99	<0.14	<0.069	<0.045	5.2	<0.14	0.36	<0.14	0.95	7.7	0.80	2.2	0.71	<0.63 UJ
1007 Stimel Dr - 2nd Floor Bedroom	1007 Stimel Dr	9/18-19/2006	Bedroom	YES	4.0	0.43	<0.10	<0.052	<0.033	0.23	<0.11	0.19	<0.11	0.93	4.3	0.67	2.1	0.76	<0.47
1007 Stimel Dr - 1st Floor Family Room	1007 Stimel Dr	9/18-19/2006	Living Room	YES	4.0	0.68	<0.10	<0.052	<0.033	0.30	<0.11	0.24	<0.11	1.1	5.4	0.86	2.6	0.93	<0.47
1007 Stimel Dr - 2nd Floor	1007 Stimel Dr	8/23-24/2007	Bedroom	YES	3.0	0.47	<0.10	<0.050	0.014 J	0.19	<0.10	<0.14	<0.10	1.8	12	1.6	5.4	1.7	<0.45
1007 Stimel Dr - 1st Floor	1007 Stimel Dr	8/23-24/2007	Living Room	YES	3.0	0.31	<0.10	<0.050	0.012 J	0.20	<0.10	<0.14	0.10	2.9	13	1.7	5.7	1.8	<0.45
1007 Stimel Dr - Second Floor	1007 Stimel Dr	10/13-14/2008	Bedroom	YES	5.0	0.24	<0.11	<0.056	<0.036	0.19	<0.11	<0.15	<0.11	0.98	6.1	0.73	2.2	0.72	<0.51
1007 Stimel Dr - First Floor	1007 Stimel Dr	10/13-14/2008	Living Room	YES	7.0	0.22	<0.12	<0.059	<0.038	0.21	<0.12	<0.16	<0.12	1.0	5.9	0.77	2.3	0.78	<0.53
1008 Hampton	1008 Hampton Dr	2/25/2004	Master Bedroom		2.5	0.43	<0.12	<0.059	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	9/7/2005	Master Bedroom		3.0	0.57	<0.12	<0.059	<0.038	<0.20	<0.12	<0.16	<0.12	0.86	7.2	0.52	1.4	0.53	<0.54 UJ
1008 Hampton Dr - 1st Floor	1008 Hampton Dr	8/15-16/2007	Master Bedroom		2.0	0.30	<0.097	<0.048	<0.031	<0.16	<0.099	<0.13	0.40	0.90	9.9	0.65	1.6	0.65	<0.44
1009 Stimel	1009 Stimel Dr	1/20/2004	Kitchen		5.0	3.5	<0.13	0.067	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA
1009 Stimel DUP	1009 Stimel Dr	1/20/2004	Kitchen		5.5	3.8	<0.13	0.075	NA	12	NA	NA	NA	NA	NA	NA	NA	NA	NA
1009 Stimel Dr - 1st Floor	1009 Stimel Dr	9/8/2005	Master Bedroom	YES	7.5	0.36	<0.14	<0.071	<0.046	0.68	<0.14	1.3	0.29	1.9	8.5	0.66	1.5	0.56	<0.64 UJ
1009 Stimel Dr - 1st Floor Duplicate	1009 Stimel Dr	9/8/2005	Master Bedroom	YES	0.0	0.19 J	<0.11 UJ	<0.053 UJ	<0.034 UJ	0.56 J	<0.11	1.1 J	0.21 J	1.9 J	7.3 J	0.54 J	1.2 J	0.42 J	<0.48 UJ
1009 Stimel Dr - 1st Floor	1009 Stimel Dr	9/13-14/2006	Master Bedroom	YES	3.0	0.19	<0.10	<0.050	<0.032	0.53	<0.10	1.8	0.24	1.1	22	1.2	3.7	1.3	<0.45
1009 Stimel Drive - 1st Floor	1009 Stimel Dr	8/6-7/2007	Bedroom	YES	3.0	0.15	<0.10	<0.050	<0.032	0.28	0.60	0.74	0.56	0.42	18	0.67	1.5	0.66	<0.45
1009 Stimel Dr - 1st Floor	1009 Stimel Dr	9/15-16/2008	Master Bedroom	YES	6.0	<0.15	<0.11	<0.056	<0.036	0.98	<0.11	1.9	0.63	0.67	14	0.67	1.8	0.64	<0.51 UJ
1010 Bancroft Rd - 2nd Floor	1010 Bancroft Rd	8/30/2005	Master Bedroom		18.0	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*
1010 Bancroft Rd - 1st Floor	1010 Bancroft Rd	8/30/2005	Living Room		9.0	<0.20	<0.15	<0.076	<0.049	0.40	<0.15	<0.21	<0.15	1.4	25	2.7	5.2	1.8	<0.69
1011 Bermuda	1011 Bermuda Dr	3/16/2004	Master Bedroom		6.5	<0.19	<0.14	<0.069	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1011 Bermuda Dr - 1st Floor	1011 Bermuda Dr	9/7/2005	Bedroom		4.0	<0.17	<0.12	<0.061	<0.040	<0.21	<0.12	0.54	<0.12	0.58	4.7	0.46	1.2	0.38	<0.56 UJ
1012 Stimel Dr - 1st Floor	1012 Stimel Dr	9/14-15/2006	Bedroom		5.0	<0.15	<0.11	<0.054	<0.035	1.3	<0.11	<0.15	<0.11	0.47	2.2	0.26	0.82	0.32	<0.49
1012 Stimel Dr - 1st Floor (dup)	1012 Stimel Dr	9/14-15/2006	Bedroom		4.0	<0.14	<0.10	<0.052	<0.033	0.25	<0.11	<0.14	<0.11	0.41	2.2	0.26	0.89	0.32	<0.47
1012 Stimel Drive 1st FL	1012 Stimel Dr	8/8-9/2007	Bedroom		3.0	<0.14	<0.10	<0.050	<0.032	0.24	0.67	<0.14	<0.10	0.53	2.1	0.19	0.64	0.22	<0.45
1012 Stimel Dr - 1st Floor	1012 Stimel Dr	7/16-17/2008	Bedroom		4.0	<0.14	<0.10	<0.052	<0.033	0.28	<0.11	<0.14	0.39	0.51	4.8	0.21	0.56	0.22	<0.47
1013 Bermuda	1013 Bermuda Dr	3/16/2004	Living Room		7.0	<0.19	<0.14	<0.070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1013 Bermuda Dr - 2nd Floor	1013 Bermuda Dr	9/7/2005	Bedroom		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	<0.20	<0.14	0.53	3.2	0.52	1.4	0.38	<0.64 UJ
1013 Bermuda Dr - 1st Floor	1013 Bermuda Dr	9/7/2005	Living Room		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.60	5.6	0.40	1.0	0.28	<0.63 UJ
1013 Stimel Dr - 1st Floor	1013 Stimel Dr	8/15-16/2007	Bedroom		4.0	<0.14	<0.10	<0.052	<0.033	<0.18	<0.11	<0.14	<0.11	0.37	2.6	0.26	0.66	0.24	<0.47
1014 Stimel Dr - 2nd Floor	1014 Stimel Dr	9/7-8/2006	Bedroom		3.5	<0.14	<0.10	<0.051	<0.033	<0.18	<0.10	1.1	<0.10	0.90	4.3	0.72	2.3	0.97	<0.46
1014 Stimel Dr - 1st Floor	1014 Stimel Dr	9/7-8/2006	Living Room		5.5	<0.15	<0.11	<0.055	<0.036	<0.19	<0.11	0.22	<0.11	1.0	5.2	0.85	2.4	0.94	<0.50
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	8/22/2005	Master Bedroom		7.0	<0.19	<0.14	0.12	<0.045	<0.24	<0.14	8.1	<0.14	0.48	4.3	0.35	0.84	0.29	<0.63 UJ
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	9/5-6/2006	Master Bedroom		3.0	<0.14	<0.11	<0.053	<0.034	1.2	<0.11	10	<0.11	1.1	5.6	1.0	3.1	1.0	<0.48
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	8/14-15/2007	Master Bedroom		3.5	<0.14	<0.10	<0.051	<0.033	1.5	<0.10	7.9	<0.10	0.42	2.8	0.42	1.2	0.4	<0.46
1015 Stimel Dr - 1st Floor	1015 Stimel Dr	7/24-25/2008	Master Bedroom		9.5	<0.18	<0.13	0.28	<0.042	<0.22	<0.13	7.8	<0.13	0.46	2.6	0.44	0.96	0.30	<0.60 UJ
1015 Stimel Dr - 1st Floor (duplicate)	1015 Stimel Dr	7/24-25/2008	Master Bedroom		4.5	<0.14	<0.11	0.12	<0.034	0.18 J	<0.11	6.5	<0.11	0.45	2.5	0.44	1.6	0.85	<0.48 UJ
1016 Hampton Dr - 2nd Floor	1016 Hampton Dr	8/25/2005	Bedroom/Family Room		8.0	<0.20	<0.14	<0.072	<0.047	<0.25	<0.15	0.23	<0.15	0.93	3.5	0.64	1.9	0.55	<0.66 UJ
1016 Hampton Dr - 1st Floor	1016 Hampton Dr	8/25/2005	Living Room		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	0.30	<0.14	1.1	4.7	0.78	2.6	0.86	<0.64 UJ
1016 Stimel Dr - 1st Floor	1016 Stimel Dr	9/14/2005	Bedroom		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	0.40	<0.14	0.46	3.4	0.37	0.83	0.27	<0.64 UJ
1016 Stimel Dr - 1st Floor Duplicate	1016 Stimel Dr	9/14/2005	Bedroom		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	0.39	<0.14	0.44	3.3	0.36	0.80	0.26	<0.64 UJ
1017 Bermuda Dr - 2nd Floor	1017 Bermuda Dr	8/30-31/2006	Bedroom		4.5	<0.14	<0.11	<0.053	<0.034	<0.18	<0.11	0.16	0.21	1.3	5.0	2.6	7.7	1.6	<0.48
1017 Bermuda Dr - 1st Floor	1017 Bermuda Dr	8/30-31/2006	Living Room		0.5	<0.12	<0.092	<0.046	<0.030	16	<0.094	0.19	0.092 J	1.2	16	6.6	13	2.8	<0.42
1017 Bermuda Dr. 2nd Fl	1017 Bermuda Dr	8/8-9/2007	Bedroom		2.5	<0.13	<0.098	<0.049	<0.032	<0.17	<0.10	<0.14	0.13	0.66	3.4	0.72	2.0	0.67	<0.45
1017 Bermuda Dr. 1st Fl	1017 Bermuda Dr	8/8-9/2007	Living Room		4.0	<0.14	<0.10	<0.052	<0.033	<0.18	<0.11	<0.14	<0.11	0.51	2.3	0.39	1.2	0.37	<0.47
1017 Bermuda Dr. 1st Fl Dup	1017 Bermuda Dr	8/8-9/2007	Living Room		1.0	<0.13	<0.094	<0.047	<0.030	<0.16	<0.096	<0.13	<0.096	0.47	2.2	0.38	1.2	0.38	<0.42
1017 Bermuda Dr - 2nd Floor	1017 Bermuda Dr	7/15-16/2008	Bedroom		2.5	<0.13	<0.098	<0.049	<0.032	<0.17	<0.10	<0.14	0.26	0.61	1.9	0.28	0.77	0.26	<0.45
1017 Bermuda Dr - 2nd Floor (duplicate)	1017 Bermuda Dr	7/15-16/2008	Bedroom		0.0	<0.12	<0.089	<0.044	<0.029	<0.15	<0.091	<0.12	0.32	0.73	1.9				

Attachment B
Volatile Organic Compounds Detected in Air Samples (µg/m³)
Hookston Station
Pleasant Hill, California

Sample ID	Address	Date	Sample Location	Vapor Intrusion Prevention System	Final Vacuum (In. Hg)	TCE	c-1,2-DCE	1,1-DCE	Vinyl Chloride	PCE	1,1-DCA	1,1,1-TCA	1,2-DCA	Benzene	Toluene	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
<i>Residential Indoor Air ESL:</i>						1.2	7.3	0.049	0.031	0.41	1.5	460	0.094	0.084	63	0.98	21	21	9.4
1024 Bermuda - 1st Floor	1024 Bermuda Dr	9/28-29/2006	Master Bedroom		3.0	0.49	<0.10	<0.050	<0.032	1.2	<0.10	0.74	0.58	1.2	16	1.6	3.7	1.2	<0.45
1024 Bermuda - 1st Floor Dup	1024 Bermuda Dr	9/28-29/2006	Master Bedroom		2.0	0.50	<0.097	<0.048	<0.031	1.4	<0.099	0.76	0.57	0.90	15	1.6	3.8	1.2	<0.44
1024 Bermuda - 1st Floor Living Room	1024 Bermuda Dr	7/12-13/2007	Living Room		2.0	0.27	<0.097	<0.048	<0.031	0.32	<0.099	0.23	0.59	0.52	5.1	0.32	0.89	0.29	<0.44
1024 Bermuda - 1st Floor Bedroom	1024 Bermuda Dr	7/12-13/2007	Master Bedroom		2.5	0.28	<0.098	<0.049	<0.032	0.62	<0.10	0.23	0.79	0.32	3.6	0.29	0.72	0.24	<0.45
1024 Bermuda - 1st Floor Bedroom Duplicate	1024 Bermuda Dr	7/12-13/2007	Master Bedroom		4.0	0.33	<0.10	<0.052	<0.033	0.63	<0.11	0.27	0.94	0.36	4.5	0.29	0.63	0.20	<0.47
1024 Bermuda - Garage	1024 Bermuda Dr	7/12-13/2007	Garage		1.5	0.46	<0.095	<0.048	<0.031	<0.16	<0.097	0.38	<0.097	0.26	9.8	1.4	6.1	1.6	<0.43
1024 Bermuda Dr - 1st Floor	1024 Bermuda Dr	7/16-17/2008	Master Bedroom		3.0	<1.4	<1.0	<0.50	<0.32	1.8	<1.0	<1.4	48	<2.0	11	<1.1	<2.2	<1.1	<4.5
1024 Bermuda Dr - 1st Floor (duplicate)	1024 Bermuda Dr	7/16-17/2008	Master Bedroom		5.0	<0.97	<0.72	<0.36	<0.23	1.5	<0.73	<0.99	41	<1.4	10	<0.79	1.7	<0.79	<3.3
1024 Stimel Dr - 2nd Fl.	1024 Stimel Dr	9/7-8/2006	Bedroom		2.5	<0.13	<0.098	<0.049	<0.032	0.81	<0.10	0.14	0.33	1.2	8.4	1.2	4.7	1.6	<0.45
1024 Stimel Dr - 1st Floor	1024 Stimel Dr	9/7-8/2006	Master Bedroom		2.5	<0.13	<0.098	<0.049	<0.032	<0.17	<0.10	<0.14	<0.10	0.22	<0.093	<0.11	0.22	<0.11	<0.45
1025 Bermuda Dr - 1st Floor	1025 Bermuda Dr	8/30/2005	Master Bedroom		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	2.1	20	2.2	9.2	2.3	<0.63
1027 Bermuda Dr - 2nd Floor	1027 Bermuda Dr	9/6/2005	Bedroom		7.5	<0.19	<0.14	<0.071	<0.046	0.33	<0.14	0.39	0.16	1.40	11	0.89	2.3	0.67	<0.64 UJ
1027 Bermuda Dr - 1st Floor	1027 Bermuda Dr	9/6/2005	Living Room		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	0.48	0.21	1.3	13	0.85	2.1	0.62	<0.64 UJ
1029 Stimel Dr - 1st Floor	1029 Stimel Dr	7/19/2006	Master Bedroom		3.5	<0.16	<0.12	<0.060	<0.39	2.4	<0.12	<0.16	0.15	0.61	4.0	0.90	2.5	1.0	<0.55
1029 Stimel Dr - 1st Floor Dup	1029 Stimel Dr	7/19/2006	Master Bedroom		3.0	0.35	<0.12	0.078	<0.038	2.4	<0.12	<0.16	0.17	0.64	4.2	0.96	2.6	1.1	<0.54
1033 Bermuda Dr - 2nd Floor	1033 Bermuda Dr	9/7/2005	Bedroom		8.0	<0.20	<0.14	<0.072	<0.047	1.1	<0.15	<0.20	<0.15	0.54	9.0	0.56	1.1	0.32	<0.66 UJ
1033 Bermuda Dr - 1st Floor	1033 Bermuda Dr	9/7/2005	Living Room		7.0	<0.19	<0.14	<0.069	<0.045	1.1	<0.14	0.20	<0.14	0.62	3.3	0.39	1.0	0.31	<0.63 UJ
1039 Stimel Dr - 2nd Floor	1039 Stimel Dr	1/11/2006	Bedroom		6.5	<0.18	<0.14	<0.068	<0.044	0.26	<0.14	0.20	0.60	1.0	8.8	1.2	2.9	1.2	<0.62
1039 Stimel Dr - 1st Floor	1039 Stimel Dr	1/11/2006	Living Room		5.0	<0.17	<0.13	<0.064	<0.041	0.25	<0.13	0.24	0.25	1.0	6.4	0.80	2.1	0.80	<0.58
1040 Stimel Dr - 1st Floor	1040 Stimel Dr	9/6/2005	Master Bedroom		6.5	<0.18	<0.14	<0.068	<0.044	0.37	<0.14	<0.19	<0.14	0.57	6.3	0.32	0.77	0.24	<0.62 UJ
1040 Stimel Dr - 1st Floor Duplicate	1040 Stimel Dr	9/6/2005	Master Bedroom		6.5	<0.18	<0.14	<0.068	<0.044	0.40	<0.14	<0.19	<0.14	0.56	6.2	0.33	0.76	0.23	<0.62 UJ
1043 Stimel Dr - 1st Floor	1043 Stimel Dr	9/8/2005	Master Bedroom		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.34	1.1	<0.15	0.32	<0.15	<0.63 UJ
1058 Bancroft Rd - 2nd Floor	1058 Bancroft Rd	9/8/2005	Master Bedroom		8.5	<0.20	<0.15	<0.074	<0.048	<0.25	<0.15	0.22	0.27	0.45	9.2	0.69	2.0	0.51	<0.67 UJ
1058 Bancroft Rd - 2nd Floor Duplicate	1058 Bancroft Rd	9/8/2005	Master Bedroom		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	0.22	0.24	0.48	9.7	0.69	2.0	0.51	<0.64 UJ
1058 Bancroft Rd - 1st Floor	1058 Bancroft Rd	9/8/2005	Living Room		3.0	<0.16	<0.12	<0.059	<0.038	<0.20	<0.12	0.17	0.21	0.45	8.9	0.71	2.1	0.54	<0.54 UJ
1200 Thames Dr - 1st Floor	1200 Thames Dr	8/24/2005	Master Bedroom		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.52	3.9	0.38	0.98	0.29	<0.63 UJ
1200 Thames Dr - 1st Floor Duplicate	1200 Thames Dr	8/24/2005	Master Bedroom		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.58	3.9	0.39	0.99	0.31	<0.63 UJ
1200 Thames - 1st Floor	1200 Thames Dr	9/28-29/2006	Master Bedroom		4.0	<0.14	<0.10	<0.052	<0.033	<0.18	<0.11	<0.14	<0.11	1.3	6.7	0.95	3.2	1.1	<0.47
1201 Thames Dr - 1st Floor	1201 Thames Dr	8/21-22/2007	Bedroom		3.5	<0.14	<0.10	<0.051	<0.033	4.7	<0.10	0.52	<0.10	0.88	4.1	0.58	1.8	0.62	<0.46
1204 Hookston	1204 Hookston Rd	2/19/2004	Living Room		6.0	<0.18	<0.14	<0.068	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1208 Hookston	1208 Hookston Rd	1/20/2004	Living Room		4.5	0.19	<0.13	0.064	NA	0.31	NA	NA	NA	NA	NA	NA	NA	NA	NA
1208 Hookston DUP	1208 Hookston Rd	1/20/2004	Living Room		4.5	0.18	<0.13	0.062 J	NA	0.30	NA	NA	NA	NA	NA	NA	NA	NA	NA
1210 Thames Dr - 1st Floor	1210 Thames Drive	8/22/2005	Nursery		7.5	0.40	<0.14	<0.071	<0.046	<0.24	<0.14	<0.20	<0.14	0.87	8.4	0.89	2.2	0.82	<0.64 UJ
1210 Thames Dr - 1st Floor Duplicate	1210 Thames Drive	8/22/2005	Nursery		8.0	0.40	<0.14	<0.072	<0.047	<0.25	<0.15	<0.20	<0.15	0.86	7.9	0.87	2.2	0.88	<0.66 UJ
1210 Thames Dr - 1st Floor	1210 Thames Drive	10/10-11/2007	Master Bedroom		4.0	0.32	<0.10	<0.052	<0.033	<0.18	<0.11	0.16	0.25	0.58	2.7	0.34	0.98	0.48	<0.47
1210 Thames Dr - 1st Floor	1210 Thames Dr	8/14-15/2008	Master Bedroom		7.0	<0.26	<0.20	<0.098	<0.063	<0.34	<0.20	<0.27	0.84	0.90	5.7	0.50	1.3	0.61	<0.89
1211 Thames Dr - 1st Floor Bedroom	1211 Thames Dr	9/18-19/2006	Bedroom		2.0	<0.13	<0.097	<0.048	<0.031	0.52	<0.099	0.39	3.0	1.0	8.1	0.63	1.7	0.73	<0.44
1211 Thames Dr - 1st Floor Bedroom DUP	1211 Thames Dr	9/18-19/2006	Bedroom		6.5	<0.16	<0.11	<0.057	<0.037	0.56	<0.12	0.41	3.4	1.1	8.3	0.65	1.7	0.73	<0.52
1211 Thames Dr - 1st Floor	1211 Thames Dr	12/6-7/2007	Master Bedroom		9.0	<0.17	<0.13	<0.064	<0.041	0.32	<0.13	0.32	5.4	1.2	8.9	0.63	1.8	0.68	<0.58
1220 Stimel Ct - 2nd Floor	1220 Stimel Ct	9/28-29/2006	Bedroom		5.5	0.24	<0.11	<0.055	<0.036	0.90	<0.11	3.9	<0.11	1.2	15	0.97	3.3	1.2	<0.50
1220 Stimel Ct - 1st Floor	1220 Stimel Ct	9/28-29/2006	Dining Room		4.0	<0.14	<0.10	<0.052	<0.033	0.26	<0.11	0.77	<0.11	0.86	19	0.88	2.9	1.0	<0.47
1220 Stimel Ct - 2nd Floor	1220 Stimel Ct	8/15-16/2007	Bedroom		3.0	<0.14	<0.10	<0.051	<0.033	0.45	<0.10	1.5	0.15	0.45	18	0.87	2.4	0.79	<0.46
1220 Stimel Ct - 1st Floor	1220 Stimel Ct	8/23-24/2007	Dining Room		4.0	<0.14	<0.10	<0.052	0.013 J	<0.18	<0.11	0.82	0.13	0.48	8.1	0.75	1.9	0.61	<0.47
1220 Stimel Ct - 2nd Floor	1220 Stimel Ct	8/12-13/2008	Bedroom		12.0	0.38	<0.15	<0.075	0.013 J	0.50	<0.15	4.5	0.59	0.96	36	1.6	4.1	1.7	<0.68
1220 Stimel Ct - 1st Floor	1220 Stimel Ct	8/12-13/2008	Dining Room		9.0	<0.17	<0.13	<0.064	0.025 J	0.83	<0.13	1.2	0.25	0.70	15	0.77	2.1	0.80	<0.58
1220 Thames	1220 Thames Dr	2/19/2004	Master Bedroom		2.5	3.1	<0.12	<0.59	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1220 Thames Dr - 2nd Floor	1220 Thames Dr	8/30/2005	Bedroom	YES	0.0	<0.14 UJ	<0.11 UJ	<0.053 UJ	<0.034 UJ	0.37 J	<0.11	0.82 J	<0.11 UJ	1.3 J	9.9 J	1.2 J	4.8 J	1.3 J	<0.48 UJ
1220 Thames Dr - 2nd Floor Duplicate	1220 Thames Dr	8/30/2005	Bedroom	YES	7.5	<0.19	<0.14	<0.071	<0.046	0.42	<0.14	1.3	<0.14	1.3	11	1.3	4.9	1.4	<0.64 UJ
1220 Thames Dr - 1st Floor	1220 Thames Dr	8/30/2005	Family Room	YES	7.5	<0.19	<0.14	<0.071	<0.046	0.45	<0.14	0.84	<0.14	1.6	19	1.8	6.8	2.0	<0.64 UJ
1220 Thames - 2nd Floor	1220 Thames Dr	9/20-21/2006	Bedroom	YES	6.0	<0.15	<0.11	<0.056	<0.036	0.45	<0.11	0.47	<0.11	1.5	14	1.4	5.0	1.7	<0.51
1220 Thames - 1st Floor	1220 Thames Dr	9/20-21/2006	Family Room	YES	3.5	<0.14	<0.10	<0.051	<0.033	0.48	<0.10	0.51	0.17	1.4	18	1.4	5.2	1.8	<0.46
1220 Thames Dr 2nd FL	1220 Thames Dr	8/8-9/2007	Bedroom	YES	3.5	<0.14	<0.10	<0.051	<0.033	0.53	<0.10	0.31	0.12	0.97	8.4	1.6	5.4	2.0	<0.46
1220 Thames Dr First FL	1220 Thames Dr	8/8-9/2007	Family Room	YES	3.5	<0.14	<0.10	<0.051	<0.033	<0.18	<0.10	0.24	0.14	1.1					

Attachment B
 Volatile Organic Compounds Detected in Air Samples (µg/m³)
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	Vapor Intrusion Prevention System	Final Vacuum (In. Hg)	TCE	c-1,2-DCE	1,1-DCE	Vinyl Chloride	PCE	1,1-DCA	1,1,1-TCA	1,2-DCA	Benzene	Toluene	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
<i>Residential Indoor Air ESL:</i>						1.2	7.3	0.049	0.031	0.41	1.5	460	0.094	0.084	63	0.98	21	21	9.4
1221 Hookston Rd - 1st Floor LR	1221 Hookston Rd	8/23-24/2007	Living Room		5.0	0.36	<0.11	<0.054	<0.035	<0.18	<0.11	<0.15	0.77	0.90	8.9	0.76	2.0	0.81	<0.49
1221 Thames Dr - 2nd Floor	1221 Thames Dr	8/25/2005	Office/Bedroom		7.5	7.1	<0.14	<0.071	<0.046	0.76	<0.14	1.5	0.20	3.2	28	2.6	10	2.8	<0.64 UJ
1221 Thames Dr - 1st Floor	1221 Thames Dr	8/25/2005	Living Room		2.5	3.3	<0.12	<0.058	<0.037	2.5	<0.12	1.3	0.19	2.0	30	2.1	6.6	2	<0.53 UJ
1221 Thames Dr - 1st Floor	1221 Thames Dr	9/7/2005	Master Bedroom		4.5	1.7	<0.12	<0.063	<0.040	0.48	<0.13	1.4	0.15	1.8	17	1.4	5.1	1.5	<0.57 UJ
1221 Thames Dr - 1st Floor	1221 Thames Dr	10/4-5/2006	Office/Bedroom		2.5	0.99	<0.098	<0.049	<0.032	11	<0.10	1.4	<0.10	2.4	32	3.7	14	4.7	<0.45
1221 Thames Dr - 2nd Fl. Dup	1221 Thames Dr	10/4-5/2006	Office/Bedroom		0.0*	0.97 J	<0.089 UJ	<0.044 UJ	<0.029 UJ	12 J	<0.091	1.4 J	0.094 J	2.4 J	33 J	3.8 J	14 J	5.0 J	<0.40 UJ
1221 Thames Dr - 1st Floor	1221 Thames Dr	10/4-5/2006	Master Bedroom		5.5	0.52	<0.11	<0.055	<0.036	3.4	<0.11	0.83	<0.11	1.5	30	1.9	7.1	2.4	<0.50
1221 Thames Dr - 2nd Floor	1221 Thames Dr	8/15-16/2007	Bedroom	YES	4.5	0.95	<0.11	<0.053	<0.034	54	<0.11	0.94	0.13	2.5	32	4.2	16	5.2	<0.48
1221 Thames Dr - 1st Floor	1221 Thames Dr	8/15-16/2007	Master Bedroom	YES	0.0	0.55	<0.090	<0.045	<0.029	3.0	<0.092	0.71	0.11	1.7	34	3.1	11	3.5	<0.41
1221 Thames Dr - 2nd Floor	1221 Thames Dr	7/23-24/2008	Bedroom	YES	9.5	1.2	<0.13	<0.066	0.016 J	7.2	<0.13	0.82	0.46	1.7	18	3.2	12	4.4	<0.60
1221 Thames Dr - 1st Floor ⁽⁴⁾	1221 Thames Dr	7/23-24/2008	Master Bedroom	YES	5.5	0.90	<0.22	<0.11	0.021 J	2.1	<0.22	0.56	0.45	1.4	14	2.0	6.9	2.6	<1.0
1250 Hookston Rd - 1st Floor	1250 Hookston Rd	8/24/2005	Bedroom		7.5	<0.19	<0.14	<0.071	<0.046	1.5	<0.14	2.4	<0.14	0.59	13	0.82	2.3	0.66	0.75 J
1260 Waterloo	1260 Waterloo Ct	2/26/2004	Kid's Bedroom		6.5	0.42	<0.14	<0.069	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1261 Hookston Rd - 2nd Floor	1261 Hookston Rd	8/23/2005	Bedroom		8.0	<0.20	<0.14	<0.072	<0.047	0.34	<0.15	1.8	<0.15	3.6	24	3.5	15	3.6	<0.66
1261 Hookston Rd - 1st Floor	1261 Hookston Rd	8/23/2005	Dining Room		8.0	<0.20	<0.14	0.086	<0.047	0.37	<0.15	2.8	<0.15	5.3	36	4.8	22	5.2	<0.66
1261 Waterloo Ct - 2nd Floor	1261 Waterloo Ct	9/11-12/2006	Bedroom		7.0	<0.16	<0.12	<0.059	<0.038	0.20	<0.12	<0.16	<0.12	0.98	4.2	0.76	2.7	0.89	<0.53
1261 Waterloo Ct - 1st Floor	1261 Waterloo Ct	9/11-12/2006	Living Room		2.0	<0.15	<0.11	<0.057	<0.037	0.22	<0.12	<0.16	<0.12	0.97	4.5	0.68	2.3	0.83	<0.52
1261 Waterloo Ct - 1st Floor (dup)	1261 Waterloo Ct	9/11-12/2006	Living Room		6.0	0.29	<0.11	<0.056	<0.036	0.23	<0.11	<0.15	<0.11	1.0	6.8	0.97	2.7	0.92	<0.051
1261 Waterloo Ct - 2nd Floor	1261 Waterloo Ct	10/15-16/2007	Bedroom		4.5	<0.14	<0.11	<0.053	<0.034	<0.18	<0.11	<0.15	0.11	0.81	11	0.47	1.1	0.48	<0.48
1261 Waterloo Ct - 1st Floor	1261 Waterloo Ct	10/15-16/2007	Living Room		6.5	<0.16	<0.11	<0.057	<0.037	<0.20	<0.12	<0.16	<0.12	0.49	4.8	0.19	0.59	0.28	<0.52
1261 Waterloo Ct - 2nd Floor	1261 Waterloo Ct	7/29-30/2008	Bedroom		7.0	<0.16	<0.12	<0.059	<0.038	<0.20	<0.12	<0.16	<0.12	<0.24	2.2	0.36	0.46	0.16	<0.53 UJ
1261 Waterloo Ct - 1st Floor	1261 Waterloo Ct	7/29-30/2008	Living Room		5.5	<0.15	<0.11	<0.055	<0.036	<0.19	<0.11	<0.15	<0.11	<0.22	1.4	0.15	0.34	0.12	<0.50 UJ
1261 Trafalgar Ct - 2nd Floor	1261 Trafalgar Ct	7/23-24/2008	Bedroom		4.5	0.15	<0.11	<0.053	<0.034	<0.18	<0.11	<0.15	0.14	0.71	1.9	0.21	0.48	0.22	<0.48
1261 Trafalgar Ct - 1st Floor	1261 Trafalgar Ct	7/23-24/2008	Master Bedroom		7.0	0.23	<0.12	<0.059	<0.038	<0.20	<0.12	<0.16	0.14	0.61	5.3	0.43	0.76	0.31	<0.53
1270 Trafalgar Ct - 2nd Floor	1270 Trafalgar Ct	8/24/2005	Nursery		8.0	<0.20	<0.14	<0.072	<0.47	1.9	<0.15	<0.20	<0.15	0.47	3.3	0.39	0.91	0.28	<0.66 UJ
1270 Trafalgar Ct - 1st Floor	1270 Trafalgar Ct	8/24/2005	Living Room/Dining Room		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.60	7.5	0.52	1.3	0.33	<0.63 UJ
1270 Waterloo	1270 Waterloo Ct	3/16/2004	Living Room		6.0	<0.18	<0.14	<0.068	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	8/23/2005	Bedroom		8.5	<0.20	<0.15	<0.074	<0.048	<0.25	<0.15	0.21	<0.15	1.1	4.2	0.55	1.6	0.48	<0.67 UJ
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	8/23/2005	Living Room		0.0	<0.14 UJ	<0.11 UJ	<0.053 UJ	<0.034 UJ	<0.18 UJ	<0.11	0.20 J	<0.11 UJ	1.1 J	5.0 J	0.56 J	1.9 J	0.58 J	<0.48 UJ
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	10/5/2005	Living Room		6.5	<0.18	<0.14	<0.068	<0.044	<0.23	<0.14	0.31	<0.14	0.87	3.4	0.57	2.1	0.69	<0.62
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	9/6-7/2006	Bedroom		3.0	<0.14	<0.10	<0.050	<0.032	0.26	<0.10	0.49	<0.10	1.3	6.5	0.96	3.6	1.3	<0.45
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	9/6-7/2006	Living Room		3.0	<0.14	<0.10	<0.050	<0.032	0.24	<0.10	0.34	<0.10	1.4	7.8	1.2	4.9	1.7	<0.45
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	8/14-15/2007	Bedroom		4.0	<0.14	<0.10	<0.052	0.031 J	<0.18	<0.11	0.34	<0.11	0.43	3.6	0.51	0.94	0.34	<0.47
1270 Waterloo Ct. - 1st Floor	1270 Waterloo Ct	8/14-15/2007	Living Room		4.5	4.1	<0.11	0.15	<0.034	0.48	<0.11	1.1	0.69	0.40	3.4	0.35	1.0	0.37	<0.48
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	12/27-28/2007	Bedroom		4.0	<0.14	<0.10	<0.052	<0.033	<0.18	<0.11	0.70	<0.11	4.1	16	2.8	13	4.6	<0.47
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	12/27-28/2007	Living Room		5.0	<0.15	<0.11	<0.054	<0.035	<0.18	<0.11	0.73	<0.11	5.6	24	4.7	23	8.5	<0.49
1270 Waterloo Ct - 1st Floor Dup	1270 Waterloo Ct	12/27-28/2007	Living Room		0.0	5.4 J	0.27 J	0.079 J	<0.029 UJ	0.22 J	0.19 J	1.2 J	<0.092 UJ	6.1 J	27 J	5.0 J	25 J	9.2 J	<0.41 UJ
1270 Waterloo Ct - 2nd Floor	1270 Waterloo Ct	8/14-15/2008	Bedroom		10.0	<0.18	<0.13	<0.067	0.013 J	<0.23	<0.14	0.48	<0.14	0.78	14	0.58	1.5	0.60	<0.61
1270 Waterloo Ct - 1st Floor	1270 Waterloo Ct	8/14-15/2008	Living Room		10.5	<0.19	<0.14	<0.069	<0.045	0.27	<0.14	0.68	<0.14	0.73	9.8	0.93	1.8	0.67	<0.63
1271 Hookston	1271 Hookston Rd	3/3/2004	Master Bedroom		6.0	<0.18	<0.14	<0.068	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1271 Hookston Rd - 2nd Floor	1271 Hookston Rd	8/22/2005	Bedroom		8.5	<0.20	<0.15	<0.074	<0.048	<0.25	<0.15	<0.20	<0.15	0.96	7.6	1.2	4.2	1.1	<0.67 UJ
1271 Hookston Rd - 1st Floor	1271 Hookston Rd	8/22/2005	Living Room/Dining Room		2.0	<0.15	<0.11	<0.057	<0.037	<0.20	<0.12	<0.16	<0.12	1.3	10	1.2	4.6	1.5	<0.52 UJ
1310 Gragg Ln - 1st Floor	1310 Gragg Ln	9/5-6/2006	Bedroom		3.0	<0.14	<0.10	<0.050	<0.032	0.26 U	<0.10	0.14	<0.10	0.95	14	1.3	3.8	1.4	<0.45
1310 Gragg Ln - 1st Floor (dup)	1310 Gragg Ln	9/5-6/2006	Bedroom		2.0	<0.13	<0.097	<0.048	<0.031	0.24 U	<0.099	<0.13	0.12	0.89	14	1.4	3.8	1.3	<0.44
1310 Strathmore Ct - 1st Floor	1310 Strathmore Ct	8/25/2005	Master Bedroom		8.0	<0.20	<0.14	0.16	<0.047	17	<0.15	12	0.34	0.73	8.2	0.46	0.87	0.26	<0.66 UJ
1311 Strathmore Ct - 2nd Floor	1311 Strathmore Ct	8/31/2005	Bedroom		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.15	<0.20	<0.14	0.61	3.6	0.39	1.1	0.33	<0.64
1311 Strathmore Ct - 2nd Floor Duplicate	1311 Strathmore Ct	8/31/2005	Bedroom		7.5	0.20	<0.14	<0.071	<0.046	<0.24	<0.14	<0.20	<0.14	0.59	3.4	0.36	0.97	0.30	<0.64
1311 Strathmore Ct - 1st Floor	1311 Strathmore Ct	8/31/2005	Dining Room		8.0	<0.20	<0.14	<0.072	<0.047	<0.25	<0.15	<0.20	0.17	0.66	4.8	0.42	1.2	0.41	<0.66
1320 Strathmore Ct - 2nd Floor	1320 Strathmore Ct	8/25/2005	Bedroom		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	0.29	<0.14	0.86	3.2	0.40	1.1	0.34	<0.64 UJ
1320 Strathmore Ct - 1st Floor	1320 Strathmore Ct	8/25/2005	Living Room		6.5	<0.18	<0.14	<0.068	<0.044	<0.23	<0.14	0.27	<0.14	0.74	3.1	0.40	1.1	0.33	<0.62 UJ
1321 Edinburgh Ct	1321 Edinburgh Ct	8/31/2005	Bedroom		7.5	<0.19	<0.14	<0.071	<0.046	0.30	<0.14	<0.20	<0.14	1.30	7.0	0.88	2.9	0.98	<0.64 UJ
1321 Hampshire Ct - 1st Floor	1321 Hampshire Ct	8/29/2005	Master Bedroom		6.5	<0.18	<0.14	<0.068	<0.044	0.67	<0.14	<0.19	<0.14	1.0	6.8	0.79	2.5	0.69	<0.62
1330 Aberdeen - 2nd Fl.	1330 Aberdeen Ct	8/31-9/1/2006	Bedroom		4.5	<0.14	<												

Attachment B
 Volatile Organic Compounds Detected in Air Samples (µg/m³)
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	Vapor Intrusion Prevention System	Final Vacuum (In. Hg)	TCE	c-1,2-DCE	1,1-DCE	Vinyl Chloride	PCE	1,1-DCA	1,1,1-TCA	1,2-DCA	Benzene	Toluene	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
<i>Residential Indoor Air ESL:</i>						1.2	7.3	0.049	0.031	0.41	1.5	460	0.094	0.084	63	0.98	21	21	9.4
<i>Crawl Space and VIPS Air Quality Samples:</i>																			
1000 Hampton (crawl)	1000 Hampton Dr	1/21/2004	Crawl Space		5.5	1.6	<0.13	<0.066	NA	<0.23	NA	NA	NA	NA	NA	NA	NA	NA	NA
1000 Hampton Dr - Crawl Space	1000 Hampton Dr	8/29/2005	Crawl Space		8.0	3.0	<0.14	<0.072	<0.047	<0.25	<0.15	<0.20	<0.15	0.62	3.4	0.67	1.9	0.47	<0.66
1000 Hampton Dr - Crawl	1000 Hampton Dr	10/4-5/2006	Crawl Space		0.0*	0.26 J	<0.087 UJ	<0.044 UJ	<0.028 UJ	<0.15 UJ	<0.089	<0.12 UJ	<0.089 UJ	0.66 J	2.0 J	0.31 J	1.1 J	0.40 J	<0.40 UJ
1000 Stimel (crawl)	1000 Stimel Dr	4/12/2004	Crawl Space		n/a	hold	hold	hold	NA	hold	NA	NA	NA	NA	NA	NA	NA	NA	NA
1001 Stimel - crawl	1001 Stimel Dr	9/20-21/2006	Crawl Space		12.0	<0.20	<0.15	<0.075	<0.048	0.71	<0.15	<0.21	<0.15	1.4	4.3	0.63	2.2	0.76	<0.68
1001 Stimel Dr - Crawl Space	1001 Stimel Dr	8/21-22/2007	Crawl Space		2.5	0.15	<0.098	<0.049	<0.032	0.96	<0.10	<0.14	0.26	0.59	2.8	0.42	1.3	0.47	<0.45
1001 Stimel Dr - Crawl Space	1001 Stimel Dr	8/27-28/2008	Crawl Space		8.5	<0.17	<0.13	<0.063	<0.041	1.2	<0.13	<0.17	0.8	0.89	5.3	0.8	2.8	1	<0.57
1002 Hampton (crawl)	1002 Hampton Dr	2/19/2004	Crawl Space		2.5	2.0	<0.12	0.1	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	8/30/2005	Crawl Space	YES	6.0	0.28	<0.13	<0.067	<0.043	0.40	<0.14	0.48	<0.14	0.46	2.3	0.24	0.62	0.19	<0.60 UJ
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	10/5/2005	Crawl Space	YES	7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.64	1.7	0.36	1.2	0.47	<0.63
1002 Hampton VIPS	1002 Hampton Dr	11/7-8/2006	VIPS Discharge Pipe (no treatment)	YES	0.0	0.15 J	<0.11 UJ	<0.053 UJ	1.0 J	0.22 J	<0.11	<0.15 UJ	<0.11 UJ	1.7 J	9.3 J	1.4 J	4.4 J	1.4 J	<0.48 UJ
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	10/16-17/2007	Crawl Space	YES	5.0	0.23	<0.11	<0.054	<0.035	<0.18	<0.11	<0.15	<0.11	0.71	2.3	0.32	1.0	0.42	<0.49
1002 Hampton Dr - VIPS	1002 Hampton Dr	10/16-17/2007	VIPS Discharge Pipe (1 treatment)	YES	8.0	<0.17	<0.12	<0.061	0.18	<0.21	<0.12	<0.17	<0.12	0.77	3.0	0.64	1.4	0.53	<0.56
1002 Hampton Dr - VIPS Eff	1002 Hampton Dr	12/6/2007**	VIPS Discharge Pipe (2 treatments)	YES	6.5	<0.16	<0.11	<0.057	<0.037	<0.20	<0.12	<0.16	<0.12	<0.23	0.54	<0.12	0.38	0.14	<0.52
1002 Hampton Dr - VIPS Mid	1002 Hampton Dr	12/6/2007**	VIPS Discharge Pipe (1 treatment)	YES	6.0	<0.15	<0.11	<0.056	<0.036	<0.19	<0.11	<0.15	<0.11	<0.23	0.50	0.18	0.60	0.21	<0.51
1002 Hampton Dr - VIPS In	1002 Hampton Dr	12/6/2007**	VIPS Discharge Pipe (no treatment)	YES	25.0	14	<0.54	<0.27	<0.17	<0.92	<0.55	<0.74	<0.55	1.2	3.2	<0.59	1.4	<0.59	<2.4
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	12/27-28/2007	Crawl Space	YES	6.0	0.17	<0.11	<0.056	<0.036	<0.19	<0.11	<0.15	<0.11	0.71	1.2	0.20	0.58	0.20	<0.51
1002 Hampton Dr - VIPS Eff	1002 Hampton Dr	12/27-28/2007	VIPS Discharge Pipe (2 treatments)	YES	5.5	<0.15	<0.11	<0.055	0.024 J	<0.19	<0.11	<0.15	<0.11	0.43	0.91	0.17	0.41	0.16	<0.50
1002 Hampton Dr - VIPS Mid	1002 Hampton Dr	12/27-28/2007	VIPS Discharge Pipe (1 treatment)	YES	5.5	<0.15	<0.11	<0.055	0.022 J	<0.19	<0.11	<0.15	<0.11	0.29	0.74	0.14	0.38	0.14	<0.50
1002 Hampton Dr - VIPS In	1002 Hampton Dr	12/27-28/2007	VIPS Discharge Pipe (no treatment)	YES	2.5	11	<0.098	0.082	0.025 J	<0.17	<0.10	<0.14	<0.10	0.67	1.3	0.18	0.43	0.16	<0.45
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	5/28-29/2008	Crawl Space	YES	10.0	0.93	<0.13	<0.067	<0.043	<0.23	<0.14	<0.18	<0.14	<0.27	0.68	<0.15	<0.30	<0.15	<0.61
1002 Hampton Dr - VIPS In	1002 Hampton Dr	5/27-28/2008	Discharge Pipe (no treatment)	YES	4.0	19	<0.10	0.22	0.025 J	<0.18	<0.11	0.19	0.18	1.4	1.4	0.14	0.37	0.15	<0.47
1002 Hampton Dr - VIPS Mid	1002 Hampton Dr	5/27-28/2008	Discharge Pipe (1 carbon treatment)	YES	1.5	<0.13	<0.095	<0.048	0.029 J	<0.16	<0.097	<0.13	<0.097	0.45	1.3	0.15	0.44	0.16	<0.43
1002 Hampton Dr - VIPS Eff	1002 Hampton Dr	5/27-28/2008	Discharge Pipe (2 carbon treatment)	YES	3.0	<0.14	<0.10	<0.050	0.06	<0.17	<0.10	<0.14	0.12	0.87	0.9	0.13	0.34	0.13	<0.45
1002 Hampton Dr - Crawl Space	1002 Hampton Dr	7/15-16/2008	Crawl Space	YES	0.5	1.0	<0.092	<0.046	<0.030	<0.16	<0.094	<0.13	<0.094	0.58	0.92	0.12	0.33	0.13	<0.42
1002 Hampton Dr - VIPS In ⁽¹⁾	1002 Hampton Dr	7/15-16/2008	Discharge Pipe (no treatment)	YES	3.0	3.5	<0.10	<0.050	0.016 J	<0.17	<0.10	<0.14	0.15	0.69	0.8	0.14	0.39	0.16	<0.45
1002 Hampton Dr - VIPS Mid ⁽²⁾	1002 Hampton Dr	7/15-16/2008	Discharge Pipe (1 carbon treatment)	YES	2.5	<0.13	<0.098	<0.049	0.018 J	<0.17	<0.10	<0.14	0.15	0.52	0.47	0.12	0.33	0.14	<0.45
1002 Hampton Dr - VIPS Eff ⁽³⁾	1002 Hampton Dr	7/15-16/2008	Discharge Pipe (2 carbon treatment)	YES	2.5	<0.13	<0.098	<0.049	0.048	<0.17	<0.10	<0.14	0.19	0.61	0.95	0.31	0.46	0.19	<0.45
1004 Hampton Dr - Crawl Space	1004 Hampton Dr	8/15-16/2007	Crawl Space		5.5	13	<0.11	0.086	<0.036	0.25	<0.11	<0.15	<0.11	0.63	2.5	0.44	1.5	0.48	<0.50
1005 Stimel (crawl)	1005 Stimel Dr	2/17/2004	Crawl Space		4.0	hold	hold	hold	NA	hold	NA	NA	NA	NA	NA	NA	NA	NA	NA
1005 Stimel Dr - Crawl Space	1005 Stimel Dr	9/6/2005	Crawl Space		6.5	2.7	<0.14	<0.068	<0.044	<0.23	<0.14	<0.19	<0.14	0.52	2.2	0.26	0.66	0.19	<0.62 UJ
1005 Stimel Dr - Crawl Space	1005 Stimel Dr	10/16-17/2008	Crawl Space	YES	3.5	1.0	<0.10	0.086	<0.033	1.0	<0.10	1.9	0.21	1.1	4.4	0.68	2.3	0.72	<0.46 UJ
1006 Hampton (crawl)	1006 Hampton Dr	2/19/2004	Crawl Space		6.0	2.2	0.2	0.11	NA	0.55	NA	NA	NA	NA	NA	NA	NA	NA	NA
1006 Hampton Dr - Crawl Space	1006 Hampton Dr	8/23/2005	Crawl Space		8.5	2.3	<0.15	<0.074	<0.048	<0.25	<0.15	<0.20	<0.15	0.87	3.1	0.51	1.4	0.42	<0.67
1006 Hampton Dr - Crawl Space	1006 Hampton Dr	7/14-15/2008	Crawl Space	YES	5.0	<0.15	<0.11	<0.054	<0.035	<0.18	<0.11	<0.15	<0.11	0.38	0.79 U	0.17	0.35	0.14	<0.49
1006 Stimel (crawl)	1006 Stimel Dr	2/17/2004	Crawl Space		4.5	5.1	0.38	<0.064	NA	1.3	NA	NA	NA	NA	NA	NA	NA	NA	NA
1006 Stimel Dr - Crawl Space	1006 Stimel Dr	9/14/2005	Crawl Space		7.0	3.2	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.78	4.9	0.62	2.1	0.58	<0.63 UJ
1006 Stimel Dr - Crawl Space	1006 Stimel Dr	11/6-7/2008	Crawl Space	YES	6.5	<0.16	<0.11	<0.057	<0.037	<0.20	<0.12	<0.16	<0.12	1.0	2.8	0.45	1.4	0.56	<0.52
1007 Bermuda Dr - Crawl Space	1007 Bermuda Dr	8/23/2005	Crawl Space		8.0	<0.20	<0.14	<0.072	<0.047	<0.25	<0.15	<0.20	<0.15	1.1	4.6	0.56	1.7	0.48	<0.66 UJ
1007 Stimel (crawl)	1007 Stimel Dr	2/26/2004	Crawl Space		n/a	0.53	<0.13	<0.065	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1007 Stimel Dr - Crawl Space	1007 Stimel Dr	9/6/2005	Crawl Space		6.5	1.4	<0.14	<0.068	<0.044	0.29	<0.14	<0.19	<0.14	0.49	1.8	0.21	0.56	0.18	<0.62 UJ
1007 Stimel Dr - Crawl Space	1007 Stimel Dr	10/13-14/2008	Crawl Space	YES	5.0	<0.15	<0.11	<0.054	<0.035	<0.18	<0.11	<0.15	<0.11	0.8	3.0	0.48	1.6	0.57	<0.49
1008 Hampton (crawl)	1008 Hampton Dr	2/25/2004	Crawl Space		n/a	hold	hold	hold	NA	hold	NA	NA	NA	NA	NA	NA	NA	NA	NA
1008 Hampton Dr - Crawl Space	1008 Hampton Dr	9/7/2005	Crawl Space		7.0	1.1	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.59	2.2	0.28	0.72	0.22	<0.63 UJ
1008 Hampton Dr - Crawl Space	1008 Hampton Dr	8/15-16/2007	Crawl Space		3.0	0.87	<0.10	<0.050	<0.032	<0.17	<0.10	<0.14	<0.10	0.42	1.3	0.21	0.66	0.23	<0.45
1009 Stimel (crawl)	1009 Stimel Dr	1/20/2004	Crawl Space		5.5	6.7	<0.13	0.082	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1009 Stimel Dr - Crawl Space	1009 Stimel Dr	9/8/2005	Crawl Space	YES	7.5	0.44	<0.14	<0.071	<0.046	0.87	<0.14	<0.20	<0.14	0.35	1.3	0.18	0.46	0.16	<0.64 UJ
1009 Stimel Dr - Crawl Space	1009 Stimel Dr	9/15-16/2008	Crawl Space	YES	5.0	<0.15	<0.11	<0.054	<0.035	<0.18	<0.11	0.18	<0.11	0.39	1.6	0.22	0.63	0.21	<0.49 UJ
1011 Bermuda (crawl)	1011 Bermuda Dr	3/16/2004	Crawl Space		6.0	hold	hold	hold	NA	hold	NA	NA	NA	NA	NA	NA	NA	NA	NA
1011 Bermuda Dr - Crawl Space	1011 Bermuda Dr	9/7/2005	Crawl Space		4.0	<0.17	<0.12	<0.061	<0.040	<0.21	<0.12	<0.17	<0.12	0.46	1.6	0.22	0.62	0.19	<0.56 UJ
1012 Stimel Dr - Crawl Space	1012 Stimel Dr	9/14-15/2006	Crawl Space		3.5	<0.14	<0.10	<0.051	<0.033	<0.18	<0.10	<0.14	<0.10	0.58	0.80	0.16	0.51	0.17	<0.46
1012 Stimel Dr - Crawl Space	1012 Stimel Dr	8/21-22/2007	Crawl Space		3.0	<0.14	<0.10	<0.050	<0.032	<0.17	<0.10	<0.14	<0.10	0.41	1.7	0.20	0.63	0.23	<0.45
1012 Stimel Dr - Crawl Space	1012 Stimel Dr	7/16-17/2008	Crawl Space		4.0	0.31	<0.10	<0.052	<0.033	<0.18	<0.11	<0.14	<0.11	0.46	1.7	0.16	0.47	0.48	<0.47

Attachment B
 Volatile Organic Compounds Detected in Air Samples (µg/m³)
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	Vapor Intrusion Prevention System	Final Vacuum (In. Hg)	TCE	c-1,2-DCE	1,1-DCE	Vinyl Chloride	PCE	1,1-DCA	1,1,1-TCA	1,2-DCA	Benzene	Toluene	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
					Residential Indoor Air ESL:	1.2	7.3	0.049	0.031	0.41	1.5	460	0.094	0.084	63	0.98	21	21	9.4
1016 Hampton Dr - Crawl Space	1016 Hampton Dr	8/25/2005	Crawl Space		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.69	2.2	0.31	0.88	0.28	<0.63 UJ
1016 Stimel Dr - Crawl Space	1016 Stimel Dr	9/14/2005	Crawl Space		6.0	0.18	<0.13	<0.067	<0.043	<0.23	<0.14	<0.18	<0.14	0.40	1.4	0.19	0.53	0.16	<0.60 UJ
1017 Bermuda Dr - Crawl	1017 Bermuda Dr	8/30-31/2006	Crawl Space		0.0	<0.12 UJ	<0.090 UJ	<0.045 UJ	<0.029 UJ	24 J	<0.092	0.13 J	<0.092 UJ	1.0 J	9.2 J	2.7 J	4.3 J	1.2 J	<0.41 UJ
1017 Bermuda Dr - Crawl Space	1017 Bermuda Dr	8/8-9/2007	Crawl Space		6.0	<0.15	<0.11	<0.056	<0.036	<0.19	<0.11	<0.15	<0.11	0.37	1.2	0.21	0.60	0.31	<0.51
1017 Bermuda Dr - Crawl Space	1017 Bermuda Dr	7/15-16/2008	Crawl Space		1.5	<0.13	<0.095	<0.048	<0.031	<0.16	<0.097	<0.13	<0.097	0.46	0.8	0.13	0.40	0.15	<0.12
1018 Bermuda Dr - Crawl Space	1018 Bermuda Dr	8/31/2005	Crawl Space		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	<0.20	<0.14	1.0	4.8	0.66	2.0	0.60	1.7 J
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	9/11-12/2006	Crawl Space		0.0	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**	NA**
1020 Bermuda - crawl	1020 Bermuda Dr	9/20-21/2006	Crawl Space		3.0	1.3	<0.10	<0.050	<0.032	<0.17	<0.10	<0.14	<0.10	0.74 U	3.9	0.62	2.2	0.82	<0.45
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	8/15-16/2007	Crawl Space		4.0	0.32	<0.10	<0.052	<0.033	<0.18	<0.11	<0.14	<0.11	0.33 J	1.2	0.20	0.63	0.22	<0.47
1020 Bermuda Dr - Crawl Space	1020 Bermuda Dr	7/29-30/2008	Crawl Space		0.0	0.54 J	<0.090 UJ	<0.045 UJ	<0.029 UJ	0.19 J	<0.092 UJ	0.14 J	<0.092 UJ	0.36 J	33 J	0.97 J	1.6 J	0.5 J	<0.41 UJ
1023 Stimel Dr - Crawl	1023 Stimel Dr	8/30-31/2006	Crawl Space		0.0	0.12 J	<0.090 UJ	<0.045 UJ	<0.029 UJ	18 J	<0.092	0.55 J	<0.092 UJ	1.6 J	28 J	5.0 J	9.4 J	2.7 J	<0.41 UJ
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	8/31/2005	Crawl Space		6.0	1.0	<0.13	<0.067	<0.043	0.27	<0.14	0.26	<0.14	0.52	3.6	0.35	0.96	0.37	<0.60 UJ
1024 Bermuda - crawl	1024 Bermuda Dr	9/28-29/2006	Crawl Space		1.0	0.68	<0.094	<0.047	<0.030	<0.16	<0.096	<0.13	<0.096	1.0	2.0	0.38	1.2	0.42	<0.42
1024 Bermuda - Crawl	1024 Bermuda Dr	7/12-13/2007	Crawl Space		2.5	0.99	<0.098	<0.049	<0.032	<0.17	<0.10	<0.14	<0.10	0.24	0.92	0.15	0.38	0.12	<0.45
1024 Bermuda Dr - Crawl Space	1024 Bermuda Dr	7/16-17/2008	Crawl Space		3.0	1.7	<0.10	<0.050	<0.032	0.31	<0.10	<0.14	0.94	0.36	1.4	0.16	0.45	0.18	<0.45
1024 Stimel Dr - Crawl	1024 Stimel Dr	9/7-8/2006	Crawl Space		0.0	<0.12 UJ	<0.090 UJ	<0.045 UJ	<0.029 UJ	<0.15 UJ	<0.092	<0.12 UJ	<0.092 UJ	0.72 J	2.5 J	0.46 J	1.6 J	0.76 J	<0.41 UJ
1025 Bermuda Dr - Crawl Space	1025 Bermuda Dr	8/30/2005	Crawl Space		6.0	0.61	<0.13	<0.067	<0.043	<0.23	<0.14	<0.18	<0.14	1.0	7.3	0.91	3.1	0.93	<0.60
1027 Bermuda Dr - Crawl Space	1027 Bermuda Dr	9/6/2005	Crawl Space		6.5	<0.18	<0.14	<0.068	<0.044	<0.23	<0.14	<0.19	<0.14	0.45	1.6	0.23	0.60	0.18	<0.62 UJ
1029 Stimel Dr - Crawl Space	1029 Stimel Dr	7/19/2006	Crawl Space		4.0	<0.17	<0.12	<0.061	<0.040	1.0	<0.12	<0.17	<0.12	0.56	2.7	0.48	1.6	0.60	<0.56
1033 Bermuda Dr - Crawl Space	1033 Bermuda Dr	9/7/2005	Crawl Space		7.5	<0.19	<0.14	<0.071	<0.046	0.82	<0.14	<0.20	<0.14	0.64	2.9	0.42	1.1	0.35	<0.64 UJ
1039 Stimel Dr - Crawl Space	1039 Stimel Dr	1/11/2006	Crawl Space		6.5	<0.18	<0.14	<0.068	<0.044	<0.23	<0.14	<0.19	<0.14	0.87	2.0	0.40	1.3	0.51	<0.62
1040 Stimel Dr - Crawl Space	1040 Stimel Dr	9/6/2005	Crawl Space		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	<0.20	<0.14	0.42	1.5	0.22	0.60	0.18	<0.64 UJ
1043 Stimel Dr - Crawl Space	1043 Stimel Dr	9/8/2005	Crawl Space		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.31	0.76	<0.15	0.55	0.17	<0.63 UJ
1200 Thames Dr - Crawl Space	1200 Thames Dr	8/24/2005	Crawl Space		7.0	0.77	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.46	1.5	0.20	0.50	0.17	<0.63 UJ
1200 Thames - crawl	1200 Thames Dr	9/28-29/2006	Crawl Space		1.5	0.38	<0.095	<0.048	<0.031	<0.16	<0.097	<0.13	<0.097	1.3	3.4	0.51	1.8	0.61	<0.43
1201 Thames Dr - Crawl Space	1201 Thames Dr	8/21-22/2007	Crawl Space		6.5	<0.16	<0.11	<0.057	<0.037	0.71	<0.12	0.23	<0.12	0.55	1.7	0.29	0.91	0.32	<0.52
1210 Thames Dr - Crawl Space	1210 Thames Drive	8/22/2005	Crawl Space		7.0	0.65	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.68	3.9	0.36	0.96	0.31	<0.63 UJ
1210 Thames Dr - Crawl Space	1210 Thames Drive	10/10-11/2007	Crawl Space		2.0	0.24	<0.097	<0.048	<0.031	<0.16	<0.099	<0.13	<0.099	0.48	1.4	0.23	0.74	0.32	<0.44
1210 Thames Dr - Crawl Space	1210 Thames Dr	8/14-15/2008	Crawl Space		5.5	0.30	<0.11	<0.055	<0.036	<0.19	<0.11	<0.15	0.18	0.58	2.5	0.29	0.84	0.33	<0.50
1211 Thames Dr - Crawl Space	1211 Thames Dr	9/18-19/2006	Crawl Space		2.5	<0.13	<0.098	<0.049	<0.032	<0.17	<0.10	<0.14	<0.10	0.77	1.9	0.28	0.93	0.35	<0.45
1211 Thames Dr - Crawl Space	1211 Thames Dr	12/6-7/2007	Crawl Space		9.0	<0.17	<0.13	<0.064	<0.041	<0.22	<0.13	<0.18	<0.13	0.79	2.4	0.33	1.0	0.40	<0.58
1211 Thames Dr - Crawl Space Dup	1211 Thames Dr	12/6-7/2007	Crawl Space		3.0	<0.14	<0.10	<0.050	<0.032	<0.17	<0.10	<0.14	0.12	0.80	2.0	0.31	0.99	0.36	<0.45
1220 Stimel Ct - crawl	1220 Stimel Ct	9/28-29/2006	Crawl Space		4.0	<0.14	<0.10	<0.052	<0.033	<0.18	<0.11	<0.14	<0.11	0.79	2.2	0.36	1.2	0.41	<0.47
1220 Stimel Ct - Crawl Space	1220 Stimel Ct	8/15-16/2007	Crawl Space		0.5	<0.12	<0.092	<0.046	<0.030	<0.16	<0.094	<0.13	<0.094	0.36	1.0	0.16	0.50	0.17	<0.42
1220 Stimel Ct - Crawl Space	1220 Stimel Ct	8/12-13/2008	Crawl Space		20.0	7.2	<0.27	<0.14	<0.087	<0.46	<0.28	<0.37	<0.28	0.64	2.8	0.36	1.3	0.36	<1.2
1220 Stimel Ct - Crawl Space Duplicate	1220 Stimel Ct	8/12-13/2008	Crawl Space		20.0	<0.37	<0.27	<0.14	<0.087	<0.46	<0.28	<0.37	<0.28	0.68	3.0	0.34	1.1	0.41	<1.2
1220 Thames (crawl)	1220 Thames Dr	2/19/2004	Crawl Space		2.5	1.4	<0.12	<0.059	NA	<0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA
1220 Thames Dr - Crawl Space	1220 Thames Dr	8/30/2005	Crawl Space	YES	7.5	<0.19	<0.14	<0.069	<0.045	0.24	<0.14	0.24	<0.14	0.66	4.1	0.52	1.6	0.51	<0.63 UJ
1220 Thames Dr - Crawl Space	1220 Thames Dr	7/14-15/2008	Crawl Space	YES	3.5	<0.14	<0.10	<0.051	<0.033	0.32	<0.10	<0.14	<0.10	0.44	1.5	0.18	0.52	0.20	<0.46
1221 Hookston Road (crawl)	1221 Hookston Rd	9/10/2004	Crawl Space		5.0	0.32	<0.13	<0.065	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1221 Hookston Rd - Crawl Space	1221 Hookston Rd	11/29/2005	Crawl Space		6.5	0.20	<0.14	<0.068	<0.044	<0.23	<0.14	<0.19	<0.14	1.2	4.3	0.51	1.5	0.51	<0.62
1221 Hookston - crawl	1221 Hookston Rd	9/28-29/2006	Crawl Space		1.0	<0.13	<0.094	<0.047	<0.030	0.16	<0.096	<0.13	<0.096	0.80	2.8	0.70	2.1	0.65	<0.42
1221 Hookston Rd - Crawl Space	1221 Hookston Rd	8/23-24/2007	Crawl Space		2.0	0.28	<0.097	<0.048	<0.031	0.18	<0.099	<0.13	0.18	0.59	3.2	0.38	1.0	0.36	<0.44
1221 Thames Dr - Crawl Space	1221 Thames Dr	8/25/2005	Crawl Space		7.0	1.8	<0.14	<0.069	<0.045	0.32	<0.14	0.50	<0.14	1.1	7.2	0.59	1.7	0.49	<0.63 UJ
1221 Thames Dr - Crawl Space	1221 Thames Dr	10/4-5/2006	Crawl Space		1.0	<0.13	<0.094	<0.047	<0.030	0.21	<0.096	<0.13	<0.096	0.60	2.3	0.37	1.3	0.47	<0.42
1221 Thames Dr - Crawl Space	1221 Thames Dr	7/23-24/2008	Crawl Space	YES	3.5	0.27	<0.10	<0.051	<0.033	0.82	<0.10	0.25	0.13	0.78	5.5	0.84	2.8	1.1	<0.46
1250 Hookston Rd - Crawl Space	1250 Hookston Rd	8/24/2005	Crawl Space		6.5	<0.18	<0.14	<0.068	<0.044	<0.23	<0.14	0.18 J	<0.14	0.56	16	1.1	2.9	0.61	<0.62 UJ
1260 Waterloo (crawl)	1260 Waterloo Ct	2/26/2004	Crawl Space		n/a	hold	hold	hold	NA	hold	NA	NA	NA	NA	NA	NA	NA	NA	NA
1261 Hookston Rd - Crawl Space	1261 Hookston Rd	8/23/2005	Crawl Space		6.5	<0.18	<0.14	<0.068	<0.044	0.42	<0.14	0.82	<0.14	2.2	10	1.5	5.5	1.4	<0.62
1261 Trafalgar Ct - Crawl Space	1261 Trafalgar Ct	7/23-24/2008	Crawl Space		2.5	0.97	<0.098	<0.049	<0.032	<0.17	<0.10	<0.14	<0.10	0.48	1.8	0.18	0.46	0.19	<0.45
1261 Waterloo Ct - Crawl Space	1261 Waterloo Ct	9/11-12/2006	Crawl Space		4.5	0.37	<0.12	<0.063	<0.040	0.26	<0.13	<0.17	<0.13	1.5	8.7	1.2	3.7	1.2	<0.57
1261 Waterloo Ct - Crawl Space	1261 Waterloo Ct	10/15-16/2007	Crawl Space		1.5	<0.13	<0.095	<0.048	<0.031	<0.16	<0.097	<0.13	<0.097	0.42	2.4	0.16	0.51	0.25	<0

Attachment B
 Volatile Organic Compounds Detected in Air Samples (µg/m³)
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	Vapor Intrusion Prevention System	Final Vacuum (In. Hg)	TCE	c-1,2-DCE	1,1-DCE	Vinyl Chloride	PCE	1,1-DCA	1,1,1-TCA	1,2-DCA	Benzene	Toluene	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE			
				<i>Residential Indoor Air ESL:</i>					1.2	7.3	0.049	0.031	0.41	1.5	460	0.094	0.084	63	0.98	21	21	9.4
1271 Hookston (crawl)	1271 Hookston Rd	3/3/2004	Crawl Space		6.0	hold	hold	hold	NA	hold	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA		
1271 Hookston Rd - Crawl Space	1271 Hookston Rd	8/22/2005	Crawl Space		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	<0.20	<0.14	0.78	4.2	0.47	1.4	0.46	<0.64 UJ			
1310 Gragg Ln - Crawl Space	1310 Gragg Ln	9/5-6/2006	Crawl Space		3.0	<0.14	<0.10	<0.050	<0.032	0.31 U	<0.10	<0.14	<0.10	0.88	4.1	0.89	3.2	1.1	<0.45			
1310 Strathmore Ct - Crawl Space	1310 Strathmore Ct	8/25/2005	Crawl Space		8.0	0.19 J	<0.14	<0.072	<0.047	0.90	<0.15	0.57	<0.15	0.60	2.5	0.31	0.95	0.31	<0.66 UJ			
1310 Strathmore Ct - Crawl Space Duplicate	1310 Strathmore Ct	8/25/2005	Crawl Space		8.0	<0.20	<0.14	<0.072	<0.047	0.67	<0.15	0.49	<0.15	0.57	1.9	0.20	0.48	0.16	<0.66 UJ			
1311 Strathmore Ct - Crawl Space	1311 Strathmore Ct	8/31/2005	Crawl Space		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	<0.20	<0.14	0.54	2.7	0.28	0.77	0.24	<0.64			
1320 Strathmore Ct - Crawl Space	1320 Strathmore Ct	8/25/2005	Crawl Space		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	0.35	<0.14	0.67	2.4	0.34	0.91	0.25	<0.63 UJ			
1321 Edinburgh Ct - Crawl Space	1321 Edinburgh Ct	8/31/2005	Crawl Space		8.0	<0.20	<0.14	<0.072	<0.047	<0.25	<0.15	<0.20	<0.15	0.71	3.3	0.41	1.2	0.38	<0.66 UJ			
1321 Hampshire Ct - Crawl Space	1321 Hampshire Ct	8/29/2005	Crawl Space		6.5	<0.18	<0.14	<0.068	<0.044	<0.23	<0.14	<0.19	<0.14	0.58	2.6	0.34	0.84	0.23	<0.62			
1330 Aberdeen - Crawl	1330 Aberdeen Ct	8/31-9/1/2006	Crawl Space		2.0	<0.13	<0.097	<0.048	<0.031	0.56	<0.099	<0.13	<0.099	0.94	5.4	0.92	3.3	1.0	<0.44			
1350 Edinburgh Ct - Crawl Space	1350 Edinburgh Ct	9/25-26/2006	Crawl Space		2.5	0.14	<0.098	<0.049	<0.032	0.25	<0.10	0.15	<0.10	1.4	25	2.4	7.0	2.3	<0.45			
1351 Edinburgh Ct - Crawl Space	1351 Edinburgh Ct	9/20/2005	Crawl Space		7.5	<0.19	<0.14	<0.071	<0.046	0.33	<0.14	<0.20	<0.14	0.95	4.3	0.54	1.6	0.53	<0.64			
989 Stimel Dr - Crawl Space	989 Stimel Dr	11/22/2005	Crawl Space		7.0	<0.19	<0.14	<0.069	<0.045	0.43	<0.14	0.30	<0.14	2.0	8.2	1.2	4.0	1.3	<0.63			
992 Bermuda Dr - Crawl Space	992 Bermuda Dr	9/22/2005	Crawl Space		7.5	<0.19	<0.14	<0.071	<0.046	0.26	<0.14	<0.20	<0.14	0.96	4.2	0.56	1.6	0.50	<0.64			
Ambient Air Quality Samples:																						
1000 Hampton (ambient air)	1000 Hampton Dr	1/21/2004	Back Yard		6.0	<0.18	<0.14	<0.068	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA			
Ambient Air - 8/27/08	1001 Stimel Dr	8/27-28/2008	Back Yard		8.0	<0.17	<0.12	<0.061	<0.040	<0.21	<0.12	<0.17	<0.12	0.8	4	0.69	2.5	0.88	<0.56			
Ambient Air - 10/5/05	1002 Hampton Dr	10/5/2005	Back Yard		6.5	<0.18	<0.14	<0.068	<0.044	<0.23	<0.14	<0.19	<0.14	0.63	1.6	0.33	1.2	0.43	<0.62			
Ambient Air - 9/13/06	1002 Hampton Dr	9/13-14/2006	Back Yard		0.0	<0.14 UJ	<0.11 UJ	<0.053 UJ	<0.034 UJ	<0.18 UJ	<0.11	<0.15 UJ	<0.11 UJ	0.37 J	0.95 J	0.16 J	0.54 J	0.18 J	<0.48 UJ			
Ambient Air - 8/29/07	1002 Hampton Dr	8/29-30/2007	Backyard Patio		8.0	<0.17	<0.12	<0.061	<0.040	<0.21	<0.12	<0.17	<0.12	0.52	2.2	0.36	1.2	0.40	<0.56			
Ambient Air - 10/16/07	1002 Hampton Dr	10/16-17/2007	Back yard		6.0	<0.15	<0.11	<0.056	<0.036	<0.19	<0.11	<0.15	<0.11	0.64	1.7	0.29	0.92	0.34	<0.51			
Ambient Air (1002 Hampton) - 12/27/07	1002 Hampton Dr	12/27-28/2007	Back Yard		4.0	<0.14	<0.10	<0.052	<0.033	<0.18	<0.11	<0.14	<0.11	0.70	1.2	0.19	0.51	0.18	<0.47			
Ambient Air - 5/27/08	1002 Hampton Dr	5/27-28/2008	Back Yard		6.5	<0.18	<0.13	<0.067	<0.043	<0.23	<0.14	<0.18	<0.14	0.38	0.88	<0.14	0.4	<0.14	<0.60			
Ambient Air - 9/14/05	1004 Hampton Dr	9/14/2005	Back Yard		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.44	1.2	0.17	0.49	0.15	<0.63 UJ			
Ambient Air - 9/6/05	1005 Stimel Dr	9/6/2005	Back Yard		14.5	<0.28	<0.20	<0.10	<0.066	<0.35	<0.21	<0.28	<0.21	0.47	1.5	<0.22	0.50	<0.22	<0.93 UJ			
Ambient Air - 9/26/06	1005 Stimel Dr	9/26-27/2006	Back Yard		2.5	<0.13	<0.098	<0.049	<0.032	<0.17	<0.10	<0.14	<0.10	0.60	2.6	0.38	1.3	0.44	<0.45			
Ambient Air - 10/16/08	1005 Stimel Dr	10/16-17/2008	Back Yard		6.0	0.18	<0.11	<0.056	<0.036	0.26	<0.11	<0.15	<0.11	0.97	3.9	0.59	1.9	0.61	<0.51 UJ			
Ambient Air - 10/4/06	1006 Stimel Dr	10/4-5/2006	Back Yard		0.0*	<0.12 UJ	<0.087 UJ	<0.044 UJ	<0.028 UJ	<0.15 UJ	<0.089	<0.12 UJ	<0.089 UJ	0.84 J	2.1 J	0.33 J	1.2 J	0.43 J	<0.40 UJ			
Ambient Air - 8/21/07	1006 Stimel Dr	8/21-22/2007	Back Yard		3.5	<0.14	<0.10	<0.051	<0.033	<0.18	<0.10	<0.14	<0.10	0.51	1.8	0.30	0.95	0.33	<0.46			
Ambient Air - 11/6/08	1006 Stimel Dr	11/6-7/2008	Back Yard		5.5	<0.15	<0.11	<0.055	<0.036	<0.19	<0.11	<0.15	<0.11	0.98	2.7	0.49	1.7	0.6	<0.50			
Ambient Air	1007 Stimel Dr	9/18-19/2006	Back yard		5.5	<0.15	<0.11	<0.055	<0.036	<0.19	<0.11	<0.15	<0.11	0.83	1.6	0.28	0.94	0.33	<0.50			
Ambient Air - 10/13/08	1007 Stimel Dr	10/13-14/2008	Back Yard		5.5	<0.15	<0.11	<0.055	<0.036	<0.19	<0.11	<0.15	<0.11	0.76	2.9	0.47	1.6	0.54	<0.50			
Ambient Air - 8/15/2007	1008 Hampton Dr	8/15-16/2007	Back Yard		0.5	<0.12	<0.092	<0.046	<0.030	<0.16	<0.094	<0.13	<0.094	0.33	1.1	0.19	0.59	0.22	<0.42			
Ambient Air - 8/6/07	1009 Stimel Dr	8/6-7/2007	Back Yard		2.0	<0.13	<0.097	<0.048	<0.031	<0.16	<0.099	<0.13	<0.099	0.28	0.76	0.13	0.41	0.15	<0.44			
Ambient Air - 9/15/08	1009 Stimel Dr	9/15-16/2008	Back Yard		4.0	<0.14	<0.10	<0.052	<0.033	<0.18	<0.11	<0.14	<0.11	0.37	1.30	0.19	0.57	0.23	<0.47 UJ			
Ambient Air - 8/30/05	1010 Bancroft Rd	8/30/2005	Back Yard		8.5	<0.20	<0.15	<0.074	<0.048	<0.25	<0.15	<0.20	<0.15	0.60	6.9	1.2	3.2	0.65	<0.67 UJ			
Ambient Air - 9/14/06	1012 Stimel Dr	9/14-15/2006	Back Yard		1.0	<0.13	<0.094	<0.047	<0.030	<0.16	<0.096	<0.13	<0.096	0.70	0.76	0.15	0.50	0.18	<0.42			
Ambient Air - 8/22/05	1015 Stimel Dr	8/22/2005	Back Yard		8.0	<0.20	<0.14	<0.072	<0.047	<0.25	<0.15	<0.20	<0.15	0.49	1.8	0.23	0.61	0.18	<0.66			
Ambient Air - 9/5/06	1015 Stimel Dr	9/5-6/2006	Back Yard		2.5	<0.13	<0.098	<0.049	<0.032	0.25 U	<0.10	0.17	<0.10	1.1	4.6	0.96	3.5	1.3	<0.45			
Ambient Air - 8/14/07	1015 Stimel Dr	8/14-15/2007	Backyard Patio		4.0	<0.14	<0.10	<0.052	<0.033	<0.18	<0.11	<0.14	<0.11	0.33	1.0	0.18	0.58	0.26	<0.47			
Ambient Air - 7/24/08	1015 Stimel Dr	7/24-25/2008	Back Yard		9.0	<0.17	<0.13	<0.064	<0.041	<0.22	<0.13	<0.18	<0.13	0.40	1.0	0.14	0.37	<0.14	<0.58 UJ			
Ambient Air - 8/30/06	1017 Bermuda Dr	8/30-31/2006	Back Yard		NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*	NA*			
Ambient Air - 7/15/08	1017 Bermuda Dr	7/15-16/2008	Back Yard		4.0	<0.14	<0.10	<0.052	<0.033	<0.18	<0.11	<0.14	<0.11	0.37	0.64	<0.11	0.26	<0.11	<0.47 UJ			
Ambient Air - 8/31/05	1018 Bermuda Dr	8/31/2005	Back Yard		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	<0.20	<0.14	0.53	2.1	0.29	0.82	0.26	<0.64 UJ			
Ambient Air - 7/29/08	1020 Bermuda Dr	7/29-30/2008	Back Yard		6.5	<0.16	<0.11	<0.057	<0.037	<0.20	<0.12	<0.16	<0.12	<0.23	0.74	<0.12	0.29	<0.12	<0.52 UJ			
Ambient Air - 7/12/07	1024 Bermuda Dr	7/12-13/2007	Back Yard		5.0	<0.15	<0.11	<0.054	<0.035	<0.18	<0.11	<0.15	<0.11	0.23	0.64	<0.12	<0.24	<0.12	<0.49			
Ambient Air - 7/16/08	1024 Bermuda Dr	7/16-17/2008	Back Yard		5.0	<0.15	<0.11	<0.054	<0.035	<0.18	<0.11	<0.15	<0.11	0.34	0.76	0.12	0.33	0.14	<0.49			
9/7/06 Ambient Air	1024 Stimel Dr	9/7-8/2006	Back Yard		2.0	<0.13	<0.097	<0.048	<0.031	0.19	<0.099	<0.13	<0.099	0.62	1.9	0.37	1.1	0.42	<0.44			
Ambient Air - 7/19/06	1029 Stimel Dr	7/19/2006	Back Yard		5.5	<0.18	<0.13	<0.065	<0.042	0.28	<0.13	<0.18	<0.13	0.39	1.4	0.26	0.84	0.31	<0.59			
Ambient Air - 9/7/05	1033 Bermuda Dr	9/7/2005	Back yard		8.0	<0.20	<0.14	<0.072	<0.047	<0.25	<0.15	<0.20	<0.15	0.46	1.5	0.20	0.54	0.18	<0.66 UJ			
Ambient Air - 1/11/06	1039 Stimel Dr	1/11/2006	Back Yard		6.5	<0.18	<0.14	<0.068	<0.044	<0.23	<0.14	0.18 J	<0.14	0.88	1.8	0.36	1.1	0.42	<0.62			
Ambient Air - 9/8/05	1043 Stimel Dr	9/8/2005	Back yard		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	0.31	0.81	<0.15	<0.30	<0.15	<0.63 UJ			

Attachment B
 Volatile Organic Compounds Detected in Air Samples (µg/m³)
 Hookston Station
 Pleasant Hill, California

Sample ID	Address	Date	Sample Location	Vapor Intrusion Prevention System	Final Vacuum (In. Hg)	TCE	c-1,2-DCE	1,1-DCE	Vinyl Chloride	PCE	1,1-DCA	1,1,1-TCA	1,2-DCA	Benzene	Toluene	Ethyl Benzene	m,p-Xylene	o-Xylene	MTBE
				Residential Indoor Air ESL:		1.2	7.3	0.049	0.031	0.41	1.5	460	0.094	0.084	63	0.98	21	21	9.4
1221 Hookston Road (ambient air)	1221 Hookston Rd	9/10/2004	Back Yard		8.5	<0.2	<0.15	<0.075	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ambient Air - 11/29/05	1221 Hookston Rd	11/29/2005	Front Porch		7.0	<0.19	<0.14	<0.069	<0.045	<0.24	<0.14	<0.19	<0.14	1.2	3.5	0.58	2.0	0.70	<0.63
Ambient Air - 8/23/07	1221 Hookston Rd	8/23-24/2007	Front Porch		3.5	<0.14	<0.10	<0.051	<0.033	<0.18	<0.10	<0.14	<0.10	0.52	1.3	0.24	0.67	0.24	<0.46
Ambient Air - 7/23/08	1221 Thames Dr	7/23-24/2008	Back Yard		8.5	<0.17	<0.13	<0.063	<0.041	<0.22	<0.13	<0.17	<0.13	0.43	0.97	<0.14	0.32	<0.14	<0.57
Ambient Air - 8/24/05	1250 Hookston Rd	8/24/2005	Back Yard		4.5	<0.17	<0.12	<0.063	<0.040	<0.21	<0.13	<0.17	<0.13	0.51	21	1.3	3.4	0.63	<0.57 UJ
Ambient Air - 8/23/05	1261 Hookston Rd	8/23/2005	Back Yard		8.0	<0.20	<0.14	<0.072	<0.047	<0.25	<0.15	<0.20	<0.15	1.0	3.6	0.49	1.4	0.44	<0.66 UJ
Ambient Air - 9/11/06	1261 Waterloo Ct	9/11-12/2006	Back Yard		3.5	<0.14	<0.10	<0.051	0.013 J	<0.18	<0.10	<0.14	<0.10	1.4	4.2	0.57	1.9	0.76	<0.46
Ambient Air - 10/15/07	1261 Waterloo Ct	10/15-16/2007	Back yard		6.5	<0.16	<0.11	<0.057	<0.037	<0.20	<0.12	<0.16	<0.12	0.38	0.61	<0.12	0.40	0.21	<0.52
Ambient Air - 9/6/06	1270 Waterloo Ct	9/6-7/2006	Back Yard		4.5	<0.14	<0.11	<0.053	<0.034	0.27	<0.11	<0.15	<0.11	1.0	4.7	0.84	2.8	1.0	<0.48
Ambient Air - 12/27/07	1270 Waterloo Ct	12/27-28/2007	Back Yard		1.0 psi	<0.12	<0.090	<0.045	<0.029	<0.15	<0.092	<0.12	<0.092	0.86	1.7	0.28	0.90	0.30	<0.41
Ambient Air - 8/25/05	1320 Strathmore Ct	8/25/2005	Back Yard		8.0	<0.20	<0.14	<0.072	<0.047	<0.25	<0.15	<0.20	<0.15	0.56	1.4	0.20	0.48	0.16	<0.66 UJ
Ambient Air - 8/29/05	1321 Hampshire Ct	8/29/2005	Back Yard		7.5	<0.19	<0.14	<0.071	<0.046	<0.24	<0.14	<0.20	<0.14	0.49	2.4	0.38	0.81	0.22	<0.64
Ambient Air - 8/31/06	1330 Aberdeen Ct	8/31-9/1/2006	Back Yard		4.0	<0.14	<0.10	<0.052	<0.033	<0.18	<0.11	<0.14	<0.11	0.78	3.7	0.73	2.4	0.82	<0.47
Ambient Air - 9/25/06	1350 Edinburgh Ct	9/25-26/2006	Back yard		3.0	<0.14	<0.10	<0.050	<0.032	0.21	<0.10	0.14	<0.10	1.5	13	1.1	4.1	1.4	<0.45
Ambient Air - 9/20/05	1351 Edinburgh Ct	9/20/2005	Back Yard		8.5	<0.20	<0.15	<0.074	<0.048	0.34	<0.15	<0.20	<0.15	0.85	3.8	0.42	1.2	0.43	<0.67 UJ
Ambient Air - 11/22/05	989 Stimel Dr	11/22/2005	Back Yard		5.0	<0.17	<0.13	<0.064	<0.041	0.31	<0.13	<0.18	<0.13	1.9	8.5	1.1	3.6	1.2	<0.58
Ambient Air - 9/22/05	992 Bermuda Dr	9/22/2005	Back Yard		9.0	<0.20	<0.15	<0.076	<0.049	0.30	<0.15	<0.21	<0.15	1.0	3.6	0.48	1.3	0.40	<0.69

Notes:

All samples were analyzed by AirToxics, Ltd. of Folsom, California by Method TO-15 SIM.

All results reported in micrograms per cubic meter (µg/m³). Only the VOCs detected in one or more sample collected during 2004-2007 are summarized above.

Samples collected during 2004 to July 2006 were collected over a 12-hour interval. Samples collected since July 2006 were collected over a 24-hour interval unless indicated otherwise.

Residential Indoor Air ESLs = Environmental Screening Levels for Residential Indoor Air, from California Regional Water Quality Control Board - San Francisco Bay Region, *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1*, Interim Final November 2007.

Highlighted results indicate the detected concentration is greater than the ESL.

Yes - Indicates a vapor intrusion prevention system was operating during time of sample collection

* Final canister vacuums measured by the laboratory in inches of mercury. Vacuums indicated with * are field vacuum measurements; these samples reported positive pressures at the laboratory due to temperature changes between the field and laboratory.

** Grab sample collected over a 30-minute interval

n/a = not available

NA = not analyzed

NA* = sample not analyzed due to low sample volume collected (high vacuum reading)

NA** = sample not analyzed; vacuum lost during sample delivery.

UJ = estimated result

J = estimated result

U = sample detections were qualified as nondetect (U) because the constituent was detected at a similar concentration in the trip blank