

**Table 9-4**  
**Proposed Cleanup Levels in Groundwater**  
 Former Kast Property  
 Carson, CA

Chemical Group	Chemical	Maximum On-Site Concentration Detected (µg/L)	Proposed Clean Up SSCG (µg/L)	Rationale for Proposed SSCG
TPH	Benzene	689	1 <sup>1</sup>	Primary MCL, NL, or ESL/zero natural background
	Naphthalene	82	17 <sup>2</sup>	
	tert-Butyl Alcohol (TBA)	250	12 <sup>2</sup>	
	TPH-Gasoline	3,200	410 <sup>3</sup>	
	TPH-Diesel	3,000	200 <sup>3</sup>	
	TPH-Motor Oil	1,700	6200 <sup>3</sup>	
Chlorinated	1,1-Dichloroethane	22	5 <sup>1</sup>	Primary MCL/zero natural background
	1,1-Dichloroethene	33	6 <sup>1</sup>	
	1,2,3-Trichloropropane	27	0.005 <sup>2</sup>	
	1,2-Dichloroethane	6.1	0.5 <sup>1</sup>	
	cis-1,2-Dichloroethene	510	6 <sup>1</sup>	
	Tetrachloroethene	260	5 <sup>1</sup>	
	trans-1,2-Dichloroethene	120	10 <sup>1</sup>	
	Trichloroethene	400	5 <sup>1</sup>	
	Vinyl Chloride	0.71	0.5 <sup>1</sup>	
	1,4-Dichlorobenzene	11	5 <sup>1</sup>	
Trace Metals	Antimony	19.3	BKG	Can have natural sources and naturally elevated background concentrations
	Thallium	4.24J	BKG	
	Arsenic	900	BKG	
General Mineral	Iron	67 mg/L	NP	Basin wide contaminant with natural sources and naturally elevated background concentrations
	Manganese	2.55 mg/L	NP	
	Chloride	1,400 mg/L	NP	
	Nitrate (as N)	14 mg/L	BKG	
	Total Dissolved Solids	3,320 mg/L	NP	
	Specific Conductance	4,200 µS/cm	NP	

**Notes:**

<sup>1</sup>: Primary MCL (Maximum Contaminant Level for drinking water)

<sup>2</sup>: NL (Notification Level)

<sup>3</sup>: ESL (SFRWQCB Health Risk Environmental Screening Level)

BKG: Background Level

NP: Not Proposed

µg/L: micrograms per liter; mg/L: milligrams per liter; µS/cm: microsimens per centimeter

**Table 9-6**  
**Summary of Preliminary Cost Estimates for Screening Feasibility Study**  
 Former Kasl Property  
 Carson, CA

Alternative	Criteria	Property Purchase Cost (285 properties)	Demolition Costs	Excavate, Backfill, & Assoc. Costs	PM, Planning, Field Mgmt, Monitoring, Reporting, Security	Post Excavation Construction and Long-Term O&M	Total Est. Costs	Low-End Costs (-30%)	High-End Costs (+50%)
1	<p><b>ALTERNATIVE 1</b></p> <ul style="list-style-type: none"> <li>Remove all site features.</li> <li>Excavate entire site to remove impacted soils (excavation may locally extend to GW).</li> <li>Limited removal or remediation of impacted GW.</li> <li>MNA remedy for remaining GW. Could add limited hot spot remediation to reduce time to achieve cleanup goals.</li> <li>Rehouse LNAPL as feasible.</li> </ul>	\$98,000,000	\$18,000,000	\$270,000,000	\$27,000,000	\$4,000,000	\$420,000,000	\$290,000,000	\$630,000,000
2	<p><b>ALTERNATIVE 2</b></p> <ul style="list-style-type: none"> <li>Remove all site features.</li> <li>Excavate upper 10 feet to remove impacted soils.</li> <li>MNA remedy for remaining GW. Could add limited hot spot remediation to reduce time to achieve cleanup goals.</li> </ul>	\$98,000,000	\$18,000,000	\$130,000,000	\$19,000,000	\$4,800,000	\$270,000,000	\$190,000,000	\$410,000,000
2+7	<p><b>ALTERNATIVE 2+7</b></p> <ul style="list-style-type: none"> <li>Remove all site features.</li> <li>Excavate upper 10 feet to remove dry impacted soils.</li> <li>MNA remedy for remaining GW. Could add limited hot spot remediation to reduce time to achieve cleanup goals.</li> <li>Remove LNAPL as feasible.</li> <li>Add SVE to reduce VOC/TPH mass.</li> </ul>	\$98,000,000	\$18,000,000	\$140,000,000	\$20,000,000	\$7,200,000	\$280,000,000	\$200,000,000	\$420,000,000
3	<p><b>ALTERNATIVE 3</b></p> <ul style="list-style-type: none"> <li>Excavate exposed soils and soils under residential backyards to 2 feet where HH350 goals are exceeded.</li> <li>No excavation beneath streets.</li> <li>Install subs/s mitigation at homes where subs/s VOC and methane concentrations exceed screening value.</li> <li>MNA remedy for GW. Could add limited hot spot remediation to reduce time to achieve cleanup goals.</li> </ul>	\$0	\$670,000	\$9,400,000	\$17,000,000	\$4,400,000	\$31,000,000	\$22,000,000	\$46,000,000

Table 9-5  
 Summary of Preliminary Cost Estimates for Screening Feasibility Study  
 Former Kasl Property  
 Carson, CA

Alternative	Criteria	Property Purchase Cost (285 properties)	Demolition Costs	Excavate, Backfill, & Assoc. Costs	PM, Planning, Field Mgmt, Monitoring, Reporting, Security	Post Excavation Construction and Long-Term O&M	Total Est. Costs	Low-End Costs (-30%)	High-End Costs (+50%)
3+7	ALTERNATIVE 3+7 * Excavate exposed soils and soils under residential backscrape to 2 feet where HHSO goals are exceeded. * No excavation beneath streets. * Install subslab mitigation at homes where subslab VOC and methane concentrations exceed screening value. * MNA remedy for GW. Could add limited hot spot remediation to reduce time to achieve cleanup goals. * Remove LNAPL as feasible. * Add limited SVE to reduce VOC/TPH	\$1,400,000	\$890,000	\$15,000,000	\$17,000,000	\$6,800,000	\$41,000,000	\$29,000,000	\$61,000,000
3A	ALTERNATIVE 3A Same as Alt 3 except excavate to 5 feet	\$0	\$1,300,000	\$33,000,000	\$47,000,000	\$4,400,000	\$85,000,000	\$60,000,000	\$130,000,000
3A+7	ALTERNATIVE 3A+7 Same as Alt 3 except excavate to 5 feet * Add SVE to reduce VOC/TPH mass.	\$1,400,000	\$1,500,000	\$39,000,000	\$48,000,000	\$6,800,000	\$96,000,000	\$67,000,000	\$140,000,000
3B	ALTERNATIVE 3B Same as Alt 3 except excavate to 10 feet	\$0	\$1,400,000	\$73,000,000	\$84,000,000	\$4,400,000	\$160,000,000	\$110,000,000	\$240,000,000
3B+7	ALTERNATIVE 3B+7 Same as Alt 3 except excavate to 10 feet * Add SVE to reduce VOC/TPH mass.	\$1,400,000	\$1,600,000	\$76,000,000	\$85,000,000	\$6,800,000	\$170,000,000	\$120,000,000	\$260,000,000
4	ALTERNATIVE 4 * Excavate exposed site soils from 0 to 2 feet where HHSO goals are exceeded at residential properties. * No excavation beneath residential backscrape, streets and sidewalks. * Install subslab mitigation at homes where subslab VOC and methane concentrations exceed screening value. * MNA remedy for GW. Could add limited hot spot remediation to reduce time to achieve cleanup goals.	\$0	\$0	\$4,400,000	\$13,000,000	\$4,400,000	\$21,000,000	\$15,000,000	\$32,000,000

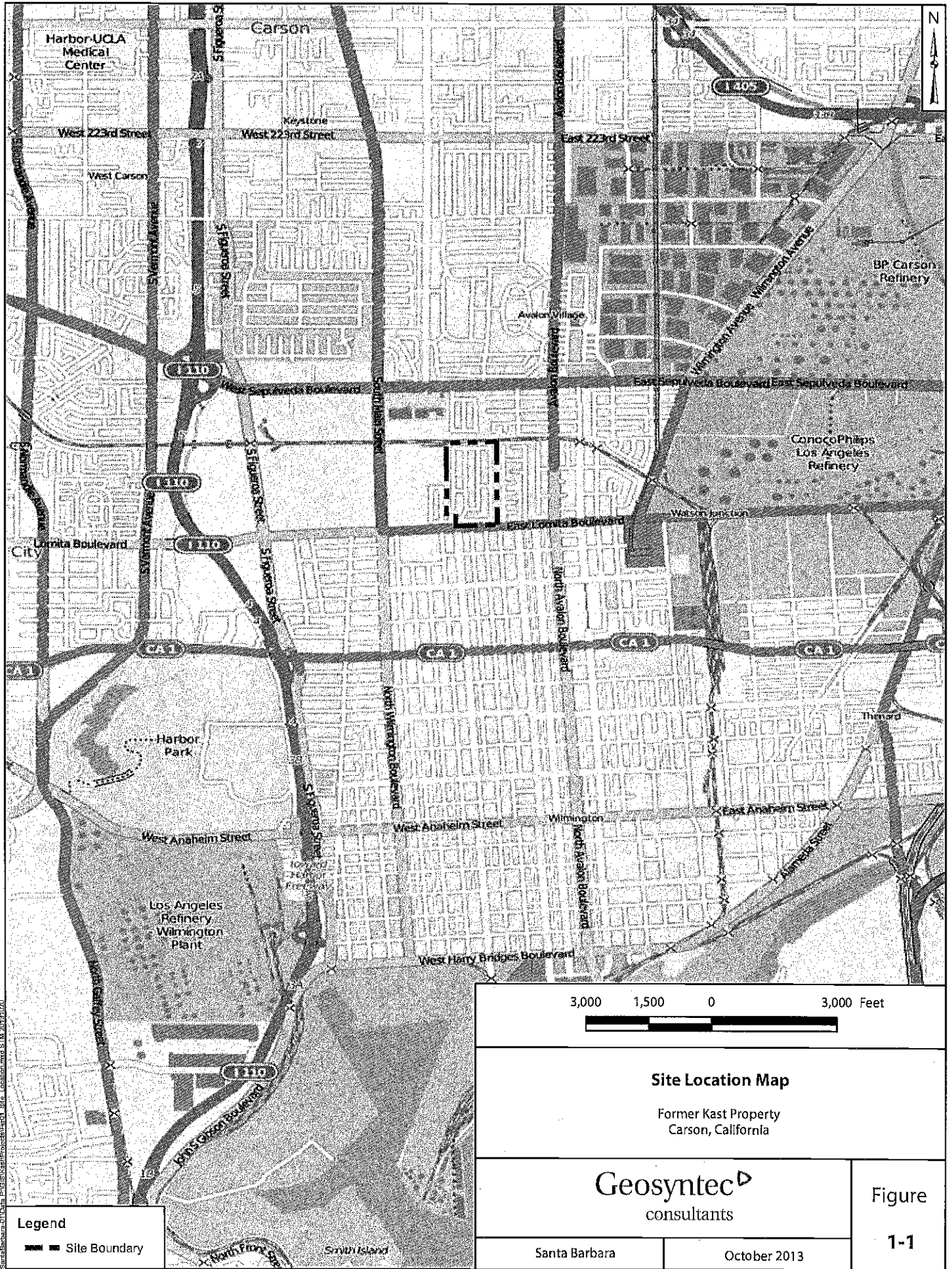
**Table 9-5**  
**Summary of Preliminary Cost Estimates for Screening Feasibility Study**  
 Former Kast Property  
 Carson, CA

Alternative	Criteria	Property Purchase Cost (285 Properties)	Demolition Costs	Excavate, Backfill, & Assoc. Costs	PM, Planning, Field Mgmt, Monitoring, Reporting, Security	Post Excavation Construction and Long-Term O&M	Total Est. Costs	Low-End Costs (-50%)	High-End Costs (+50%)
4+7	ALTERNATIVE 4+7 * Excavate exposed site soils from 0 to 2 feet where HCSO levels are exceeded at residential properties. * No excavation beneath residential backdrops, streets and sidewalks. * Install subsurface mitigation at homes where site soils VOC and asbestos concentrations exceed screening values. * MNA remedy for GW. Could add limited hot spot remediation to reduce time to achieve cleanup goals. * Remove LNAPL as feasible.	\$1,400,000	\$220,000	\$9,500,000	\$13,000,000	\$6,800,000	\$31,000,000	\$22,000,000	\$47,000,000
4A	ALTERNATIVE 4A Same as Alt 4 except excavate exposed soils to 5 feet.	\$0	\$0	\$18,000,000	\$38,000,000	\$4,400,000	\$60,000,000	\$42,000,000	\$90,000,000
4A+7	ALTERNATIVE 4A+7 Same as Alt 4 except excavate exposed soils to 5 feet. * Add SVE to reduce VOC/TPH mass.	\$1,400,000	\$220,000	\$23,000,000	\$39,000,000	\$6,800,000	\$70,000,000	\$49,000,000	\$110,000,000
4B	ALTERNATIVE 4B Same as Alt 4 except excavate exposed soils to 30 feet.	\$0	\$0	\$47,000,000	\$75,000,000	\$4,400,000	\$120,000,000	\$87,000,000	\$190,000,000
4B+7	ALTERNATIVE 4B+7 Same as Alt 4 except excavate exposed soils to 30 feet. * Add SVE to reduce VOC/TPH mass.	\$1,400,000	\$220,000	\$52,000,000	\$73,000,000	\$6,800,000	\$130,000,000	\$94,000,000	\$200,000,000
5	ALTERNATIVE 5 * Remove all site features and exp site. * Remove LNAPL as feasible. * MNA remedy for GW. Could add limited hot spot remediation to reduce time to achieve cleanup goals.	\$98,000,000	\$18,000,000	\$7,000,000	\$2,500,000	\$4,400,000	\$130,000,000	\$91,000,000	\$200,000,000
5+7	ALTERNATIVE 5+7 * Remove all site features and exp site. * Remove LNAPL as feasible. * MNA remedy for GW. Could add limited hot spot remediation to reduce time to achieve cleanup goals. * Add SVE to reduce VOC/TPH mass.	\$98,000,000	\$18,000,000	\$12,000,000	\$3,200,000	\$6,800,000	\$140,000,000	\$97,000,000	\$210,000,000

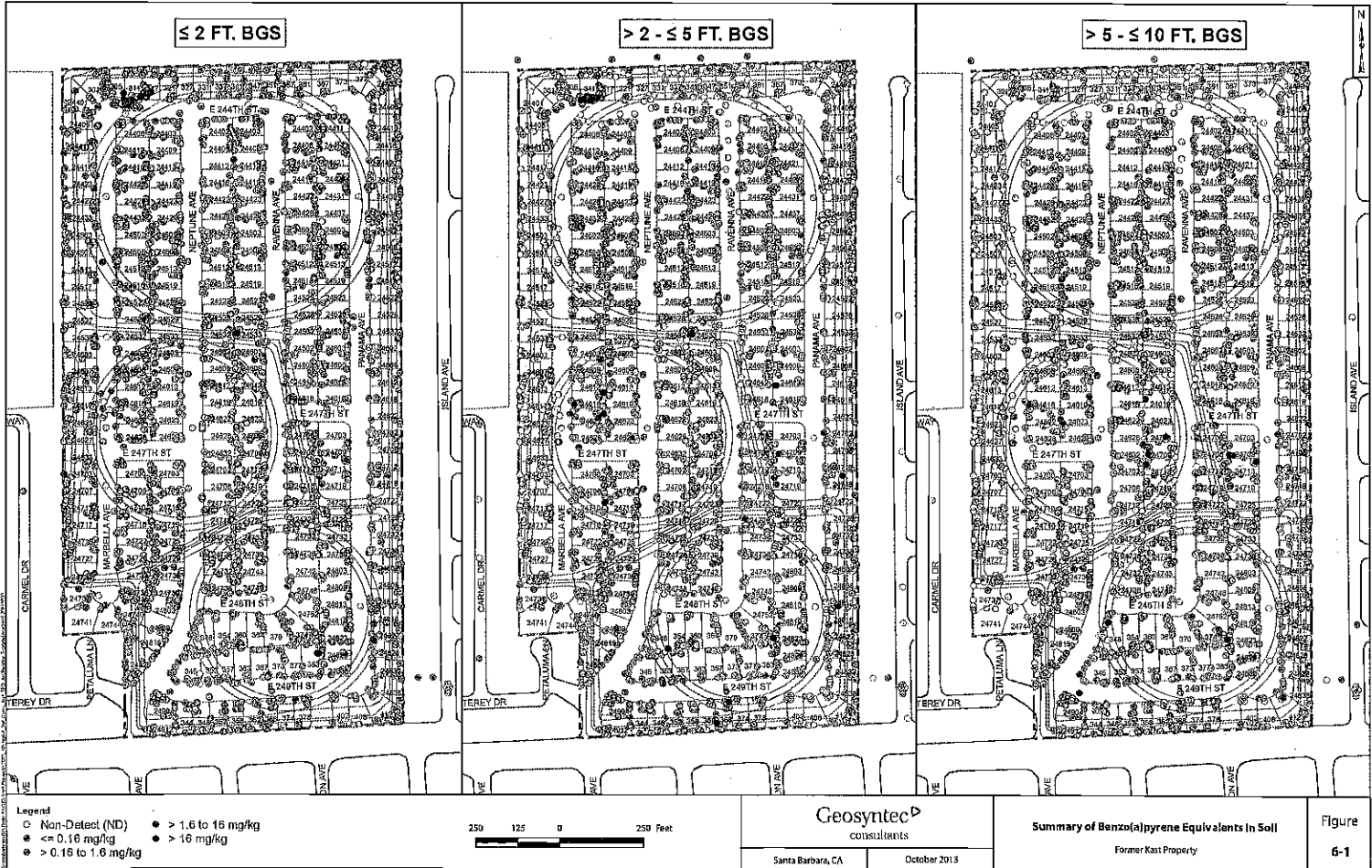
Table 9-5  
 Summary of Preliminary Cost Estimates for Screening Feasibility Study  
 Former Kast Property  
 Carson, CA

Alternative	Criteria	Property Purchase Cost (285 properties)	Demolition Costs	Excavate, Backfill, & Assoc. Costs	PM, Planning, Field Mgmt, Monitoring, Reporting, Security	Post Excavation Construction and Long-Term O&M	Total Est. Costs	Low-End Costs (-30%)	High-End Costs (+50%)
6	ALTERNATIVE 6 * Cap all areas of exposed soil at the site. * Install subslab mitigation at homes where subslab VOC and methane concentrations exceed screening values. * Remove LNAPL as feasible. * MNA remedy for GW. Could add limited hot spot remediation to reduce time to achieve cleanup goals.	\$0	\$0	\$12,000,000	\$2,600,000	\$4,400,000	\$19,000,000	\$13,000,000	\$28,000,000
6+7	ALTERNATIVE 6+7 * Cap all areas of exposed soil at the site. * Install subslab mitigation at homes where subslab VOC and methane concentrations exceed screening values. * Remove LNAPL as feasible. * MNA remedy for GW. Could add limited hot spot remediation to reduce time to achieve cleanup goals. * Add SVE to reduce TPH/SVE mass.	\$1,400,000	\$220,000	\$17,000,000	\$9,300,000	\$6,800,000	\$28,000,000	\$20,000,000	\$43,000,000
7	ALTERNATIVE 7 Add limited SVE to reduce VOC/TPH mass for Alternatives 2 through 6	\$1,400,000	\$220,000	\$5,200,000	\$700,000	\$2,400,000	\$9,900,000	\$7,000,000	\$15,000,000

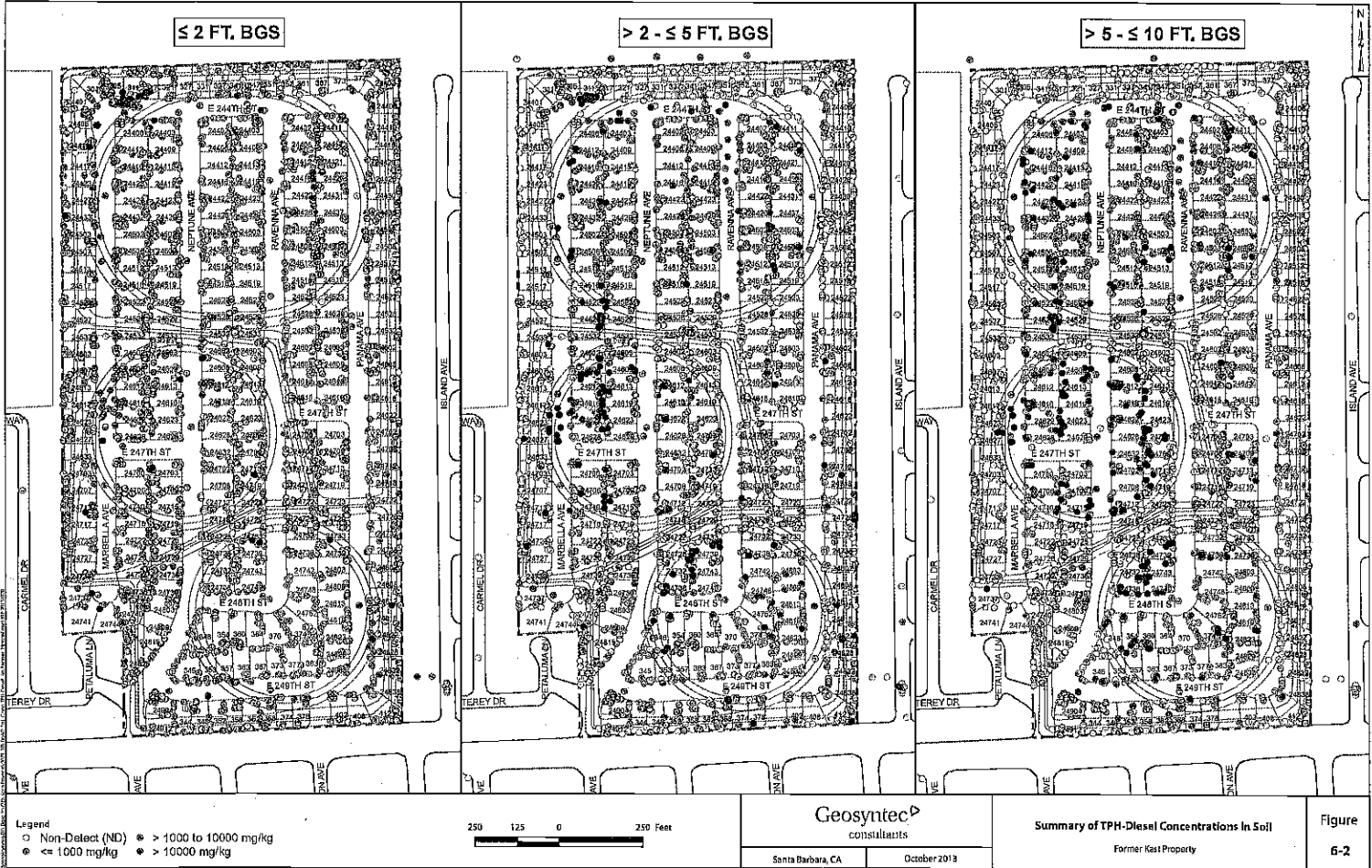
## FIGURES

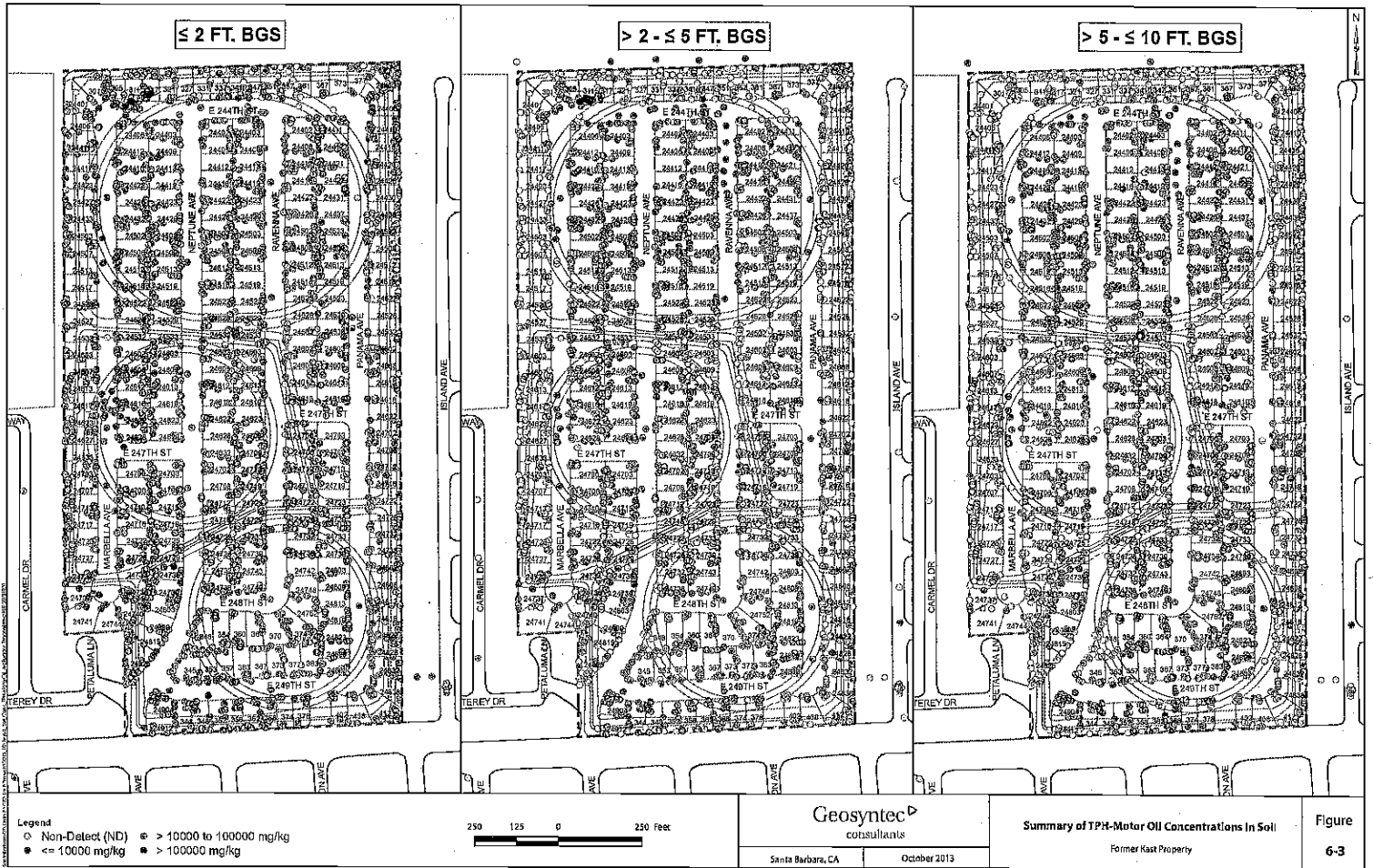


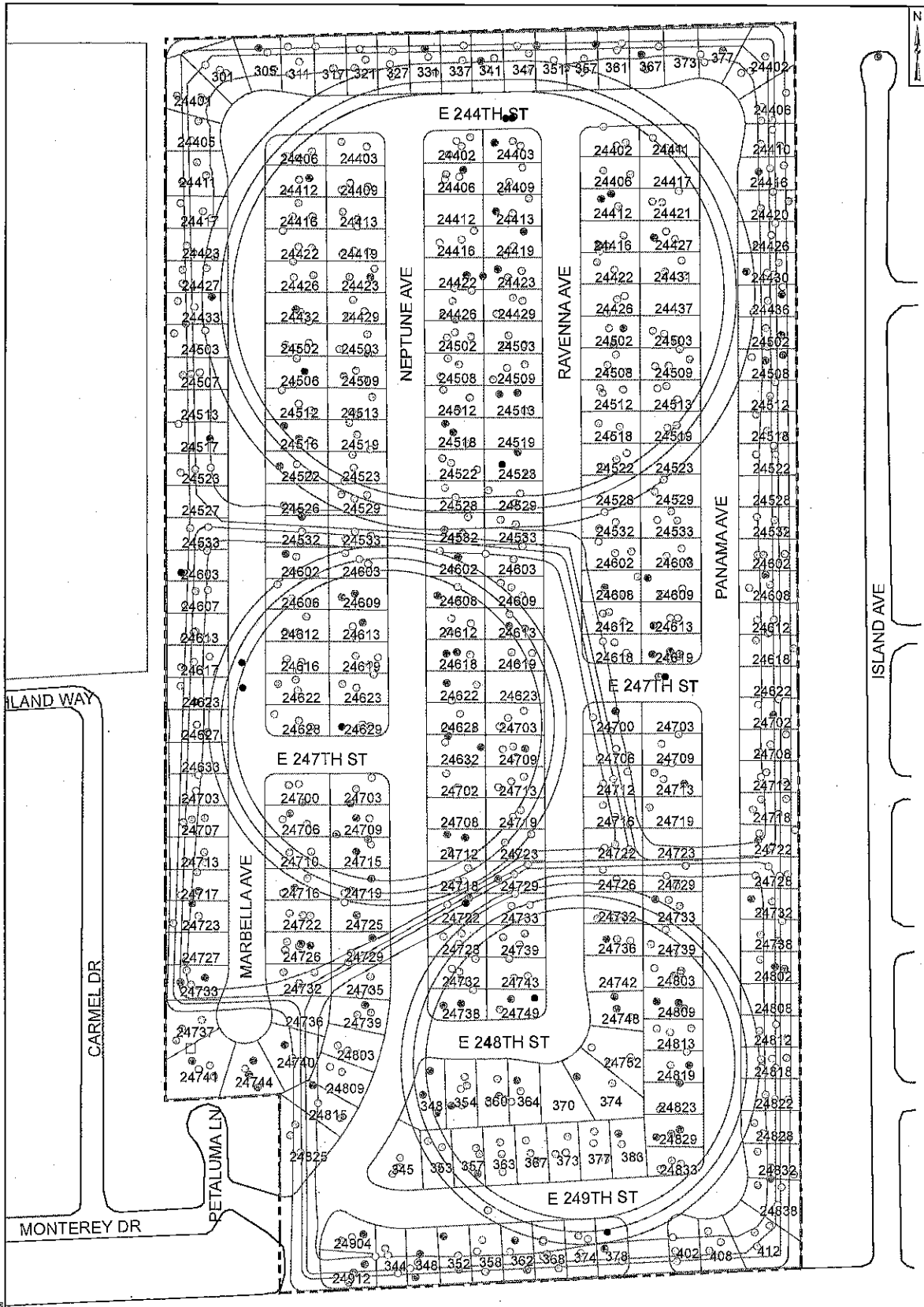
Santa Barbara - UCLA, PWS(S) (Kast Property) EIR/01 Site Location Map, STM 20131070











Legend

- Non-Detect (ND)
- ≤ 8.4 µg/m<sup>3</sup>
- ⊙ > 8.4 to 84 µg/m<sup>3</sup>
- > 84 to 840 µg/m<sup>3</sup>
- > 840 µg/m<sup>3</sup>

150 75 0 150 Feet

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**Summary of Benzene Concentrations  
in Sub-Slab Soil Vapor**

Former Kast Property

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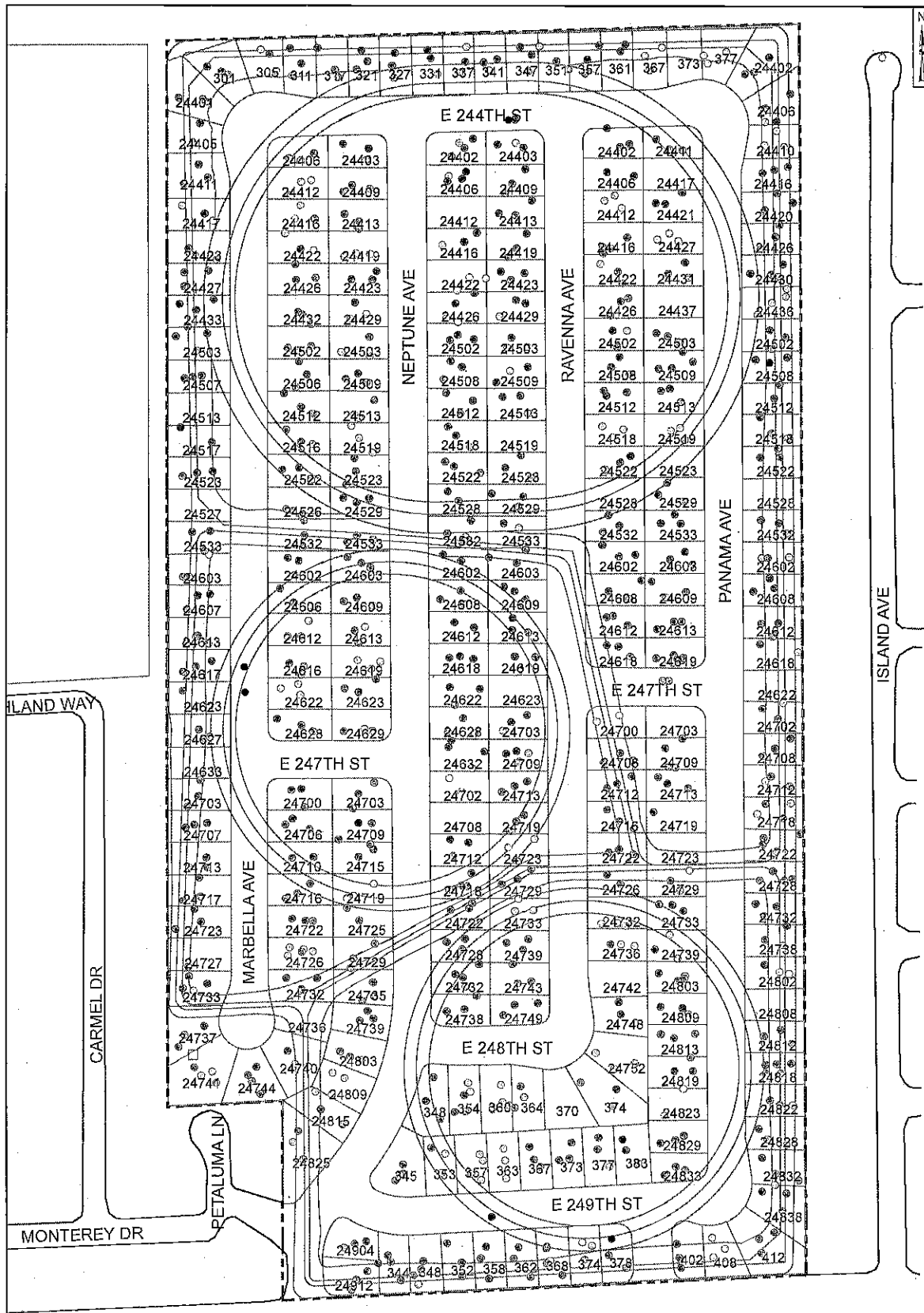
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Figure  
**7-1**



10/20/2013 10:52:52 AM Santa Barbara, CA: 10/20/2013 10:52:52 AM

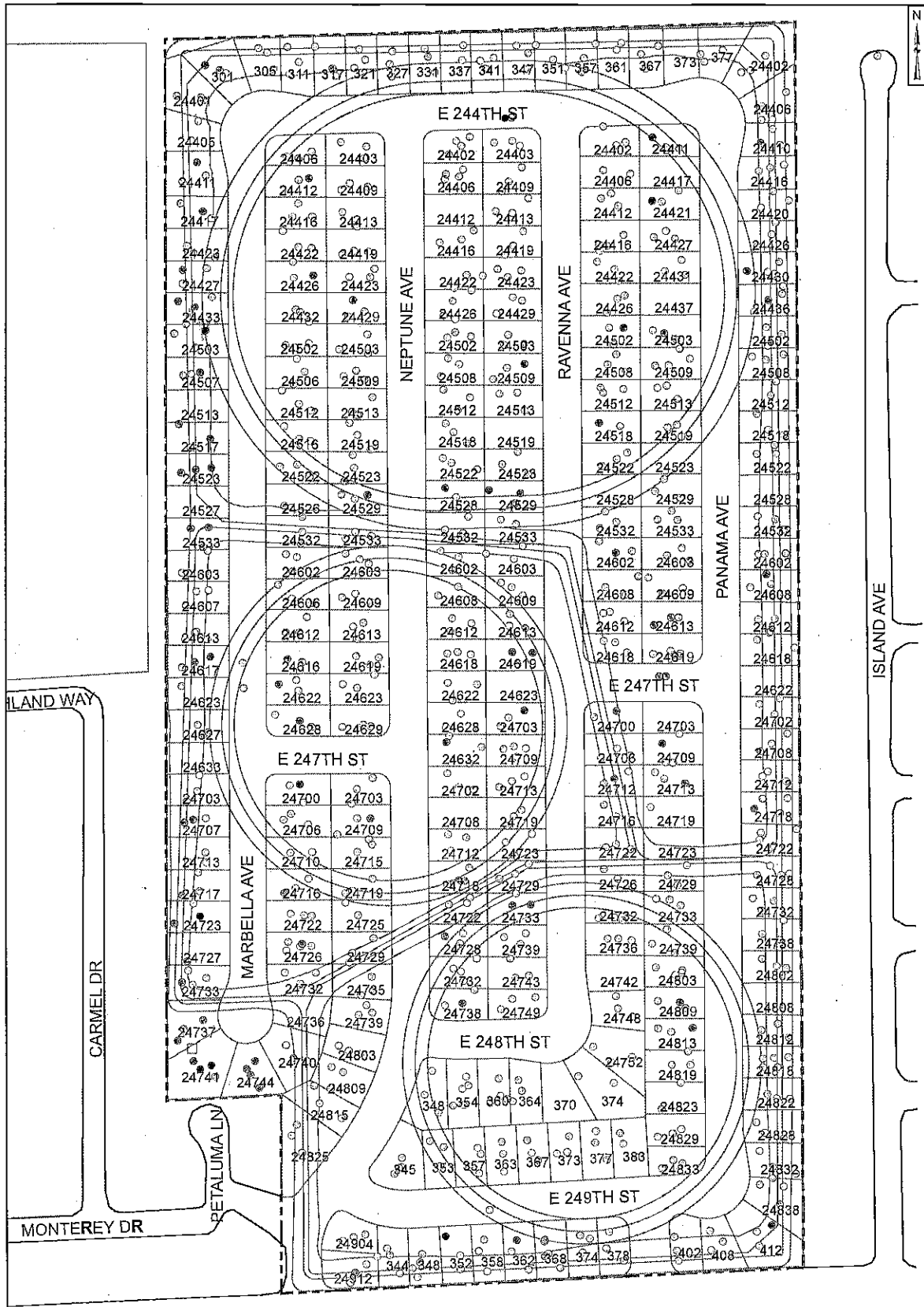
- Legend.
- Non-Detect (ND)
  - ≤ 7.16 µg/m³
  - > 7.16 to 71.6 µg/m³
  - > 71.6 to 716 µg/m³
  - > 716 µg/m³

150 75 0 150 Feet 	
<b>Summary of Naphthalene Concentrations in Sub-Slab Soil Vapor</b> Former Kast Property	
<b>Geosyntec</b> <sup>®</sup> consultants	
Santa Barbara	October 2013

Figure  
**7-2**

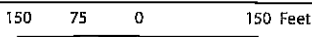






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- Legend**
- Non-Detect (ND)
  - ◐ ≤ 41.2 µg/m³
  - ◑ > 41.2 to 412 µg/m³
  - ◒ > 412 to 4120 µg/m³
  - ◓ > 4120 µg/m³



**Summary of Tetrachloroethene Concentrations  
in Sub-Slab Soil Vapor**

Former Kast Property

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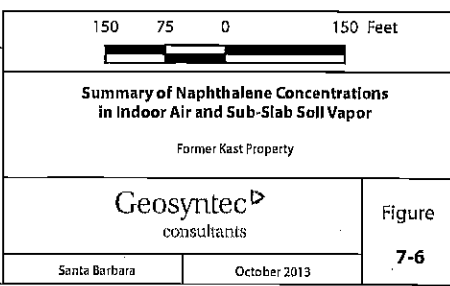
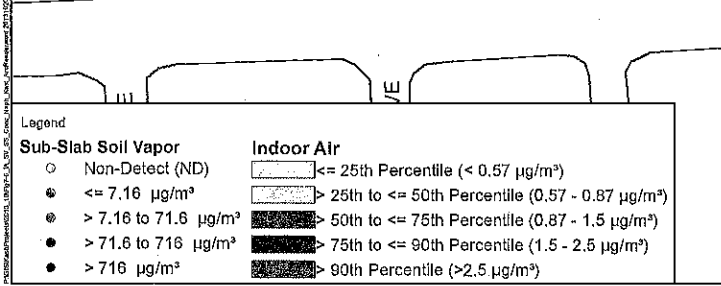
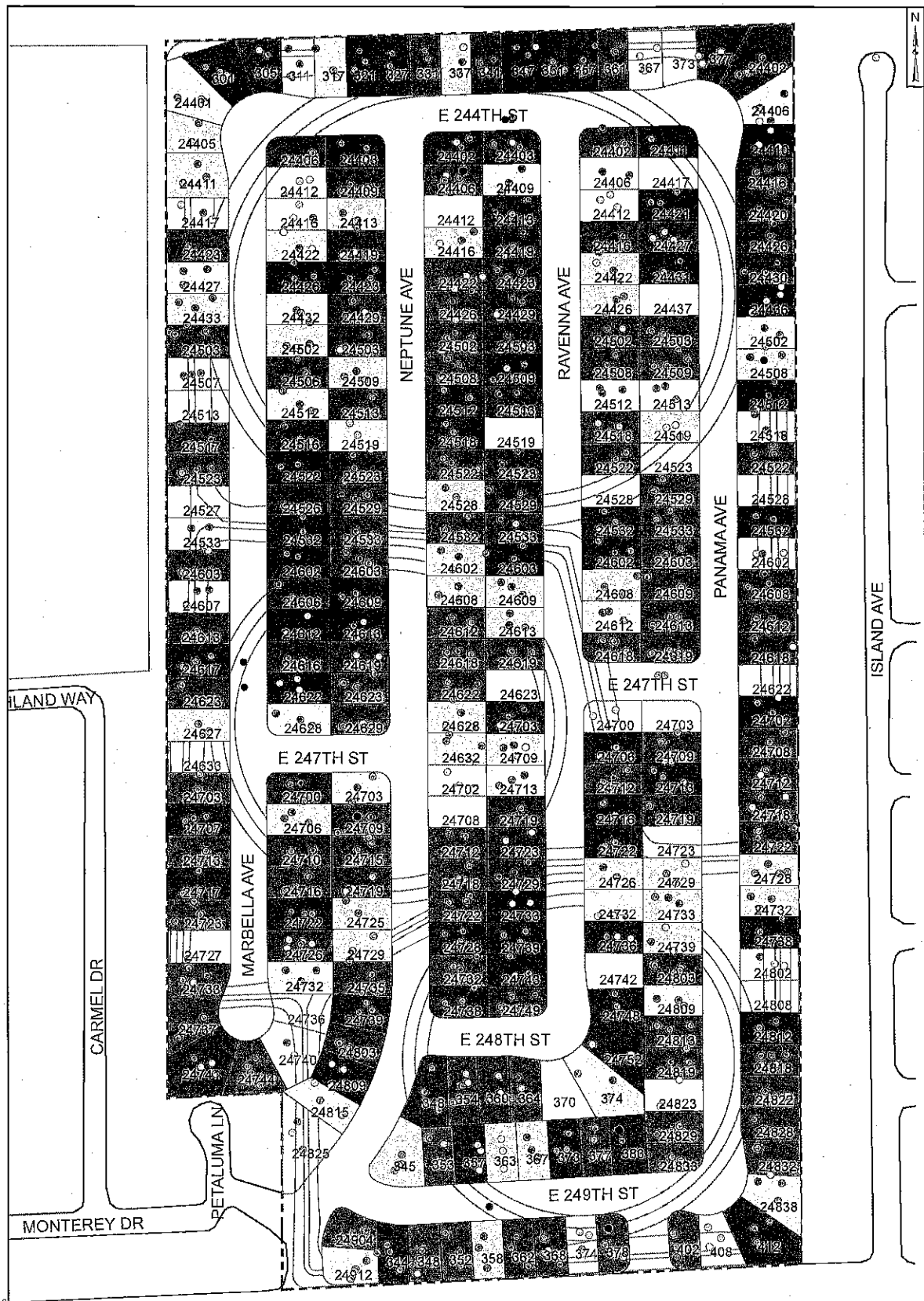
Figure

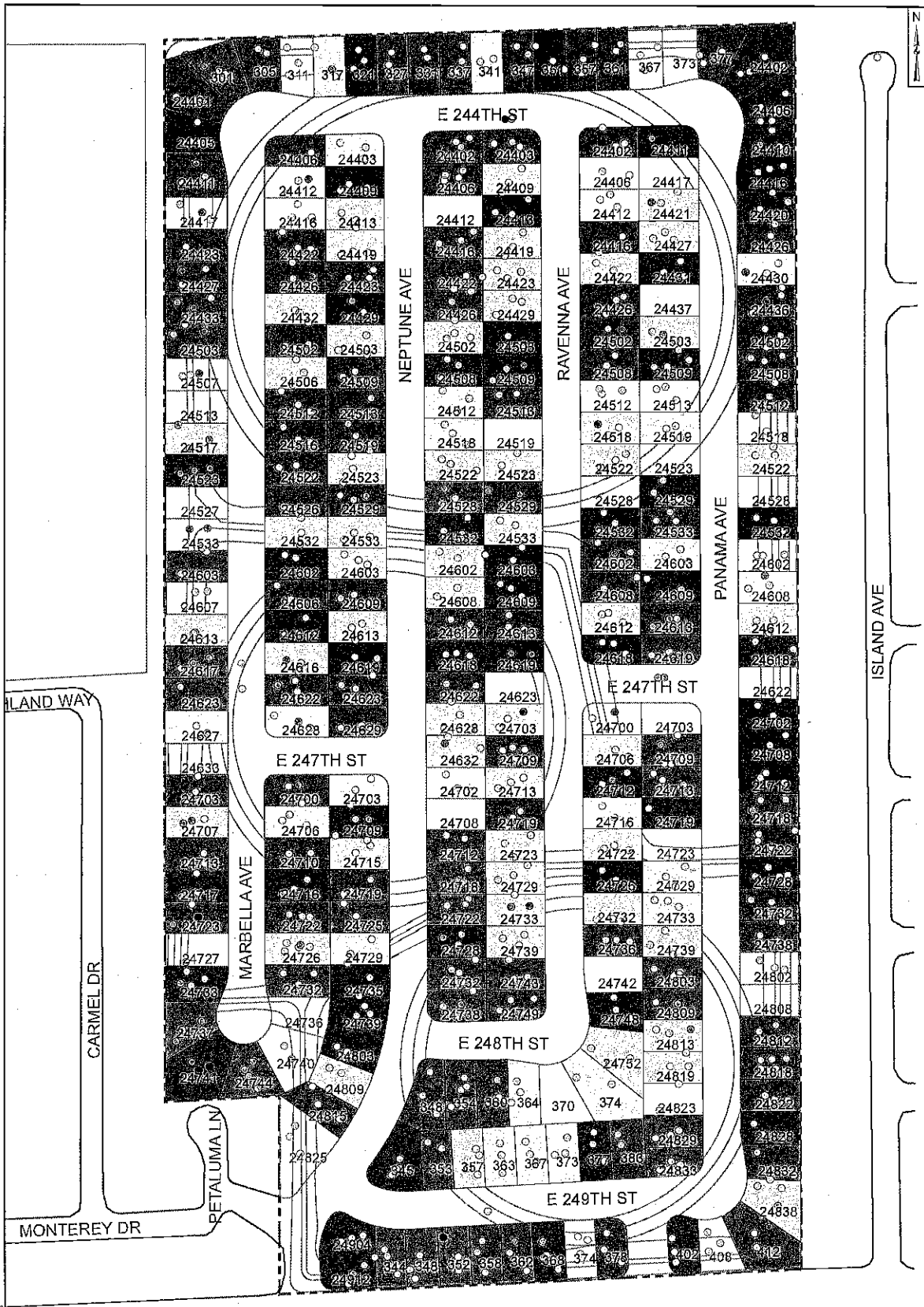
7-4











Legend

Sub-Slab Soil Vapor	Indoor Air
○ Non-Detect (ND)	◻ ≤ 25th Percentile (< 0.1 µg/m³)
● ≤ 41.2 µg/m³	◻ 25th to ≤ 50th Percentile (0.1 - 0.21 µg/m³)
● > 41.2 to 412 µg/m³	◻ > 50th to ≤ 75th Percentile (0.21 - 0.47 µg/m³)
● > 412 to 4120 µg/m³	◻ > 75th to ≤ 90th Percentile (0.47 - 1.2 µg/m³)
● > 4120 µg/m³	◻ > 90th Percentile (> 1.2 µg/m³)

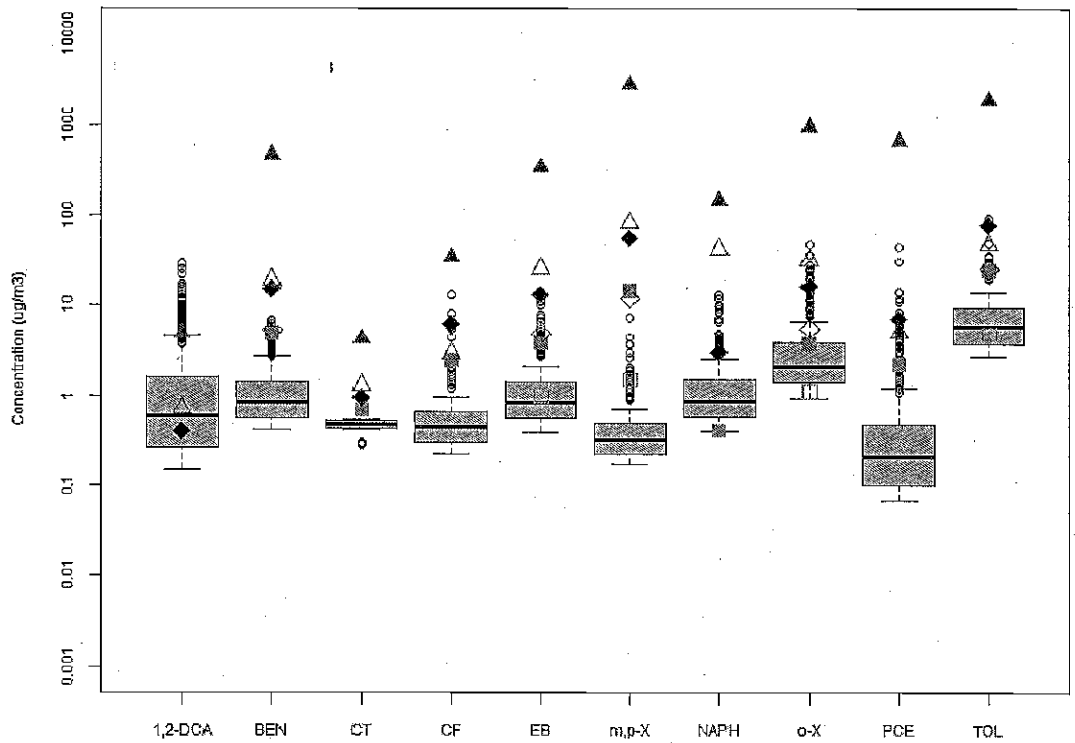
150 75 0 150 Feet

**Summary of Tetrachloroethene Concentrations in Indoor Air and Sub-Slab Soil Vapor**  
Former Kast Property

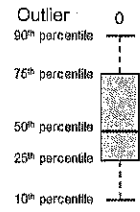
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Figure  
**7-7**



**Site Data**



**Literature Values**

- △ Maximum (lower / upper)  
 ◇ 90<sup>th</sup> Percentile (lower / upper)  
 □ 50<sup>th</sup> Percentile (lower / upper)

Analyte

**Comparison of Indoor Air Results to Literature Background Concentrations**

Former Kast Property  
Carson, California

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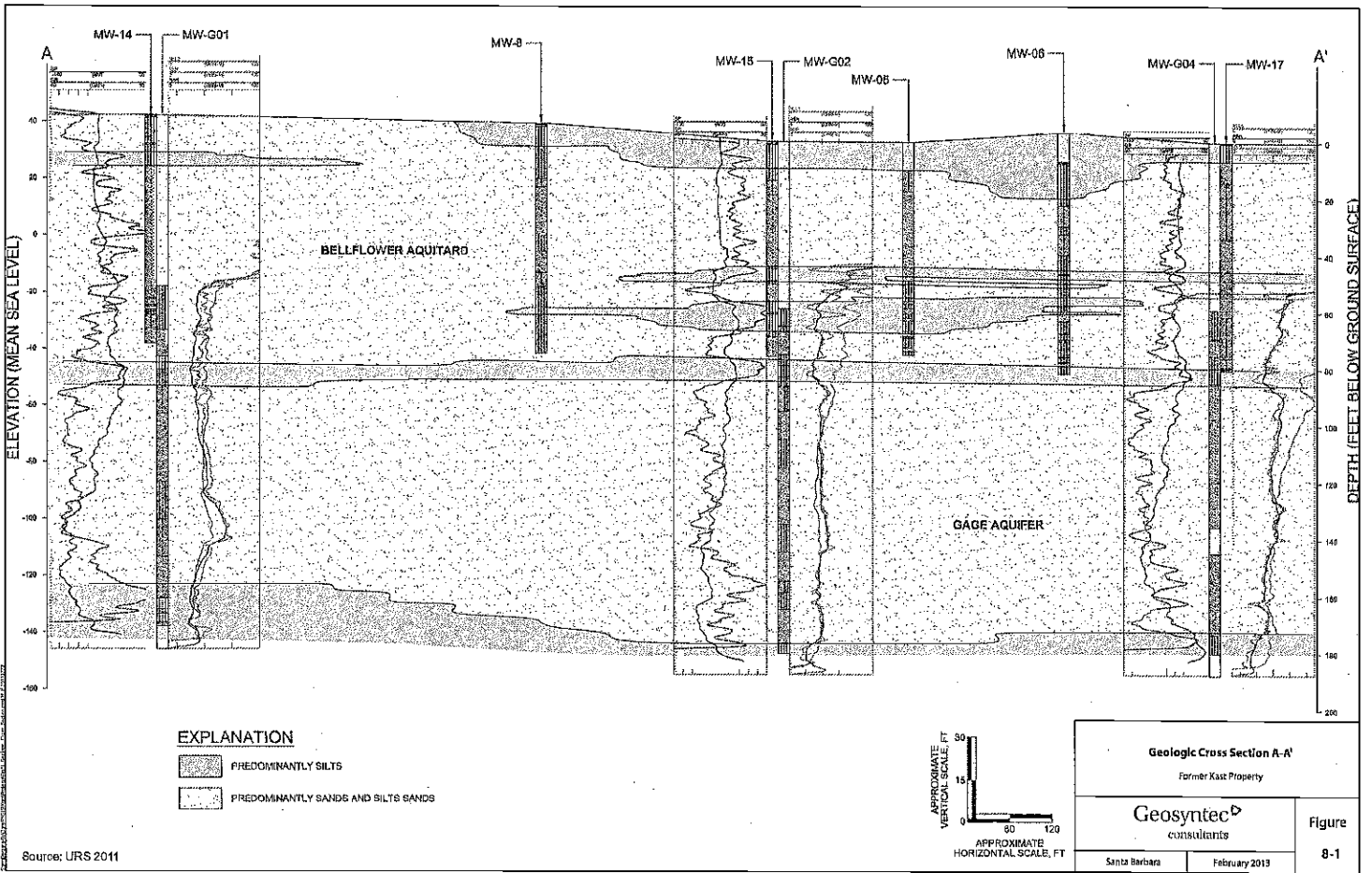
Santa Barbara

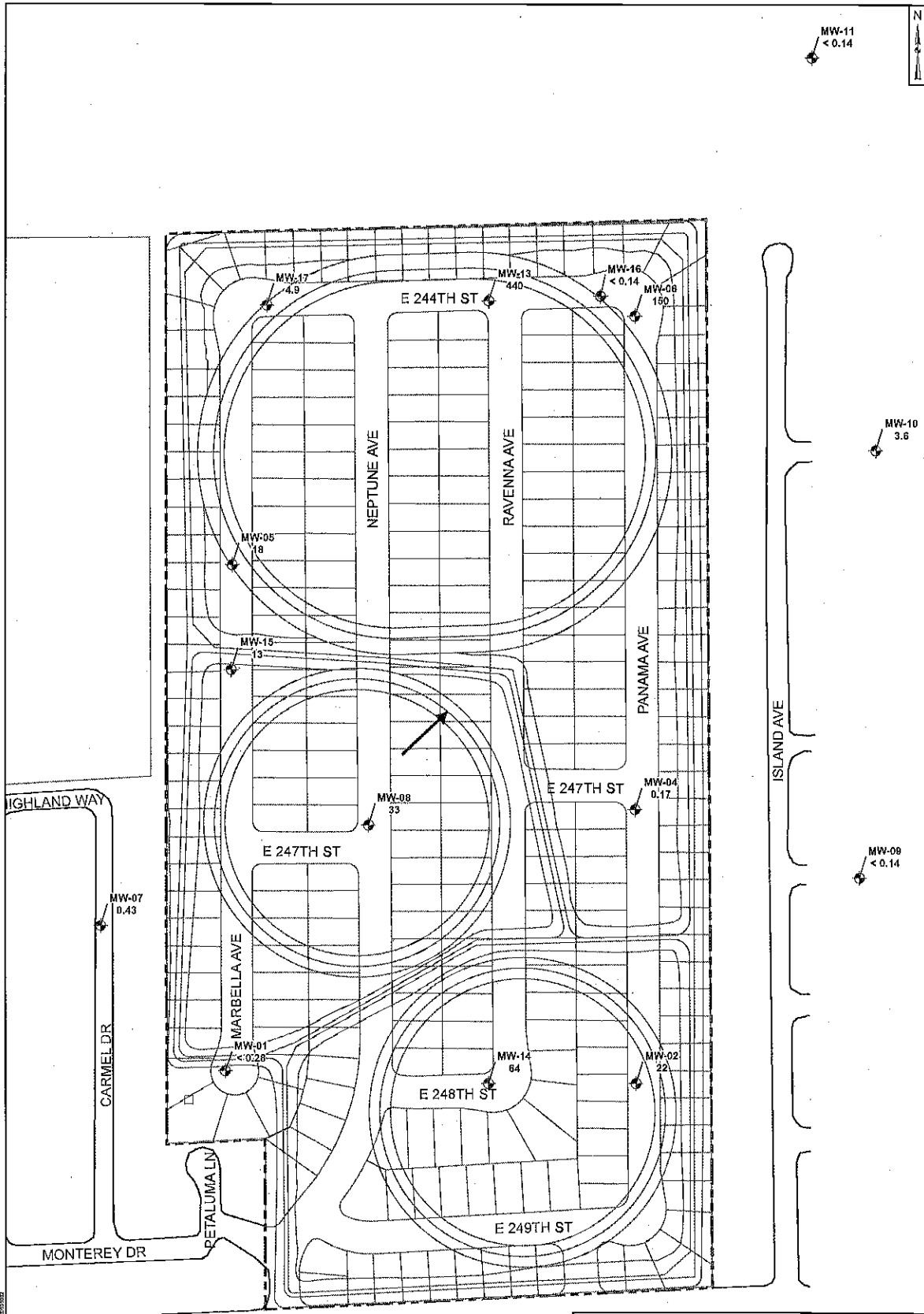
October 2013

**Figure**

**7-8**







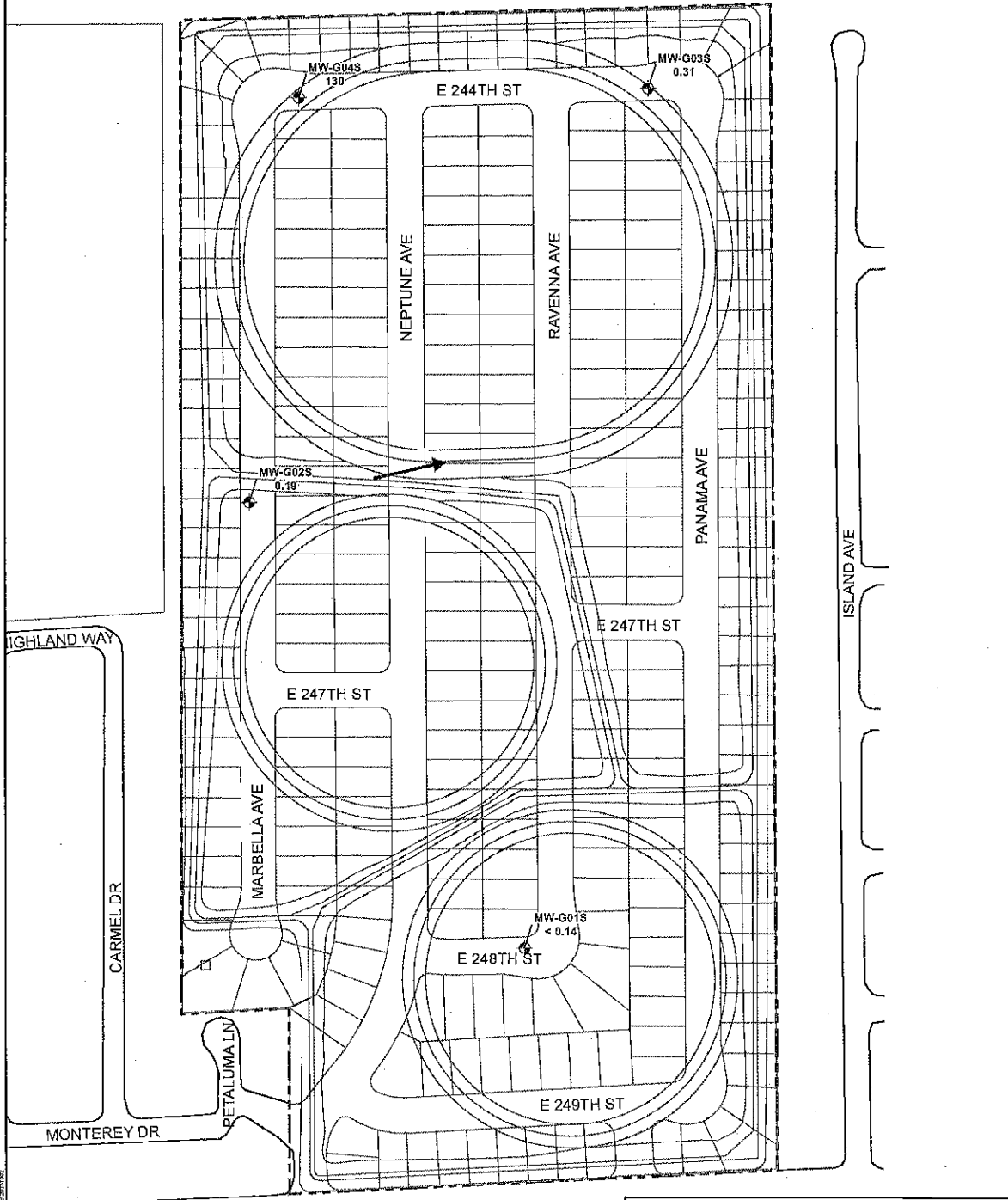
**Legend**

- Monitoring Well
- Approximate Groundwater Flow Direction
- - - Site Boundary

MW-08 Monitoring well designation  
33 Benzene concentration in micrograms per liter (µg/l) collected in August 2013

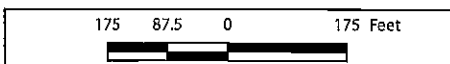
< : Less than detection limit  
J : Estimated value

<b>Benzene Concentrations in Groundwater - 3Q 2013</b> <b>Shallow Zone Wells</b> Former Kast Property	
Santa Barbara	October 2013
<b>Figure</b> <b>8-2</b>	



**Legend**

- ◆ Monitoring Well
- Approximate Groundwater Flow Direction
- - - Site Boundary
- MW-G02S Monitoring well designation
- 0.19 Benzene concentration in micrograms per liter (µg/l) collected in August 2013
- < : Less than detection limit
- J : Estimated value

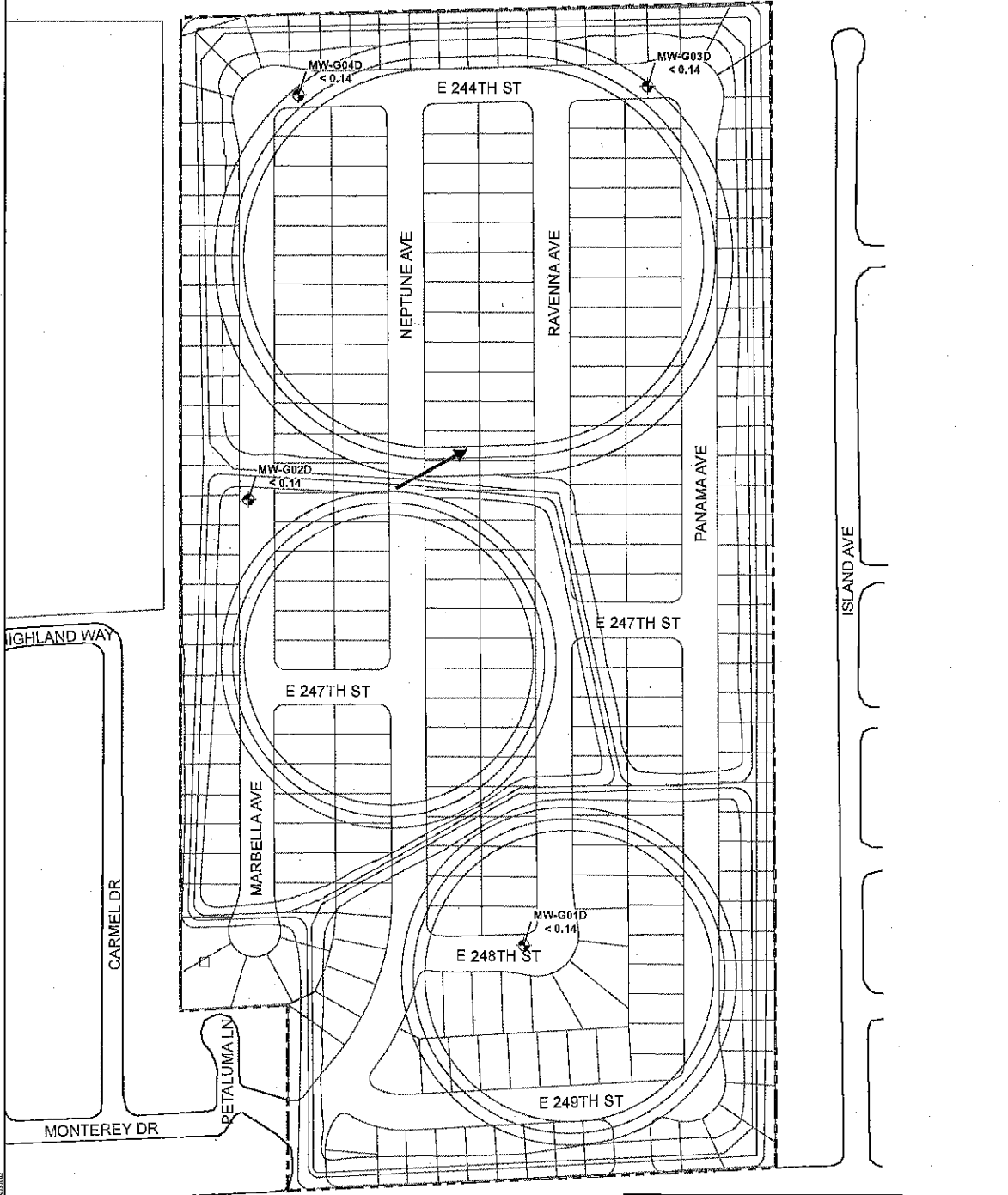


**Benzene Concentrations in Groundwater - 3Q 2013**  
**Shallow Gage Aquifer**  
 Former Kast Property

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Figure **8-3**

Santa Barbara      October 2013



**Legend**

- ◆ Monitoring Well
- Approximate Groundwater Flow Direction
- - - Site Boundary
- MW-G03D Monitoring well designation
- <0.14 Benzene concentration in micrograms per liter (µg/l) collected in August 2013
- < : Less than detection limit
- J : Estimated value

<p>175 87.5 0 175 Feet</p>	
<p><b>Benzene Concentrations in Groundwater - 3Q 2013</b>  <b>Deep Gage Aquifer</b>          Former Kast Property</p>	
<p><b>Geosyntec</b>          consultants</p>	
<p>Santa Barbara</p>	<p>October 2013</p>
<p>Figure  <b>8-4</b></p>	



*Prepared for:*

**Shell Oil Products US**  
20945 S. Wilmington Avenues  
Carson, CA 90810

# **Revised Site-Specific Cleanup Goal Report**

**Former Kast Property  
Carson, California**

*Prepared by:*

**Geosyntec**   
consultants

engineers | scientists | innovators

924 Anacapa Street, Suite 4A  
Santa Barbara, CA 93101  
Telephone: (805) 897-3800  
Fax (805) 899-8689  
[www.geosyntec.com](http://www.geosyntec.com)

Project Number: SB0484-04-2

October 21, 2013

# REVISED SITE-SPECIFIC CLEANUP GOAL REPORT

## Former Kast Property Carson, California

*Prepared for:*

**Shell Oil Products US**

*Prepared by:*

**Geosyntec Consultants, Inc.**



*Mark Grivetti*

Mark Grivetti, P.G., CHG  
Principal Hydrogeologist

*Ruth Custance*

Ruth Custance  
Principal

*Robert Ettinger*

Robert Ettinger  
Principal

**CERTIFICATION**  
**REVISED SITE-SPECIFIC CLEANUP GOAL REPORT**  
**FORMER KAST PROPERTY**  
**CARSON, CALIFORNIA**

I am the Project Manager for Equilon Enterprises LLC doing business as Shell Oil Products US for this project. I am informed and believe that the matters stated in the Revised Site-Specific Cleanup Goal Report dated October 21, 2013 are true, and on that ground I declare, under penalty of perjury in accordance with Water Code section 13267, that the statements contained therein are true and correct.



---

Doug Weimer  
Project Manager  
Shell Oil Products US  
October 21, 2013

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## **APPENDIX A**

# **Soil, Sub-Slab Soil Vapor, and Soil Vapor Site-Specific Cleanup Goal Derivation**

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## 1.0 INTRODUCTION

This appendix presents the approach and methodologies that were used to derive Site-specific cleanup goals (SSCGs) for constituents of concern (COCs) detected in soil, sub-slab soil vapor, and soil vapor at the former Kast Property (Site) located in Carson, California. The Site is a former oil storage facility that was sold by Shell Oil Company in the late 1960s and later redeveloped into the Carousel subdivision containing 285 single family houses. Based on historical operations, the primary Site COCs are related to crude oil and bunker oil.

Site-specific cleanup goals were derived to provide target cleanup goals for the development of a Site remediation strategy. The SSCG calculation approach is consistent with current United States Environmental Protection Agency (USEPA) and California Environmental Protection Agency (Cal-EPA) Department of Toxic Substances Control (DTSC) guidance documents (USEPA, 1989; 1991a; 2002; 2009; 2013a,b; Cal-EPA 1999; 2011a) including the withdrawn *Interim Guidance on Evaluating Human Health Risks from Total Petroleum Hydrocarbons (TPH)* (Cal-EPA, 2009a)<sup>1</sup>. Risk-based SSCGs for human health, SSCGs for potential migration to groundwater through leaching, and SSCGs based on local and regional background have been developed for the Site. A discussion of the input parameters, the algorithms, and SSCGs are included in this appendix.

## 2.0 DATA EVALUATION AND COC SELECTION

An initial step in the risk assessment process is an evaluation of available data to identify media-specific COCs. A variety of samples have been collected as a part of the Site investigation process. Detected compounds include inorganics, polycyclic aromatic hydrocarbons (PAHs), total petroleum hydrocarbons (TPH), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and metals. These compounds, if they were detected in at least one sample in a given media (soil or soil vapor), were included in the COC selection process. A toxicity-concentration screen was then used to focus the list of COCs to those chemicals that have the potential to contribute significantly to potential risk at the Site, as discussed below.

COC screening was conducted using risk-based screening levels (RBSLs) that were calculated assuming potential residential exposures to COCs in soil and soil vapor as part of the human health screening risk evaluation (HHSRE) process (Geosyntec, 2009, 2010, 2011). The RBSLs represent chemical-specific concentrations in the relevant environmental media that would be consistent with a target risk level for the current land use under

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<sup>1</sup> Note that the Cal-EPA *Interim Guidance on Evaluating Human Health Risks from Total Petroleum Hydrocarbons (TPH)* is no longer active; however, information provided in this document is considered in this evaluation.

conservative (i.e., protective) exposure conditions. For soil vapor, the screening levels were developed to address potential sub-slab soil vapor migration to indoor air. This is the most sensitive land-use and conservative for construction and maintenance worker exposures. For carcinogenic PAHs and metals, a background comparison value was used along with the calculated RBSLs for COC selection.

An additional screening criterion for soil was if the chemical was detected in five or less samples it was excluded from the SSCG derivation. Due to the large number of soil samples collected (over 10,000) this equates to less than or equal to 0.05 percent of soil samples.

In the first step of COC selection, a list of detected chemicals in each media was identified. Tables 4.1 through 4.4 of the main report present the prevalence and range of concentrations of all chemicals that were detected at least once in soil, soil vapor, indoor air, and groundwater, respectively across the Site. As discussed in the main report, quantitative SSCGs are being developed for soil and sub-slab soil vapor for onsite residents, soil and soil vapor for construction and utility maintenance workers and migration from soil to groundwater through leaching. Therefore, chemicals detected in these media were carried forward into the COC selection.

To identify COCs for each media, the maximum concentration for that media was compared to one-tenth of its respective RBSL. One-tenth of the RBSL was used as a conservative approach to screen chemicals for further analysis and to address potential cumulative effects. If the maximum concentration was greater than one-tenth of the RBSL it was selected as a COC for the Site. In addition to the RBSL screen, background concentrations for metals and carcinogenic PAHs (cPAHs as benzo(a)pyrene equivalents) were considered.

For the selection of soil COCs to address the leaching to groundwater pathway, chemicals that were detected in groundwater above their respective maximum contaminant level (MCL) or notification level (NL) were carried forward into the SSCG derivation process. Based on the site conceptual model (SCM) presented in Section 2 of the main report and the age of potential petroleum releases at the Site, groundwater impacts from leaching from Site soils are not expected to change appreciably. This is discussed further in Section 8 of the main report and supported by the plume stability analysis. As a result, the inclusion of chemicals that have been detected above MCLs and NLs is considered appropriate for COC selection.

Tables 4.5 and 4.6 of the main report present the COCs that have been identified for each media to be carried forward into the RAP.

### 3.0 EXPOSURE ASSESSMENT

To evaluate whether the levels of COCs present in soil and soil vapor would pose a risk to human populations, it is necessary to (i) identify the populations that may potentially be exposed to these COCs, and (ii) define the pathways by which the exposures may occur. The following table summarizes the receptor, exposure media, and potential exposure pathways that were considered in deriving the SSCGs. The following table summarizes the exposure scenarios that were evaluated.

Receptor	Exposure Medium	Potentially Complete Exposure Pathway
Onsite Resident	Shallow Surface Soil (0-2 ft bgs)	<ul style="list-style-type: none"> <li>• Incidental Ingestion</li> <li>• Dermal Contact</li> <li>• Outdoor Air Inhalation</li> </ul>
	Shallow Subsurface Soil (>2-10 ft bgs)	<ul style="list-style-type: none"> <li>• Infrequent Incidental Ingestion</li> <li>• Infrequent Dermal Contact</li> <li>• Infrequent Outdoor Air Inhalation</li> </ul>
	Sub-Slab Soil Vapor	<ul style="list-style-type: none"> <li>• Vapor Inhalation in Indoor Air via Vapor Intrusion</li> </ul>
Construction and Utility Maintenance Worker	Shallow Soil (0-10 ft bgs)	<ul style="list-style-type: none"> <li>• Incidental Ingestion</li> <li>• Dermal Contact</li> <li>• Outdoor Air Inhalation</li> </ul>
	Soil Vapor	<ul style="list-style-type: none"> <li>• Vapor Inhalation in Outdoor Air</li> </ul>
Groundwater	Shallow Soil (0-10 ft bgs)	<ul style="list-style-type: none"> <li>• Leaching to Groundwater</li> </ul>

The soil SSCGs for the residential scenario are based on surface soil (0-2 feet below ground surface [ft bgs]) and subsurface soil (>2-10 ft bgs) exposure assumptions. SSCGs were derived for onsite residents who may typically contact surface soils using the Cal-EPA and USEPA default exposure frequency (EF) of 350 days per year. Surface soils are considered for typical residential exposures, whereas subsurface soils are considered for infrequent contact, because the likelihood of a resident contacting soils at deeper depths is very low given the developed nature of the Site and typical residential activities where exposure to soil could occur (e.g., lawn care, recreational activities, landscaping). Typical lawn care and gardening would occur in the surface soil horizon.

The potential does exist for deeper soils to be contacted (e.g., if a sizable tree is planted), but this would not occur on a regular basis for a given property. To address the unlikely, infrequent exposure to subsurface soils (>2-10 ft bgs), SSCGs were developed for residents

assuming a lower frequency of exposure of 4 days per year. The exposure frequency of 4 days per year is based on 1/10<sup>th</sup> of the USEPA recommended event frequency of 40 events per year for an adult resident gardening outdoors on a more routine basis (USEPA, 1997). Since the value of 40 days per year is based on routine gardening, an adjustment was considered reasonable to account for infrequent contact to account for instances where a resident may contact deeper soil (e.g. planting a tree). In addition, it is unlikely that residents would contact soils unearthed from a deeper excavation (such as during a major renovation or utility repair work) as these soils could not be placed onsite due to the developed nature of the neighborhood and lack of open area to place the excavated soils. The conceptual model for this assumption includes institutional controls (e.g., a notification requirement triggered when an excavation permit is applied for) to prevent redistribution of deep soils at the surface. A Soil Management Plan will be prepared either as a part of, or subsequent to, the RAP that will provide the detailed approach to preventing residential exposure to subsurface soils impacted by Site COCs.

A summary of the exposure parameters used to derive the SSCGs for the receptors identified above is presented in **Table A-1**. These parameters are consistent with those recommended by Cal-EPA and USEPA and include separate child and adult exposure parameters that are used in an integrated child/adult exposure scenario consistent with guidance.

### **3.1 Fate and Transport Modeling**

Fate and transport modeling was employed to predict the movement of COCs from impacted soil and soil vapor to points of exposure for human populations. Fate and transport modeling was employed to develop transfer factors for the following transport mechanisms:

- Transport of particulate-phase chemicals from soil matrix to outdoor air;
- Transport of vapor-phase chemicals from soil matrix to outdoor air;
- Transport of vapor-phase chemicals from soil vapor to outdoor air; and
- Transport of vapor-phase chemicals from sub-slab soil vapor to indoor air.

Fate and transport modeling for migration from soil to outdoor air was conducted using the models presented in the *Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites* (Soil Screening Guidance) (USEPA, 2002). Standard equations presented in the Soil Screening Guidance were used, incorporating local meteorological conditions for the Los Angeles area, for derivation of COC-specific volatilization factors (VFs) and the particulate emission factor (PEF). The definitions for each of the transfer factors listed above are presented in **Table A-2**. Calculations for the VF and PEF are summarized in **Table A-3a** for a resident and in **Table A-3b** for a construction and utility maintenance worker, and are discussed below. Additional details regarding these transfer factors were

discussed in the HHSE Work Plan (Geosyntec, 2009; 2010). Fate and transport modeling for leaching to groundwater is discussed in Section 5.3 of this Appendix.

### **3.1.1 Fugitive Dust Emissions into Outdoor Air**

COCs at the Site may become airborne due to fugitive dust emissions. Compounds (e.g., SVOCs) can adhere to soil particles then become airborne due to wind erosion, which could generate dust containing COCs. Exposure to these chemicals may then occur via inhalation of airborne fugitive dust. Inhalation exposure to non-volatile compounds is typically minor in fugitive dust when compared to direct ingestion exposure (USEPA, 2002). Nevertheless, a relationship can be estimated between the COC concentration in soil and the corresponding concentration in air (secondary media) attributable to fugitive dust emissions from soil.

Potential exposure to airborne dust is estimated using a particulate emission factor (PEF) that relates the concentration of soil constituents to the concentration of dust particles in air. The PEF represents an annual average emission rate based on wind erosion. The PEF equation described in the Soil Screening Guidance (USEPA, 2002) was used in this evaluation. The emissions part of the PEF equation is based on the “unlimited reservoir” model developed to estimate PM<sub>10</sub> emissions (particulate matter less than 10 micrometers in diameter [PM<sub>10</sub>]) due to wind erosion (Cowherd et al., 1985).

#### ***3.1.1.1 Onsite Residential Scenario***

For onsite residents, the following equation was used to estimate their PEF:

$$\text{PEF} = \frac{(Q/C \times CF)}{[0.036 \times (1 - G) \times \left(\frac{U_M}{U_T}\right)^3 \times F_x]}$$

Where:

- PEF = particulate emission factor as cubic meters per kilogram (m<sup>3</sup>/kg)
- Q/C = inverse of mean concentration at center of source (g/m<sup>2</sup>-s per kg/m<sup>3</sup>)
- CF = units conversion factor (3600 s/hr)
- 0.036 = respirable fraction (g/m<sup>2</sup>-hr)
- G = fraction of vegetative or other cover (0.5 unitless; USEPA, 2002)
- U<sub>M</sub> = mean annual wind speed (3.31 m/s, average for Los Angeles; NCDC, 2011)
- U<sub>T</sub> = equivalent threshold value of wind speed at 7 meters above ground surface (11.32 m/s; USEPA, 2002)



$F_x$  = function dependent on  $U_M/U_T$  (0.00474 unitless; USEPA, 1996)

The dispersion part of the PEF equation includes a dispersion coefficient (Q/C) in units of grams per square meter-second per kilogram per cubic meter ( $\text{g/m}^2\text{-s per kg/m}^3$ ). The Q/C term was generated using the Industrial Source Complex model and varies depending on the source area, city, and climatic zone. This term accounts for the dispersion of particulate matter, once emitted and was estimated using the following equation (USEPA, 2002):

$$(Q/C) = A \times \exp\left[\frac{(\ln A_{\text{SITE}} - B)^2}{C}\right]$$

Where:

- $A_{\text{SITE}}$  = areal extent of soil impact (0.5 acres)
- A = constant = 11.911, based on air dispersion modeling (USEPA, 2002)
- B = constant = 18.4385 (USEPA, 2002)
- C = constant = 209.7845 (USEPA, 2002)

The coefficients A, B, and C for the Los Angeles area are published in the Soil Screening Guidance (USEPA, 2002). A Q/C value of  $68.18 \text{ g/m}^2\text{-s per kg/m}^3$  was estimated as the inverse of the mean concentration at the center of a 0.5-acre source. The resulting PEF for onsite residents was estimated at  $1.2 \times 10^{+11} \text{ m}^3/\text{kg}$  (see **Table A-3a**).

### ***3.1.1.2 Construction and Utility Maintenance Worker Scenario***

Existing utilities that supply the residential properties with water, communications, and natural gas, and sewer lines are present at the Site. Therefore, a construction and utility maintenance worker may contact soils during repair or maintenance of these utilities both on residential properties as well as in the streets. It is assumed that construction and utility workers may be exposed to COCs in the upper 10 feet of soil. Fugitive dust can also be generated during the use of heavy equipment such as backhoes during utility work in trenches. As a conservative exposure assumption, a dust concentration equal to  $1 \text{ mg/m}^3$  or  $1 \times 10^{-6} \text{ kg/m}^3$  (Cal-EPA, 2011a)<sup>2</sup> was assumed for the construction and utility maintenance worker. The PEF is related to the concentration of particulate matter (dust) in air:

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<sup>2</sup> The respirable dust concentration of  $1 \text{ mg/m}^3$  is based on a maximum concentration of dust in air of  $10 \text{ mg/m}^3$  recommended by the American Conference of Governmental Industrial Hygienists (ACGIH 2004, Threshold Limit Values and Biological Exposure Indices), and the assumption that 10 percent of the mass of particles are in the respirable  $\text{PM}_{10}$  range.

$$PEF = 1/CD$$

Where:

CD = concentration of dust in air,  $1 \times 10^{-6}$  (kg/m<sup>3</sup>) (Cal-EPA, 2011a)

The resulting PEF for the construction and utility maintenance worker is  $1 \times 10^{+6}$  m<sup>3</sup>/kg (see **Table A-3b**).

### 3.1.2 Vapor Emissions into Outdoor Air

Because VOCs were detected in soil and soil vapor at the Site, individuals could potentially be exposed to vapors migrating through the soil to the surface. Outdoor vapor concentrations are typically negligible considering the significant quantity of ambient air diluting the vapor emissions. Although this pathway is considered potentially insignificant, outdoor air exposures were evaluated for VOCs detected in soil matrix and soil vapor as discussed below.

#### 3.1.2.1 *Onsite Residential Scenario*

##### *Soil to Outdoor Air*

For onsite residents, potential migration of vapors from shallow soil to outdoor air was estimated using the following VF equation, as presented in Section 4.2.3 of the Soil Screening Guidance (USEPA, 2002; Equation 4-8: *Derivation of the VF*):

$$VF_{\text{soil}} = Q/C \times \left( 10^{-4} \frac{\text{m}^2}{\text{cm}^2} \right) \times \frac{(3.14 \times D_A \times T_{\text{resident}})^{1/2}}{2 \times P_b \times D_A}$$

The equation for the COC-specific apparent diffusivity,  $D_A$ , is as follows:

$$D_A = \frac{(\theta_a^{3.33} \times D_{\text{air}} \times H' + \theta_w^{3.33} \times D_{\text{water}}) / \theta_T^2}{P_b \times K_d + \theta_w + \theta_a \times H'}$$

Where:

- $D_{\text{air}}$  = COC-specific diffusivity in air (cm<sup>2</sup>/s);
- $D_{\text{water}}$  = COC-specific diffusivity in water (cm<sup>2</sup>/s);
- $\theta_a$  = air-filled porosity (0.28 cm<sup>3</sup>-air/cm<sup>3</sup>-soil);
- $\theta_w$  = water-filled porosity (0.15 cm<sup>3</sup>-water/cm<sup>3</sup>-soil);
- $\theta_T$  = total soil porosity (0.43 cm<sup>3</sup>-air/cm<sup>3</sup>-soil);
- $H'$  = COC-specific Henry's law coefficient (unitless);

- $P_b$  = soil bulk density (1.5 g/cm<sup>3</sup>);  
 $K_{oc}$  = COC-specific soil organic carbon partition coefficient (cm<sup>3</sup>/g); and  
 $f_{oc}$  = fraction organic carbon in soil (0.006 g/g).

To be consistent with the other SSCG calculations presented in this report, the equations presented below were used. The equation for the COC-specific effective diffusion coefficients for vadose-zone soils,  $D_{eff}$  (ASTM, 2004) is as follows:

$$D_{eff} = \frac{[\theta_a^{3.33} \times D_{air} \times H' + \theta_w^{3.33} \times D_{water}]}{\theta_T^2}$$

Where:

- $D_{air}$  = COC-specific diffusivity in air (cm<sup>2</sup>/s);  
 $D_{water}$  = COC-specific diffusivity in water (cm<sup>2</sup>/s);  
 $\theta_a$  = air-filled porosity (0.28 cm<sup>3</sup>-air/cm<sup>3</sup>-soil);  
 $\theta_w$  = water-filled porosity (0.15 cm<sup>3</sup>-water/cm<sup>3</sup>-soil);  
 $\theta_T$  = total soil porosity (0.43 cm<sup>3</sup>-air/cm<sup>3</sup>-soil); and  
 $H'$  = COC-specific Henry's law coefficient (unitless).

The equation for the soil to water partition coefficient,  $K_{sw}$  (ASTM, 2004) is as follows:

$$K_{sw} = \frac{\theta_a \times H' + \theta_w + P_b \times K_d}{P_b}$$

Where:

- $\theta_a$  = air-filled porosity (0.28 cm<sup>3</sup>-air/cm<sup>3</sup>-soil);  
 $H'$  = COC-specific Henry's law coefficient (unitless);  
 $\theta_w$  = water-filled porosity (0.15 cm<sup>3</sup>-water/cm<sup>3</sup>-soil);  
 $P_b$  = soil bulk density (1.5 g/cm<sup>3</sup>); and  
 $K_d$  = soil-organic carbon distribution coefficient (where  $K_d$  = fraction organic carbon [ $f_{oc}$ ] × organic carbon partition coefficient [ $K_{oc}$ ]) (cm<sup>3</sup>/g).

Substituting the equations for  $D_{eff}$  and  $K_{sw}$  into the apparent diffusivity  $D_A$  equation yields the following:

$$D_A = \frac{D_{eff} \times H'}{K_{sw} \times P_b}$$

Substituting this equation for  $D_A$  into the  $VF_{soil}$  equation presented above yields the following:

$$VF_{\text{soil}} = Q/C \times \left(10^{-4} \frac{\text{m}^2}{\text{cm}^2}\right) \times \frac{\left(3.14 \times \frac{D_{\text{eff}} \times H'}{K_{\text{sw}} \times P_b} \times T_{\text{resident}}\right)^{1/2}}{2 \times P_b \times \frac{D_{\text{eff}} \times H'}{K_{\text{sw}} \times P_b}}$$

$$VF_{\text{soil}} = Q/C \times \left(10^{-4} \frac{\text{m}^2}{\text{cm}^2}\right) \times \frac{1}{P_b} \left[ \frac{3.14 \times \frac{D_{\text{eff}} \times H'}{K_{\text{sw}} \times P_b} \times T_{\text{resident}}}{4 \times \left(\frac{D_{\text{eff}} \times H'}{K_{\text{sw}} \times P_b}\right)^2} \right]^{1/2}$$

$$VF_{\text{soil}} = Q/C \times \left(10^{-4} \frac{\text{m}^2}{\text{cm}^2}\right) \times \frac{1}{P_b} \left[ \frac{3.14 \times T_{\text{resident}}}{4 \times \left(\frac{D_{\text{eff}} \times H'}{K_{\text{sw}} \times P_b}\right)} \right]^{1/2}$$

$$VF_{\text{soil}} = Q/C \times \left(10^{-4} \frac{\text{m}^2}{\text{cm}^2}\right) \times \left(\frac{1}{P_b}\right) \left(\frac{3.14 \times T_{\text{resident}} \times K_{\text{sw}} \times P_b}{4 \times D_{\text{eff}} \times H'}\right)^{1/2}$$

This final equation was used to estimate the COC-specific  $VF_{\text{soil}}$  for onsite residential exposures, where:

- $Q/C$  = inverse of mean concentration at center of source ( $\text{g}/\text{m}^2\text{-sec}$  per  $\text{kg}/\text{m}^3$ );
- $T_{\text{resident}}$  = exposure interval ( $9.5 \times 10^{+8}$  sec = 30 years);
- $K_{\text{sw}}$  = soil to water partition coefficient, defined above ( $\text{cm}^3\text{-water}/\text{g-soil}$ );
- $P_b$  = dry soil bulk density ( $1.5 \text{ g}/\text{cm}^3$ );
- $D_{\text{eff}}$  = COC-specific effective diffusion coefficient for vadose-zone soils, defined above ( $\text{cm}^2/\text{sec}$ ); and
- $H'$  = COC-specific Henry's law coefficient (unitless).

A  $Q/C$  value of  $68.18 \text{ g}/\text{m}^2\text{-s}$  per  $\text{kg}/\text{m}^3$  was estimated using the equations presented in Section 3.1.1.2 above.

The derivation of COC-specific  $VF_{\text{soil}}$  for onsite residents is presented in **Table A-3a**.

### 3.1.2.2 Onsite Construction and Utility Maintenance Worker Scenarios

#### Soil to Outdoor Air

For the construction and utility maintenance worker scenario, VOC emissions into a utility trench and subsequent mixing in air were estimated using the volatilization factor (VF) for transport of COCs from soil to outdoor air from the *ASTM Standard Guide For Provisional Risk-Based Corrective Action* (ASTM, 2004). The soil to outdoor air volatilization factor,  $VF_{\text{soil-OA}}$ , is the ratio of the outdoor air exposure point concentration ( $EPC_{\text{soil-OA}}$ ) to the soil exposure point concentration ( $EPC_{\text{soil}}$ ):

$$VF_{\text{soil-OA}} = \frac{EPC_{\text{soil}}}{EPC_{\text{soil-OA}}}$$

The COC-specific  $VF_{\text{soil-OA}}$  for construction and utility maintenance worker exposures was derived using the following equation (ASTM, 2004):

$$VF_{\text{soil-OA}} = \frac{DF_{\text{amb}}}{Pb} \times \left[ \frac{(3.14 \times T_{\text{CUW}} \times K_{\text{sw}} \times Pb)}{(4 \times D_{\text{eff}} \times H')} \right]^{1/2} \times CF_1 \times CF_2$$

Where:

- $VF_{\text{soil-OA}}$  = volatilization factor, surficial soils to outdoor (ambient) air ( $\text{m}^3\text{-air/kg-soil}$ );
- $DF_{\text{amb}}$  = dispersion factor for outdoor (ambient) air (cm/s);
- $Pb$  = dry soil bulk density ( $1.5 \text{ g/cm}^3$ );
- $T_{\text{CUW}}$  = averaging time for surface emission vapor flux ( $7.9 \times 10^{+8}$  sec);
- $K_{\text{sw}}$  = soil to water partition coefficient ( $\text{cm}^3\text{-water/g-soil}$ );
- $D_{\text{eff}}$  = COC-specific effective diffusion coefficient for vadose-zone soils ( $\text{cm}^2/\text{sec}$ );
- $H'$  = COC-specific Henry's law coefficient (unitless);
- $CF_1$  = conversion factor ( $1 \times 10^{+3} \text{ g/kg}$ ); and
- $CF_2$  = conversion factor ( $1 \times 10^{-6} \text{ m}^3/\text{cm}^3$ ).

The following equation was used to estimate the dispersion factor for outdoor air,  $DF_{\text{amb}}$ , assuming a trench is 91 centimeters (cm) wide by 457 cm long by 183 cm deep. These dimensions are an estimate of what a typical trench size could be:

$$DF_{\text{amb}} = \frac{U_{\text{air}} \times W \times H}{A}$$

Where:

- $U_{\text{air}}$  = outdoor air velocity in mixing zone (cm/s);
- $W$  = width of source-zone area (457 cm; assume length of trench = 15 ft);
- $H$  = mixing zone height (183 cm; assume depth of trench = 6 ft); and
- $A$  = source-zone area (assume 4 sidewalls and bottom area of trench =  $2.4 \times 10^5 \text{ cm}^2$ ).

The outdoor air velocity in the mixing zone,  $U_{\text{air}}$ , is estimated using the following equation:

$$U_{\text{air}} = \frac{\text{ACH} \times W_t}{3600}$$

Where:

- ACH = air changes per hour ( $20 \text{ hr}^{-1}$ );
- $W_t$  = length of shortest side of trench (91 cm; assume width of trench = 3 ft);  
and
- 3600 = conversion (1 hour = 3600 seconds).

To develop the air exchange rate, a site-specific computational fluid dynamic (CFD) model was constructed to model air flow within the trench as defined above. CFD models have been used to evaluate air dispersion within urban canyon environments and can provide a more refined evaluation of potential air exchange within a trench. Using the CFD model (Ansys, 2011), air flow was calculated using the geometry of the trench and a conservative (i.e. results in higher trench air concentrations) reference velocity of 1.3 m/s which is the lowest monthly average wind speed reported for Long Beach from the last several years (January 2009 to April 2011) (NCDC, 2011) at a height of 10 m. The CFD model was used to monitor the decrease in concentration of a tracer uniformly distributed in the trench. The model assumed an initial concentration of 1 in the trench and zero within the atmosphere. Convection and diffusion of the tracer out of the trench was evaluated, and the reduction in the concentration in the trench over time was calculated.

The ACH was calculated following the calculation methods presented for the air exchange rate from ASTM (2011):

$$\text{ACH} = - \frac{[\ln(C_{t_2}) - \ln(C_{t_1})]}{t_2 - t_1}$$

where:

- ACH = air exchange rate per hour ( $\text{hr}^{-1}$ )
- $C_{t_2}$  = final tracer concentration at time 2

$C_{t_1}$  = initial tracer concentration at time 1  
 $t_2 - t_1$  = time interval of simulation (hr)

An ACH of approximately 20 hr<sup>-1</sup> was calculated for the trench. Derivation of the COC-specific  $VF_{\text{soil-OA}}$  for the construction and utility maintenance worker is presented in **Table A-3a**.

### ***Soil Vapor to Outdoor Air***

The conceptual exposure scenario for the construction and utility maintenance worker receptor is the same as that considered for the soil to outdoor air scenario – exposure during excavation. The volatilization factor for soil vapor to a trench was calculated using the same relationships as those used for soil, except a soil vapor source term was used. This section details the methodology for deriving the volatilization factor for the soil vapor to outdoor air pathway. The soil vapor to outdoor air  $VF_{\text{SV-OA}}$  represents the ratio of the outdoor air exposure point concentration ( $EPC_{\text{SV-OA}}$ ) to the soil vapor exposure point concentration ( $EPC_{\text{SV}}$ ) presented in the equation below:

$$VF_{\text{SV-OA}} = \frac{EPC_{\text{SV}}}{EPC_{\text{SV-OA}}}$$

Where:

$VF_{\text{SV-OA}}$  = soil vapor to outdoor air volatilization factor (mg/m<sup>3</sup> soil vapor per mg/m<sup>3</sup> outdoor air);

$EPC_{\text{SV-OA}}$  = exposure point concentration of COC in outdoor air from soil vapor (mg/m<sup>3</sup>); and

$EPC_{\text{SV}}$  = exposure point concentration, soil vapor (mg/m<sup>3</sup>).

This section presents the approach used to model vapor migration from the subsurface (using soil vapor data) to outdoor air within a utility trench where workers could potentially be exposed via inhalation. The soil vapor exposure point concentration,  $EPC_{\text{SV}}$ , was calculated from soil exposure point concentration,  $EPC_{\text{soil}}$ , using the following partitioning relationship proposed by Feenstra et al. (1991):

$$EPC_{\text{SV}} = EPC_{\text{soil}} \times \frac{H'}{K_{\text{sw}}} \times CF_1 \times CF_2$$

Where:

$EPC_{\text{SV}}$  = COC concentration in soil vapor (mg/m<sup>3</sup>);

$EPC_{\text{soil}}$  = COC concentration in soil (mg/kg);

$H'$  = COC-specific Henry's law coefficient (unitless);

- $K_{sw}$  = soil to water partition coefficient, defined above ( $\text{cm}^3\text{-water/g-soil}$ );  
 $CF_1$  = conversion factor ( $1 \times 10^{-3} \text{ kg/g}$ ); and  
 $CF_2$  = conversion factor ( $1 \times 10^{+6} \text{ cm}^3/\text{m}^3$ ).

The outdoor air concentrations of vapors from soil for a construction and utility maintenance worker can be estimated using the following relationship:

$$EPC_{OA} = \frac{EPC_{soil}}{VF_{soil-OA}}$$

Where:

- $EPC_{OA}$  = COC concentration in outdoor air ( $\text{mg}/\text{m}^3$ ) (either from soil or from soil vapor);  
 $EPC_{soil}$  = COC concentration in soil ( $\text{mg}/\text{kg}$ ); and  
 $VF_{soil-OA}$  = volatilization factor, surficial soils to outdoor (ambient) air ( $\text{m}^3\text{-air}/\text{kg-soil}$ ).

Rearranging these two equations results in the following:

$$EPC_{OA} = \frac{EPC_{soil}}{VF_{soil-OA}} = \frac{EPC_{SV}}{VF_{soil-OA}} \times \frac{K_{sw}}{H'} \times \left( \frac{1}{CF_1 \times CF_2} \right)$$

This equation was then rearranged to calculate the ratio of  $EPC_{SV-OA}$  and  $EPC_{SV}$  and provide the equation for the soil vapor to outdoor air volatilization factor,  $VF_{SV-OA}$ , for a construction and utility maintenance worker:

$$VF_{SV-OA} = \frac{EPC_{SV}}{EPC_{SV-OA}} = VF_{soil-OA} \times \frac{H'}{K_{sw}} \times (CF_1 \times CF_2)$$

Where:

- $VF_{SV-OA}$  = soil vapor to outdoor air volatilization factor ( $\mu\text{g}/\text{m}^3$  per  $\mu\text{g}/\text{m}^3$ );  
 $EPC_{SV-OA}$  = exposure point concentration of COC in outdoor air from soil vapor ( $\mu\text{g}/\text{m}^3$ ); and  
 $EPC_{SV}$  = exposure point concentration, soil vapor ( $\mu\text{g}/\text{m}^3$ ).

Derivation of the COC-specific  $VF_{SV-OA}$  for the construction and utility maintenance worker is presented in **Table A-3b**.



### **3.1.3 Vapor Emissions into Indoor Air**

Because VOCs were detected in sub-slab soil vapor at the Site, onsite residents could potentially be exposed to vapors migrating from the subsurface into indoor air. To investigate the relationship between indoor air and sub-slab soil vapor concentrations, a single regression analysis method was applied to the Site data as described in Appendix B of the main SSCG report. This analysis evaluated the relationship between indoor air concentrations and sub-slab soil vapor concentrations for a filtered dataset of sub-slab soil vapor data with concentrations  $\geq 100 \mu\text{g}/\text{m}^3$ . Based on the analysis, an upper-bound vapor intrusion attenuation factor of 0.001 was identified. This conservative upper-bound vapor intrusion attenuation factor was used to derive sub-slab soil vapor SSCGs described in Section 5.1 below.

## **4.0 TOXICITY ASSESSMENT**

The toxicity assessment characterizes the relationship between the magnitude of exposure to a COC and the nature and magnitude of adverse health effects that may result from such exposure. Consistent with regulatory risk assessment policy, adverse health effects resulting from potential chemical exposures are classified into two broad categories: carcinogens and noncarcinogens. Toxicity criteria are generally developed based on the threshold approach for noncarcinogenic effects and the non-threshold approach for carcinogenic effects.

For carcinogens, it is assumed that there is no level of exposure that does not have a finite possibility of causing cancer (i.e., there is no threshold dose for carcinogenic effects). That is, a single exposure of a carcinogen may, at any level, result in an increased probability of developing cancer. For chemicals exhibiting noncarcinogenic effects, it is believed that organisms have protective mechanisms that must be overcome before the toxic endpoint results (i.e., there is a threshold dose for these effects). For example, if a large number of cells perform the same or similar functions, it would be necessary for significant damage or depletion of these cells to occur before a toxic effect could be seen. As a result, a range of exposures exists from zero to some finite value that can be tolerated by the organism with essentially no chance of expression of adverse effects (USEPA, 1989). Some chemicals may elicit both carcinogenic and noncarcinogenic effects.

The key dose-response criteria are (i) cancer slope factors (CSFs) or inhalation unit risk factors (IURs) for estimating cancer risks from exposure to carcinogens; and (ii) reference doses (RfDs) or inhalation reference concentrations (RfCs) for estimating hazard from exposure to noncarcinogens. In addition, Cal-EPA Office of Environmental Health Hazard Assessment (OEHHA; Cal-EPA 2013) has developed chronic Reference Exposure Levels (RELs) for noncarcinogenic effects from inhalation exposures. For developing SSCGs, cancer toxicity criteria (except for trichloroethene [TCE] as discussed below) were selected from the following sources, in order of preference:

- 1) Cal-EPA OEHHA Toxicity Criteria Database, online (Cal-EPA, 2013);
- 2) USEPA's (2013a) Integrated Risk Information System (IRIS);
- 3) USEPA RSLs for Chemical Contaminants at Superfund Sites (USEPA, 2013b);
- 4) USEPA National Center of Environmental Assessment (USEPA, 2013b);
- 5) Agency for Toxic Substances Disease Registry (as reported in USEPA, 2013b); and
- 6) Health Effects Assessment Summary Tables (as reported in USEPA, 2013b).

The noncancer toxicity criteria were selected from the following sources, in order of preference:

- 1) USEPA's (2013a) IRIS database; and
- 2) Cal-EPA OEHHA Toxicity Criteria Database online (Cal-EPA, 2013).

For TCE, the USEPA inhalation IUR of  $4.1 \times 10^{-6} (\mu\text{g}/\text{m}^3)^{-1}$  and oral CSF of  $4.6 \times 10^{-2} (\text{mg}/\text{kg}\text{-day})^{-1}$  were used for derivation of SSCGs, which are consistent with the most recent USEPA published toxicity values for TCE (USEPA, 2011). Moreover, because TCE is considered carcinogenic by a mutagenic mode of action for kidney effects, separate cancer risk equations are presented for mutagens as outlined in the USEPA RSL User's Guide (USEPA, 2013c). These equations were used for TCE for the residential scenario.

At the present time, Cal-EPA and USEPA have only developed toxicity criteria for the oral and inhalation routes of exposure. As recommended by Cal-EPA and USEPA, in the absence of values specific to the dermal route, the oral toxicity criteria were used to evaluate dermal exposures. In addition, route-to-route extrapolation between ingestion and inhalation routes of exposure was used for those chemicals for which toxicity criteria are extrapolated in the USEPA Region 9 Preliminary Remedial Goal (PRG) table (USEPA, 2004a). This can be considered a conservative approach as current USEPA RSL guidance (USEPA, 2013b) does not include the route-to-route extrapolation. For some of the COCs, neither Cal-EPA nor USEPA have identified a toxicity value. In these cases, a surrogate chemical approach was employed in which the toxicity value developed for a structurally similar compound was assigned to the COC which is lacking the toxicity value (e.g., hexane for heptane).

Toxicity values for TPH have not been published by Cal-EPA OEHHA or USEPA. Toxicity factors for TPH have been suggested by Cal-EPA Department of Toxic Substances Control (Cal-EPA, 2009a). Even though these toxicity factors for TPH have not gone through the same level of peer review as the other toxicity factor references used for the other COCs, the toxicity factors presented in Cal-EPA DTSC TPH guidance were used for TPH SSCGs. These values were presented in a letter from Geosyntec dated August 15, 2011 describing the derivation of RBSLs for TPH (TPH RBSL Letter; Geosyntec, 2011), which was approved by the LARWQCB on November 14, 2011.

The traditional RfD approach to the evaluation of chemicals is not applied to lead because most adverse human health effects data associated with exposure to lead have been correlated with concentrations of lead in blood and not with intake of lead by an individual (Cal-EPA, 1996). In the absence of RfDs, Cal-EPA uses a 1 microgram per deciliter ( $\mu\text{g}/\text{dL}$ ) benchmark for source-specific incremental change in blood lead levels for protection of children and fetuses (Cal-EPA, 2007) as the revised health criterion for lead. This benchmark is the estimated incremental increase in a child's blood lead level that would reduce their IQ by up to 1 point. Based on this revised benchmark of 1  $\mu\text{g}/\text{dL}$ , Cal-EPA has recommended a revised residential California Human Health Screening Level (CHHSL) of 80 mg/kg.

For the resident potentially exposed to deeper soils for a limited time and the construction and utility maintenance worker, the SSCGs were calculated using the CHHSL methodology for residential and industrial/commercial worker adjusted for exposure frequency and ingestion rate using the Adult Lead Model (ALM) as recommended by Cal-EPA. According to USEPA's 2003 guidance *Assessing Intermittent or Variable Exposures at Lead Sites* and supporting documentation for the ALM, a minimum exposure frequency and exposure duration of 1 day per week for 3 months should be used to account for the model's steady-state assumption. In addition, a central tendency ingestion rate value of 100 mg/day is recommended for construction workers. Therefore, these input parameters were used for adult lead exposures. For the residential exposure it was assumed that an adult resident would be the most likely individual to contact deeper soils while conducting activities such as planting a tree.

A summary of the cancer and noncancer toxicity criteria for the COCs is presented in **Table A-4**.

## **5.0 SITE-SPECIFIC CLEANUP GOALS**

This section presents the methodology that was used to derive SSCGs for onsite residents and for the construction and utility maintenance worker that may be present at the Site and have the potential to be exposed to residual chemicals present in soil and soil vapor.

### **5.1 Risk-based SSCG Methodology**

Deriving risk-based SSCGs for COCs in soil, sub-slab soil vapor, and soil vapor requires information regarding the level of human intake of the COC (exposure assessment), the relationship between intake of the chemical and its toxicity (toxicity assessment), and the acceptable target risk. The sections below present the equations that were used in the development of the SSCGs for soil, sub-slab soil vapor, and soil vapor. The methodology that was used to derive SSCGs is based principally on guidelines provided by the USEPA in *Risk Assessment Guidance for Superfund, Volume I, Human Health Evaluation Manual*

(Part A), *Interim Final* (USEPA, 1989) and in the *Soil Screening Guidance* (USEPA, 2002) and by the DTSC in *Preliminary Endangerment Assessment Guidance Manual* and in *Recommended DTSC Default Exposure Factors For Use In Risk Assessment At California Military Facilities* (Cal-EPA, 1999 and 2011a).

Various demarcations of acceptable risk have been established by regulatory agencies. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP; 40 CFR 300) indicates that lifetime incremental cancer risks posed by a site should not exceed a range of one in one million ( $1 \times 10^{-6}$ ) to one hundred in one million ( $1 \times 10^{-4}$ ) and noncarcinogenic chemicals should not be present at levels expected to cause adverse health effects (i.e., a Hazard Index [HI] greater than 1). In addition, other relevant guidance (USEPA, 1991b) states that sites posing a cumulative cancer risk of less than  $10^{-4}$  and hazard indices less than unity (1) for noncancer endpoints are generally not considered to pose a significant risk warranting remediation. The California Hazardous Substances Account Act (HSAA) incorporates the NCP by reference, and thus also incorporates the acceptable risk range set forth in the NCP. The Safe Drinking Water and Toxic Enforcement Act of 1986 (California Proposition 65) regulates chemical exposures to the general population and is based on an acceptable risk level of  $1 \times 10^{-5}$ . The DTSC considers the  $1 \times 10^{-6}$  risk level as the generally accepted point of departure for unrestricted land use.

Under most situations, cancer risks in the range of  $1 \times 10^{-6}$  to  $1 \times 10^{-4}$  may be considered to be acceptable with cancer risks less than  $10^{-6}$  considered insignificant. The risk range between  $10^{-6}$  and  $10^{-4}$  is commonly called the “discretionary risk range.” This risk range is in addition to the background risk of Americans in the general population developing cancer from causes unrelated to a Site-specific exposure. The background risk is one chance in three (0.3 or  $3 \times 10^{-1}$ ) for an American female, and one chance in two (0.5 or  $5 \times 10^{-1}$ ) for an American male of eventually developing cancer (ACS, 2013).

A target cancer risk level of  $1 \times 10^{-6}$  was used to derive SSCGs for onsite residents. For the construction and utility maintenance worker, the SSCGs were derived using a target cancer risk level of  $1 \times 10^{-5}$  (the “mid-point” of the risk management range and commonly used for managing commercial/industrial land uses). A target HI of 1 was used for noncarcinogens for all exposure scenarios. These risk levels are used to provide context to the risk results and to support the following discussion which focuses on those pathways and chemicals that contribute the majority to the risk estimates. It is acknowledged that additional risk management considerations such as technical feasibility, economic, social, political, and legal factors may be part of the final risk management decision. The results of the risk characterization are really the starting point for risk management considerations for a site (USEPA, 1995).

### 5.1.1 SSCGs Based on Cancer Health Effects

The SSCG equations below describe the established relationship between estimated intake, toxicity, and potential risk for cancer health effects (USEPA, 1989).

For COCs in soil:

$$SSCG_{\text{soil-c}} = \frac{TR}{(CSF_{\text{oral}}) \times (IF_{\text{oral}} + IF_{\text{dermal}}) + (IUR) \times (EC_{\text{inh,soil}})}$$

For COCs in soil vapor for the construction and utility maintenance worker:

$$SSCG_{\text{sv-c}} = \frac{TR}{(IUR) \times (EC_{\text{SV-OA}})}$$

For COCs in sub-slab soil vapor for the onsite resident:

$$SSCG_{\text{ss-sv-c}} = \frac{TR}{(IUR) \times (EC_{\text{SS-SV-IA}})}$$

Where:

- SSCG<sub>soil-c</sub> = Site-specific cleanup goal for soil based on cancer effects (mg/kg);
- TR = target cancer risk level (unitless);
- CSF<sub>oral</sub> = cancer slope factor for oral (ingestion and dermal contact) exposures (mg/kg·d)<sup>-1</sup>;
- IF<sub>oral</sub> = intake factor for ingestion (kg soil per kg body weight per day);
- IF<sub>dermal</sub> = intake factor for dermal contact (kg soil per kg body weight per day);
- IUR = inhalation unit risk factor (μg/m<sup>3</sup>)<sup>-1</sup>;
- EC<sub>inh,soil</sub> = exposure concentration for inhalation of COCs from soil (mg/m<sup>3</sup> per mg/kg);
- SSCG<sub>sv-c</sub> = Site-specific cleanup goal for soil vapor to outdoor air based on cancer effects (mg/m<sup>3</sup>);
- EC<sub>SV-OA</sub> = exposure concentration for outdoor inhalation (mg/m<sup>3</sup> per mg/m<sup>3</sup>);
- SSCG<sub>ss-sv-c</sub> = Site-specific cleanup goal for sub-slab soil vapor to indoor air based on cancer effects (mg/m<sup>3</sup>); and
- EC<sub>SS-SV-IA</sub> = exposure concentration for indoor inhalation (mg/m<sup>3</sup> per mg/m<sup>3</sup>).

The formulas for developing the soil intake factors for ingestion and dermal contact, as well as for developing the exposure concentrations for soil, sub-slab soil vapor, and soil vapor are presented in **Tables A-5 through A-9**. The exposure parameters that were used to estimate

the intake factors and exposure concentrations are presented in **Table A-1**. The SSCGs for soil and sub-slab soil vapor are presented in **Tables A-10** and **A-11**, respectively, for the onsite resident. The SSCGs for soil and soil vapor are presented in **Tables A-12** and **A-13**, respectively, for the construction and utility maintenance worker. SSCG calculations are presented in **Attachment A1**.

### 5.1.2 SSCGs Based on Noncancer Health Effects

The SSCG equations below describe the established relationship between estimated intake, toxicity, and risk for noncancer health effects (USEPA, 1989).

For COCs in soil:

$$SSCG_{\text{soil-nc}} = \frac{THI}{\left(\frac{IF_{\text{oral}}}{RfD_{\text{oral}}}\right) + \left(\frac{IF_{\text{dermal}}}{RfD_{\text{oral}}}\right) + \left(\frac{EC_{\text{inh,soil}}}{RfC}\right)}$$

For COCs in soil vapor for the construction and utility maintenance worker:

$$SSCG_{\text{sv-c}} = \frac{THI}{\left(\frac{EC_{\text{SV-OA}}}{RfC}\right)}$$

For COCs in sub-slab soil vapor for the onsite resident:

$$SSCG_{\text{ss-sv-nc}} = \frac{TR}{(IUR) \times (EC_{\text{SS-SV-IA}})}$$

Where:

- $SSCG_{\text{soil-nc}}$  = Site-specific cleanup goal for soil based on noncancer effects (mg/kg);
- $THI$  = target noncancer hazard index (unitless);
- $IF_{\text{oral}}$  = intake factor for ingestion (kg soil per kg body weight per day);
- $RfD_{\text{oral}}$  = noncancer reference dose for oral (ingestion and direct-contact) exposures (mg/kg·d);
- $IF_{\text{dermal}}$  = intake factor for dermal contact (kg soil per kg body weight per day);
- $EC_{\text{inh,soil}}$  = exposure concentration for inhalation of COCs from soil (mg/m<sup>3</sup> per mg/kg from soil);
- $RfC$  = noncancer reference concentration for inhalation exposure (mg/m<sup>3</sup>);
- $SSCG_{\text{sv-nc}}$  = Site-specific cleanup goal for soil vapor to outdoor air based on noncancer effects (mg/m<sup>3</sup>);

- $EC_{SV-OA}$  = exposure concentration for outdoor inhalation of COCs ( $\text{mg}/\text{m}^3$  soil vapor per  $\text{mg}/\text{m}^3$  outdoor air);
- $SSCG_{SS-SV-nc}$  = Site-specific cleanup goal for sub-slab soil vapor to indoor air based on noncancer effects ( $\text{mg}/\text{m}^3$ ); and
- $EC_{SS-SV-IA}$  = exposure concentration for indoor inhalation ( $\text{mg}/\text{m}^3$  per  $\text{mg}/\text{m}^3$ ).

The formulas for developing the soil intake factors for ingestion and dermal contact, as well as for developing the exposure concentrations for soil, sub-slab soil vapor, and soil vapor are presented in **Tables A-5** through **A-9**. The exposure parameters that were used to estimate the intake factors and exposure concentrations are presented in **Table A-1**. The SSCGs for soil and sub-slab soil vapor are presented in **Tables A-10** and **A-11**, respectively, for the onsite resident. The SSCGs for soil and soil vapor are presented in **Tables A-12** and **A-13**, respectively, for the construction and utility maintenance worker. SSCG calculations are presented in **Attachment A1**.

### 5.1.3 TPH Fraction-Specific SSCGs

TPH compounds include a wide range of chemicals that are found in crude oils, petroleum products, and other petroleum-related materials. Because TPH mixtures can encompass a large range of hydrocarbons, chemical properties and environmental behavior vary widely among the many hundreds of compounds present in these mixtures. Methods to evaluate potential risks associated with TPH analytical results have been published in state and national working group guidance documents including the DTSC (Cal-EPA, 2009a), the Total Petroleum Hydrocarbon Criteria Working Group (TPHCWG, 1997ab; 1998ab; 1999), and Massachusetts Department of Environmental Protection (MADEP, 2002; 2003). Approaches presented in these documents were used to develop SSCGs for comparison to TPH data collected at the Site.

TPH may refer to a variety of products or wastes, but for the soil samples collected at the Site and analyzed by USEPA Method 8015B (M)<sup>3</sup>, analytical results are grouped into three product ranges according to the number of carbon chain atoms:

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<sup>3</sup> Results from USEPA Method 8015B (M) are equivalent to USEPA Method 8015C for TPH analysis.

<b>TPH Product Range</b>	<b>Carbon Chain Range</b>
TPH <sub>gasoline</sub> (TPH <sub>g</sub> )	C <sub>4</sub> – C <sub>12</sub>
TPH <sub>diesel</sub> , (TPH <sub>d</sub> )	C <sub>10</sub> – C <sub>22</sub>
TPH <sub>motor oil</sub> (TPH <sub>mo</sub> )	C <sub>17</sub> – C <sub>44</sub>

TPH product range concentrations reported (i.e., TPH<sub>g</sub>, TPH<sub>d</sub> or TPH<sub>mo</sub>) do not necessarily indicate the presence of gasoline, diesel, or motor oil, only that there are hydrocarbons present that fall in those specific carbon-chain length ranges. In addition, there is some variability in the carbon chain range reported by the analytical laboratories.

For each of the carbon chain ranges, two different types of compounds or fractions may be present: aliphatic or aromatic. Therefore, TPH fractionation analysis was performed on soil and soil vapor samples to refine the TPH characterization. In the TPH fractionation analysis, aliphatic and aromatic fractions are quantified consistent with the Cal-EPA Interim TPH Guidance (Cal-EPA, 2009a). These TPH fractions are:

<b>TPH Product Range</b>	<b>Aliphatic Fraction</b>	<b>Aromatic Fraction</b>
Light	C <sub>5</sub> – C <sub>8</sub>	C <sub>6</sub> – C <sub>8</sub>
Medium	C <sub>9</sub> – C <sub>18</sub>	C <sub>9</sub> – C <sub>16</sub>
Heavy	C <sub>19</sub> – C <sub>32</sub>	C <sub>17</sub> – C <sub>32</sub>

Both types of analyses (i.e., product range analysis and fractionation analysis) have been conducted at the Site, and the TPH fractionation analytical results are used in the derivation of SSCGs for product-range TPH results as described in later sections.

The fraction-specific SSCGs for soil, sub-slab soil vapor, and soil vapor are presented below:



TPH Fractions	Onsite Resident			Construction and Utility Maintenance Worker	
	Soil SSCG (EF350) (mg/kg)	Soil SSCG (EF4) (mg/kg)	Sub-Slab Soil Vapor SSCG ( $\mu\text{g}/\text{m}^3$ )	Soil SSCG (mg/kg)	Soil Vapor SSCG ( $\mu\text{g}/\text{m}^3$ )
Aliphatic: C <sub>5</sub> -C <sub>8</sub>	7.1E+02	6.2E+04	7.3E+05	8.3E+02	1.2E+09
Aliphatic: C <sub>9</sub> -C <sub>18</sub>	1.4E+03	1.3E+05	3.1E+05	1.6E+03	1.2E+08
Aliphatic: C <sub>19</sub> -C <sub>32</sub>	1.1E+05	1.0E+07	--	5.5E+06	--
Aromatic: C <sub>6</sub> -C <sub>8</sub>	--	--	--	--	--
Aromatic: C <sub>9</sub> -C <sub>16</sub>	6.0E+02	5.3E+04	5.2E+04	7.5E+02	6.7E+06
Aromatic: C <sub>17</sub> -C <sub>32</sub>	1.7E+03	1.5E+05	--	8.3E+04	--

Notes:

- EF: exposure frequency; 350 days/year for a typical resident and 4 days/year for a resident who infrequently contacts subsurface soils.
- “ -- ” not calculated
- SSCGs for the C<sub>6</sub>-C<sub>8</sub> aromatic fraction are not calculated because individual constituents in this fraction (i.e., benzene, toluene, ethylbenzene) were analyzed.
- Sub-slab soil vapor and soil vapor SSCGs for the C<sub>19</sub>-C<sub>32</sub> aliphatic and C<sub>17</sub>-C<sub>32</sub> aromatic fractions are not calculated because the volatility of these fractions are low and no RfC is available for these fractions.

#### 5.1.4 SSCGs for TPH Product Ranges

Fraction-specific soil, sub-slab soil vapor, and soil vapor SSCGs for the different TPH fraction ranges presented above are used to derive soil, sub-slab soil vapor, and soil vapor SSCGs for TPH product ranges: TPH gasoline (TPH<sub>g</sub>), TPH diesel (TPH<sub>d</sub>), and TPH motor oil (TPH<sub>mo</sub>). Fractionation results from soil samples collected through February 24, 2011 were used to evaluate the aromatic/aliphatic composition of the different TPH ranges. The analytical results correlation analysis was presented in a letter to the RWQCB dated August 15, 2011 (Geosyntec, 2011). The aromatic/aliphatic ratios for each TPH range are as follows:

- Light Range TPH = 0.03
- Medium Range TPH = 1.3
- Heavy Range TPH = 1.0

The carbon number ranges used in the TPH product range (TPH<sub>g</sub>, TPH<sub>d</sub>, and TPH<sub>mo</sub>) analyses are different from those used in the TPH fractionation analyses. As a result, there is overlap in the product range carbon-chain values and what is encompassed by the fraction results. Consequently, the contribution to the TPH product range from the different aliphatic and aromatic fractions was estimated based on a comparison of the carbon ranges

encompassed by the different analyses (Geosyntec, 2011). The following contributions were assumed:

- TPH<sub>g</sub>: 50% contribution from the light fractions and 50% contribution from the medium fractions;
- TPH<sub>d</sub>: 50% contribution from the medium fractions and 50% contribution from the heavy fractions; and
- TPH<sub>mo</sub>: 100% contribution from the heavy fractions.

The following equation was used to derive the SSCGs for TPH<sub>g</sub>, TPH<sub>d</sub>, and TPH<sub>mo</sub>:

$$SSCG (TPH_g, TPH_d, TPH_{mo}) = 100\% \times \left[ \sum \frac{\text{Fraction \%}}{\text{Fraction SSCG}} \right]^{-1}$$

Where:

Fraction % = % contribution of TPH fraction to product range TPH (unitless); and

Fraction SSCG = Site-specific cleanup goal determined above for the different TPH fraction (soil in mg/kg; sub-slab soil vapor and soil vapor in  $\mu\text{g}/\text{m}^3$ ).

The following table summarizes the SSCG calculations for TPH<sub>g</sub>, TPH<sub>d</sub>, and TPH<sub>mo</sub>:

TPH Product Ranges	% Contribution to Product Range TPH	Aromatic/Aliphatic Ratio	% Contribution of TPH Fraction	Onsite Resident			Construction and Utility Maintenance Worker	
				Soil SSCG (EF350) (mg/kg)	Soil SSCG (EF4) (mg/kg)	Sub-Slab Soil Vapor SSCG ( $\mu\text{g}/\text{m}^3$ )	Soil SSCG (mg/kg)	Soil Vapor SSCG ( $\mu\text{g}/\text{m}^3$ )
<b>TPH-g</b>								
<i>Light Fraction</i>	50%	0.03						
Aliphatic: C <sub>5</sub> -C <sub>8</sub>			49%	7.1E+02	6.2E+04	7.3E+05	8.3E+02	1.2E+09
Aromatic: C <sub>6</sub> -C <sub>8</sub>			1%	6.0E+02	5.3E+04	5.2E+04	7.5E+02	6.7E+06
<i>Medium Fraction</i>	50%	1.3						
Aliphatic: C <sub>9</sub> -C <sub>18</sub>			22%	1.4E+03	1.3E+05	3.1E+05	1.6E+03	1.2E+08
Aromatic: C <sub>9</sub> -C <sub>16</sub>			28%	6.0E+02	5.3E+04	5.2E+04	7.5E+02	6.7E+06
<b>TPH-g =</b>				<b>7.6E+02</b>	<b>6.6E+04</b>	<b>1.4E+05</b>	<b>9.0E+02</b>	<b>2.2E+07</b>
<b>TPH-d</b>								
<i>Medium Fraction</i>	50%	1.3						
Aliphatic: C <sub>9</sub> -C <sub>18</sub>			22%	1.4E+03	1.3E+05	3.1E+05	1.6E+03	1.2E+08
Aromatic: C <sub>9</sub> -C <sub>16</sub>			28%	6.0E+02	5.3E+04	5.2E+04	7.5E+02	6.7E+06
<i>Heavy Fraction</i>	50%	1.0						
Aliphatic: C <sub>19</sub> -C <sub>32</sub>			25%	1.1E+05	1.0E+07	--	5.5E+06	--
Aromatic: C <sub>17</sub> -C <sub>32</sub>			25%	1.7E+03	1.5E+05	--	8.3E+04	--
<b>TPH-d =</b>				<b>1.3E+03</b>	<b>1.1E+05</b>	<b>1.6E+05</b>	<b>1.9E+03</b>	<b>2.3E+07</b>
<b>TPH-mo</b>								
<i>Heavy Fraction</i>	100%	1.0						
Aliphatic: C <sub>19</sub> -C <sub>32</sub>			49%	1.1E+05	1.0E+07	--	5.5E+06	--
Aromatic: C <sub>17</sub> -C <sub>32</sub>			51%	1.7E+03	1.5E+05	--	8.3E+04	--
<b>TPH-mo =</b>				<b>3.3E+03</b>	<b>2.9E+05</b>	<b>--</b>	<b>1.6E+05</b>	<b>--</b>

Note: Because individual C<sub>6</sub>-C<sub>8</sub> aromatic constituents are evaluated separately, SSCG for C<sub>9</sub>-C<sub>16</sub> aromatic fraction used for evaluation

## 5.2 Background-based SSCG Methodology

Metals may be naturally occurring in the environment. According to the DTSC (Cal-EPA DTSC 1997, 2009a, 2009c, 2009d, 2011b) for naturally occurring materials such as metals, an evaluation of background concentrations is important to evaluate whether the metals concentrations on the property are consistent with naturally occurring levels in the area, and whether they should be included in the risk assessment. If concentrations of a metal are within background, the metal is not considered a COC and is not evaluated further.

In addition to metals, cPAHs can be naturally occurring or present at ambient levels not associated with former Site activities. A background dataset and methodology has been developed by DTSC that can be used to evaluate the presence of cPAHs in soil as benzo(a)pyrene equivalents (Cal-EPA DTSC, 2009c). Soil samples collected from the Site were analyzed by USEPA Method 8270 and USEPA Method 8270SIM and include the carcinogenic PAHs (cPAHs) that are commonly considered in the benzo(a)pyrene

equivalents calculation as presented in the Cal-EPA DTSC background PAH methodology document (Cal-EPA DTSC, 2009c) as well as other PAHs that are considered carcinogenic (e.g. naphthalene).

Benzo(a)pyrene equivalent concentrations are calculated for this Site data using a toxicity equivalency factor (TEF) approach. TEFs are based on shared characteristics that can be used to rank the class of chemicals by carcinogenic potency. The ranking procedure is accomplished by referencing the chemicals to the characteristics and potency of benzo(a)pyrene, which is often used as the reference chemical for expressing the carcinogenic potency of the other cPAHs. Therefore, the cPAHs are indexed to benzo(a)pyrene to generate their TEFs. The TEFs are listed below for the seven cPAHs based on Cal-EPA guidance (Cal-EPA, 2009c):

cPAHs	TEFs
Benzo(a)anthracene	0.1
Benzo(a)pyrene	1.0
Benzo(b)fluoranthene	0.1
Benzo(k)fluoranthene	0.1
Chrysene	0.01
Dibenzo(a,h)anthracene	0.34
Indeno(1,2,3-cd)pyrene	0.1

Background-based SSCGs for metals and cPAHs were developed for the Site consistent with USEPA and Cal-EPA methodologies as presented in **Attachment A2** using local and regional background datasets. The background-based SSCGs are presented in **Table A-14**. These values represent Background Threshold Values (BTVs) which are single-point background thresholds that represent an upper plausible limit of the background distributions of individual compounds (USEPA, 2009a; 2009b; Helsel, 2005). These values are commonly used to evaluate site data and to determine if site concentrations are above background. In addition to the BTVs, Site data can be evaluated using guidance from Cal-EPA (Cal-EPA, 1997) to determine if Site concentrations are consistent with background.

Due to the preponderance of Site data (over 10,000 samples and 265 individual study areas), a streamlined approach was developed to evaluate background at the Site. In the first step, an upper-bound concentration from Site samples will be compared to the BTVs to evaluate whether onsite metal or cPAH concentrations are above or below background concentrations. In the second step, for chemicals that are present at concentrations above the BTV, a one-sample proportion test will be used to compare the Site data with the BTVs. This is consistent with agency guidance that states that when BTVs and cleanup standards

are known, one-sample hypotheses are used to compare site data with the known and pre-established threshold values (USEPA, 2010). If warranted, additional analysis using Site data and methodologies using guidance from Cal-EPA (Cal-EPA, 1997) will be used.

If onsite concentrations are below background, the area will not be evaluated further in the risk assessment process for that chemical. The background comparison will be conducted as part of the full Human Health Risk Assessment (HHRA) that will be conducted for preparation of the RAP. It is anticipated that the HHRA will be included in the RAP.

### 5.3 Soil Leaching to Groundwater Methodology

#### 5.3.1 The LARWQCB Attenuation Factor Method for VOCs

The Attenuation Factor Method for VOCs, described in the Los Angeles Regional Water Quality Control Board “Interim Site Assessment & Cleanup Guidebook” (the Water Board approach, LARWQCB, 1996), provides an approach to estimate soil cleanup goals for the protection of groundwater quality based on physical properties of a site and chemical properties of the VOCs. A soil-to-soil-leachate attenuation factor is calculated in a three-step process:

- 1) Estimate a liquid phase contaminant concentration ( $C_i$ ) that is in equilibrium with the solid phase and the air phase in the vadose zone soil, using the site-specific soil physical parameters as well as the partitioning coefficients between the three phases (i.e., soil/water partitioning coefficient,  $K_d$ , and the Henry’s Law Constant,  $K_H$ ):

$$C_i = \frac{C_T}{\theta_W + \rho_b f_{oc} K_{oc} + (n - \theta_W) K_H}$$

where  $C_T$  is the total soil concentration,  $\theta_W$  is the soil water content by volume,  $n$  is the soil porosity, and  $f_{oc}$  is the soil organic content. Then an AF, the ratio of the liquid phase concentration and the total soil concentration, can be calculated as:

$$AF = 1 + \frac{\rho_b}{\theta_W} f_{oc} K_{oc} + (n - \theta_W) \frac{K_H}{\theta_W}$$

for chemicals where site-specific  $K_d$  is available, the  $f_{oc} K_{oc}$  term in the above equation can be simply replaced by  $K_d$ .

- 2) Adjust the AF due to distance above groundwater. The hydrogeological information in the Los Angeles area suggests that the soil column can be divided into three zones: (1) a “smear zone”, due to groundwater level fluctuation, immediately above groundwater table (0 - 40 ft above water table); (2) a second modification zone between 40 and 150 ft above water table; (3) No-modification zone (distance greater than 150 ft above water table). Based on a VLEACH modeling study, the AF at the top of the smear zone is reduced as one-tenth of the original AF calculated in step one. Subsequently the AF at each specific depth ( $AF_D$ ) can be quantified by linear interpolation. The equations used are listed below:

$$\text{For } D > 150: \quad AF_D = AF$$

$$\text{For } 40 < D \leq 150: AF_D = \left( \frac{0.9(D-40)}{110} + 0.1 \right) \times AF$$

$$\text{For } D \leq 40: \quad AF_D = D \left( \frac{0.1AF-1}{40} \right) + 1$$

where D is the total depth of the site soil.

- 3) Modify  $AF_D$  according to site lithology. The steady infiltration rates of different soil types are reported to have a 1:5:10:20 ratio between clay:silt/clay:sand/silt:gravel/sand. Therefore, once the site lithology is known, the final AF ( $AF_T$ ) can be obtained by adjusting  $AF_D$  based on the following equation:

$$AF_T = \frac{AF_D}{D} \left( \frac{TGR}{20} + \frac{TSA}{10} + \frac{TSI}{5} + \frac{TCL}{1} \right)$$

where D is the total depth of the site soil, TRG, TSA, TSI, and TCL are the total depths of gravel, sand, silt/clay, and clay, respectively. Note that since site-specific soil physical data are available and used in Step One, and the Site soil type is assumed to be entirely sand, Step Three was not conducted in the calculation for the Kast Site to avoid double-counting the effect of soil type.

### 5.3.2 The USEPA RSL Soil Cleanup Goal Method for Metals

Since the LARWQCB approach is only suitable for VOCs, the USEPA Regional Screening Level (RSL) approach (USEPA, 2013c) for the soil-to-groundwater pathway soil screening level was adapted for metals SSCG development. The RSL approach employs a partitioning equation that considers both the contaminant equilibrium between the solid, liquid, and air phase in soil and the dilution of leachate when entering the groundwater. The equation is listed below:

$$C_{cleanup} = C_W \times DAF \times \left[ Kd + \frac{\theta_W + \theta_a K_H}{\rho_b} \right]$$

Where  $C_W$  is the groundwater quality criterion, DAF is the leachate-to-groundwater dilution attenuation factor (described in the next section),  $Kd$  is the soil/water partitioning coefficient, and  $\theta_a$  is air-filled porosity.  $Kd$  can be calculated by:

$$Kd = Koc \times foc$$

### 5.3.3 SAM Model DAF Method

The Soil Attenuation Model (SAM), developed by Connor, et al., 1997, uses a simple box model to quantify the dilution of dissolved COCs when soil leachate mixes with lateral groundwater flow. When leachate vertically migrates to the water-bearing unit through infiltration, a contaminant will be diluted by the lateral groundwater flow in the mixing zone. Assuming perfect mixing, the groundwater concentration can be calculated based on

mass balance. Infiltration rate, mixing zone height, and groundwater Darcy velocity are required for such a mass-balance accounting.

To estimate the infiltration rate ( $I_f$ ), an empirical relationship between net infiltration and annual precipitation has been developed based upon a database of 140 sites from 18 geographic regions (Connor, et al., 1997). For the sand soil type of the Site, the relationship is:

$$I_f = 0.0018 \times P^2$$

where P is the annual precipitation.

To estimate the mixing zone height ( $\delta_{gw}$ ), the following equation (adapted from the USEPA Soil Screening Guidance) is used:

$$\delta_{gw} = \sqrt{2 \cdot \alpha_v \cdot W} + b[1 - \exp(\frac{-I_f \cdot W}{U_{gw} \cdot b})]$$

where  $\alpha_v$  is the vertical groundwater dispersivity, W is the lateral width of affected soil zone in direction of groundwater flow, b is the aquifer thickness,  $U_{gw}$  is the groundwater Darcy velocity. In the case where equation 5 results in a  $\delta_{gw}$  that is larger than the aquifer thickness b, b is used as the mixing zone height.

$\alpha_v$ , and  $U_{gw}$  are calculated by:

$$\alpha_v = 0.0056 \times W$$

$$U_{gw} = K \cdot i$$

where K is the hydraulic conductivity, and i is the hydraulic gradient of the water-bearing unit.

Finally the Dilution Attenuation Factor (DAF) can be obtained by:

$$DAF = 1 + \frac{U_{gw} \cdot \delta_{gw}}{I_f \cdot W}$$

Parameters used for the LARWQCB and USEPA methods are listed in **Table A-15**. SAM DAF calculation is presented in **Table A-16**. The site-specific cleanup goals based on soil leaching to groundwater are summarized in **Table A-17**, and the detailed calculations are appended in **Attachment A-3**.



### 5.3.4 Example Calculation

An example calculation is provided below for benzene:

#### 1). AF calculation.

First, the unadjusted AF is calculated using Site soil data and the physical properties of benzene:

$$\begin{aligned} AF &= 1 + \frac{\rho_b}{\theta_w} K_d + (n - \theta_w) \frac{K_H}{\theta_w} \\ &= 1 + \frac{1.54 \text{ g/cm}^3}{0.239} \times 28 \frac{\text{mL}}{\text{g}} + (0.421 - 0.239) \frac{0.227}{0.239} \\ &= 180 \end{aligned}$$

Second, the depth adjusted  $AF_D$  is calculated. For example, for 50 ft depth:

$$\begin{aligned} AF_{D,50} &= \left( \frac{0.9(D - 40)}{110} + 0.1 \right) \times AF = \left( \frac{0.9(50 - 40)}{110} + 0.1 \right) \times 180 \\ &= 33 \end{aligned}$$

The Site groundwater table is between 50 to 60 ft bgs. Therefore, as a conservative measure, the  $AF_D$  at 50 ft of 33 is used to calculate the soil cleanup goal.

#### 2). DAF calculation

The annual precipitation at the Site is estimated as 34.5 cm/yr based on the meteorological data from the Torrance, CA weather Station in the SESOIL meteorological database. The infiltration rate is then calculated as:

$$I_f = 0.0018 \times 34.5 \text{ cm/yr}^2 = 0.0214 \text{ m/yr}$$

The lateral width of affected soil zone in the direction of the groundwater flow is estimated as 184 m based on the area of highest benzene concentrations from 2011 2<sup>nd</sup> quarter and 2013 2<sup>nd</sup> quarter groundwater monitoring data. Using this, the vertical groundwater dispersivity is obtained:

$$\alpha_v = 0.0056 \times 184 \text{ m} = 1.03 \text{ m}$$

Using a default hydraulic conductivity of 2.5 m/day for the fine sand soil type (Todd, 1980), and the Site hydraulic gradient of 0.002 m/m (estimated using the 2013 2<sup>nd</sup> quarter groundwater monitoring data), groundwater Darcy velocity is calculated as:

$$U_{gw} = K \cdot i = 2.5 \frac{m}{day} \times 0.002 \frac{m}{m} = 1.8 \frac{m}{yr}$$

The aquifer thickness,  $b$ , was estimated as 11.3 m assuming the top of the Gage aquifer is the lower boundary of the shallow water-bearing unit. Subsequently the mixing zone height,  $\delta_{gw}$ , can be obtained:

$$\begin{aligned} \delta_{gw} &= \sqrt{2 \cdot \alpha_v \cdot W} + b \left[ 1 - \exp\left(\frac{-I_f \cdot W}{U_{gw} \cdot b}\right) \right] \\ &= \sqrt{2 \cdot 1.03m \cdot 184m} + 11.3m \times \left[ 1 - \exp\left(\frac{-0.0214m/yr \cdot 184m}{1.8m/yr \cdot 11.3m}\right) \right] \\ &= 21.4 m \end{aligned}$$

Since this value is larger than the aquifer thickness, the aquifer thickness, 11.3 m, is then used as the mixing zone height. The DAF is finally calculated as:

$$DAF = 1 + \frac{U_{gw} \cdot \delta_{gw}}{I_f \cdot W} = 1 + \frac{1.8m/yr \cdot 21.4m}{0.0214m \cdot yr \cdot 184m} = 6.24$$

### 3). Soil cleanup goal calculation

For benzene, the California MCL is 1  $\mu\text{g/L}$ , therefore the soil cleanup goal is finally calculated as:

$$C_{cleanup} = \frac{MCL \times DAF \times AF}{\rho_b} = \frac{1\mu\text{g/L} \times 6.24 \times 33}{1.54 \text{ kg/L}} = 133 \text{ mg/kg}$$

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# TABLES

Table A-1  
Exposure Parameters  
Former Kast Property  
Carson, California

Parameter	Units	Onsite Resident		Source	Onsite Construction and Utility Maintenance Worker	Source
		Adult	Child			
IR	Soil ingestion rate mg/d	100	200	(1,2)	330	(1)
SA	Skin surface area cm <sup>2</sup>	5,700	2,800	(1,3)	5,700	(1)
AF	Soil-to-skin adherence factor	0.07	0.2	(1,3)	0.8	(1)
EF	Exposure frequency d/yr	350	350	(1,2)	10	PJ
	Infrequent exposure to subsurface soils d/yr	4	4	PJ	--	
ED	Exposure duration yr	24	6	(1,2)	25	(2)
ET	Exposure time hours	24	24	(2)	20 m <sup>3</sup> /day for the 8 hour workday	(1)
BW	Body weight kg	70	15	(1,2)	70	(1,2)
AT <sub>c</sub>	Averaging time for carcinogenic effects d	25,550	25,550	(1,2)	25,550	(1,2)
AT <sub>nc</sub>	Averaging time for noncarcinogenic effects d	8,760	2,190	(1,2)	9,125	(1,2)

Note:

“--” not applicable; “PJ” Professional Judgement

Source:

- (1) Cal-EPA 2011a. Human Health Risk Assessment (HHRA) Note. Office of Human and Ecological Risk (HERO) HHRA Note Number 1. Recommended DTSC Default Exposure Factors For Use In Risk Assessment At California Hazardous Waste Sites and Permitted Facilities. Issued: May 20, 2011.
- (2) USEPA 1991c. RAGS. Volume I: Human Health Evaluation Manual - Supplemental Guidance. Standard Default Exposure Factors. Interim Final. OSWER Directive 9285.6-03.
- (3) USEPA 2004b. RAGS. Volume I: Human Health Evaluation Manual (Part E. Supplemental Guidance for Dermal Risk Assessment), Interim Guidance. EPA/540/R-99/005



Table A-2  
 Definition of Transfer Factors  
 Former Kast Property  
 Carson, California

Exposure Route	Transfer Factor	Definition
Inhalation of particulates in outdoor air	Particulate emission factor (PEF) (kg/m <sup>3</sup> )	Ratio of chemical concentration in outdoor air (mg/m <sup>3</sup> ) to chemical concentration in soil (mg/kg)
	Soil-to-outdoor air volatilization factor (VF <sub>soil-<i>OA</i></sub> or VF <sub>soil</sub> ) (kg/m <sup>3</sup> )	Ratio of chemical concentration in outdoor air (mg/m <sup>3</sup> ) to chemical concentration in soil (mg/kg)
Inhalation of vapors in outdoor air	Soil vapor-to-outdoor air volatilization factor (VF <sub>sv-<i>OA</i></sub> ) (µg/m <sup>3</sup> per µg/m <sup>3</sup> )	Ratio of chemical concentration in outdoor air (µg/m <sup>3</sup> ) to chemical concentration in soil vapor (µg/m <sup>3</sup> )

**Table A-3a**  
**Derivation of Particulate Emission and Volatilization Factors, Onsite Resident**  
**Former Kast Property**  
**Carson, California**

Parameter	Value	Units	Reference
Water-filled soil porosity (θw)	1.50E-01	(Lwater-Lsoil)	USEPA 2012 RSL default
Total soil porosity (θt)	4.30E-01	(Lpore-Lsoil)	USEPA 2012 RSL default
Air-filled soil porosity (θa)	2.80E-01	(Lair-Lsoil)	USEPA 2012 RSL default
Soil bulk density (Pb)	1.5	g/cm <sup>3</sup>	USEPA 2012 RSL default
Fraction organic carbon in soil (foc)	0.006	unitless	USEPA 2012 RSL default
Exposure interval (T <sub>resident</sub> )	9.46E+08	sec	30 year exposure duration
Inverse of mean conc. Q/C <sub>resident</sub>	68.18	(g/m <sup>2</sup> -s per kg/m <sup>3</sup> )	Calculated for a 0.5-acre site in Los Angeles (USEPA 2002)
Fraction of vegetative cover, G <sub>resident</sub>	0.5	unitless	Default (USEPA 2002)
Mean annual windspeed (Um)	3.31	m/s	Average for Los Angeles, 7.4 mph (NCDC 2011)
Equivalent threshold value of windspeed at 7m (U)	11.32	m/s	Default (USEPA 2002)
Function dependent on Um/Ut (Fx)	4.74E-03	unitless	Los Angeles-Specific (Appendix D, Table 2 in USEPA 1996)
Particulate Emission Factor, PEF <sub>resident</sub>	1.2E+11	(m <sup>3</sup> /kg)	Estimated for a limited area, 0.5-acre (USEPA 2002)

Particulate Emission Factor; PEF<sub>resident</sub> (USEPA 2002): PEF = [(Q/C<sub>resident</sub> \* 3600) / (0.036 \* (1-G<sub>resident</sub>)) \* (Um/U)<sup>3</sup> \* Fx]

CAS Number	Chemical of Concern	Diffusivity in Air (D <sub>air</sub> ) (cm <sup>2</sup> /s)	Henry's Law Constant (H') (unitless)	Diffusivity in Water (D <sub>water</sub> ) (cm <sup>2</sup> /s)	Organic Carbon Partition Coefficient (K <sub>oc</sub> ) (cm <sup>3</sup> /g)	Soil-Water Partition Coefficient (Kd) (cm <sup>3</sup> /g)	Apparent Diffusivity (D <sub>A</sub> ) (cm <sup>2</sup> /s)	Effective Diffusion Coefficient (D <sub>eff</sub> ) (cm <sup>2</sup> /s)	Soil-water partition coefficient (K <sub>sw</sub> ) (cm <sup>3</sup> /g)	Onsite Resident VF <sub>soil</sub> (m <sup>3</sup> /kg)
79-34-5	1,1,2,2-Tetrachloroethane	7.1E-02	1.4E-02	7.9E-06	9.3E+01	5.6E-01	7.8E-05	5.5E-03	6.6E-01	1.4E+04
96-18-4	1,2,3-Trichloropropane	7.1E-02	1.7E-02	7.9E-06	2.2E+01	1.3E-01	2.6E-04	5.5E-03	2.4E-01	7.6E+03
95-63-6	1,2,4-Trimethylbenzene	6.1E-02	2.5E-01	7.9E-06	1.4E+03	8.1E+00	9.6E-05	4.7E-03	8.3E+00	1.3E+04
78-87-5	1,2-Dichloropropane	7.8E-02	1.1E-01	8.7E-06	4.4E+01	2.6E-01	1.2E-03	6.1E-03	3.8E-01	3.6E+03
108-67-8	1,3,5-Trimethylbenzene	6.0E-02	2.4E-01	8.7E-06	1.4E+03	8.1E+00	9.1E-05	4.7E-03	8.3E+00	1.3E+04
106-46-7	1,4-Dichlorobenzene	6.9E-02	9.8E-02	7.9E-06	6.2E+02	3.7E+00	9.2E-05	5.4E-03	3.8E+00	1.3E+04
71-43-2	Benzene	8.8E-02	2.3E-01	9.8E-06	5.9E+01	3.5E-01	2.1E-03	6.9E-03	5.0E-01	2.7E+03
75-27-4	Bromodichloromethane	3.0E-02	6.5E-02	1.1E-05	5.5E+01	3.3E-01	2.3E-04	2.3E-03	4.4E-01	8.2E+03
74-83-9	Bromomethane	7.3E-02	2.6E-01	1.2E-05	1.1E+01	6.3E-02	4.6E-03	5.7E-03	2.1E-01	1.8E+03
100-41-4	Ethylbenzene	7.5E-02	3.2E-01	7.8E-06	3.6E+02	2.2E+00	5.4E-04	5.9E-03	2.3E+00	5.3E+03
75-09-2	Methylene chloride	1.0E-01	9.0E-02	1.2E-05	1.2E+01	7.0E-02	2.5E-03	7.9E-03	1.9E-01	2.5E+03
127-18-4	Tetrachloroethene	7.2E-02	7.5E-01	8.2E-06	1.6E+02	9.3E-01	2.4E-03	5.6E-03	1.2E+00	2.5E+03
79-01-6	Trichloroethene	7.9E-02	4.2E-01	9.1E-06	1.7E+02	1.0E+00	1.5E-03	6.2E-03	1.2E+00	3.2E+03
75-01-4	Vinyl chloride	1.1E-01	1.1E+00	1.2E-05	1.9E+01	1.1E-01	1.5E-02	8.3E-03	4.2E-01	1.0E+03

$$VF_{soil} = Q/C \times \left( 10^{-4} \frac{m^2}{cm^2} \right) \times \left( \frac{1}{P_b} \right) \left( \frac{3.14 \times T_{resident} \times K_{sw} \times P_b}{4 \times D_{eff} \times H'} \right)^{1/2}$$

Table A-3b  
Derivation of Particulate Emission and Volatilization Factors, Onsite Construction and Utility Maintenance Worker  
Former Kast Property  
Carson, California

Parameter	Value	Units	Reference
Water-filled soil porosity ( $\theta_w$ )	1.5E-01	(Lwater-Lsoil)	USEPA 2012 RSL default
Total soil porosity ( $\theta_t$ )	4.3E-01	(Lpore-Lsoil)	USEPA 2012 RSL default
Air-filled soil porosity ( $\theta_a$ )	2.8E-01	(Lair-Lsoil)	USEPA 2012 RSL default
Soil bulk density (Pb)	1.5	g/cm <sup>3</sup>	USEPA 2012 RSL default
Fraction organic carbon in soil (foc)	0.006	unitless	USEPA 2012 RSL default
Exposure interval (T <sub>clw</sub> )	7.9E+08	sec	25 year exposure duration for the construction/utility maintenance worker
Ambient air velocity in mixing zone (U <sub>air</sub> )	5.1E-01	cm/s	Based on an air exchange rate of 20 hr <sup>-1</sup> , wind direction parallel to the short side of the trench (3 ft or 91 cm), professional judgment
Width of source-zone area (W)	457	cm	Assume length of trench = 4.57 meters
Mixing zone height (H)	183	cm	Assume depth of trench = 1.83 meters
Width of trench (W <sub>t</sub> )	91	cm	Assume width of trench = 0.91 meters
Source-zone area (A)	2.4E+05	cm <sup>2</sup>	4 sidewalls and bottom area of trench
Dispersion factor for ambient air (DF <sub>amb</sub> )	1.7E-01	cm/s	Calculated (ASTM 2004)
Particulate Emission Factor, PEF <sub>clw</sub>	1.0E+06	(m <sup>3</sup> /kg)	DTSC HERO HIRA Note Number 1 (Cal-EPA, 2011)

CAS Number	Chemical of Concern	Diffusivity in Air (D <sub>air</sub> ) (cm <sup>2</sup> /s)	Henry's Law Constant (H) (unitless)	Diffusivity in Water (D <sub>water</sub> ) (cm <sup>2</sup> /s)	Organic Carbon Partition Coefficient (K <sub>oc</sub> ) (cm <sup>3</sup> /g)	Soil-Water Partition Coefficient (K <sub>d</sub> ) (cm <sup>3</sup> /g)	Apparent Diffusivity (D <sub>a</sub> ) (cm <sup>2</sup> /s)	Effective Diffusion Coefficient (D <sub>eff</sub> ) (cm <sup>2</sup> /s)	Soil-water partition coefficient (K <sub>sw</sub> ) (cm <sup>3</sup> /g)	Construction and Utility Maintenance Worker VF <sub>soil-OA</sub> (m <sup>3</sup> /kg)	Construction and Utility Maintenance Worker VF <sub>sv-OA</sub> (μg/m <sup>3</sup> per μg/m <sup>3</sup> )
71-55-6	1,1,1-Trichloroethane	7.8E-02	7.0E-01	8.8E-06	1.1E+02	6.6E-01	3.2E-03	6.1E-03	8.9E-01	--	4.0E+04
79-34-5	1,1,2,2-Tetrachloroethane	7.1E-02	1.4E-02	7.9E-06	9.3E+01	5.6E-01	7.8E-05	5.5E-03	6.6E-01	--	7.0E+03
79-00-5	1,1,2-Trichloroethane	7.8E-02	3.7E-02	8.8E-06	5.0E+01	3.0E-01	3.7E-04	6.1E-03	4.1E-01	--	1.4E+04
75-34-3	1,1-Dichloroethane	7.4E-02	2.3E-01	1.1E-05	3.2E+01	1.9E-01	2.7E-03	5.8E-03	3.3E-01	--	3.9E+04
96-18-4	1,2,3-Trichloropropane	7.1E-02	1.7E-02	7.9E-06	2.2E+01	1.3E-01	2.6E-04	5.5E-03	2.4E-01	1.8E+02	1.3E+04
120-82-1	1,2,4-Trichlorobenzene	3.0E-02	5.8E-02	8.2E-06	1.8E+03	1.1E+01	8.4E-06	2.3E-03	1.1E+01	--	5.4E+03
95-63-6	1,2,4-Trimethylbenzene	6.1E-02	2.5E-01	7.9E-06	1.4E+03	8.1E+00	9.6E-05	4.7E-03	8.3E+00	3.0E+02	9.0E+03
107-06-2	1,2-Dichloroethane	1.0E-01	4.0E-02	9.9E-06	1.7E+01	1.0E-01	1.0E-03	8.1E-03	2.1E-01	--	1.7E+04

Table A-3b  
 Derivation of Particulate Emission and Volatilization Factors, Onsite Construction and Utility Maintenance Worker  
 Former Kast Property  
 Carson, California

CAS Number	Chemical of Concern	Diffusivity in Air ( $D_{air}$ ) ( $cm^2/s$ )	Henry's Law Constant ( $H$ ) (unitless)	Diffusivity in Water ( $D_{water}$ ) ( $cm^2/s$ )	Organic Carbon Partition Coefficient ( $K_{oc}$ ) ( $cm^3/g$ )	Soil-Water Partition Coefficient ( $K_d$ ) ( $cm^3/g$ )	Apparent Diffusivity ( $D_a$ ) ( $cm^2/s$ )	Effective Diffusion Coefficient ( $D_{eff}$ ) ( $cm^2/s$ )	Soil-water partition coefficient ( $K_{sw}$ ) ( $cm^3/g$ )	Construction and Utility Maintenance Worker $VF_{soil-OA}$ ( $m^3/kg$ )	Construction and Utility Maintenance Worker $VF_{SV-OA}$ ( $\mu g/m^3$ per $\mu g/m^3$ )
78-87-5	1,2-Dichloropropane	7.8E-02	1.1E-01	8.7E-06	4.4E+01	2.6E-01	1.2E-03	6.1E-03	3.8E-01	--	2.5E+04
108-67-8	1,3,5-Trimethylbenzene	6.0E-02	2.4E-01	8.7E-06	1.4E+03	8.1E+00	9.1E-05	4.7E-03	8.3E+00	3.0E+02	8.8E+03
106-99-0	1,3-Butadiene	2.5E-01	3.0E+00	1.1E-05	1.9E+01	1.1E-01	5.0E-02	1.9E-02	7.8E-01	--	5.0E+04
106-46-7	1,4-Dichlorobenzene	6.9E-02	9.8E-02	7.9E-06	6.2E+02	3.7E+00	9.2E-05	5.4E-03	3.8E+00	--	7.8E+03
123-91-1	1,4-Dioxane	2.3E-01	2.3E-04	1.0E-05	1.0E+00	6.0E-03	2.6E-05	1.8E-02	1.1E-01	--	1.2E+03
540-84-1	2,2,4-Trimethylpentane	1.0E-01	1.8E+02	1.0E-05	1.5E+05	9.0E+02	1.0E-03	7.8E-03	9.3E+02	--	1.8E+04
591-78-6	2-Hexanone	7.5E-02	3.8E-03	8.4E-06	9.4E+00	5.7E-02	9.4E-05	5.8E-03	1.6E-01	--	7.2E+03
622-96-8	4-Ethyltoluene	6.8E-02	2.1E-01	7.3E-06	1.8E+03	1.1E+01	6.7E-05	5.3E-03	1.1E+01	--	6.7E+03
71-43-2	Benzene	8.8E-02	2.3E-01	9.8E-06	5.9E+01	3.5E-01	2.1E-03	6.9E-03	5.0E-01	6.3E+01	2.9E+04
75-27-4	Bromodichloromethane	3.0E-02	6.5E-02	1.1E-05	5.5E+01	3.3E-01	2.3E-04	2.3E-03	4.4E-01	--	2.8E+04
74-83-9	Bromomethane	7.3E-02	2.6E-01	1.2E-05	1.1E+01	6.3E-02	4.6E-03	5.7E-03	2.1E-01	--	5.2E+04
75-15-0	Carbon disulfide	1.0E-01	1.2E+00	1.0E-05	4.6E+01	2.7E-01	1.1E-02	8.1E-03	6.1E-01	--	5.6E+04
56-23-5	Carbon tetrachloride	7.8E-02	1.2E+00	8.8E-06	1.7E+02	1.0E+00	3.6E-03	6.1E-03	1.4E+00	--	4.3E+04
67-66-3	Chloroform	1.0E-01	1.5E-01	1.0E-05	4.0E+01	2.4E-01	2.2E-03	8.1E-03	3.7E-01	--	2.5E+04
74-87-3	Chloromethane	1.3E-01	3.6E-01	6.5E-06	2.1E+00	1.3E-02	1.3E-02	9.8E-03	1.8E-01	--	5.1E+04
110-82-7	Cyclohexane	7.4E-02	7.9E+00	8.5E-06	1.7E+02	9.9E-01	1.2E-02	5.7E-03	2.6E+00	--	8.2E+04
124-48-1	Dibromochloromethane	2.0E-02	3.2E-02	1.1E-05	6.3E+01	3.8E-01	6.7E-05	1.5E-03	4.8E-01	--	2.3E+04
156-59-2	Dichloroethene, cis-1,2-	7.4E-02	1.7E-01	1.1E-05	3.6E+01	2.1E-01	1.8E-03	5.7E-03	3.4E-01	--	3.3E+04
156-60-5	Dichloroethene, trans-1,2-	7.1E-02	3.8E-01	1.2E-05	5.3E+01	3.2E-01	2.9E-03	5.5E-03	4.9E-01	--	4.2E+04
10061-02-6	Dichloropropene, trans-1,3-	6.3E-02	7.2E-01	1.0E-05	4.6E+01	2.7E-01	4.6E-03	4.9E-03	5.1E-01	--	6.1E+04
64-17-5	Ethanol	1.5E-01	1.9E-04	1.6E-05	1.0E+00	6.0E-03	1.5E-05	1.3E-02	1.1E-01	--	1.3E+03
100-41-4	Ethylbenzene	7.5E-02	3.2E-01	7.8E-06	3.6E+02	2.2E+00	5.4E-04	5.9E-03	2.3E+00	1.2E+02	1.7E+04
142-82-5	Heptane	9.3E-02	8.2E+01	7.6E-06	2.7E+02	1.6E+00	2.3E-02	7.2E-03	1.7E+01	--	9.2E+04
87-68-3	Hexachloro-1,3-butadiene	5.6E-02	3.3E-01	6.2E-06	5.4E+04	3.2E+02	3.0E-06	4.4E-03	3.2E+02	--	1.7E+03
110-54-3	Hexane	2.0E-01	6.8E+01	7.8E-06	4.3E+01	2.6E-01	5.4E-02	1.6E-02	1.3E+01	--	6.5E+04
67-63-0	Isopropanol	8.0E-02	3.6E-04	9.3E-06	6.9E+00	4.2E-02	1.1E-05	6.5E-03	1.4E-01	--	2.2E+03

Table A-3b  
Derivation of Particulate Emission and Volatilization Factors, Onsite Construction and Utility Maintenance Worker  
Former Kast Property  
Carson, California

CAS Number	Chemical of Concern	Diffusivity in Air (D <sub>air</sub> ) (cm <sup>2</sup> /s)	Henry's Law Constant (H <sup>1</sup> ) (unitless)	Diffusivity in Water (D <sub>water</sub> ) (cm <sup>2</sup> /s)	Organic Carbon Partition Coefficient (K <sub>oc</sub> ) (cm <sup>3</sup> /g)	Soil-Water Partition Coefficient (K <sub>d</sub> ) (cm <sup>3</sup> /g)	Apparent Diffusivity (D <sub>a</sub> ) (cm <sup>2</sup> /s)	Effective Diffusion Coefficient (D <sub>eff</sub> ) (cm <sup>2</sup> /s)	Soil-water partition coefficient (K <sub>sw</sub> ) (cm <sup>3</sup> /g)	Construction and Utility Maintenance Worker VF <sub>soil-OA</sub> (m <sup>3</sup> /kg)	Construction and Utility Maintenance Worker VF <sub>sv-OA</sub> (µg/m <sup>3</sup> per µg/m <sup>3</sup> )
98-82-8	Isopropylbenzene (cumene)	6.5E-02	4.7E+01	7.1E-06	4.9E+02	2.9E+00	1.3E-02	5.1E-03	1.2E+01	--	1.0E+05
78-93-3	Methyl ethyl ketone (2-butanone)	8.1E-02	2.3E-03	9.8E-06	2.3E+00	1.4E-02	8.4E-05	6.3E-03	1.1E-01	--	6.3E+03
75-09-2	Methylene chloride	1.0E-01	9.0E-02	1.2E-05	1.2E+01	7.0E-02	2.5E-03	7.9E-03	1.9E-01	--	2.8E+04
1634-04-4	Methyl-tert-butyl ether	1.0E-01	2.6E-02	1.1E-05	7.3E+00	4.4E-02	9.1E-04	8.0E-03	1.5E-01	--	1.6E+04
103-65-1	Propylbenzene	6.0E-02	4.4E-01	7.8E-06	5.6E+02	3.4E+00	3.8E-04	4.7E-03	3.6E+00	--	1.8E+04
75-65-0	tert-Butyl Alcohol (TBA)	8.5E-02	3.0E-03	9.1E-06	4.2E+00	2.5E-02	1.1E-04	6.7E-03	1.3E-01	--	6.7E+03
127-18-4	Tetrachloroethene	7.2E-02	7.5E-01	8.2E-06	1.6E+02	9.3E-01	2.4E-03	5.6E-03	1.2E+00	--	3.8E+04
109-99-9	Tetrahydrofuran	9.8E-02	2.9E-03	1.1E-05	9.5E-01	5.7E-03	1.4E-04	7.7E-03	1.1E-01	--	6.7E+03
108-88-3	Toluene	8.7E-02	2.7E-01	8.6E-06	1.8E+02	1.1E+00	9.8E-04	6.8E-03	1.2E+00	--	2.0E+04
79-01-6	Trichloroethene	7.9E-02	4.2E-01	9.1E-06	1.7E+02	1.0E+00	1.5E-03	6.2E-03	1.2E+00	--	2.7E+04
75-01-4	Vinyl chloride	1.1E-01	1.1E+00	1.2E-05	1.9E+01	1.1E-01	1.5E-02	8.3E-03	4.2E-01	--	6.3E+04
108-38-3	Xylene, m-	7.0E-02	3.0E-01	7.8E-06	4.1E+02	2.4E+00	4.2E-04	5.5E-03	2.6E+00	--	1.6E+04
95-47-6	Xylene, o-	8.7E-02	2.1E-01	1.0E-05	3.6E+02	2.2E+00	4.1E-04	6.8E-03	2.3E+00	--	1.3E+04
106-42-3	Xylene, p-	7.7E-02	3.1E-01	8.4E-06	3.9E+02	2.3E+00	5.0E-04	6.0E-03	2.5E+00	--	1.6E+04
1330-20-7	Xylenes, total	8.5E-02	2.7E-01	9.9E-06	4.4E+02	2.7E+00	4.2E-04	6.6E-03	2.8E+00	1.4E+02	1.4E+04
91-20-3	Naphthalene	5.9E-02	2.0E-02	7.5E-06	2.0E+03	1.2E+01	5.0E-06	4.6E-03	1.2E+01	--	2.1E+03

Note:

--: Not selected as COC for this medium.

$$VF_{soil-OA} = \frac{DF_{amb}}{Pb} \times \left[ \frac{(3.14 \times T_{CuW} \times K_{sw} \times Pb)}{(4 \times D_{eff} \times H^1)} \right]^{1/2} \times CF_1 \times CF_2 \quad \text{and} \quad VF_{sv-OA} = VF_{soil-OA} \times \frac{H^1}{K_{sw}} \times (CF_1 \times CF_2)$$

Table A-4  
Chronic Toxicity Criteria

CAS Number	Chemical of Concern	Dermal ABS <sup>v</sup>	GI ABS <sup>v</sup>	Cancer Toxicity Criteria				Noncancer Toxicity Criteria						
				Oral Cancer Slope Factor <sup>1</sup> (mg/kg-day) <sup>-1</sup>	Source	Dermal Cancer Slope Factor <sup>1</sup> (mg/kg-day) <sup>-1</sup>	Inhalation Unit Risk <sup>1</sup> (µg/m <sup>3</sup> ) <sup>-1</sup>	Source	Oral RfD (mg/kg-day)	Dermal RfD (mg/kg-day)	Source	Inhalation RfC or REL (mg/m <sup>3</sup> )	Source	
<b>Inorganics</b>														
7440-36-0	Antimony	NA	0.15	NC		NC	NC		4.0E-04		6.0E-05	I	NA	
7440-38-2	Arsenic	0.03	1	9.5E+00	C	9.5E+00	3.3E-03	C	3.0E-04		3.0E-04	I	1.5E-05	C
7440-43-9	Cadmium	0.001	0.025	NC		NC	4.2E-03	C	1.0E-03		2.5E-05	I	2.0E-05	C
18540-29-9	Chromium, hexavalent	NA	0.025	5.0E-01	J	NC	1.5E-01	C	3.0E-03		7.5E-05	I	1.0E-04	I
7440-48-4	Cobalt	NA	1	NC		NC	9.0E-03	P	3.0E-04		3.0E-04	P	6.0E-06	P
7440-50-8	Copper	NA	1	NC		NC	NC		4.0E-02		4.0E-02	H	NA	
7439-92-1	Lead	NA	1	NC		NC	NC		NA		NA		NA	
7440-28-0	Thallium	NA	1	NC		NC	NC		1.0E-05		1.0E-05	X	NA	
7440-62-2	Vanadium	NA	1	NC		NC	NC		5.0E-03		5.0E-03	S	1.0E-04	A
7440-66-6	Zinc	NA	1	NC		NC	NC		3.0E-01		3.0E-01	I	NA	
<b>PAHs</b>														
56-55-3	Benzo (a) anthracene	0.13	1	2.9E-01	C*	2.9E-01	1.1E-04	C	NA		NA		NA	
50-32-8	Benzo (a) pyrene	0.13	1	2.9E+00	C*	2.9E+00	1.1E-03	C	NA		NA		NA	
205-99-2	Benzo (b) fluoranthene	0.13	1	2.9E-01	C*	2.9E-01	1.1E-04	C	NA		NA		NA	
207-08-9	Benzo (k) fluoranthene	0.13	1	2.9E-01	C*	2.9E-01	1.1E-04	C	NA		NA		NA	
218-01-9	Chrysene	0.13	1	2.9E-02	C*	2.9E-02	1.1E-05	C	NA		NA		NA	
53-70-3	Dibenz (a,h) anthracene	0.13	1	4.1E+00	C	4.1E+00	1.2E-03	C	NA		NA		NA	
193-39-5	Indeno (1,2,3-cd) pyrene	0.13	1	2.9E-01	C*	2.9E-01	1.1E-04	C	NA		NA		NA	
90-12-0	Methylnaphthalene, 1-	0.13	1	2.9E-02	P	2.9E-02	NC		7.0E-02		7.0E-02	A	NA	
91-57-6	Methylnaphthalene, 2-	0.13	1	NC		NC	NC		4.0E-03		4.0E-03	I	NA	
91-20-3	Naphthalene	0.13	1	NC		NC	3.4E-05	C	2.0E-02		2.0E-02	I	3.0E-03	I
129-00-0	Pyrene	0.13	1	NC		NC	NC		3.0E-02		3.0E-02	I	1.1E-01	R
<b>TPH</b>														
	TPH Aliphatic: C5-C8	0.13	1	NC		NC	NC		4.0E-02		4.0E-02	B	7.0E-01	B
	TPH Aliphatic: C9-C18	0.13	1	NC		NC	NC		1.0E-01		1.0E-01	B	3.0E-01	B
	TPH Aliphatic: C19-C32	0.13	1	NC		NC	NC		2.0E+00		2.0E+00	B	--	B
	TPH Aromatic: C6-C8	0.13	1	NC		NC	NC		--		--	B	--	B
	TPH Aromatic: C9-C16	0.13	1	NC		NC	NC		3.0E-02		3.0E-02	B	5.0E-02	B
	TPH Aromatic: C17-C32	0.13	1	NC		NC	NC		3.0E-02		3.0E-02	B	--	B
<b>SVOCs</b>														
121-14-2	2,4-Dinitrotoluene	0.102	1	3.1E-01	C	3.1E-01	8.9E-05	C	2.0E-03		2.0E-03	I	7.0E-03	R
117-81-7	Bis(2-Ethylhexyl) Phthalate	0.1	1	1.4E-02	I	1.4E-02	2.4E-06	C	2.0E-02		2.0E-02	I	7.0E-02	R

Table A-4  
Chronic Toxicity Criteria

CAS Number	Chemical of Concern	Dermal ABS <sup>v</sup>	GI ABS <sup>v</sup>	Cancer Toxicity Criteria						Noncancer Toxicity Criteria				
				Oral Cancer Slope Factor <sup>1</sup> (mg/kg-day) <sup>-1</sup>	Source	Dermal Cancer Slope Factor <sup>1</sup> (mg/kg-day) <sup>-1</sup>	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>	Source	Oral RfD (mg/kg-day)	Dermal RfD (mg/kg-day)	Source	Inhalation RfC or REL (mg/m <sup>3</sup> )	Source	
<b>VOCs</b>														
71-55-6	1,1,1-Trichloroethane	NA	1	NC		NC	NC		2.0E+00	2.0E+00	I	5.0E+00	I	
79-34-5	1,1,2,2-Tetrachloroethane	NA	1	2.7E-01	C	2.7E-01	5.8E-05	C	2.0E-02	2.0E-02	I	7.0E-02	R	
79-00-5	1,1,2-Trichloroethane	NA	1	7.2E-02	C	7.2E-02	1.6E-05	C	4.0E-03	4.0E-03	I	2.0E-04	X	
75-34-3	1,1-Dichloroethane	NA	1	5.7E-03	C	5.7E-03	1.6E-06	C	2.0E-01	2.0E-01	P	7.0E-01	R	
96-18-4	1,2,3-Trichloropropane	NA	1	3.0E+01	I	3.0E+01	NC		4.0E-03	4.0E-03	I	3.0E-04	I	
120-82-1	1,2,4-Trichlorobenzene	NA	1	3.6E-03	C	3.6E-03	NC		1.0E-02	1.0E-02	I	2.0E-03	P	
95-63-6	1,2,4-Trimethylbenzene	NA	1	NC		NC	NC		1.0E-02	1.0E-02	X	7.0E-03	P	
107-06-2	1,2-Dichloroethane	NA	1	4.7E-02	C	4.7E-02	2.1E-05	C	6.0E-03	6.0E-03	X	7.0E-03	P	
78-87-5	1,2-Dichloropropane	NA	1	3.6E-02	C	3.6E-02	1.0E-05	C	9.0E-02	9.0E-02	A	4.0E-03	I	
108-67-8	1,3,5-Trimethylbenzene	NA	1	NC		NC	NC		1.0E-02	1.0E-02	X	7.0E-03	P	
106-99-0	1,3-Butadiene	NA	1	3.4E+00	C	3.4E+00	1.7E-04	C	5.7E-04	5.7E-04	R	2.0E-03	I	
106-46-7	1,4-Dichlorobenzene	NA	1	5.4E-03	C	5.4E-03	1.1E-05	C	7.0E-02	7.0E-02	A	8.0E-01	C	
123-91-1	1,4-Dioxane	0.1	1	2.7E-02	C	2.7E-02	7.7E-06	C	3.0E-02	3.0E-02	I	3.0E+00	C	
540-84-1	2,2,4-Trimethylpentane	NA	1	NC		NC	NC		NA	NA		1.0E+00	D	
591-78-6	2-Hexanone	NA	1	NC		NC	NC		5.0E-03	5.0E-03	I	3.0E-02	I	
622-96-8	4-Ethyltoluene*	NA	1	NC		NC	NC		2.0E-01	2.0E-01	S	1.0E-01	S	
71-43-2	Benzene	NA	1	1.0E-01	C	1.0E-01	2.9E-05	C	4.0E-03	4.0E-03	I	3.0E-02	I	
75-27-4	Bromodichloromethane	NA	1	1.3E-01	C	1.3E-01	3.7E-05	C	2.0E-02	2.0E-02	I	7.0E-02	R	
74-83-9	Bromomethane	NA	1	NC		NC	NC		1.4E-03	1.4E-03	I	5.0E-03	C	
75-15-0	Carbon disulfide	NA	1	NC		NC	NC		1.0E-01	1.0E-01	I	7.0E-01	I	
56-23-5	Carbon tetrachloride	NA	1	1.5E-01	C	1.5E-01	4.2E-05	C	4.0E-03	4.0E-03	I	1.0E-01	I	
67-66-3	Chloroform	NA	1	3.1E-02	C	3.1E-02	5.3E-06	C	1.0E-02	1.0E-02	I	9.8E-02	A	
74-87-3	Chloromethane	NA	1	NC		NC	NC		2.6E-02	2.6E-02	R	9.0E-02	I	
110-82-7	Cyclohexane	NA	1	NC		NC	NC		1.7E+00	1.7E+00	R	6.0E+00	I	
124-48-1	Dibromochloromethane	0.1	1	9.4E-02	C	9.4E-02	2.7E-05	C	2.0E-02	2.0E-02	I	7.0E-02	R	
156-59-2	Dichloroethene, cis-1,2-	NA	1	NC		NC	NC		2.0E-03	2.0E-03	I	7.0E-03	R	
156-60-5	Dichloroethene, trans-1,2-	NA	1	NC		NC	NC		2.0E-02	2.0E-02	I	6.0E-02	P	
10061-02-6	Dichloropropene, trans-1,3,*	NA	1	9.1E-02	C	9.1E-02	1.6E-05	C	3.0E-02	3.0E-02	I	2.0E-02	I	
64-17-5	Ethanol*	NA	1	NC		NC	NC		5.0E-01	5.0E-01	I	4.0E+00	C	
100-41-4	Ethylbenzene	NA	1	1.1E-02	C	1.1E-02	2.5E-06	C	1.0E-01	1.0E-01	I	1.0E+00	I	
142-82-5	Heptane*	NA	1	NC		NC	NC		6.0E-02	6.0E-02	H	7.0E-01	I	
87-68-3	Hexachloro-1,3-butadiene	0.1	1	7.8E-02	I	7.8E-02	2.2E-05	I	1.0E-03	1.0E-03	P	3.5E-03	R	

Table A-4  
Chronic Toxicity Criteria

CAS Number	Chemical of Concern	Dermal ABS <sup>v</sup>	GI ABS <sup>v</sup>	Cancer Toxicity Criteria				Noncancer Toxicity Criteria					
				Oral Cancer Slope Factor <sup>1</sup> (mg/kg-day) <sup>-1</sup>	Source	Dermal Cancer Slope Factor <sup>1</sup> (mg/kg-day) <sup>-1</sup>	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>	Source	Oral RfD (mg/kg-day)	Dermal RfD (mg/kg-day)	Source	Inhalation RfC or REL (mg/m <sup>3</sup> )	Source
110-54-3	Hexane	NA	1	NC		NC	NC		6.0E-02	6.0E-02	H	7.0E-01	I
67-63-0	Isopropanol	0.1	1	NC		NC	NC		NA	NA		7.0E+00	C
98-82-8	Isopropylbenzene (cumene)	NA	1	NC		NC	NC		1.0E-01	1.0E-01	I	4.0E-01	I
78-93-3	Methyl ethyl ketone (2-butanone)	NA	1	NC		NC	NC		6.0E-01	6.0E-01	I	5.0E+00	I
75-09-2	Methylene chloride	NA	1	1.4E-02	C	1.4E-02	1.0E-06	C	6.0E-03	6.0E-03	I	6.0E-01	I
1634-04-4	Methyl-tert-butyl ether	NA	1	1.8E-03	C	1.8E-03	2.6E-07	C	8.6E-01	8.6E-01	R	3.0E+00	I
103-65-1	Propylbenzene	0.1	1	NC		NC	NC		1.0E-01	1.0E-01	X	1.0E+00	X
75-65-0	tert-Butyl Alcohol (TBA) <sup>*</sup>	0.1	1	NC		NC	NC		3.0E-01	3.0E-01	I	1.1E+00	R
127-18-4	Tetrachloroethene	NA	1	5.4E-01	C	5.4E-01	5.9E-06	C	6.0E-03	6.0E-03	I	4.0E-02	I
109-99-9	Tetrahydrofuran	0.1	1	NC		NC	NC		9.0E-01	9.0E-01	I	2.0E+00	I
108-88-3	Toluene	NA	1	NC		NC	NC		8.0E-02	8.0E-02	I	5.0E+00	I
79-01-6	Trichloroethene	NA	1	4.6E-02	I	4.6E-02	4.1E-06	I	5.0E-04	5.0E-04	I	2.0E-03	I
75-01-4	Vinyl chloride	NA	1	2.7E-01	C	2.7E-01	7.8E-05	C	3.0E-03	3.0E-03	I	1.0E-01	I
108-38-3	Xylene, m-	NA	1	NC		NC	NC		2.0E-01	2.0E-01	S	1.0E-01	S
95-47-6	Xylene, o-	NA	1	NC		NC	NC		2.0E-01	2.0E-01	S	1.0E-01	S
106-42-3	Xylene, p-	NA	1	NC		NC	NC		2.0E-01	2.0E-01	S	1.0E-01	S

Notes:

"NA " not available; "-" " not applicable; "NC " not considered a carcinogen; "ABS " absorption; "GI " gastrointestinal; "PAH " Polycyclic Aromatic Hydrocarbons; "RfD " reference dose; "RfC " reference concentration; "REL " reference exposure level

Surrogates: \* p-Xylene for 4-Ethyltoluene; Hexane for Heptane; Isobutyl alcohol for tert-Butyl Alcohol; 1,3-Dichloropropene for trans-1,3-Dichloropropene; Methanol for Ethanol  
<sup>v</sup> Source of Dermal ABS and GI ABS: USEPA 2013b; Regional Screening Levels for Chemical Contaminants at Superfund Sites. May. <http://www.epa.gov/region9/superfund/prg/index.html>

Key:

- C\* = Cal-EPA 2010
- C = Cal-EPA 2013
- A = Agency For Toxic Substances And Disease Registry (ATSDR) as reported in USEPA 2013b
- B = Cal-EPA 2009. Interim Guidance: Evaluating Human Health Risks from Total Petroleum Hydrocarbons.
- D = TPHCWG, 1997. Development of Fraction Specific Reference Doses (RfDs) and Reference Concentrations (RfCs) for TPH
- H = Health Effects Assessment Summary Tables (HEAST). July. EPA 540/R-97-036-PB97-921199 as reported in USEPA 2013b
- I = Integrated Risk Information System Database. IRIS in USEPA 2013a
- J = New Jersey; reported in USEPA 2013b
- P = Provisional Peer Reviewed Toxicity Value (PPRTV) as reported in USEPA 2013b
- R = route-to-route extrapolation
- S = reported in USEPA 2013b
- X = PPRTV Appendix; reported in USEPA 2013b



Table A-5  
 Exposure Concentration for Outdoor Inhalation of Particulates/Vapors from Soil  
 Former Kast Property  
 Carson, California

**(1) Exposure Concentration Equations**

a) Noncarcinogenic Chemicals

$$EC_{inh,soil} = \frac{EF \times ED \times ET}{AT_{NC} \times (VF_{soil} \text{ or } VF_{soil-OA})}$$

b) Carcinogenic Chemicals – Onsite Resident

$$EC_{inh,soil} = \left[ \frac{EF \times ED \times ET}{AT_C \times VF_{soil}} \right]_{CHILD} + \left[ \frac{EF \times ED \times ET}{AT_C \times VF_{soil}} \right]_{ADULT}$$

c) Carcinogenic Chemicals – Construction and Utility Maintenance Worker

$$EC_{inh,soil} = \frac{EF \times ED \times ET}{AT_C \times VF_{soil-OA}}$$

**(2) Explanation of Variables**

Variable	Description	Units
$EC_{inh,soil}$	Exposure concentration outdoor inhalation of chemicals from soil	$mg/m^3$ per $mg/kg$
PEF	Particulate emission factor for non-VOCs	$m^3/kg$
$VF_{soil}$	Volatilization factor, onsite resident	$mg/m^3$ per $mg/kg$
$VF_{soil-OA}$	Volatilization factor for VOCs, construction and utility maintenance worker	$mg/m^3$ per $mg/kg$
EF	Exposure frequency	day/yr
ED	Exposure duration	yr
ET	Exposure time	hour/hour
$AT_C$	Averaging time – cancer effects	day
$AT_{NC}$	Averaging time – noncancer effects	day

Table A-6  
 Exposure Concentration for Outdoor Inhalation from Soil Vapor  
 Former Kast Property  
 Carson, California

**(1) Exposure Concentration Equations**

a) Noncarcinogenic Chemicals – Construction and Utility Maintenance Worker

$$EC_{SV-OA} = \frac{EF \times ED \times ET}{AT_{NC} \times CF \times VF_{SV-OA}}$$

b) Carcinogenic Chemicals – Construction and Utility Maintenance Worker

$$EC_{SV-OA} = \frac{EF \times ED \times ET}{AT_C \times CF \times VF_{SV-OA}}$$

**(2) Explanation of Variables**

Variable	Description	Units
$EC_{SV-OA}$	Exposure concentration for outdoor inhalation of chemicals from soil vapor	$mg/m^3$ per $mg/m^3$
$VF_{SV-OA}$	Volatilization factor	$\mu g/m^3$ per $\mu g/m^3$
EF	Exposure frequency	day/yr
ED	Exposure duration	yr
ET	Exposure time	hour/hour
CF	Units conversion factor	$\mu g/mg$
$AT_C$	Averaging time – cancer effects	day
$AT_{NC}$	Averaging time – noncancer effects	day

Table A-7  
 Exposure Concentration for Indoor Inhalation from Sub-Slab Soil Vapor  
 Former Kast Property  
 Carson, California

**(1) Exposure Concentration Equations**

a) Noncarcinogenic Chemicals – Onsite Resident

$$EC_{SS-SV-IA} = \frac{EF \times ED \times ET}{AT_{NC}}$$

b) Carcinogenic Chemicals – Onsite Resident

$$EC_{SS-SV-IA} = \frac{EF \times ED \times ET}{AT_C}$$

**(2) Explanation of Variables**

Variable	Description	Units
$EC_{SS-SV-IA}$	Exposure concentration for indoor inhalation of chemicals (sub-slab soil vapor into indoor air)	mg/m <sup>3</sup> per mg/m <sup>3</sup>
EF	Exposure frequency	day/yr
ED	Exposure duration	yr
ET	Exposure time	hour/hour
$AT_C$	Averaging time – cancer effects	day
$AT_{NC}$	Averaging time – noncancer effects	day

Table A-8  
Intake Factor for Dermal Contact with Soil  
Former Kast Property  
Carson, California

**(1) Intake Factor Equations**

a) Noncarcinogenic Chemicals

$$IF_{\text{dermal}} = \frac{SA \times AF \times ABS \times CF \times EF \times ED}{BW \times AT_{\text{NC}}}$$

b) Carcinogenic Chemicals – Onsite Resident

$$IF_{\text{dermal}} = \left[ \frac{SA \times AF \times ABS \times CF \times EF \times ED}{BW \times AT_{\text{C}}} \right]_{\text{CHILD}} + \left[ \frac{SA \times AF \times ABS \times CF \times EF \times ED}{BW \times AT_{\text{C}}} \right]_{\text{ADULT}}$$

c) Carcinogenic Chemicals – Construction and Utility Maintenance Worker

$$IF_{\text{dermal}} = \frac{SA \times AF \times ABS \times CF \times EF \times ED}{BW \times AT_{\text{C}}}$$

**(2) Explanation of Variables**

Variable	Description	Units
$IF_{\text{dermal}}$	Intake factor for dermal contact with soil	kg soil / kg body weight per day
SA	Surface area of exposed skin	cm <sup>2</sup> /day
AF	Soil-to-skin adherence factor	mg/cm <sup>2</sup>
ABS	Absorption factor	–
CF	Units conversion factor	kg/mg
EF	Exposure frequency	day/yr
ED	Exposure duration	yr
BW	Body weight	kg
$AT_{\text{C}}$	Averaging time – cancer effects	day
$AT_{\text{NC}}$	Averaging time – noncancer effects	day

Table A-9  
Intake Factor for Incidental Soil Ingestion  
Former Kast Property  
Carson, California

**(1) Intake Factor Equations**

a) Noncarcinogenic Chemicals

$$IF_{\text{oral}} = \frac{IR \times CF \times EF \times ED}{BW \times AT_{\text{NC}}}$$

b) Carcinogenic Chemicals – Onsite Resident

$$IF_{\text{oral}} = \left[ \frac{IR \times CF \times EF \times ED}{BW \times AT_{\text{C}}} \right]_{\text{CHILD}} + \left[ \frac{IR \times CF \times EF \times ED}{BW \times AT_{\text{C}}} \right]_{\text{ADULT}}$$

c) Carcinogenic Chemicals – Construction and Utility Maintenance Worker

$$IF_{\text{oral}} = \frac{IR \times CF \times EF \times ED}{BW \times AT_{\text{C}}}$$

**(2) Explanation of Variables**

Variable	Description	Units
$IF_{\text{oral}}$	Intake factor for soil ingestion	kg soil / kg body weight per day
IR	Ingestion rate of soil	mg/day
CF	Units conversion factor	kg/mg
EF	Exposure frequency	day/yr
ED	Exposure duration	yr
BW	Body weight	kg
$AT_{\text{C}}$	Averaging time – cancer effects	day
$AT_{\text{NC}}$	Averaging time – noncancer effects	day

Table A-10  
Site-Specific Cleanup Goals for Soil, Onsite Resident

Chemical of Concern	CAS Number	Onsite Resident			
		Soil (mg/kg)			
		EF = 350 d/y*		EF = 4 d/y*	
		SSCG <sub>nc</sub>	SSCG <sub>c</sub>	SSCG <sub>nc</sub>	SSCG <sub>c</sub>
<b>Inorganics</b>					
Antimony	7440-36-0	3.1E+01	--	2.7E+03	--
Arsenic	7440-38-2	2.2E+01	6.1E-02	1.9E+03	5.4E+00
Cadmium	7440-43-9	7.0E+01	6.7E+04	6.2E+03	5.8E+06
Chromium VI	18540-29-9	2.3E+02	1.3E+00	2.1E+04	1.1E+02
Cobalt	7440-48-4	2.3E+01	3.1E+04	2.1E+03	2.7E+06
Copper	7440-50-8	3.1E+03	--	2.7E+05	--
Lead	7439-92-1	8.0E+01 <sup>(a)</sup>	--	8.2E+02 <sup>(b)</sup>	--
Thallium	7440-28-0	7.8E-01	--	6.8E+01	--
Vanadium	7440-62-2	3.9E+02	--	3.4E+04	--
Zinc	7440-66-6	2.3E+04	--	2.1E+06	--
<b>PAHs</b>					
Benz[a]anthracene	56-55-3	--	1.6E+00	--	1.4E+02
Benzo[a]pyrene	50-32-8	--	1.6E-01	--	1.4E+01
Benzo[b]fluoranthene	205-99-2	--	1.6E+00	--	1.4E+02
Benzo[k]fluoranthene	207-08-9	--	1.6E+00	--	1.4E+02
Chrysene	218-01-9	--	1.6E+01	--	1.4E+03
Dibenz[a,h]anthracene	53-70-3	--	1.1E-01	--	9.7E+00
Indeno[1,2,3-cd]pyrene	193-39-5	--	1.6E+00	--	1.4E+02
Methylnaphthalene, 1-	90-12-0	4.0E+03	1.6E+01	3.5E+05	1.4E+03
Methylnaphthalene, 2-	91-57-6	2.3E+02	--	2.0E+04	--
Naphthalene	91-20-3	1.5E+02	4.0E+00	1.3E+04	3.5E+02
Pyrene	129-00-0	1.7E+03	--	1.5E+05	--
<b>TPH</b>					
Aliphatic: C <sub>5</sub> -C <sub>8</sub>		7.1E+02	--	6.2E+04	--
Aliphatic: C <sub>9</sub> -C <sub>18</sub>		1.4E+03	--	1.3E+05	--
Aliphatic: C <sub>19</sub> -C <sub>32</sub>		1.1E+05	--	1.0E+07	--
Aromatic: C <sub>6</sub> -C <sub>8</sub>		--	--	--	--
Aromatic: C <sub>9</sub> -C <sub>16</sub>		6.0E+02	--	5.3E+04	--
Aromatic: C <sub>17</sub> -C <sub>32</sub>		1.7E+03	--	1.5E+05	--
TPHg		7.6E+02	--	6.6E+04	--
TPHd		1.3E+03	--	1.1E+05	--
TPHmo		3.3E+03	--	2.9E+05	--
<b>SVOCs</b>					
2,4-Dinitrotoluene	121-14-2	1.2E+02	1.6E+00	1.1E+04	1.4E+02
Bis(2-Ethylhexyl) Phthalate	117-81-7	1.2E+03	3.5E+01	1.1E+05	3.0E+03
<b>VOCs</b>					
1,1,2,2-Tetrachloroethane	79-34-5	6.2E+02	4.7E-01	5.4E+04	4.1E+01
1,2,3-Trichloropropane	96-18-4	2.4E+00	2.1E-02	2.1E+02	1.9E+00
1,2,4-Trimethylbenzene	95-63-6	8.3E+01	--	7.2E+03	--
1,2-Dichloropropane	78-87-5	1.5E+01	8.3E-01	1.3E+03	7.2E+01
1,3,5-Trimethylbenzene	108-67-8	8.5E+01	--	7.4E+03	--

Table A-10  
Site-Specific Cleanup Goals for Soil, Onsite Resident

Chemical of Concern	CAS Number	Onsite Resident			
		Soil (mg/kg)			
		EF = 350 d/y*		EF = 4 d/y*	
		SSCG <sub>nc</sub>	SSCG <sub>c</sub>	SSCG <sub>nc</sub>	SSCG <sub>c</sub>
1,4-Dichlorobenzene	106-46-7	3.6E+03	2.8E+00	3.2E+05	2.4E+02
Benzene	71-43-2	6.7E+01	2.2E-01	5.8E+03	1.9E+01
Bromodichloromethane	75-27-4	4.3E+02	4.9E-01	3.8E+04	4.2E+01
Bromomethane	74-83-9	8.8E+00	--	7.7E+02	--
Ethylbenzene	100-41-4	3.3E+03	4.8E+00	2.9E+05	4.2E+02
Methylene chloride	75-09-2	3.6E+02	5.3E+00	3.2E+04	4.7E+02
Tetrachloroethene	127-18-4	8.6E+01	5.5E-01	7.5E+03	4.9E+01
Trichloroethene	79-01-6	5.8E+00	1.2E+00	5.0E+02	1.0E+02
Vinyl chloride	75-01-4	7.4E+01	3.2E-02	6.4E+03	2.8E+00

Notes:

" -- " not applicable; " na " not available

\* EF: exposure frequency; 350 days/year (d/y) for a typical resident and 4 days/year for a resident who infrequently contacts subsurface soils.

" SSCG<sub>nc</sub> " Site-Specific cleanup goal using a target noncancer hazard = 1

" SSCG<sub>c</sub> " Site-Specific cleanup goal using a target cancer risk =  $1 \times 10^{-6}$  for residents

Soil SSCGs based on incidental ingestion, dermal contact with soil, and outdoor air inhalation

<sup>(a)</sup> Cal-EPA 2009b. Revised California Human Health Screening Levels for Lead. September 2009.

<sup>(b)</sup> Based on USEPA adult lead model, similar parameters used for the residential CHHSL, and a lower exposure frequency.

Table A-11  
Site-Specific Cleanup Goals for Sub-Slab Soil Vapor, Onsite Resident  
Former Kast Property  
Carson, California

Chemical of Concern	CAS Number	Onsite Resident	
		Sub-Slab Soil Vapor ( $\mu\text{g}/\text{m}^3$ )	
		SSCG <sub>nc</sub>	SSCG <sub>c</sub>
<b>VOCs</b>			
1,1,1-Trichloroethane	71-55-6	5.2E+06	--
1,1,2,2-Tetrachloroethane	79-34-5	7.3E+04	4.2E+01
1,1,2-Trichloroethane	79-00-5	2.1E+02	1.5E+02
1,1-Dichloroethane	75-34-3	7.3E+05	1.5E+03
1,2,4-Trichlorobenzene	120-82-1	2.1E+03	--
1,2,4-Trimethylbenzene	95-63-6	7.3E+03	--
1,2-Dichloroethane	107-06-2	7.3E+03	1.2E+02
1,2-Dichloropropane	78-87-5	4.2E+03	2.4E+02
1,3,5-Trimethylbenzene	108-67-8	7.3E+03	--
1,3-Butadiene	106-99-0	2.1E+03	1.4E+01
1,4-Dichlorobenzene	106-46-7	8.3E+05	2.2E+02
1,4-Dioxane	123-91-1	3.1E+06	3.2E+02
2,2,4-Trimethylpentane	540-84-1	1.0E+06	--
2-Hexanone	591-78-6	3.1E+04	--
4-Ethyltoluene	622-96-8	1.0E+05	--
Benzene	71-43-2	3.1E+04	8.4E+01
Bromodichloromethane	75-27-4	7.3E+04	6.6E+01
Bromomethane	74-83-9	5.2E+03	--
Carbon disulfide	75-15-0	7.3E+05	--
Carbon tetrachloride	56-23-5	1.0E+05	5.8E+01
Chloroform	67-66-3	1.0E+05	4.6E+02
Chloromethane	74-87-3	9.4E+04	--
Cyclohexane	110-82-7	6.3E+06	--
Dibromochloromethane	124-48-1	7.3E+04	9.0E+01
Dichloroethene, cis-1,2-	156-59-2	7.3E+03	--
Dichloroethene, trans-1,2-	156-60-5	6.3E+04	--
Dichloropropene, trans-1,3-	10061-02-6	2.1E+04	1.5E+02
Ethanol	64-17-5	4.2E+06	--
Ethylbenzene	100-41-4	1.0E+06	9.7E+02
Heptane	142-82-5	7.3E+05	--
Hexachloro-1,3-butadiene	87-68-3	3.7E+03	1.1E+02
Hexane	110-54-3	7.3E+05	--
Isopropanol	67-63-0	7.3E+06	--
Isopropylbenzene (cumene)	98-82-8	4.2E+05	--
Methyl ethyl ketone (2-butanone)	78-93-3	5.2E+06	--
Methylene chloride	75-09-2	6.3E+05	2.4E+03
Methyl-tert-butyl ether	1634-04-4	3.1E+06	9.4E+03
Naphthalene	91-20-3	3.1E+03	7.2E+01
Propylbenzene	103-65-1	1.0E+06	--



Table A-11  
 Site-Specific Cleanup Goals for Sub-Slab Soil Vapor, Onsite Resident  
 Former Kast Property  
 Carson, California

Chemical of Concern	CAS Number	Onsite Resident	
		Sub-Slab Soil Vapor ( $\mu\text{g}/\text{m}^3$ )	
		SSCG <sub>nc</sub>	SSCG <sub>c</sub>
tert-Butyl Alcohol (TBA)	75-65-0	1.1E+06	--
Tetrachloroethene	127-18-4	4.2E+04	4.1E+02
Tetrahydrofuran	109-99-9	2.1E+06	--
Toluene	108-88-3	5.2E+06	--
Trichloroethene	79-01-6	2.1E+03	4.3E+02
Vinyl chloride	75-01-4	1.0E+05	3.1E+01
Xylene, m-	108-38-3	1.0E+05	--
Xylene, o-	95-47-6	1.0E+05	--
Xylene, p-	106-42-3	1.0E+05	--
<b>TPH</b>			
Aliphatic: C <sub>5</sub> -C <sub>8</sub>		7.3E+05	--
Aliphatic: C <sub>9</sub> -C <sub>18</sub>		3.1E+05	--
Aliphatic: C <sub>19</sub> -C <sub>32</sub>		--	--
Aromatic: C <sub>6</sub> -C <sub>8</sub>		--	--
Aromatic: C <sub>9</sub> -C <sub>16</sub>		5.2E+04	--
Aromatic: C <sub>17</sub> -C <sub>32</sub>		--	--
TPHg		1.4E+05	--
TPHd		1.6E+05	--
TPHmo		--	--

Notes:

" -- " not applicable or not available

" SSCG<sub>nc</sub> " Site-Specific cleanup goal using a target noncancer hazard = 1

" SSCG<sub>c</sub> " Site-Specific cleanup goal using a target cancer =  $1 \times 10^{-6}$  for onsite residents

Sub-Slab Soil Vapor SSCGs based on indoor air inhalation of vapors

Table A-12  
Site-Specific Cleanup Goals for Soil,  
Construction and Utility Maintenance Worker

Chemical of Concern	CAS Number	Construction and Utility Maintenance Worker	
		Soil (mg/kg)	
		SSCG <sub>nc</sub>	SSCG <sub>c</sub>
<b>Inorganics</b>			
Antimony	7440-36-0	3.1E+03	--
Arsenic	7440-38-2	4.1E+02	1.5E+01
Cadmium	7440-43-9	6.4E+02	2.4E+02
Chromium VI	18540-29-9	3.2E+03	6.7E+00
Cobalt	7440-48-4	2.0E+02	1.1E+02
Copper	7440-50-8	3.1E+05	--
Lead	7439-92-1	8.2E+02 <sup>(a)</sup>	--
Thallium	7440-28-0	7.7E+01	--
Vanadium	7440-62-2	3.3E+03	--
Zinc	7440-66-6	2.3E+06	--
<b>PAHs</b>			
Benz[a]anthracene	56-55-3	--	2.6E+02
Benzo[a]pyrene	50-32-8	--	2.6E+01
Benzo[b]fluoranthene	205-99-2	--	2.6E+02
Benzo[k]fluoranthene	207-08-9	--	2.6E+02
Chrysene	218-01-9	--	2.6E+03
Dibenz[a,h]anthracene	53-70-3	--	1.9E+01
Indeno[1,2,3-cd]pyrene	193-39-5	--	2.6E+02
Methylnaphthalene, 1-	90-12-0	1.9E+05	2.7E+03
Methylnaphthalene, 2-	91-57-6	1.1E+04	--
Naphthalene	91-20-3	1.4E+02	3.9E+01
Pyrene	129-00-0	6.7E+04	--
<b>TPH</b>			
Aliphatic: C <sub>5</sub> -C <sub>8</sub>		8.3E+02	--
Aliphatic: C <sub>9</sub> -C <sub>18</sub>		1.6E+03	--
Aliphatic: C <sub>19</sub> -C <sub>32</sub>		5.5E+06	--
Aromatic: C <sub>6</sub> -C <sub>8</sub>		--	--
Aromatic: C <sub>9</sub> -C <sub>16</sub>		7.5E+02	--
Aromatic: C <sub>17</sub> -C <sub>32</sub>		8.3E+04	--
TPHg		9.0E+02	
TPHd		1.9E+03	
TPHmo		1.6E+05	
<b>SVOCs</b>			
2,4-Dinitrotoluene	121-14-2	6.3E+03	2.8E+02
Bis(2-Ethylhexyl) Phthalate	117-81-7	6.3E+04	6.4E+03
<b>VOCs</b>			
1,1,2,2-Tetrachloroethane	79-34-5	8.3E+02	5.7E+00
1,2,3-Trichloropropane	96-18-4	2.0E+00	7.2E+00
1,2,4-Trimethylbenzene	95-63-6	7.5E+01	--
1,2-Dichloropropane	78-87-5	1.2E+01	8.5E+00
1,3,5-Trimethylbenzene	108-67-8	7.7E+01	--

Table A-12  
 Site-Specific Cleanup Goals for Soil,  
 Construction and Utility Maintenance Worker

Chemical of Concern	CAS Number	Construction and Utility Maintenance Worker	
		Soil (mg/kg)	
		SSCG <sub>nc</sub>	SSCG <sub>c</sub>
1,4-Dichlorobenzene	106-46-7	8.7E+03	2.8E+01
Benzene	71-43-2	6.9E+01	2.2E+00
Bromodichloromethane	75-27-4	4.9E+02	5.3E+00
Bromomethane	74-83-9	7.8E+00	--
Ethylbenzene	100-41-4	4.5E+03	5.1E+01
Methylene chloride	75-09-2	1.2E+03	5.9E+01
Tetrachloroethene	127-18-4	8.6E+01	1.0E+01
Trichloroethene	79-01-6	5.5E+00	1.9E+01
Vinyl chloride	75-01-4	8.7E+01	3.1E-01

Notes:

" -- " not applicable or not available

" SSCG<sub>nc</sub> " Site-Specific cleanup goal using a target noncancer hazard = 1

" SSCG<sub>c</sub> " Site-Specific cleanup goal using a target cancer =  $1 \times 10^{-5}$  for workers

Soil SSCGs based on incidental ingestion, dermal contact with soil, and outdoor air inhalation

<sup>(a)</sup> Based on USEPA adult lead model, similar parameters used for the industrial worker CHHSL, and a lower exposure frequency.

Table A-13  
 Site-Specific Cleanup Goals for Soil Vapor,  
 Construction and Utility Maintenance Worker  
 Former Kast Property  
 Carson, California

Chemical of Concern	CAS Number	Construction and Utility Maintenance Worker	
		Soil Vapor ( $\mu\text{g}/\text{m}^3$ )	
		SSCG <sub>nc</sub>	SSCG <sub>c</sub>
<b>VOCs</b>			
1,1,1-Trichloroethane	71-55-6	7.4E+09	--
1,1,2,2-Tetrachloroethane	79-34-5	1.8E+07	1.2E+05
1,1,2-Trichloroethane	79-00-5	1.0E+05	8.6E+05
1,1-Dichloroethane	75-34-3	9.9E+08	2.5E+07
1,2,4-Trichlorobenzene	120-82-1	3.9E+05	--
1,2,4-Trimethylbenzene	95-63-6	2.3E+06	--
1,2-Dichloroethane	107-06-2	4.4E+06	8.5E+05
1,2-Dichloropropane	78-87-5	3.6E+06	2.5E+06
1,3,5-Trimethylbenzene	108-67-8	2.3E+06	--
1,3-Butadiene	106-99-0	3.7E+06	3.0E+05
1,4-Dichlorobenzene	106-46-7	2.3E+08	7.2E+05
1,4-Dioxane	123-91-1	1.3E+08	1.6E+05
2,2,4-Trimethylpentane	540-84-1	6.5E+08	--
2-Hexanone	591-78-6	7.9E+06	--
4-Ethyltoluene	622-96-8	2.5E+07	--
Benzene	71-43-2	3.2E+07	1.0E+06
Bromodichloromethane	75-27-4	7.2E+07	7.8E+05
Bromomethane	74-83-9	9.5E+06	--
Carbon disulfide	75-15-0	1.4E+09	--
Carbon tetrachloride	56-23-5	1.6E+08	1.1E+06
Chloroform	67-66-3	9.0E+07	4.9E+06
Chloromethane	74-87-3	1.7E+08	--
Cyclohexane	110-82-7	1.8E+10	--
Dibromochloromethane	124-48-1	6.0E+07	8.8E+05
Dichloroethene, cis-1,2-	156-59-2	8.3E+06	--
Dichloroethene, trans-1,2-	156-60-5	9.3E+07	--
Dichloropropene, trans-1,3-	10061-02-6	4.4E+07	3.9E+06
Ethanol	64-17-5	1.9E+08	--
Ethylbenzene	100-41-4	6.3E+08	7.0E+06
Heptane	142-82-5	2.3E+09	--
Hexachloro-1,3-butadiene	87-68-3	2.2E+05	8.0E+04
Hexane	110-54-3	1.7E+09	--
Isopropanol	67-63-0	5.7E+08	--
Isopropylbenzene (cumene)	98-82-8	1.5E+09	--
Methyl ethyl ketone (2-butanone)	78-93-3	1.1E+09	--
Methylene chloride	75-09-2	6.1E+08	2.8E+07
Methyl-tert-butyl ether	1634-04-4	1.8E+09	6.5E+07
Naphthalene	91-20-3	2.3E+05	6.3E+04
Propylbenzene	103-65-1	6.6E+08	--

Table A-13  
 Site-Specific Cleanup Goals for Soil Vapor,  
 Construction and Utility Maintenance Worker  
 Former Kast Property  
 Carson, California

Chemical of Concern	CAS Number	Construction and Utility Maintenance Worker	
		Soil Vapor ( $\mu\text{g}/\text{m}^3$ )	
		SSCG <sub>nc</sub>	SSCG <sub>c</sub>
tert-Butyl Alcohol (TBA)	75-65-0	2.6E+08	--
Tetrachloroethene	127-18-4	5.5E+07	6.6E+06
Tetrahydrofuran	109-99-9	4.9E+08	--
Toluene	108-88-3	3.7E+09	--
Trichloroethene	79-01-6	2.0E+06	6.7E+06
Vinyl chloride	75-01-4	2.3E+08	8.3E+05
Xylene, m-	108-38-3	6.0E+07	--
Xylene, o-	95-47-6	4.8E+07	--
Xylene, p-	106-42-3	5.9E+07	--
<b>TPH</b>			
Aliphatic: C <sub>5</sub> -C <sub>8</sub>		1.2E+09	--
Aliphatic: C <sub>9</sub> -C <sub>18</sub>		1.2E+08	--
Aliphatic: C <sub>19</sub> -C <sub>32</sub>		--	--
Aromatic: C <sub>6</sub> -C <sub>8</sub>		--	--
Aromatic: C <sub>9</sub> -C <sub>16</sub>		6.7E+06	--
Aromatic: C <sub>17</sub> -C <sub>32</sub>		--	--
TPHg		2.2E+07	--
TPHd		2.3E+07	--
TPHmo		--	--

Notes:

" -- " not applicable or not available

" SSCG<sub>nc</sub> " Site-Specific cleanup goal using a target noncancer hazard = 1

" SSCG<sub>c</sub> " Site-Specific cleanup goal using a target cancer =  $1 \times 10^{-5}$  for workers

Soil Vapor SSCGs based on outdoor air inhalation of vapors emanating from the subsurface

Table A-14  
 Site-Specific Cleanup Goals for Soil, Background  
 Former Kast Property  
 Carson, California

Chemical of Concern	CAS Number	SSCG (mg/kg)
<b>Inorganics</b>		
Antimony	7440-36-0	0.74
Arsenic	7440-38-2	12
Barium	7440-39-3	267
Beryllium	7440-41-7	0.56
Cadmium	7440-43-9	3.81
Chromium	16065-83-1	32.5
Chromium VI	18540-29-9	--
Cobalt	7440-48-4	10.9
Copper	7440-50-8	59.0
Lead	7439-92-1	61.5
Mercury	7439-97-6	0.13
Molybdenum	7439-98-7	0.41
Nickel	7440-02-0	20.2
Selenium	7782-49-2	0.78
Silver	7440-22-4	1.29
Thallium	7440-28-0	0.23
Vanadium	7440-62-2	45.7
Zinc	7440-66-6	291
<b>PAHs</b>		
Bap-TEQ		0.9

Notes:

" -- " not available

" SSCG " Site-Specific cleanup goal

Table A-15  
 LARW/QCB Attenuation Factor Method and USEPA RSL Soil Cleanup Goal Method Parameters  
 Former Kast Property  
 Carson, California

Parameter	Unit	Value	Rationale
<b>Chemical Properties</b>			
Koc	(µg/g) / (µg/mL)	chemical-specific	USEPA RSL Database
Kd	(µg/g) / (µg/mL)	chemical-specific	WET data, or Kd = Koc × foc if WET data not available
K <sub>H</sub>	unitless	chemical-specific	USEPA RSL Database
<b>Stratum Property</b>			
Porosity	unitless	0.421	Site-specific data
Soil water content by volume	unitless	0.239	Site-specific data
foc	unitless	0.00825	Site-specific data
Bulk Density	g/cm <sup>3</sup>	1.54	Site soil physical data
Soil type	-	sand	Conservative assumption based on boring logs

**Reference:**

USEPA 2013. Regional Screening Levels for Chemical Contaminants at Superfund Sites. May. URL: <http://www.epa.gov/region9/superfund/prg/index.html>

Table A-16  
 . SAM model DAF calculation  
 Former Kast Property  
 Carson, California

Parameter	Value	Unit	Rationale	
<b>P</b>	Annual precipitation	34.5	cm/yr	From SEVIEW database
<b>I<sub>f</sub></b>	Net infiltration	0.0214	m/yr	Assumed sand soil type, Eqn. 1
<b>W</b>	Lateral width of affected soil zone in direction of GW flow	184	m	elevated benzene plume length along GW flow using 2011 and 2013 2nd quarter data
<b>a<sub>v</sub></b>	Vertical groundwater dispersivity	1.03	m	Eqn. 2
<b>K</b>	Hydraulic conductivity of water-bearing unit	2.5	m/day	default value for fine sand, Todd, Groundwater Hydrogeology, 1980
<b>i</b>	Hydraulic gradient of water-bearing unit	0.002	m/m	2013 2nd quarter GW monitoring report
<b>b</b>	Aquifer thickness	11.3	m	37 ft, assumed the top of Gage aquifer is the lower boundary of the shallow GW zone
<b>U<sub>gw</sub></b>	Groundwater darcy velocity	1.83	m/yr	Eqn. 3
<b>δ<sub>gw</sub></b>	Groundwater mixing zone thickness	11.3	m	Eqn. 4 or the aquifer thickness, whichever is smaller.
<b>LDF</b>	Leachate Dilution Factor	6	unitless	Eqn. 5

**Notes:**

Eqn. 1.  $I_f = 0.0018 \times P^2$

Eqn. 2.  $\alpha_v = 0.0056 \times W$

Eqn. 3.  $U_{gw} = K \cdot i$

Eqn. 4.  $\delta_{gw} = \sqrt{2 \cdot \alpha_v \cdot W} + b \left[ 1 - \exp\left(\frac{-I_f \cdot W}{U_{gw} \cdot b}\right) \right]$

Eqn. 5.  $DAF = 1 + \frac{U_{gw} \cdot \delta_{gw}}{I_f \cdot W}$



Table A-17  
 Site-Specific Cleanup Goal based on Soil Leaching to Groundwater  
 Former Kast Property  
 Carson, California

Chemical of Potential Concern	Site Specific Kd (L/kg)	Groundwater quality criterion (µg/L)	Source	Dilution Attenuation Factor (DAF)	Soil Cleanup Goals (mg/kg)
<b>Site-related Soil COCs</b>					
Arsenic	NM	10	MCL	6.2	1.8
Benzene	28	1.0	MCL	6.2	0.13
Naphthalene	1093	17	CDPH NL	6.2	88
TPH as Diesel	4119	200	ESL-nc	6.2	3900
TPH as Gasoline	374	410	ESL-nc	6.2	730
TPH as Motor Oil	6957	6200	ESL-nc	6.2	50,000 **
<b>Non-site-related Soil COC</b>					
1,2,3-Trichloropropane	NM	0.005	CDPH NL	6.2	0.000026
1,2-Dichloroethane	NM	0.5	MCL	6.2	0.0020
1,4-Dichlorobenzene	NM	5.0	MCL	6.2	0.077
Antimony	NM	6.0	MCL	6.2	1.7
cis-1,2-Dichloroethylene	NM	6.0	MCL	6.2	0.024
tert-Butyl Alcohol	NM	12	CDPH NL	6.2	0.049
Tetrachloroethene	NM	5.0	MCL	6.2	0.036
Thallium	NM	2.0	MCL	6.2	0.89
Trichloroethene	NM	5.0	MCL	6.2	0.020
Vinyl Chloride	NM	0.50	MCL	6.2	0.0020

**Note:**

NM - Not measured

ND - Not detected

MCL - Maximum Contaminant Level.

ESL - San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels, Groundwater Screening Levels for Drinking Water.

ESL -nc: ESL level based on non-cancer health effect.

CDPH NL - California Department of Public Health Notification Level..

PHG - California Public Health Goal.

\* ESL value for 2-methylnaphthalene was used.

\*\* Calculated cleanup level exceeded the maximum immobile residual NAPL phase concentration of 53,067 mg/kg ( $C_{res,soil}$ ), therefore  $C_{res,soil}$  was used.  $C_{res,soil}$  obtained from: Brost, E.J. and Devaul, G.E., Non-Aqueous Phase Liquid (NAPL) Mobility Limits in Soil. American Petroleum Institute Research Bulletin No. 9. June 2000.

# ATTACHMENTS

# ATTACHMENT A1

## SSCG Derivation Spreadsheets

Attachment A1, Table A1-1  
 Derivation of Site-Specific Cleanup Goals, Soil  
 Onsite Resident  
 Former Kast Property  
 Carson, California

CAS Number	Chemical of Concern	Noncancer Effects						Cancer Effects							
		Ingestion		Dermal Contact		Outdoor Inhalation		Ingestion		Dermal Contact		Outdoor Inhalation		SSCG <sub>soil-c</sub> (mg/kg)	
		IF <sub>oral</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	IF <sub>dermal</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> )	Reference Concentration (mg/m <sup>3</sup> )	IF <sub>oral</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	IF <sub>dermal</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> )	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>		
<b>Inorganics</b>															
7440-36-0	Antimony	1.3E-05	4.0E-04	--	6.0E-05	8.3E-12	NA	3.1E+01	1.6E-06	NC	--	NC	3.6E-12	NC	--
7440-38-2	Arsenic	1.3E-05	3.0E-04	1.1E-06	3.0E-04	8.3E-12	1.5E-05	2.2E+01	1.6E-06	9.5E+00	1.5E-07	9.5E+00	3.6E-12	3.3E-03	6.1E+02
7440-43-9	Cadmium	1.3E-05	1.0E-03	3.6E-08	2.5E-05	8.3E-12	2.0E-05	7.0E+01	1.6E-06	NC	4.9E-09	NC	3.6E-12	4.2E-03	6.7E+04
18540-29-9	Chromium VI	1.3E-05	3.0E-03	--	7.5E-05	8.3E-12	1.0E-04	2.3E+02	1.6E-06	5.0E-01	--	NC	3.6E-12	1.5E-01	1.3E+00
7440-48-4	Cobalt	1.3E-05	3.0E-04	--	3.0E-04	8.3E-12	6.0E-06	2.3E+01	1.6E-06	NC	--	NC	3.6E-12	9.0E-03	3.1E+04
7440-50-8	Copper	1.3E-05	4.0E-02	--	4.0E-02	8.3E-12	NA	3.1E+03	1.6E-06	NC	--	NC	3.6E-12	NC	--
7439-92-1	Lead	1.3E-05	NA	--	NA	8.3E-12	NA	--	1.6E-06	NC	--	NC	3.6E-12	NC	--
7440-28-0	Thallium	1.3E-05	1.0E-05	--	1.0E-05	8.3E-12	NA	7.8E-01	1.6E-06	NC	--	NC	3.6E-12	NC	--
7440-62-2	Vanadium	1.3E-05	5.0E-03	--	5.0E-03	8.3E-12	1.0E-04	3.9E+02	1.6E-06	NC	--	NC	3.6E-12	NC	--
7440-66-6	Zinc	1.3E-05	3.0E-01	--	3.0E-01	8.3E-12	NA	2.3E+04	1.6E-06	NC	--	NC	3.6E-12	NC	--
<b>PAHs</b>															
56-55-3	Benz[a]anthracene	1.3E-05	NA	4.7E-06	NA	8.3E-12	NA	--	1.6E-06	2.9E-01	6.4E-07	2.9E-01	3.6E-12	1.1E-04	1.6E+00
50-32-8	Benzol[a]pyrene	1.3E-05	NA	4.7E-06	NA	8.3E-12	NA	--	1.6E-06	2.9E+00	6.4E-07	2.9E+00	3.6E-12	1.1E-03	1.6E-01
205-99-2	Benzol[b]fluoranthene	1.3E-05	NA	4.7E-06	NA	8.3E-12	NA	--	1.6E-06	2.9E-01	6.4E-07	2.9E-01	3.6E-12	1.1E-04	1.6E+00
207-08-9	Benzol[k]fluoranthene	1.3E-05	NA	4.7E-06	NA	8.3E-12	NA	--	1.6E-06	2.9E-01	6.4E-07	2.9E-01	3.6E-12	1.1E-04	1.6E+00
218-01-9	Chrysene	1.3E-05	NA	4.7E-06	NA	8.3E-12	NA	--	1.6E-06	2.9E-02	6.4E-07	2.9E-02	3.6E-12	1.1E-05	1.6E+01
53-70-3	Dibenz[a,h]anthracene	1.3E-05	NA	4.7E-06	NA	8.3E-12	NA	--	1.6E-06	4.1E+00	6.4E-07	4.1E+00	3.6E-12	1.2E-03	1.1E-01
193-39-5	Indeno[1,2,3-cd]pyrene	1.3E-05	NA	4.7E-06	NA	8.3E-12	NA	--	1.6E-06	2.9E-01	6.4E-07	2.9E-01	3.6E-12	1.1E-04	1.6E+00
90-12-0	Methylnaphthalene, 1-	1.3E-05	7.0E-02	4.7E-06	7.0E-02	1.4E-05	NA	4.0E+03	1.6E-06	2.9E-02	6.4E-07	2.9E-02	5.9E-06	NC	1.6E+01
91-57-6	Methylnaphthalene, 2-	1.3E-05	4.0E-03	4.7E-06	4.0E-03	1.4E-05	NA	2.3E+02	1.6E-06	NC	6.4E-07	NC	6.1E-06	NC	--
91-20-3	Naphthalene	1.3E-05	2.0E-02	4.7E-06	2.0E-02	1.7E-05	3.0E-03	1.5E+02	1.6E-06	NC	6.4E-07	NC	7.4E-06	3.4E-05	4.0E+00
129-00-0	Pyrene	1.3E-05	3.0E-02	4.7E-06	3.0E-02	2.5E-07	1.1E-01	1.7E+03	1.6E-06	NC	6.4E-07	NC	1.1E-07	NC	--
<b>TPH</b>															
1	Aliphatic: C5-C8	1.3E-05	4.0E-02	4.7E-06	4.0E-02	6.8E-04	7.0E-01	7.1E+02	1.6E-06	NC	6.4E-07	NC	2.9E-04	NC	--
2	Aliphatic: C9-C18	1.3E-05	1.0E-01	4.7E-06	1.0E-01	1.6E-04	3.0E-01	1.4E+03	1.6E-06	NC	6.4E-07	NC	6.7E-05	NC	--
3	Aliphatic: C19-C32	1.3E-05	2.0E+00	4.7E-06	2.0E+00	--	NA	1.1E+05	1.6E-06	NC	6.4E-07	NC	--	NC	--
4	Aromatic: C6-C8	1.3E-05	NA	4.7E-06	NA	2.2E-04	NA	--	1.6E-06	NC	6.4E-07	NC	9.6E-05	NC	--

Attachment A1, Table A1-1  
Derivation of Site-Specific Cleanup Goals, Soil  
Onsite Resident  
Former Kast Property  
Carson, California

CAS Number	Chemical of Concern	Noncancer Effects						Cancer Effects							
		Ingestion		Dermal Contact		Outdoor Inhalation		Ingestion		Dermal Contact		Outdoor Inhalation			
		IF <sub>oral</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	IF <sub>dermal</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> )	Reference Concentration (mg/m <sup>3</sup> )	SSCG <sub>soil-ne</sub> (mg/kg)	IF <sub>oral</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	IF <sub>dermal</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> )	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>	SSCG <sub>soil-c</sub> (mg/kg)
5	Aromatic: C9-C16	1.3E-05	3.0E-02	4.7E-06	3.0E-02	5.3E-05	5.0E-02	<b>6.0E+02</b>	1.6E-06	NC	6.4E-07	NC	2.3E-05	NC	--
6	Aromatic: C17-C32	1.3E-05	3.0E-02	4.7E-06	3.0E-02	--	NA	<b>1.7E+03</b>	1.6E-06	NC	6.4E-07	NC	--	NC	--
	<b>SVOCs</b>														
121-14-2	2,4-Dinitrotoluene	1.3E-05	2.0E-03	3.7E-06	2.0E-03	8.3E-12	7.0E-03	<b>1.2E+02</b>	1.6E-06	3.1E-01	5.0E-07	3.1E-01	3.6E-12	8.9E-05	<b>1.6E+00</b>
117-81-7	Bis(2-Ethylhexyl) Phthalate	1.3E-05	2.0E-02	3.6E-06	2.0E-02	8.3E-12	7.0E-02	<b>1.2E+03</b>	1.6E-06	1.4E-02	4.9E-07	1.4E-02	3.6E-12	2.4E-06	<b>3.5E+01</b>
	<b>VOCS</b>														
79-34-5	1,1,2,2-Tetrachloroethane	1.3E-05	2.0E-02	--	2.0E-02	6.9E-05	7.0E-02	<b>6.2E+02</b>	1.6E-06	2.7E-01	--	2.7E-01	2.9E-05	5.8E-05	<b>4.7E-01</b>
96-18-4	1,2,3-Trichloropropane	1.3E-05	4.0E-03	--	4.0E-03	1.3E-04	3.0E-04	<b>2.4E+00</b>	1.6E-06	3.0E+01	--	3.0E+01	5.4E-05	NC	<b>2.1E-02</b>
95-63-6	1,2,4-Trimethylbenzene	1.3E-05	1.0E-02	--	1.0E-02	7.6E-05	7.0E-03	<b>8.3E+01</b>	1.6E-06	NC	--	NC	3.2E-05	NC	--
78-87-5	1,2-Dichloropropane	1.3E-05	9.0E-02	--	9.0E-02	2.7E-04	4.0E-03	<b>1.5E+01</b>	1.6E-06	3.6E-02	--	3.6E-02	1.2E-04	1.0E-05	<b>8.3E-01</b>
108-67-8	1,3,5-Trimethylbenzene	1.3E-05	1.0E-02	--	1.0E-02	7.4E-05	7.0E-03	<b>8.5E+01</b>	1.6E-06	NC	--	NC	3.2E-05	NC	--
106-46-7	1,4-Dichlorobenzene	1.3E-05	7.0E-02	--	7.0E-02	7.4E-05	8.0E-01	<b>3.6E+03</b>	1.6E-06	5.4E-03	--	5.4E-03	3.2E-05	1.1E-05	<b>2.8E+00</b>
71-43-2	Benzene	1.3E-05	4.0E-03	--	4.0E-03	3.5E-04	3.0E-02	<b>6.7E+01</b>	1.6E-06	1.0E-01	--	1.0E-01	1.5E-04	2.9E-05	<b>2.2E-01</b>
75-27-4	Bromodichloromethane	1.3E-05	2.0E-02	--	2.0E-02	1.2E-04	7.0E-02	<b>4.3E+02</b>	1.6E-06	1.3E-01	--	1.3E-01	5.0E-05	3.7E-05	<b>4.9E-01</b>
74-83-9	Bromomethane	1.3E-05	1.4E-03	--	1.4E-03	5.2E-04	5.0E-03	<b>8.8E+00</b>	1.6E-06	NC	--	NC	2.2E-04	NC	--
100-41-4	Ethylbenzene	1.3E-05	1.0E-01	--	1.0E-01	1.8E-04	1.0E+00	<b>3.3E+03</b>	1.6E-06	1.1E-02	--	1.1E-02	7.7E-05	2.5E-06	<b>4.8E+00</b>
75-09-2	Methylene chloride	1.3E-05	6.0E-03	--	6.0E-03	3.9E-04	6.0E-01	<b>3.6E+02</b>	1.6E-06	1.4E-02	--	1.4E-02	1.7E-04	1.0E-06	<b>5.3E+00</b>
127-18-4	Tetrachloroethene	1.3E-05	6.0E-03	--	6.0E-03	3.8E-04	4.0E-02	<b>8.6E+01</b>	1.6E-06	5.4E-01	--	5.4E-01	1.6E-04	5.9E-06	<b>5.5E-01</b>
79-01-6	Trichloroethene	1.3E-05	5.0E-04	--	5.0E-04	3.0E-04	2.0E-03	<b>5.8E+00</b>	8.3E-06	4.6E-02	--	4.6E-02	4.5E-04	4.1E-06	<b>1.2E+00</b>
75-01-4	Vinyl chloride	1.3E-05	3.0E-03	--	3.0E-03	9.3E-04	1.0E-01	<b>7.4E+01</b>	1.6E-06	2.7E-01	--	2.7E-01	4.0E-04	7.8E-05	<b>3.2E-02</b>

Note: "--" not applicable

Attachment A1, Table A1-2  
 Derivation of Site-Specific Cleanup Goals, Soil  
 Onsite Resident, Infrequent Exposure to Subsurface Soils  
 Former Kast Property  
 Carson, California

CAS Number	Chemical of Concern	Noncancer Effects						Cancer Effects							
		Ingestion		Dermal Contact		Outdoor Inhalation		Ingestion		Dermal Contact		Outdoor Inhalation			
		IF <sub>oral</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	IF <sub>dermal</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> -mg/kg)	Reference Concentration (mg/m <sup>3</sup> )	SSCG <sub>soil-ne</sub> (mg/kg)	IF <sub>oral</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	IF <sub>dermal</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> -mg/kg)	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>	SSCG <sub>soil-c</sub> (mg/kg)
	<b>Inorganics</b>														
7440-36-0	Antimony	1.5E-07	4.0E-04	--	6.0E-05	9.5E-14	NA	<b>2.7E+03</b>	1.8E-08	NC	--	NC	4.1E-14	NC	--
7440-38-2	Arsenic	1.5E-07	3.0E-04	1.2E-08	3.0E-04	9.5E-14	1.5E-05	<b>1.9E+03</b>	1.8E-08	9.5E+00	1.7E-09	9.5E+00	4.1E-14	3.3E-03	<b>5.4E+00</b>
7440-43-9	Cadmium	1.5E-07	1.0E-03	4.1E-10	2.5E-05	9.5E-14	2.0E-05	<b>6.2E+03</b>	1.8E-08	NC	5.6E-11	NC	4.1E-14	4.2E-03	<b>5.8E+06</b>
18540-29-9	Chromium VI	1.5E-07	3.0E-03	--	7.5E-05	9.5E-14	1.0E-04	<b>2.1E+04</b>	1.8E-08	5.0E-01	--	NC	4.1E-14	1.5E-01	<b>1.1E+02</b>
7440-48-4	Cobalt	1.5E-07	3.0E-04	--	3.0E-04	9.5E-14	6.0E-06	<b>2.1E+03</b>	1.8E-08	NC	--	NC	4.1E-14	9.0E-03	<b>2.7E+06</b>
7440-50-8	Copper	1.5E-07	4.0E-02	--	4.0E-02	9.5E-14	NA	<b>2.7E+05</b>	1.8E-08	NC	--	NC	4.1E-14	NC	--
7439-92-1	Lead	1.5E-07	NA	--	NA	9.5E-14	NA	--	1.8E-08	NC	--	NC	4.1E-14	NC	--
7440-28-0	Thallium	1.5E-07	1.0E-05	--	1.0E-05	9.5E-14	NA	<b>6.8E+01</b>	1.8E-08	NC	--	NC	4.1E-14	NC	--
7440-62-2	Vanadium	1.5E-07	5.0E-03	--	5.0E-03	9.5E-14	1.0E-04	<b>3.4E+04</b>	1.8E-08	NC	--	NC	4.1E-14	NC	--
7440-66-6	Zinc	1.5E-07	3.0E-01	--	3.0E-01	9.5E-14	NA	<b>2.1E+06</b>	1.8E-08	NC	--	NC	4.1E-14	NC	--
	<b>PAHs</b>														
56-55-3	Benz[a]anthracene	1.5E-07	NA	5.3E-08	NA	9.5E-14	NA	--	1.8E-08	2.9E-01	7.3E-09	2.9E-01	4.1E-14	1.1E-04	<b>1.4E+02</b>
50-32-8	Benzol[a]pyrene	1.5E-07	NA	5.3E-08	NA	9.5E-14	NA	--	1.8E-08	2.9E+00	7.3E-09	2.9E+00	4.1E-14	1.1E-03	<b>1.4E+01</b>
205-99-2	Benzol[b]fluoranthene	1.5E-07	NA	5.3E-08	NA	9.5E-14	NA	--	1.8E-08	2.9E-01	7.3E-09	2.9E-01	4.1E-14	1.1E-04	<b>1.4E+02</b>
207-08-9	Benzol[k]fluoranthene	1.5E-07	NA	5.3E-08	NA	9.5E-14	NA	--	1.8E-08	2.9E-01	7.3E-09	2.9E-01	4.1E-14	1.1E-04	<b>1.4E+02</b>
218-01-9	Chrysene	1.5E-07	NA	5.3E-08	NA	9.5E-14	NA	--	1.8E-08	2.9E-02	7.3E-09	2.9E-02	4.1E-14	1.1E-05	<b>1.4E+03</b>
53-70-3	Dibenz[a,h]anthracene	1.5E-07	NA	5.3E-08	NA	9.5E-14	NA	--	1.8E-08	4.1E+00	7.3E-09	4.1E+00	4.1E-14	1.2E-03	<b>9.7E+00</b>
193-39-5	Indeno[1,2,3-cd]pyrene	1.5E-07	NA	5.3E-08	NA	9.5E-14	NA	--	1.8E-08	2.9E-01	7.3E-09	2.9E-01	4.1E-14	1.1E-04	<b>1.4E+02</b>
90-12-0	Methylnaphthalene, 1-	1.5E-07	7.0E-02	5.3E-08	7.0E-02	1.6E-07	NA	<b>3.5E+05</b>	1.8E-08	2.9E-02	7.3E-09	2.9E-02	6.7E-08	NC	<b>1.4E+03</b>
91-57-6	Methylnaphthalene, 2-	1.5E-07	4.0E-03	5.3E-08	4.0E-03	1.6E-07	NA	<b>2.0E+04</b>	1.8E-08	NC	7.3E-09	NC	7.0E-08	NC	--
91-20-3	Naphthalene	1.5E-07	2.0E-02	5.3E-08	2.0E-02	2.0E-07	3.0E-03	<b>1.3E+04</b>	1.8E-08	NC	7.3E-09	NC	8.5E-08	3.4E-05	<b>3.5E+02</b>
129-00-0	Pyrene	1.5E-07	3.0E-02	5.3E-08	3.0E-02	2.9E-09	1.1E-01	<b>1.5E+05</b>	1.8E-08	NC	7.3E-09	NC	1.2E-09	NC	--
	<b>TPH</b>														
1	Aliphatic: C5-C8	1.5E-07	4.0E-02	5.3E-08	4.0E-02	7.8E-06	7.0E-01	<b>6.2E+04</b>	1.8E-08	NC	7.3E-09	NC	3.3E-06	NC	--
2	Aliphatic: C9-C18	1.5E-07	1.0E-01	5.3E-08	1.0E-01	1.8E-06	3.0E-01	<b>1.3E+05</b>	1.8E-08	NC	7.3E-09	NC	7.6E-07	NC	--
3	Aliphatic: C19-C32	1.5E-07	2.0E+00	5.3E-08	2.0E+00	--	NA	<b>1.0E+07</b>	1.8E-08	NC	7.3E-09	NC	--	NC	--
4	Aromatic: C6-C8	1.5E-07	NA	5.3E-08	NA	2.6E-06	NA	--	1.8E-08	NC	7.3E-09	NC	1.1E-06	NC	--

Attachment A1, Table A1-2  
 Derivation of Site-Specific Cleanup Goals, Soil  
 Onsite Resident, Infrequent Exposure to Subsurface Soils  
 Former Kast Property  
 Carson, California

CAS Number	Chemical of Concern	Noncancer Effects						Cancer Effects							
		Ingestion		Dermal Contact		Outdoor Inhalation		Ingestion		Dermal Contact		Outdoor Inhalation			
		IF <sub>oral</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	IF <sub>dermal</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> -mg/kg)	Reference Concentration (mg/m <sup>3</sup> )	SSCG <sub>soil-ne</sub> (mg/kg)	IF <sub>oral</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	IF <sub>dermal</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> -mg/kg)	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>	SSCG <sub>soil-c</sub> (mg/kg)
5	Aromatic: C9-C16	1.5E-07	3.0E-02	5.3E-08	3.0E-02	6.1E-07	5.0E-02	<b>5.3E+04</b>	1.8E-08	NC	7.3E-09	NC	2.6E-07	NC	--
6	Aromatic: C17-C32	1.5E-07	3.0E-02	5.3E-08	3.0E-02	--	NA	<b>1.5E+05</b>	1.8E-08	NC	7.3E-09	NC	--	NC	--
	<b>SVOCs</b>														
121-14-2	2,4-Dinitrotoluene	1.5E-07	2.0E-03	4.2E-08	2.0E-03	9.5E-14	7.0E-03	<b>1.1E+04</b>	1.8E-08	3.1E-01	5.8E-09	3.1E-01	4.1E-14	8.9E-05	<b>1.4E+02</b>
117-81-7	Bis(2-Ethylhexyl) Phthalate	1.5E-07	2.0E-02	4.1E-08	2.0E-02	9.5E-14	7.0E-02	<b>1.1E+05</b>	1.8E-08	1.4E-02	5.6E-09	1.4E-02	4.1E-14	2.4E-06	<b>3.0E+03</b>
	<b>VOCS</b>														
79-34-5	1,1,2,2-Tetrachloroethane	1.5E-07	2.0E-02	--	2.0E-02	7.8E-07	7.0E-02	<b>5.4E+04</b>	1.8E-08	2.7E-01	--	2.7E-01	3.4E-07	5.8E-05	<b>4.1E+01</b>
96-18-4	1,2,3-Trichloropropane	1.5E-07	4.0E-03	--	4.0E-03	1.4E-06	3.0E-04	<b>2.1E+02</b>	1.8E-08	3.0E+01	--	3.0E+01	6.1E-07	NC	<b>1.9E+00</b>
95-63-6	1,2,4-Trimethylbenzene	1.5E-07	1.0E-02	--	1.0E-02	8.7E-07	7.0E-03	<b>7.2E+03</b>	1.8E-08	NC	--	NC	3.7E-07	NC	--
78-87-5	1,2-Dichloropropane	1.5E-07	9.0E-02	--	9.0E-02	3.1E-06	4.0E-03	<b>1.3E+03</b>	1.8E-08	3.6E-02	--	3.6E-02	1.3E-06	1.0E-05	<b>7.2E+01</b>
108-67-8	1,3,5-Trimethylbenzene	1.5E-07	1.0E-02	--	1.0E-02	8.4E-07	7.0E-03	<b>7.4E+03</b>	1.8E-08	NC	--	NC	3.6E-07	NC	--
106-46-7	1,4-Dichlorobenzene	1.5E-07	7.0E-02	--	7.0E-02	8.5E-07	8.0E-01	<b>3.2E+05</b>	1.8E-08	5.4E-03	--	5.4E-03	3.6E-07	1.1E-05	<b>2.4E+02</b>
71-43-2	Benzene	1.5E-07	4.0E-03	--	4.0E-03	4.0E-06	3.0E-02	<b>5.8E+03</b>	1.8E-08	1.0E-01	--	1.0E-01	1.7E-06	2.9E-05	<b>1.9E+01</b>
75-27-4	Bromodichloromethane	1.5E-07	2.0E-02	--	2.0E-02	1.3E-06	7.0E-02	<b>3.8E+04</b>	1.8E-08	1.3E-01	--	1.3E-01	5.7E-07	3.7E-05	<b>4.2E+01</b>
74-83-9	Bromomethane	1.5E-07	1.4E-03	--	1.4E-03	6.0E-06	5.0E-03	<b>7.7E+02</b>	1.8E-08	NC	--	NC	2.6E-06	NC	--
100-41-4	Ethylbenzene	1.5E-07	1.0E-01	--	1.0E-01	2.0E-06	1.0E+00	<b>2.9E+05</b>	1.8E-08	1.1E-02	--	1.1E-02	8.8E-07	2.5E-06	<b>4.2E+02</b>
75-09-2	Methylene chloride	1.5E-07	6.0E-03	--	6.0E-03	4.4E-06	6.0E-01	<b>3.2E+04</b>	1.8E-08	1.4E-02	--	1.4E-02	1.9E-06	1.0E-06	<b>4.7E+02</b>
127-18-4	Tetrachloroethane	1.5E-07	6.0E-03	--	6.0E-03	4.3E-06	4.0E-02	<b>7.5E+03</b>	1.8E-08	5.4E-01	--	5.4E-01	1.9E-06	5.9E-06	<b>4.9E+01</b>
79-01-6	Trichloroethene	1.5E-07	5.0E-04	--	5.0E-04	3.4E-06	2.0E-03	<b>5.0E+02</b>	<b>9.5E-08</b>	4.6E-02	--	4.6E-02	<b>5.1E-06</b>	4.1E-06	<b>1.0E+02</b>
75-01-4	Vinyl chloride	1.5E-07	3.0E-03	--	3.0E-03	1.1E-05	1.0E-01	<b>6.4E+03</b>	1.8E-08	2.7E-01	--	2.7E-01	4.6E-06	7.8E-05	<b>2.8E+00</b>

Note: "--" not applicable

Attachment A1, Table A1-3  
 Derivation of Site-Specific Cleanup Goal, Lead in Soil  
 Onsite Resident, Infrequent Exposure to Subsurface Soils  
 Former Kast Property  
 Carson, California

Calculations of Preliminary Remediation Goals (PRGs)  
 U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee  
 Version date 6/21/09

Variable	Description of Variable	Units	GSDI and PbBo from Analysis of NHANES 1999-2004
PbB <sub>fetal, 0.90</sub>	90 <sup>th</sup> percentile PbB in fetus	ug/dL	1
R <sub>fetal/maternal</sub>	Fetal/maternal PbB ratio	--	0.9
BKSF	Biokinetic Slope Factor	ug/dL per ug/day	0.4
GSD <sub>I</sub>	Geometric standard deviation PbB	--	1.8
PbB <sub>0</sub>	Baseline PbB	ug/dL	0.0
IR <sub>s</sub>	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100
AF <sub>s, D</sub>	Absorption fraction (same for soil and dust)	--	0.12
EF <sub>s, D</sub>	Exposure frequency (same for soil and dust)	days/yr	12
AT <sub>s, D</sub>	Averaging time (same for soil and dust)	days/yr	90
<b>PRG</b>		<b>mg/kg</b>	<b>818</b>



Attachment A1, Table A1-4  
 Derivation of Site-Specific Cleanup Goals, Sub-Slab Soil Vapor  
 Onsite Resident  
 Former Kast Property  
 Carson, California

CAS Number	Chemical of Concern	Noncancer Effects			Cancer Effects		
		Reference Concentration (mg/m <sup>3</sup> )	Indoor Air SSCG <sub>nc</sub> (µg/m <sup>3</sup> )	Sub-Slab Soil Vapor SSCG <sub>nc</sub> (µg/m <sup>3</sup> )	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>	Indoor Air SSCG <sub>c</sub> (µg/m <sup>3</sup> )	Sub-Slab Soil Vapor SSCG <sub>c</sub> (µg/m <sup>3</sup> )
71-55-6	1,1,1-Trichloroethane	5.0E+00	5.2E+03	5.2E+06	NC	--	--
79-34-5	1,1,2,2-Tetrachloroethane	7.0E-02	7.3E+01	7.3E+04	5.8E-05	4.2E-02	4.2E+01
79-00-5	1,1,2-Trichloroethane	2.0E-04	2.1E-01	2.1E+02	1.6E-05	1.5E-01	1.5E+02
75-34-3	1,1-Dichloroethane	7.0E-01	7.3E+02	7.3E+05	1.6E-06	1.5E+00	1.5E+03
120-82-1	1,2,4-Trichlorobenzene	2.0E-03	2.1E+00	2.1E+03	NC	--	--
95-63-6	1,2,4-Trimethylbenzene	7.0E-03	7.3E+00	7.3E+03	NC	--	--
107-06-2	1,2-Dichloroethane	7.0E-03	7.3E+00	7.3E+03	2.1E-05	1.2E-01	1.2E+02
78-87-5	1,2-Dichloropropane	4.0E-03	4.2E+00	4.2E+03	1.0E-05	2.4E-01	2.4E+02
108-67-8	1,3,5-Trimethylbenzene	7.0E-03	7.3E+00	7.3E+03	NC	--	--
106-99-0	1,3-Butadiene	2.0E-03	2.1E+00	2.1E+03	1.7E-04	1.4E-02	1.4E+01
106-46-7	1,4-Dichlorobenzene	8.0E-01	8.3E+02	8.3E+05	1.1E-05	2.2E-01	2.2E+02
123-91-1	1,4-Dioxane	3.0E+00	3.1E+03	3.1E+06	7.7E-06	3.2E-01	3.2E+02
540-84-1	2,2,4-Trimethylpentane	1.0E+00	1.0E+03	1.0E+06	NC	--	--
591-78-6	2-Hexanone	3.0E-02	3.1E+01	3.1E+04	NC	--	--
622-96-8	4-Ethyltoluene	1.0E-01	1.0E+02	1.0E+05	NC	--	--
71-43-2	Benzene	3.0E-02	3.1E+01	3.1E+04	2.9E-05	8.4E-02	8.4E+01
75-27-4	Bromodichloromethane	7.0E-02	7.3E+01	7.3E+04	3.7E-05	6.6E-02	6.6E+01
74-83-9	Bromomethane	5.0E-03	5.2E+00	5.2E+03	NC	--	--
75-15-0	Carbon disulfide	7.0E-01	7.3E+02	7.3E+05	NC	--	--
56-23-5	Carbon tetrachloride	1.0E-01	1.0E+02	1.0E+05	4.2E-05	5.8E-02	5.8E+01
67-66-3	Chloroform	9.8E-02	1.0E+02	1.0E+05	5.3E-06	4.6E-01	4.6E+02
74-87-3	Chloromethane	9.0E-02	9.4E+01	9.4E+04	NC	--	--
110-82-7	Cyclohexane	6.0E+00	6.3E+03	6.3E+06	NC	--	--
124-48-1	Dibromochloromethane	7.0E-02	7.3E+01	7.3E+04	2.7E-05	9.0E-02	9.0E+01
156-59-2	Dichloroethene, cis-1,2-	7.0E-03	7.3E+00	7.3E+03	NC	--	--
156-60-5	Dichloroethene, trans-1,2-	6.0E-02	6.3E+01	6.3E+04	NC	--	--
10061-02-6	Dichloropropene, trans-1,3-	2.0E-02	2.1E+01	2.1E+04	1.6E-05	1.5E-01	1.5E+02
64-17-5	Ethanol	4.0E+00	4.2E+03	4.2E+06	NC	--	--
100-41-4	Ethylbenzene	1.0E+00	1.0E+03	1.0E+06	2.5E-06	9.7E-01	9.7E+02

Attachment A1, Table A1-4  
Derivation of Site-Specific Cleanup Goals, Sub-Slab Soil Vapor  
Onsite Resident  
Former Kast Property  
Carson, California

CAS Number	Chemical of Concern	Noncancer Effects			Cancer Effects		
		Reference Concentration (mg/m <sup>3</sup> )	Indoor Air SSCG <sub>nc</sub> (µg/m <sup>3</sup> )	Sub-Slab Soil Vapor SSCG <sub>nc</sub> (µg/m <sup>3</sup> )	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>	Indoor Air SSCG <sub>c</sub> (µg/m <sup>3</sup> )	Sub-Slab Soil Vapor SSCG <sub>c</sub> (µg/m <sup>3</sup> )
142-82-5	Heptane	7.0E-01	7.3E+02	7.3E+05	NC	--	--
87-68-3	Hexachloro-1,3-butadiene	3.5E-03	3.7E+00	3.7E+03	2.2E-05	1.1E-01	1.1E+02
110-54-3	Hexane	7.0E-01	7.3E+02	7.3E+05	NC	--	--
67-63-0	Isopropanol	7.0E+00	7.3E+03	7.3E+06	NC	--	--
98-82-8	Isopropylbenzene (cumene)	4.0E-01	4.2E+02	4.2E+05	NC	--	--
78-93-3	Methyl ethyl ketone (2-butanone)	5.0E+00	5.2E+03	5.2E+06	NC	--	--
75-09-2	Methylene chloride	6.0E-01	6.3E+02	6.3E+05	1.0E-06	2.4E+00	2.4E+03
1634-04-4	Methyl-tert-butyl ether	3.0E+00	3.1E+03	3.1E+06	2.6E-07	9.4E+00	9.4E+03
91-20-3	Naphthalene	3.0E-03	3.1E+00	3.1E+03	3.4E-05	7.2E-02	7.2E+01
103-65-1	Propylbenzene	1.0E+00	1.0E+03	1.0E+06	NC	--	--
75-65-0	tert-Butyl Alcohol (TBA)	1.1E+00	1.1E+03	1.1E+06	NC	--	--
127-18-4	Tetrachloroethene	4.0E-02	4.2E+01	4.2E+04	5.9E-06	4.1E-01	4.1E+02
109-99-9	Tetrahydrofuran	2.0E+00	2.1E+03	2.1E+06	NC	--	--
108-88-3	Toluene	5.0E+00	5.2E+03	5.2E+06	NC	--	--
79-01-6	Trichloroethene	2.0E-03	2.1E+00	2.1E+03	4.1E-06	4.3E-01	4.3E+02
75-01-4	Vinyl chloride	1.0E-01	1.0E+02	1.0E+05	7.8E-05	3.1E-02	3.1E+01
108-38-3	Xylene, m-	1.0E-01	1.0E+02	1.0E+05	NC	--	--
95-47-6	Xylene, o-	1.0E-01	1.0E+02	1.0E+05	NC	--	--
106-42-3	Xylene, p-	1.0E-01	1.0E+02	1.0E+05	NC	--	--
	<b>TPH</b>						
	Aliphatic: C5-C8	7.0E-01	7.3E+02	7.3E+05	NC	--	--
	Aliphatic: C9-C18	3.0E-01	3.1E+02	3.1E+05	NC	--	--
	Aliphatic: C19-C32	NA	--	--	NC	--	--
	Aromatic: C6-C8	NA	--	--	NC	--	--
	Aromatic: C9-C16	5.0E-02	5.2E+01	5.2E+04	NC	--	--
	Aromatic: C17-C32	NA	--	--	NC	--	--

Note: "--" not applicable or not available

Attachment A1, Table A1-5  
 Derivation of Site-Specific Cleanup Goals, Soil  
 Construction and Utility Maintenance Worker  
 Former Kast Property  
 Carson, California

CAS Number	Chemical of Concern	Noncancer Effects										Cancer Effects									
		Ingestion		Dermal Contact		Outdoor Inhalation		SSCG <sub>soil-c</sub> (mg/kg)	Ingestion		Dermal Contact		Outdoor Inhalation		SSCG <sub>soil-c</sub> (mg/kg)						
		IF <sub>oral</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	IF <sub>dermal</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> )	Reference Concentration (mg/m <sup>3</sup> )		IF <sub>oral</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	IF <sub>dermal</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> )	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>							
7440-36-0	Antimony	1.3E-07	4.0E-04	--	6.0E-05	2.7E-08	NA	3.1E+03	4.6E-08	NC	--	NC	9.8E-09	NC	--						
7440-38-2	Arsenic	1.3E-07	3.0E-04	5.4E-08	3.0E-04	2.7E-08	1.5E-05	4.1E+02	4.6E-08	9.5E+00	1.9E-08	9.5E+00	9.8E-09	3.3E-03	1.5E+01						
7440-43-9	Cadmium	1.3E-07	1.0E-03	1.8E-09	2.5E-05	2.7E-08	2.0E-05	6.4E+02	4.6E-08	NC	6.4E-10	NC	9.8E-09	4.2E-03	2.4E+02						
18540-29-9	Chromium VI	1.3E-07	3.0E-03	--	7.5E-05	2.7E-08	1.0E-04	3.2E+03	4.6E-08	5.0E-01	--	NC	9.8E-09	1.5E-01	6.7E+00						
7440-48-4	Cobalt	1.3E-07	3.0E-04	--	3.0E-04	2.7E-08	6.0E-06	2.0E+02	4.6E-08	NC	--	NC	9.8E-09	9.0E-03	1.1E+02						
7440-50-8	Copper	1.3E-07	4.0E-02	--	4.0E-02	2.7E-08	NA	3.1E+05	4.6E-08	NC	--	NC	9.8E-09	NC	--						
7439-92-1	Lead	1.3E-07	NA	--	NA	2.7E-08	NA	--	4.6E-08	NC	--	NC	9.8E-09	NC	--						
7440-28-0	Thallium	1.3E-07	1.0E-05	--	1.0E-05	2.7E-08	NA	7.7E+01	4.6E-08	NC	--	NC	9.8E-09	NC	--						
7440-62-2	Vanadium	1.3E-07	5.0E-03	--	5.0E-03	2.7E-08	1.0E-04	3.3E+03	4.6E-08	NC	--	NC	9.8E-09	NC	--						
7440-66-6	Zinc	1.3E-07	3.0E-01	--	3.0E-01	2.7E-08	NA	2.3E+06	4.6E-08	NC	--	NC	9.8E-09	NC	--						
	<b>PAHs</b>																				
56-55-3	Benz[a]anthracene	1.3E-07	NA	2.3E-07	NA	2.7E-08	NA	--	4.6E-08	2.9E-01	8.3E-08	2.9E-01	9.8E-09	1.1E-04	2.6E+02						
50-32-8	Benzofluoranthene	1.3E-07	NA	2.3E-07	NA	2.7E-08	NA	--	4.6E-08	2.9E+00	8.3E-08	2.9E+00	9.8E-09	1.1E-03	2.6E+01						
205-99-2	Benzofluoranthene	1.3E-07	NA	2.3E-07	NA	2.7E-08	NA	--	4.6E-08	2.9E-01	8.3E-08	2.9E-01	9.8E-09	1.1E-04	2.6E+02						
207-08-9	Benzofluoranthene	1.3E-07	NA	2.3E-07	NA	2.7E-08	NA	--	4.6E-08	2.9E-01	8.3E-08	2.9E-01	9.8E-09	1.1E-04	2.6E+02						
218-01-9	Chrysene	1.3E-07	NA	2.3E-07	NA	2.7E-08	NA	--	4.6E-08	2.9E-02	8.3E-08	2.9E-02	9.8E-09	1.1E-05	2.6E+03						
53-70-3	Dibenz[a,h]anthracene	1.3E-07	NA	2.3E-07	NA	2.7E-08	NA	--	4.6E-08	4.1E+00	8.3E-08	4.1E+00	9.8E-09	1.2E-03	1.9E+01						
193-39-5	Indeno[1,2,3-cd]pyrene	1.3E-07	NA	2.3E-07	NA	2.7E-08	NA	--	4.6E-08	2.9E-01	8.3E-08	2.9E-01	9.8E-09	1.1E-04	2.6E+02						
90-12-0	Methylnaphthalene, 1-	1.3E-07	7.0E-02	2.3E-07	7.0E-02	1.7E-05	NA	1.9E+05	4.6E-08	2.9E-02	8.3E-08	2.9E-02	6.0E-06	NC	2.7E+03						
91-57-6	Methylnaphthalene, 2-	1.3E-07	4.0E-03	2.3E-07	4.0E-03	1.7E-05	NA	1.1E+04	4.6E-08	NC	8.3E-08	NC	6.2E-06	NC	--						
91-20-3	Naphthalene	1.3E-07	2.0E-02	2.3E-07	2.0E-02	2.1E-05	3.0E-03	1.4E+02	4.6E-08	NC	8.3E-08	NC	7.6E-06	3.4E-05	3.9E+01						
129-00-0	Pyrene	1.3E-07	3.0E-02	2.3E-07	3.0E-02	3.1E-07	1.1E-01	6.7E+04	4.6E-08	NC	8.3E-08	NC	1.1E-07	NC	--						
	<b>TPH</b>																				
1	Aliphatic: C5-C8	1.3E-07	4.0E-02	2.3E-07	4.0E-02	8.4E-04	7.0E-01	8.3E+02	4.6E-08	NC	8.3E-08	NC	3.0E-04	NC	--						
2	Aliphatic: C9-C18	1.3E-07	1.0E-01	2.3E-07	1.0E-01	1.9E-04	3.0E-01	1.6E+03	4.6E-08	NC	8.3E-08	NC	6.8E-05	NC	--						
3	Aliphatic: C19-C32	1.3E-07	2.0E+00	2.3E-07	2.0E+00	--	NA	5.5E+06	4.6E-08	NC	8.3E-08	NC	--	NC	--						
4	Aromatic: C6-C8	1.3E-07	NA	2.3E-07	NA	2.8E-04	NA	--	4.6E-08	NC	8.3E-08	NC	9.8E-05	NC	--						
5	Aromatic: C9-C16	1.3E-07	3.0E-02	2.3E-07	3.0E-02	6.6E-05	5.0E-02	7.5E+02	4.6E-08	NC	8.3E-08	NC	2.3E-05	NC	--						

Attachment A1, Table A1-5  
 Derivation of Site-Specific Cleanup Goals, Soil  
 Construction and Utility Maintenance Worker  
 Former Kast Property  
 Carson, California

CAS Number	Chemical of Concern	Noncancer Effects										Cancer Effects						
		Ingestion		Dermal Contact		Outdoor Inhalation		SSCG <sub>soil-c</sub> (mg/kg)	Ingestion		Dermal Contact		Outdoor Inhalation		SSCG <sub>soil-c</sub> (mg/kg)			
		IF <sub>oral</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	IF <sub>dermal</sub> (mg/kg-day)	Reference Dose (mg/kg-day)	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> )	Reference Concentration (mg/m <sup>3</sup> )		IF <sub>oral</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	IF <sub>dermal</sub> (mg/kg-day)	Cancer Slope Factor (mg/kg-day) <sup>-1</sup>	EC <sub>inh,soil</sub> (mg/m <sup>3</sup> )	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>				
6	Aromatic: C17-C32 <b>SVOCs</b>	1.3E-07	3.0E-02	2.3E-07	3.0E-02	--	NA	<b>8.3E+04</b>	4.6E-08	NC	8.3E-08	NC	--	NC	--	NC	--	
121-14-2	2,4-Dinitrotoluene	1.3E-07	2.0E-03	1.8E-07	2.0E-03	2.7E-08	7.0E-03	<b>6.3E+03</b>	4.6E-08	3.1E-01	6.5E-08	3.1E-01	9.8E-09	8.9E-05	<b>2.8E+02</b>			
117-81-7	Bis(2-Ethylhexyl) Phthalate <b>VOCS</b>	1.3E-07	2.0E-02	1.8E-07	2.0E-02	2.7E-08	7.0E-02	<b>6.3E+04</b>	4.6E-08	1.4E-02	6.4E-08	1.4E-02	9.8E-09	2.4E-06	<b>6.4E+03</b>			
79-34-5	1,1,2,2-Tetrachloroethane	1.3E-07	2.0E-02	--	2.0E-02	8.4E-05	7.0E-02	<b>8.3E+02</b>	4.6E-08	2.7E-01	--	2.7E-01	3.0E-05	5.8E-05	<b>5.7E+00</b>			
96-18-4	1,2,3-Trichloropropane	1.3E-07	4.0E-03	--	4.0E-03	1.5E-04	3.0E-04	<b>2.0E+00</b>	4.6E-08	3.0E+01	--	3.0E+01	5.5E-05	NC	<b>7.2E+00</b>			
95-63-6	1,2,4-Trimethylbenzene	1.3E-07	1.0E-02	--	1.0E-02	9.3E-05	7.0E-03	<b>7.5E+01</b>	4.6E-08	NC	--	NC	3.3E-05	NC	--			
78-87-5	1,2-Dichloropropane	1.3E-07	9.0E-02	--	9.0E-02	3.3E-04	4.0E-03	<b>1.2E+01</b>	4.6E-08	3.6E-02	--	3.6E-02	1.2E-04	1.0E-05	<b>8.5E+00</b>			
108-67-8	1,3,5-Trimethylbenzene	1.3E-07	1.0E-02	--	1.0E-02	9.0E-05	7.0E-03	<b>7.7E+01</b>	4.6E-08	NC	--	NC	3.2E-05	NC	--			
106-46-7	1,4-Dichlorobenzene	1.3E-07	7.0E-02	--	7.0E-02	9.1E-05	8.0E-01	<b>8.7E+03</b>	4.6E-08	5.4E-03	--	5.4E-03	3.2E-05	1.1E-05	<b>2.8E+01</b>			
71-43-2	Benzene	1.3E-07	4.0E-03	--	4.0E-03	4.3E-04	3.0E-02	<b>6.9E+01</b>	4.6E-08	1.0E-01	--	1.0E-01	1.5E-04	2.9E-05	<b>2.2E+00</b>			
75-27-4	Bromodichloromethane	1.3E-07	2.0E-02	--	2.0E-02	1.4E-04	7.0E-02	<b>4.9E+02</b>	4.6E-08	1.3E-01	--	1.3E-01	5.1E-05	3.7E-05	<b>5.3E+00</b>			
74-83-9	Bromomethane	1.3E-07	1.4E-03	--	1.4E-03	6.4E-04	5.0E-03	<b>7.8E+00</b>	4.6E-08	NC	--	NC	2.3E-04	NC	--			
100-41-4	Ethylbenzene	1.3E-07	1.0E-01	--	1.0E-01	2.2E-04	1.0E+00	<b>4.5E+03</b>	4.6E-08	1.1E-02	--	1.1E-02	7.8E-05	2.5E-06	<b>5.1E+01</b>			
75-09-2	Methylene chloride	1.3E-07	6.0E-03	--	6.0E-03	4.7E-04	6.0E-01	<b>1.2E+03</b>	4.6E-08	1.4E-02	--	1.4E-02	1.7E-04	1.0E-06	<b>5.9E+01</b>			
127-18-4	Tetrachloroethene	1.3E-07	6.0E-03	--	6.0E-03	4.6E-04	4.0E-02	<b>8.6E+01</b>	4.6E-08	5.4E-01	--	5.4E-01	1.7E-04	5.9E-06	<b>1.0E+01</b>			
79-01-6	Trichloroethene	1.3E-07	5.0E-04	--	5.0E-04	3.6E-04	2.0E-03	<b>5.5E+00</b>	4.6E-08	4.6E-02	--	4.6E-02	1.3E-04	4.1E-06	<b>1.9E+01</b>			
75-01-4	Vinyl chloride	1.3E-07	3.0E-03	--	3.0E-03	1.1E-03	1.0E-01	<b>8.7E+01</b>	4.6E-08	2.7E-01	--	2.7E-01	4.1E-04	7.8E-05	<b>3.1E-01</b>			

Note: "--" not applicable

Attachment A1, Table A1-6  
Derivation of Site-Specific Cleanup Goals, Soil Vapor  
Construction and Utility Maintenance Worker  
Former Kast Property  
Carson, California

CAS Number	Chemical of Concern	VF <sub>SV,OA</sub> (µg/m <sup>3</sup> -µg/m <sup>3</sup> )	Noncancer Effects				Cancer Effects		
			Exposure Concentration (EC <sub>SV,OA</sub> ) (mg/m <sup>3</sup> )	Reference Concentration (mg/m <sup>3</sup> )	Soil Vapor SSCG <sub>nc</sub> (µg/m <sup>3</sup> )	Exposure Concentration (EC <sub>SV,OA</sub> ) (mg/m <sup>3</sup> )	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>	Soil Vapor SSCG <sub>c</sub> (µg/m <sup>3</sup> )	
71-55-6	1,1,1-Trichloroethane	4.0E+04	6.8E-10	5.0E+00	7.4E+09	2.4E-10	NC	--	
79-34-5	1,1,2,2-Tetrachloroethane	7.0E+03	3.9E-09	7.0E-02	1.8E+07	1.4E-09	5.8E-05	1.2E+05	
79-00-5	1,1,2-Trichloroethane	1.4E+04	2.0E-09	2.0E-04	1.0E+05	7.1E-10	1.6E-05	8.6E+05	
75-34-3	1,1-Dichloroethane	3.9E+04	7.1E-10	7.0E-01	9.9E+08	2.5E-10	1.6E-06	2.5E+07	
120-82-1	1,2,4-Trichlorobenzene	5.4E+03	5.1E-09	2.0E-03	3.9E+05	1.8E-09	NC	--	
95-63-6	1,2,4-Trimethylbenzene	9.0E+03	3.0E-09	7.0E-03	2.3E+06	1.1E-09	NC	--	
107-06-2	1,2-Dichloroethane	1.7E+04	1.6E-09	7.0E-03	4.4E+06	5.7E-10	2.1E-05	8.5E+05	
78-87-5	1,2-Dichloropropane	2.5E+04	1.1E-09	4.0E-03	3.6E+06	3.9E-10	1.0E-05	2.5E+06	
108-67-8	1,3,5-Trimethylbenzene	8.8E+03	3.1E-09	7.0E-03	2.3E+06	1.1E-09	NC	--	
106-99-0	1,3-Butadiene	5.0E+04	5.5E-10	2.0E-03	3.7E+06	2.0E-10	1.7E-04	3.0E+05	
106-46-7	1,4-Dichlorobenzene	7.8E+03	3.5E-09	8.0E-01	2.3E+08	1.3E-09	1.1E-05	7.2E+05	
123-91-1	1,4-Dioxane	1.2E+03	2.3E-08	3.0E+00	1.3E+08	8.1E-09	7.7E-06	1.6E+05	
540-84-1	2,2,4-Trimethylpentane	1.8E+04	1.5E-09	1.0E+00	6.5E+08	5.5E-10	NC	--	
591-78-6	2-Hexanone	7.2E+03	3.8E-09	3.0E-02	7.9E+06	1.4E-09	NC	--	
622-96-8	4-Ethyltoluene	6.7E+03	4.1E-09	1.0E-01	2.5E+07	1.5E-09	NC	--	
71-43-2	Benzene	2.9E+04	9.5E-10	3.0E-02	3.2E+07	3.4E-10	2.9E-05	1.0E+06	
75-27-4	Bromodichloromethane	2.8E+04	9.7E-10	7.0E-02	7.2E+07	3.5E-10	3.7E-05	7.8E+05	
74-83-9	Bromomethane	5.2E+04	5.3E-10	5.0E-03	9.5E+06	1.9E-10	NC	--	
75-15-0	Carbon disulfide	5.6E+04	4.9E-10	7.0E-01	1.4E+09	1.7E-10	NC	--	
56-23-5	Carbon tetrachloride	4.3E+04	6.3E-10	1.0E-01	1.6E+08	2.3E-10	4.2E-05	1.1E+06	
67-66-3	Chloroform	2.5E+04	1.1E-09	9.8E-02	9.0E+07	3.9E-10	5.3E-06	4.9E+06	
74-87-3	Chloromethane	5.1E+04	5.4E-10	9.0E-02	1.7E+08	1.9E-10	NC	--	
110-82-7	Cyclohexane	8.2E+04	3.3E-10	6.0E+00	1.8E+10	1.2E-10	NC	--	
124-48-1	Dibromochloromethane	2.3E+04	1.2E-09	7.0E-02	6.0E+07	4.2E-10	2.7E-05	8.8E+05	
156-59-2	Dichloroethene, cis-1,2-	3.3E+04	8.4E-10	7.0E-03	8.3E+06	3.0E-10	NC	--	
156-60-5	Dichloroethene, trans-1,2-	4.2E+04	6.5E-10	6.0E-02	9.3E+07	2.3E-10	NC	--	
10061-02-6	Dichloropropene, trans-1,3-	6.1E+04	4.5E-10	2.0E-02	4.4E+07	1.6E-10	1.6E-05	3.9E+06	
64-17-5	Ethanol	1.3E+03	2.1E-08	4.0E+00	1.9E+08	7.4E-09	NC	--	
100-41-4	Ethylbenzene	1.7E+04	1.6E-09	1.0E+00	6.3E+08	5.7E-10	2.5E-06	7.0E+06	

Attachment A1, Table A1-6  
 Derivation of Site-Specific Cleanup Goals, Soil Vapor  
 Construction and Utility Maintenance Worker  
 Former Kast Property  
 Carson, California

CAS Number	Chemical of Concern	VF <sub>SV,OA</sub> (µg/m <sup>3</sup> -µg/m <sup>3</sup> )	Noncancer Effects				Cancer Effects		
			Exposure Concentration (EC <sub>SV,OA</sub> ) (mg/m <sup>3</sup> )	Reference Concentration (mg/m <sup>3</sup> )	Soil Vapor SSCG <sub>nc</sub> (µg/m <sup>3</sup> )	Exposure Concentration (EC <sub>SV,OA</sub> ) (mg/m <sup>3</sup> )	Inhalation Unit Risk (µg/m <sup>3</sup> ) <sup>-1</sup>	Soil Vapor SSCG <sub>c</sub> (µg/m <sup>3</sup> )	
142-82-5	Heptane	9.2E+04	3.0E-10	7.0E-01	2.3E+09	1.1E-10	NC	--	
87-68-3	Hexachloro-1,3-butadiene	1.7E+03	1.6E-08	3.5E-03	2.2E+05	5.7E-09	2.2E-05	8.0E+04	
110-54-3	Hexane	6.5E+04	4.2E-10	7.0E-01	1.7E+09	1.5E-10	NC	--	
67-63-0	Isopropanol	2.2E+03	1.2E-08	7.0E+00	5.7E+08	4.4E-09	NC	--	
98-82-8	Isopropylbenzene (cumene)	1.0E+05	2.8E-10	4.0E-01	1.5E+09	9.8E-11	NC	--	
78-93-3	Methyl ethyl ketone (2-butanone)	6.3E+03	4.3E-09	5.0E+00	1.1E+09	1.6E-09	NC	--	
75-09-2	Methylene chloride	2.8E+04	9.9E-10	6.0E-01	6.1E+08	3.5E-10	1.0E-06	2.8E+07	
1634-04-4	Methyl-tert-butyl ether	1.6E+04	1.7E-09	3.0E+00	1.8E+09	5.9E-10	2.6E-07	6.5E+07	
91-20-3	Naphthalene	2.1E+03	1.3E-08	3.0E-03	2.3E+05	4.6E-09	3.4E-05	6.3E+04	
103-65-1	Propylbenzene	1.8E+04	1.5E-09	1.0E+00	6.6E+08	5.4E-10	NC	--	
75-65-0	tert-Butyl Alcohol (TBA)	6.7E+03	4.1E-09	1.1E+00	2.6E+08	1.5E-09	NC	--	
127-18-4	Tetrachloroethene	3.8E+04	7.2E-10	4.0E-02	5.5E+07	2.6E-10	5.9E-06	6.6E+06	
109-99-9	Tetrahydrofuran	6.7E+03	4.1E-09	2.0E+00	4.9E+08	1.5E-09	NC	--	
108-88-3	Toluene	2.0E+04	1.4E-09	5.0E+00	3.7E+09	4.9E-10	NC	--	
79-01-6	Trichloroethene	2.7E+04	1.0E-09	2.0E-03	2.0E+06	3.6E-10	4.1E-06	6.7E+06	
75-01-4	Vinyl chloride	6.3E+04	4.3E-10	1.0E-01	2.3E+08	1.5E-10	7.8E-05	8.3E+05	
108-38-3	Xylene, m-	1.6E+04	1.7E-09	1.0E-01	6.0E+07	6.0E-10	NC	--	
95-47-6	Xylene, o-	1.3E+04	2.1E-09	1.0E-01	4.8E+07	7.5E-10	NC	--	
106-42-3	Xylene, p-	1.6E+04	1.7E-09	1.0E-01	5.9E+07	6.0E-10	NC	--	
	<b>TPH</b>								
	Aliphatic: C5-C8	4.7E+04	5.8E-10	7.0E-01	1.2E+09	2.1E-10	NC	--	
	Aliphatic: C9-C18	1.1E+04	2.5E-09	3.0E-01	1.2E+08	9.0E-10	NC	--	
	Aliphatic: C19-C32	--	--	NA	--	--	NC	--	
	Aromatic: C6-C8	1.6E+04	1.8E-09	NA	--	6.3E-10	NC	--	
	Aromatic: C9-C16	3.7E+03	7.4E-09	5.0E-02	6.7E+06	2.6E-09	NC	--	
	Aromatic: C17-C32	--	--	NA	--	--	NC	--	

Note: "--" not applicable or not available

Attachment A1, Table A1-7  
 Derivation of Site-Specific Cleanup Goal, Lead in Soil  
 Construction and Utility Maintenance Worker  
 Former Kast Property  
 Carson, California

Calculations of Preliminary Remediation Goals (PRGs)  
 U.S. EPA Technical Review Workgroup for Lead, Adult Lead Committee  
 Version date 6/21/09

Variable	Description of Variable	Units	GSDi and PbBo from Analysis of NHANES 1999-2004
$PbB_{fetal, 0.90}$	90 <sup>th</sup> percentile PbB in fetus	ug/dL	1
$R_{fetal/maternal}$	Fetal/maternal PbB ratio	--	0.9
BKSF	Biokinetic Slope Factor	ug/dL per ug/day	0.4
$GSD_i$	Geometric standard deviation PbB	--	1.8
$PbB_0$	Baseline PbB	ug/dL	0.0
$IR_s$	Soil ingestion rate (including soil-derived indoor dust)	g/day	0.100
$AF_{s, D}$	Absorption fraction (same for soil and dust)	--	0.12
$EF_{s, D}$	Exposure frequency (same for soil and dust)	days/yr	12
$AT_{s, D}$	Averaging time (same for soil and dust)	days/yr	90
<b>PRG</b>		<b>mg/kg</b>	<b>818</b>

# ATTACHMENT A2

## Background Evaluation



**Attachment A2  
Detailed Background Evaluation  
Former Kast Property  
Carson, California**

**Introduction**

This attachment presents the background evaluation methodology and results used to derive background-based Site-specific cleanup goals (SSCGs) for metals and carcinogenic polycyclic aromatic hydrocarbons (cPAHs) detected in soil at the former Kast Property (Site) located in Carson, California. The evaluation builds upon the preliminary evaluation presented previously (Geosyntec, 2011) and includes samples from locations not anticipated to be affected by the Site and that represent local and regional background.

**Purpose**

The purpose of this report is to *i)* identify locally representative background data for metals and cPAHs from locations that are not affected by Site impacts; *ii)* evaluate the selected background datasets graphically and statistically including outlier analysis to develop a representative background dataset; *iii)* develop background threshold values for metals and cPAHs for use in background evaluation using local and regulatory approved regional background datasets; and *iv)* present the methodology that will be used to compare Site datasets with background thresholds to determine if metals or cPAHs are above or below background and should be carried forward for further risk evaluation.

## Approach

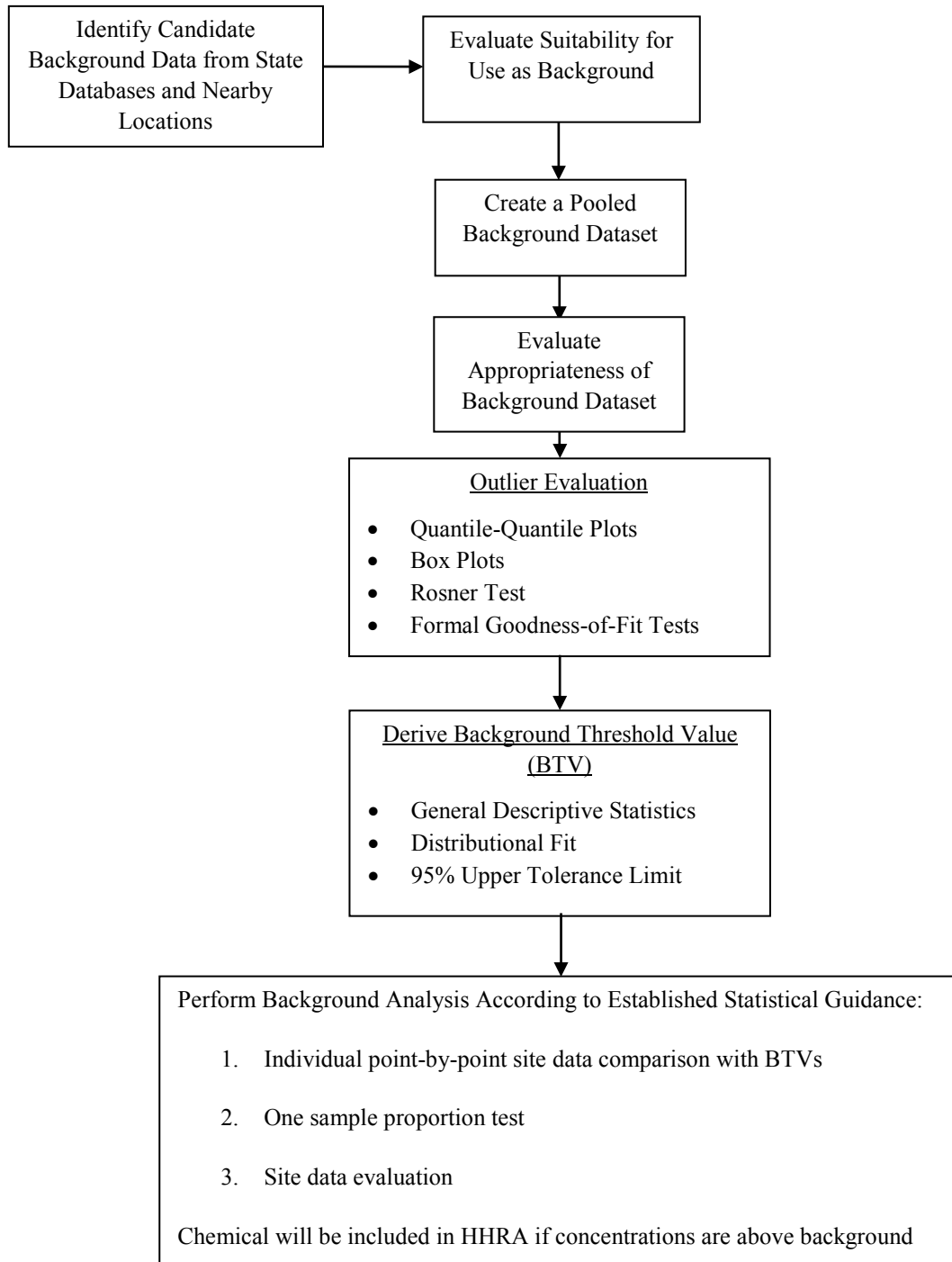
Metals may be naturally occurring in the environment. According to the California Department of Toxic Substances (DTSC) (Cal-EPA DTSC 2009a, 2009b, Cal-EPA, 1997) for naturally occurring materials such as metals, an evaluation of background concentrations is important to evaluate whether the metals concentrations on the property are consistent with naturally occurring levels in the area, and whether they should be included in the risk assessment. If concentrations of a metal are within background, the metal is not considered a Chemical of Concern (COC) and is not evaluated further.

In addition to metals, cPAHs can be naturally occurring or present at ambient levels not associated with former site activities. A background dataset and methodology has been developed by DTSC that can be used to evaluate the presence of cPAHs in soil (Cal-EPA DTSC, 2009c).

The background evaluation considered:

1. Offsite background data collected for the project;
2. Data collected from nearby locations that represent local background; and
3. Regulatory approved regional background concentrations for southern California soils.

The approach that was used to perform the background data evaluation is illustrated in the flow chart below.



## Background Site Selection

The background locations used to create a local background database include:

- Banning Park,
- Banning Elementary School,
- Wilmington Middle School, and
- Wilmington Recreation Center.

These locations were previously identified in the Background Soil Evaluation Work Plan (Geosyntec 2010). The use of background datasets from nearby locations in the vicinity of the Site is consistent with the approaches and methodologies used by DTSC and other agencies to evaluate regional background datasets such as arsenic or cPAHs both for southern and northern California regions (DTSC, 2009a; DTSC, 2009c). The regional datasets show that background values can vary by location. The use of several background datasets is anticipated to capture these variabilities and provide a more representative background value.

### *Banning Park*

Banning Park was selected as a potential background location as the site did not appear to have been developed for commercial or industrial use and according to the review of historical aerial photographs from the Los Angeles Regional Water Quality Control Board's (LARWQCB) Geotracker database (Geotracker); the site was not impacted by nearby historical operations. The park is developed with a museum situated on 20-acres of parkland. The museum was formerly a residence built in 1864. The residence and parkland were acquired by the City of Los Angeles in 1927. A total of 30 soil samples were collected from ten soil borings placed at 0.5, 2 and 5 feet (ft) below ground surface (bgs). The Banning Park background samples were analyzed for metals and cPAHs.

### *Banning Elementary School and Wilmington Middle School*

Data previously collected to support site characterization at nearby school locations including Banning Elementary School and Wilmington Middle School were considered for inclusion in the background dataset. At Banning Elementary school, 63 soil samples were collected at depths 0, 0.5, 1 and 5 ft bgs and analyzed for metals; while at Wilmington Middle School five soil samples were collected at 0.5 and 5 ft bgs and analyzed for metals and cPAHs.

### *Wilmington Recreation Center*

Eight background soil samples were collected at Wilmington Recreation Center as part of the environmental investigations performed for the LAUSD new schools construction program. These data are reported in the PEA for Banning Elementary School. The samples were collected at 0.5 and 2.5 to 3 ft bgs and analyzed for metals.

## Evaluation of Background Datasets

### *Comparison of Background Samples by Depth*

The background samples were obtained from several depths ranging from 0 to 5 ft bgs. To evaluate whether the samples could be combined into a single dataset, the samples were evaluated for significant difference by depth to determine if shallower samples were statistically different than surface samples. Samples between 0 to 2 ft bgs (surface) and >2 to 5 ft bgs (shallow), and with percent detection above 50%, were statistically compared using the non-parametric Mann-Whitney method at 0.05 significance level. The results show that the majority of metals concentrations (except cadmium, copper, lead and zinc) are not significantly different by depth. The Mann Whitney analysis was not suitable for comparison of equality for cPAHs as B(a)P-equivalents by depth, as samples >2 to 5 ft bgs have more than an 85% frequency of non-detect samples. A two-sample proportions test, applicable for comparing samples with high degree of non-detection, however indicates that cPAHs are statistically different by depth. This may be due to higher near surface ambient concentrations as a result of anthropogenic sources. While there were some differences by depth, datasets were combined to reflect the depth interval of interest for exposure potential and to provide for a larger dataset. The statistical analysis report (Minitab software output) is presented in Attachment A2-1.

### *Outlier Evaluation*

Since two of the datasets were from investigations for school sites and were not specifically background sample datasets, an outlier analysis was conducted consistent with DTSC guidance for evaluating background (DTSC, 2009a). The background datasets were screened for suspect or potential outliers using (i) box plots, (ii) Q-Q plots, (iii) probability plots or underlying distributions (Goodness of fit test), (iv) Rosner outlier test, and (v) professional judgment based on established regional background thresholds and historical land use.

Samples higher than the three-interquartile range (3IR) on box plots were identified as suspect outliers and were further evaluated using the formal outlier test (Rosner test). Suspect outliers were also evaluated using Q-Q plots and goodness-of-fit tests on detected datasets. The Q-Q probability plots for the best fit distribution for each metal and cPAH (as benzo(a)pyrene equivalent) were examined for the presence of inflections and break-points, which could be used to identify multiple populations or outlier concentrations. A probability-plot (i.e., normal, lognormal, or gamma) partitioning was used to identify outliers as well as other patterns in the data that could signify the presence of multiple statistical populations. A weight of evidence approach based on the results of all the above methodologies was considered when determining whether a suspect outlier was eliminated or included in the background dataset. Suspect outliers that were persistently identified in all of these methods were further evaluated with respect to

sample location, depth or correlation to known contaminated locations or other pertinent evidence. Outlier evaluation of each chemical, as part of a background metals evaluation is provided in Attachment A2-1.

### **Development of a Background Threshold Value**

Background Threshold Values (BTVs) are single-point background thresholds that represent an upper plausible limit of the background distributions of individual compounds (EPA 2009a, 2009b; Helsel 2005). Threshold limits are most often based on an upper percentile of the background distribution (such as 90th, 95th, or 99th percentile), an upper confidence limit of an upper percentile (that is, an upper tolerance limit or UTL). Consistent with Cal-EPA guidance (Cal-EPA DTSC 2009a), the UTL was derived. Following EPA's guidance, a minimum of 8 to 10 or more samples are required to estimate BTVs. When detected observations are less than 4 to 6, the maximum detected sample could be used to estimate the BTV. When all the background samples are non-detects, the BTV will also be a non-detect. The smaller of the sample maximum and calculated BTV were used as the chemical BTV. Development of the BTV for each chemical is presented in Attachment A2-1.

### **Background Thresholds from State Regulatory Datasets**

In addition to the BTVs derived from the data discussed above, well established regulatory approved regional background thresholds for arsenic and cPAHs in soil were considered. These thresholds have been used for many sites within the Los Angeles Area to identify chemicals of potential concern for risk assessments as well as used as remedial goals for site cleanups for unrestricted or residential land use. For arsenic, the DTSC background concentration for southern California sites of 12 mg/kg (Cal-EPA DTSC, 2007) will be used. In addition to metals, PAHs can be naturally occurring or present at ambient levels not associated with former site activities. A background dataset and methodology has been developed that can be used to evaluate the presence of PAHs in soil (Cal-EPA DTSC, 2009c). Consistent with agency-approved risk assessment practice in California, the DTSC-developed background concentration of 0.9 mg/kg benzo(a)pyrene equivalents (Bap-eq) will be used to evaluate cPAHs results. These values will be used as the BTVs for the Site.

### **Comparison of Site and Background Datasets**

Due to the preponderance of Site data (over 10,000 samples and 285 individual study areas), a streamlined approach was developed to evaluate background at the Site. In the first step, Site samples will be compared to the BTVs to evaluate whether onsite metal or cPAH concentrations are above or below background concentrations. In the second step, for those areas where samples are above the BTV, a proportion test will be conducted to further evaluate whether

observed concentrations are above background. If onsite concentrations are below background, the area will not be evaluated further in the risk assessment process. The background comparison will be conducted as part of the full Human Health Risk Assessment (HHRA) that will be conducted once the Phase II Site Characterization work is complete. It is anticipated that the HHRA will be included in the Remedial Action Plan (RAP).

As mentioned above, the approach used to compare Site datasets against background thresholds includes:

- Point by point comparison of Site datasets and BTV;
- One-sample hypothesis testing (Proportion test); and
- Site data evaluation

#### *Point-by-Point Comparison*

The point-by-point comparison method will initially be used as a conservative screen to identify chemicals that may be present at concentrations above background. If a chemical is found to be above background, the proportion test will be used to further evaluate the data.

#### *One-sample proportion test*

For chemicals that are present at concentrations above the BTV, a one-sample proportion test will be used to compare the Site data with the BTVs. This is consistent with agency guidance that states that when BTVs and cleanup standards are known, one-sample hypotheses are used to compare site data with the known and pre-established threshold values (USEPA, 2010). The one-sample proportion test is a test for proportion and will be used to compare the proportion of Site data exceeding the BTV with a pre-specified allowable proportion of exceedance (5%). The proportion test is non-parametric and therefore can be used with censored datasets in which there is a large proportion on non-detect values. The proportion test is used to detect a significant difference or a shift in the upper tail of the site data distribution. A significant shift in the upper tail of the site dataset as compared to background may indicate that the site has been impacted for that particular chemical. A 5% level of significance ( $p < 0.05$ ) will be used to evaluate all tests.

#### *Site Data Evaluation*

A more detailed analysis may be conducted to further evaluate if chemicals are present at the Site above background, especially for chemicals that do not have local or regional background datasets or were nondetect in the background datasets. Methods described in Cal-EPA guidance *Selecting Inorganic Constituents as Chemicals of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities* (Cal-EPA, 1997) describe ways that the Site

data can be evaluated to determine if observed concentrations are consistent with background. Natural metals distributions are widely observed to be normal or to have a low to moderate skewness that is well approximated by a lognormal distribution (Cal-EPA 1997). Cal-EPA also states that samples from such distributions generally range by no more than one order of magnitude and that the sample coefficients of variation (CV, standard deviation/mean) are also no greater than one. Substantial departures from these traits, referred to here as natural population indicators, will be used to indicate the presence of multiple populations in the sample, which may indicate the presence of chemical concentrations above background. As a part of the evaluation, visual observation of the data will be conducted using probability plots to determine if multiple populations are present.

If the concentrations of a chemical are found to be above background after these three steps the chemical will be included in the HHRA.



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## Attachment A2-1 Detailed Background Evaluation

### 1. Background Metals Data Evaluation

The summary statistics of the metals and cPAH background databases are provided in Table A2-1. Background Threshold Values (BTVs) are presented in Tables A2-2 and A2-3. Box plots and probability plots of the background datasets are provided in Figures A2-1 through A2-3.

Box plots based on three times the interquartile range (3IR), Q-Q plots and probability plots for outlier evaluation are shown on Figures A2-4-1 through A2-4-18. ProUCL output of the Rosner outlier test is provided in Attachment A2-1.

Goodness of fit test of background samples before and after elimination of suspect outliers is shown in Attachment A2-1. Summary of the background threshold values (BTV) after elimination of suspect outliers is provided in Table A2-2. ProUCL output of the upper threshold analysis is shown in Attachment A2-1.

#### Antimony (N=106, ND=99.06%)

Antimony has 106 samples all obtained from 0 to 5 ft bgs. There is only one detected sample at 0.74 mg/kg (99% non-detection). Since the %ND is significantly large, there is no reliable statistical analysis that can be performed on antimony. No samples were eliminated as outliers. The detection levels were 0.306 and 0.5 mg/kg. The detected sample was obtained from Banning Park at 0.5 ft bgs.

Due to large %ND, no reliable 95% UTL can be estimated. The maximum value of 0.741 mg/kg is used as BTV for antimony.

#### Arsenic (N=106, ND=2.83%)

Outlier evaluation based on above 3IR box plot indicates that arsenic has three suspect outliers including 9, 11.9 and 127, while a test for one Rosner outlier at 1% significance level indicates that 127 may be a potential outlier. Graphic evaluation using a Q-Q plot indicates that the arsenic sample with a concentration of 127 mg/kg may be a suspect outlier. A goodness of fit test was performed, and arsenic does not fit normal or lognormal distribution. The GOF test however shows that the arsenic sample concentration of 127 mg/kg is considerably offset from the general linear trend indicating that the sample may be an outlier. The sample was obtained from the surface (at 0 ft bgs) at the Wilmington School, and may not represent background distribution. Moreover, the value is significantly above the Southern California arsenic background threshold of 12 mg/kg and above the background range reported of 2.2 mg/kg to 19 mg/kg reported in the regional study conducted by UC Riverside (1991) and the range of 0.15 mg/kg to 19.63 mg/kg that was observed in the Southern California background dataset presented by DTSC in its

Arsenic Strategies Document (DTSC, 2009a). The sample 127 mg/kg therefore was eliminated as an outlier.

After elimination of the outlier, detected arsenic follow an approximate gamma distribution, and therefore a Gamma distribution based UTL was selected from the ProUCL results to estimate the 95% UTL at 10.4 mg/kg.

The local threshold BTV, 10.41 mg/kg, is less than the well-established Southern California arsenic BTV of 12 mg/kg developed by DTSC. The maximum value in the local background dataset is 11.9, close to the value of 12 mg/kg. The Southern California background arsenic dataset is made up of a much larger database across several areas within the Los Angeles basin and as a result anticipated to be more representative of background within the Los Angeles area. In addition, this value has been commonly used for COC selection and as a cleanup level for unrestricted land use and residential sites. Therefore, the DTSC arsenic threshold value of 12 mg/kg is used as the BTV in this report.

Barium (N=106, ND=0%)

Barium has four suspect outliers including concentrations of 203, 267, 428 and 575 mg/kg based on above 3IR box plot evaluation. A test for one Rosner outlier at 1% significance level indicates that 575 may be a potential outlier while a graphic evaluation using a Q-Q plot indicates that 267, 428 and 575 may be potential outliers. A GOF test was performed and barium data does not fit normal nor lognormal distribution. The test based on lognormal distribution however shows that barium samples 428 and 575 mg/kg may be considered as deviating from the general linear trend indicating that they may be outliers. The weight of evidence presented suggests that 428 and 575 mg/kg may be outliers, and were removed from the background evaluation.

After elimination of the two suspect outliers, barium appears to fit lognormal distribution. Based on lognormal distribution after elimination of suspect outliers (N=105, %ND = 0%), the 95% UTL was 195.4 mg/kg.

Beryllium (N=106, ND=16.98%)

With 106 samples and 17% non-detection, 3IR based box plot indicates that concentrations of 0.6, 0.7, 0.7 and 0.8 may be suspect outliers while a one outlier Rosner test shows that 0.8 may be an outlier. Graphic evaluation using a Q-Q plot does not show an obvious or significant outlier. A GOF test shows that beryllium does not fit normal or lognormal distributions. There is however a general linear trend based on a lognormal distribution particularly among the detected datasets. In addition, these concentrations fall within the range of background concentrations of 0.1 to 0.9 mg/kg reported in the regional study conducted by UC Riverside (1991). There is no strong evidence to suggest that these are outliers, and therefore no beryllium samples are eliminated as outliers.

Since Beryllium samples do not fit a normal or lognormal distribution, a non-parametric 95% KM UTL with 99% coverage of 0.56 mg/kg was selected as the BTV for the background dataset.

Cadmium (N=106, ND=53.77%)

Based on above 3IR samples on a box plot, seven cadmium samples from 1.0 to 3.81 mg/kg are suspect outliers. A test for one Rosner outlier at 1% significance level indicates 3.81 as a potential outlier while a graphic evaluation using a Q-Q plot apparently shows two populations as indicated by the shift from linearity which may imply that the upper tail of the distribution may be impacted. However it has to be noted that cadmium has more than 50% non-detects that constitutes the lower tail of the population distribution while the detected samples make the upper distribution. So the Q-Q plot departure from linearity is more of a distinction between detected and non-detected samples rather than discrimination between background and impacted samples. The three highest suspect outliers 1.63, 1.8 and 3.81 mg/kg are obtained from Banning Park at 0.5 ft bgs. A GOF test on the detected samples indicates cadmium fits a lognormal distribution. Using the above weight of evidence, no cadmium sample was eliminated as an outlier.

A value of 3.81 mg/kg is selected as a BTV using a 95% Bootstrap (%) UTL with 99% coverage ProUCL output.

Chromium (N=106, ND=0%)

Chromium has three suspect outliers including 29.3, 36.5 and 38.6 mg/kg based on above 3IR box plot evaluation. A test for one Rosner outlier at 1% significance level indicates that 38.6 may be a potential outlier while a graphic evaluation using a Q-Q plot does not indicate a significant outlier. A GOF test was performed and indicates the data fit a lognormal distribution indicating there may be no outlier chromium samples. The samples 29.3, 36.5 were obtained from Banning Elementary School (at 0.5 ft bgs), while sample 38.6 was obtained from Wilmington Recreation Center (at 0.5 ft bgs). Based on the weight of evidence presented, no dataset was eliminated from chromium samples as outlier.

Since chromium is log-normally distributed, a 95% UTL of 32.54 mg/kg is selected from PROUCL output.

Cobalt (N=106, ND=3.77%)

Cobalt has three suspect outliers including 13.1, 13.5 and 15.7 mg/kg based on above 3IR box plot evaluation. A test for one Rosner outlier at 1% significance level indicates that 15.7 may be a potential outlier. A GOF test indicates that Cobalt samples are log-normally distributed. Though the Box plot and Rosner test indicate three suspect outliers (13.1, 13.5, 15.7), the GOF test and Q-Q plot did not show a significant break of these datasets from the body of samples. The suspect outliers 13.1, 13.5 and 15.7 were obtained from Banning Elementary School at 0.5 ft, 5 ft and 1 ft bgs respectively. Based on the above weight of evidence, no samples were eliminated as outlier.

A non-parametric based 95% KM UTL with 99% coverage at 10.91 mg/kg will be used as the sample BTV.

Copper (N=106, ND=0%)

Copper has one suspect outlier at 59 mg/kg based on above 3IR box plot evaluation. A test for one Rosner outlier at 1% significance level indicates that the sample 59 mg/kg may be a potential outlier while a graphic evaluation using a Q-Q plot does not indicate a significant outlier. A GOF test was performed and indicates copper fit a fairly strong lognormal distribution showing there may be no outliers. The sample 59 mg/kg was obtained from Banning Park (at 0.5 ft bgs). Based on the weight of evidence presented, no copper dataset was eliminated as outlier.

Based on lognormal distribution, a threshold value of 95% UTL is 64.62. However, since this value is higher than sample max at 59, the BTV will be taken as 59 mg/kg.

Lead (N=106, ND=5.66%)

Based on above 3IR samples on a box plot, twelve (12) lead samples from 43.3 to 112 mg/kg are suspect outliers. A test for one Rosner outlier at 1% significance level indicates 112 as a potential outlier while a graphic evaluation using a Q-Q plot apparently shows two populations which is partly a reflection of lead distribution by depth. A GOF test on the detected samples indicates lead does not follow a normal or lognormal distribution. The linear pattern of the probability plot using lognormal distribution at different depths (0 to 0.5 ft, and >0.5 ft bgs) however indicates that lead may not have an outlier. Moreover, lead has been detected at background level concentrations ranging from 7.7 to 189.4 mg/kg in Southern California region. Using the above weight of evidence, no lead sample was eliminated as an outlier.

Since lead samples do not follow a discernible distribution, a non-parametric 95% KM UTL with 99% coverage BTV at 61.46 mg/kg is selected from PROUCL output.

Mercury (N=106, ND=71.7%)

Mercury has a large proportion of non-detects (ND=71.7%), and therefore outlier evaluation is performed using the detected datasets only. There is one suspect outlier (0.324) based on above 3IR box plot and one Rosner outlier test at 1% significance. The Q-Q plot however did not appear to indicate a significant departure or break of this sample from the body of the samples. A GOF tests shows that detected mercury samples do not follow a normal or lognormal distribution, though the shift from linearity was small. The suspect outlier was obtained from Banning Park at 0.5 ft bgs. Based on the above weight of evidence, no sample was eliminated as an outlier.

Since mercury does not follow a discernible distribution, a non-parametric BTV of 0.131 mg/kg based on 95% KM UTL with 99% coverage is selected from PROUCL output.

Molybdenum (N=106, ND=84.91%)

Molybdenum has a large proportion of non-detects (ND=84.9%), and therefore outlier evaluation is performed using the detected datasets only. There is no suspect outlier based on above 3IR box plot evaluation. The Rosner outlier test at 1% significance indicates no outlier either. The Q-Q plot indicates a slight departure from linearity. A GOF tests shows that detected molybdenum samples do not follow a normal or lognormal distribution, though the shift from linearity was not significant. Based on the above weight of evidence, no sample was eliminated as an outlier.

Since molybdenum does not follow a discernible distribution, a non-parametric BTV of 0.409 mg/kg based on 95% KM UTL with 99% coverage is selected from PROUCL output.

Nickel (N=106, ND=10.38%)

Based on above 3IR samples on a box plot, two nickel samples 25.3 and 27.2 mg/kg are suspect outliers. A test for one Rosner outlier at 1% significance level indicates 27.2 as a potential outlier while a graphic evaluation using a Q-Q plot apparently shows no suspect outlier. A GOF test indicates nickel fits a lognormal distribution. Both suspect outliers (25.3 and 27.2) were obtained from Banning Elementary School at 5 and 1 ft bgs respectively. Using the above weight of evidence, no samples were eliminated as outliers.

A BTV of 20.17 mg/kg based on a non-parametric approach of 95% KM UTL with 99% Coverage is selected from PROUCL output.

Selenium (N=106, ND=99.06%)

Selenium has 106 samples all obtained from 0 to 5 ft bgs. There is only one detected sample at 0.78 mg/kg (99% non-detection). No reliable statistics can be performed on Selenium as the %ND is significantly large. No samples were eliminated as outliers.

Due to large %ND, no reliable 95% UTL can be estimated. The maximum value of 0.78 mg/kg is used as BTV for selenium.

Silver (N=106, ND=91.51%)

Silver has 91.5% non-detects. Statistical evaluation was performed only on detected samples (9 samples). The outlier tests show no indication of suspect outliers, and therefore no sample was eliminated.

Silver data appear log-normally distributed. Since the corresponding potential BTV (6.87) was greater than the sample max of 1.29, the BTV selected was 1.29 mg/kg.

Thallium (N=106, ND=100%)

All 106 thallium data were non-detects. No statistical analysis was performed on thallium. At 100% non-detection, the BTV of thallium was also a non-detect and assessed at 0.23 mg/kg.

Vanadium (N=106, ND=0%)

Vanadium has no suspect outlier based on above 3IR box plot evaluation. A test for one Rosner outlier at 1% significance level indicates no suspect outlier either. The Q-Q plot shows a fairly linear trend indicating no potential outlier. A GOF test shows that vanadium follows a strong lognormal distribution. Based on the above weight of evidence, no suspect outliers were identified for vanadium.

Based on lognormal distribution, BTV at 95% UTL is 50.07 mg/kg. However, since this value is higher than sample maximum (47.01), BTV was assessed at 47.01 mg/kg.

Zinc(N=106, ND=0%)

Zinc has four suspect outliers including 151, 172, 291 and 525 mg/kg based on above 3IR box plot evaluation. A test for one Rosner outlier at 1% significance level indicates that 525 may be a potential outlier while a graphic evaluation using a Q-Q plot also indicates that 525 may be a potential outlier. A GOF test was performed and zinc data does not fit normal nor lognormal distributions though the deviation of the probability plot from linear trend is only slight. The sample 525 was obtained from Wilmington Recreation Center at 0 ft bgs. The weight of evidence presented suggests that 525 mg/kg may be an outlier and was eliminated from further background evaluation.

Zinc samples did not follow a discernible distribution even after the elimination of the outlier. Therefore a non-parametric 95% Percentile Bootstrap UTL BTV of 291 mg/kg was used from ProUCL output.

## 2. Background cPAH Evaluation

cPAH (N=35, ND=37.14%)

cPAH samples were obtained from Banning Park (N=30) and Wilmington Middle School (N=5). Using a weight-of-evidence of above 3IR based box plot evaluation and Rosner test, the value of 0.179 mg/kg appears to be a suspect outlier. The Q-Q plot and GOF test suggests that the concentration of 0.179 mg/kg may be an outlier. The sample was collected at 0.5 feet bgs at Wilmington Middle School. A review of the sample data indicate that low levels of total petroleum hydrocarbons (< 60 mg/kg) were detected which may have contributed to the cPAH concentrations. However, since the value of 0.179 mg/kg is well within the range of background reported for Southern California (Cal-EPA, 2009c), and the concentrations of TPH are considered negligible (<60 mg/kg) and not from a known onsite source, the sample was included in the analysis as what may be represented in the soils from anthropogenic non site-related sources.

To further evaluate background cPAH, these local background datasets were evaluated against the backdrop of 22 background sites in Southern California (N=185) used in developing the regional cPAH BTV (Cal-EPA DTSC, 2009c). Side by side graphical evaluation including box



plots and probability plots were used to compare local and Southern California representative datasets (Figure A2-5). The evaluation indicates that, Banning Park and Wilmington Middle School datasets are in the low end/tail distribution of Southern California Background datasets.

The Southern California analysis used a much larger pool of background sites, and a relatively larger number of samples. As a result, the Southern California evaluation is anticipated to be more robust and more representative of the true background condition of the region. The local background dataset is consistent with a selection of subsamples from the broader regional dataset where some samples are expected to be higher and some lower than the regional mean. Moreover, the Southern California statistical analysis benefits from a higher statistical power due to higher number of samples than Banning Park and WMS background samples collected as part of a site investigation.

Therefore, considering the above and the common use of the regional dataset for remedial decision making at sites, the cPAH BTV of 0.9 mg/kg, derived from the southern California cPAH background analysis is selected as the cPAH BTV for use at the Site. This value has been used as a remedial goal at unrestricted land use and residential sites throughout southern California. The BTV of 0.9 mg/kg will be used along with the comparison methodology outlined in the main document to determine if Site concentrations are above background. Additional evaluation as discussed in guidance (Cal-EPA, 2009c) may be conducted if warranted

## Tables

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**Table A2-1  
Summary Statistics of Background Metals and cPAHs  
Former Kast Property  
Carson, California**

Site ID	Analyte	Variable	Depth (ft bgs)	# of Samples	% NDS	Minimum <sup>1</sup>	Maximum <sup>1</sup>	Mean <sup>1</sup>	Median <sup>1</sup>	SD <sup>1</sup>	CV <sup>1</sup>			
Banning Park	Metals	BAP-TEQ	0.5-5	30	30%	0.00106	0.0183	0.0042	0.0026	0.0048	1.1310			
			Antimony	0.5-5	30	96.67%	0.741	0.741	0.741	0.741	--	--		
			Arsenic	0.5-5	30	0%	1.11	11.9	2.35	1.69	1.97	0.84		
			Barium	0.5-5	30	0%	38.3	267	73.83	71.50	39.08	0.53		
			Beryllium	0.5-5	30	0%	0.18	0.30	0.23	0.22	0.03	0.13		
			Cadmium	0.5-5	30	43.33%	0.11	3.81	0.83	0.61	0.93	1.12		
			Chromium	0.5-5	30	0%	6.76	28.2	11.64	9.60	4.55	0.39		
			Cobalt	0.5-5	30	0%	3.66	6.53	4.77	4.72	0.54	0.11		
			Copper	0.5-5	30	0%	2.69	59	10.77	6.57	11.09	1.03		
			Lead	0.5-5	30	0%	2.3	68.1	13.40	6.46	17.07	1.27		
			Mercury	0.5-5	30	0%	0.02	0.32	0.05	0.03	0.06	1.22		
			Molybdenum	0.5-5	30	50%	0.10	0.40	0.16	0.14	0.07	0.46		
			Nickel	0.5-5	30	0%	3.68	20.8	6.6	5.7	3.0	0.5		
			Selenium	0.5-5	30	100%	--	--	--	--	--	--		
			Silver	0.5-5	30	70%	0.132	1.29	0.58	0.29	0.47	0.81		
			Thallium	0.5-5	30	100%	--	--	--	--	--	--		
			Vanadium	0.5-5	30	0%	12.6	22.8	16.28	16.25	1.92	0.12		
			Zinc	0.5-5	30	0%	11.5	86.3	29.03	18.95	19.95	0.69		
			Banning Elementary School	Metals		0.5-5	63	100%	--	--	--	--	--	--
						Antimony	0.5-5	63	100%	--	--	--	--	--
Arsenic	0.5-5	63				4.76%	0.4	9	1.91	1.7	1.27	0.67		
Barium	0.5-5	63				0%	17.7	575	69.04	47.8	86.41	1.25		
Beryllium	0.5-5	63				25.4%	0.2	0.8	0.306	0.3	0.15	0.48		
Cadmium	0.5-5	63				61.9%	0.2	0.7	0.375	0.35	0.15	0.39		
Chromium	0.5-5	63				0%	4.4	36.5	11.24	10.6	5.95	0.53		
Cobalt	0.5-5	63				6.35%	2.5	15.7	5.52	5	2.70	0.49		
Copper	0.5-5	63				0%	3.5	44.1	15.51	14.1	8.99	0.58		
Lead	0.5-5	63				6.35%	2.6	112	13.06	6	18.57	1.42		
Mercury	0.5-5	63				100%	--	--	--	--	--	--		
Molybdenum	0.5-5	63				100%	--	--	--	--	--	--		
Nickel	0.5-5	63				17.46%	3	27.2	8.92	7.35	5.46	0.61		
Selenium	0.5-5	63				100%	--	--	--	--	--	--		
Silver	0.5-5	63				100%	--	--	--	--	--	--		
Thallium	0.5-5	63				100%	--	--	--	--	--	--		
Vanadium	0.5-5	63	0%	6.2	47.1	20.07	19.7	9.58	0.48					
Zinc	0.5-5	63	0%	9.7	291	44.93	30.6	44.02	0.98					

**Table A2-1  
Summary Statistics of Background Metals and cPAHs  
Former Kast Property  
Carson, California**

Site ID	Analyte	Variable	Depth (ft bgs)	# of Samples	% NDS	Minimum <sup>1</sup>	Maximum <sup>1</sup>	Mean <sup>1</sup>	Median <sup>1</sup>	SD <sup>1</sup>	CV <sup>1</sup>				
Wilmington Middle School	Metals	cPAH	BaP-TEQ	0.5-5	5	80%	0.179	0.179	0.179	0.179	--	--			
			Antimony	0.5-5	5	100%	--	--	--	--	--	--	--		
			Arsenic	0.5-5	5	0%	1.52	127	27.86	3.41	55.43	1.99	--		
			Barium	0.5-5	5	0%	66.30	92.2	75.42	72	10.2	0.14	--		
			Beryllium	0.5-5	5	20%	0.30	0.48	0.37	0.34	0.08	0.22	--		
			Cadmium	0.5-5	5	100%	--	--	--	--	--	--	--		
			Chromium	0.5-5	5	0%	9.04	17.4	12.6	13	3.5	0.28	--		
			Cobalt	0.5-5	5	0%	5.18	6.92	6.33	6.57	0.7	0.11	--		
			Copper	0.5-5	5	0%	5.34	14.70	9.21	7.07	4.06	0.44	--		
			Lead	0.5-5	5	0%	3.48	57.50	14.96	4.11	23.8	1.59	--		
			Mercury	0.5-5	5	100%	--	--	--	--	--	--	--		
			Molybdenum	0.5-5	5	80%	0.625	0.625	0.625	0.625	--	--	--		
			Nickel	0.5-5	5	0%	6.19	12.00	8.22	7.15	2.44	0.30	--		
			Selenium	0.5-5	5	80%	0.78	0.78	0.78	0.78	--	--	--		
			Silver	0.5-5	5	100%	--	--	--	--	--	--	--		
			Thallium	0.5-5	5	100%	--	--	--	--	--	--	--		
			Vanadium	0.5-5	5	0%	15.8	29.1	22.9	24	4.8	0.2	--		
			Zinc	0.5-5	5	0%	20.1	151	52.2	27.8	55.6	1.1	--		
			Wilmington Recreation Center	Metals		Antimony	0-2.5	8	100%	--	--	--	--	--	--
						Arsenic	0-2.5	8	0%	0.3	2.1	1.35	1.35	0.64	0.47
Barium	0-2.5	8				0%	31.9	91	58.24	56.00	16.58	0.29	--		
Beryllium	0-2.5	8				12.5%	0.2	0.3	0.23	0.20	0.05	0.21	--		
Cadmium	0-2.5	8				0%	0.2	1.0	0.49	0.30	0.36	0.73	--		
Chromium	0-2.5	8				0%	6.2	38.6	13.34	10.05	10.40	0.78	--		
Cobalt	0-2.5	8				0%	2.5	5.6	3.96	3.90	1.02	0.26	--		
Copper	0-2.5	8				0%	6.9	32.5	16.41	15.20	7.89	0.48	--		
Lead	0-2.5	8				25%	3.3	57.0	20.5	5.8	24.9	1.22	--		
Mercury	0-2.5	8				100%	--	--	--	--	--	--	--		
Molybdenum	0-2.5	8				100%	--	--	--	--	--	--	--		
Nickel	0-2.5	8				0%	4.10	16.40	9.50	8.85	4.46	0.47	--		
Selenium	0-2.5	8				100%	--	--	--	--	--	--	--		
Silver	0-2.5	8				100%	--	--	--	--	--	--	--		
Thallium	0-2.5	8				100%	--	--	--	--	--	--	--		
Vanadium	0-2.5	8				0%	10.50	28.80	18.19	17.80	5.72	0.32	--		
Zinc	0-2.5	8	0%	29.80	525.00	122.50	41.20	169.50	1.38	--					

Notes:  
<sup>1</sup>Summary statistics based on detected samples  
 - Summary statistics shown before outlier analysis

**Table A2-2**  
**Summary Outlier Evaluation based on Weight of Evidence Approach for Metals and cPAHS**  
**Former Kast Property**  
**Carson, California**

Analyte	% NDS	3IR	Rosner Test	Q-Q Plot	GOF Test	Suspect Outlier	Sample Location	Sample Depth (ft, bgs)	WOE Outlier
Antimony	99.06%	NA	NA	NA	NA	0.741	Banning Park	0.5	None
Arsenic	2.86%	>9	127	127	No Discernible Distribution	127	Wilmington School	0	127
Barium	0.00%	>203	575	>267	No Discernible Distribution	>428	Banning Elementary School	0 and 0.5	428 and 525
Beryllium	16.98%	>0.6	0.8	None	No Discernible Distribution, close to LN	0.7 and 0.8	Banning Elementary School	0.5, 1 and 5	None
Cadmium	53.77%	>1	3.81	3.81	Lognormal	1.63, 1.8 and 3.81	Banning Park	0.5	None
Chromium	0.00%	>29.3	38.6	None	Lognormal	29.3, 36.5	Banning Elementary School	0.5	None
Cobalt	3.77%	>13.1	15.7	None	Lognormal	13.1, 13.5 and 15.7	Banning Elementary School	0.5, 5 and 1	None
Copper	0.00%	59	59	None	Lognormal or Gamma	59	Banning Park	0.5	None
Lead	5.66%	>43.3	112	112	No Discernible Distribution	None	NA	NA	None
Mercury	71.70%	0.324	None	None	No Discernible Distribution, close to LN	0.324	Banning Park	0.5	None
Molybdenum	84.91%	None	None	None	No Discernible Distribution, close to LN	None	NA	NA	None
Nickel	10.38%	>25.3	27.2	None	Lognormal	25.3 and 27.2	Banning Elementary School	5 and 1	None
Selenium	99.06%	NA	NA	NA	NA	NA	NA	NA	None
Silver	91.51%	NA	NA	NA	NA	NA	NA	NA	None
Thallium	100.00%	NA	NA	NA	NA	NA	NA	NA	None
Vanadium	0.00%	None	None	None	Lognormal	None	NA	NA	None
Zinc	0.00%	>151	525	525	No Discernible Distribution, close to LN	525	Wilmington Recreation Center	0	525
BAP TEQ	37.14%	0.179	0.179	0.179	No Discernible Distribution	0.179	Wilmington Middle School	0.5	None

Notes:  
NA - Not applicable  
3IR - Three Interquartile Range  
WOE - Weight of Evidence  
GOF - Goodness of fit test  
LN - Lognormal

**Table A2-3**  
**Summary Background Threshold Values of Metals and cPAHs**  
**Former Kast Property**  
**Carson, California**

Analyte	# Samples	% NDS	Maximum	95%-tile 99% UTL	BTV	SoCal BTV	Selected BTV
Antimony	106	99.06%	0.741	0.74	0.74	--	0.74
Arsenic	105	2.86%	11.9	10.41	10.41	12	12
Barium	104	0.00%	267	267.00	267.00	--	267.00
Beryllium	106	16.98%	0.8	0.562	0.56	--	0.56
Cadmium	106	53.77%	3.81	3.81	3.81	--	3.81
Chromium	106	0.00%	38.6	32.54	32.54	--	32.54
Cobalt	106	3.77%	15.7	10.91	10.91	--	10.91
Copper	106	0.00%	59	64.62	59.00	--	59.00
Lead	106	5.66%	112	61.46	61.46	--	61.46
Mercury	106	71.70%	0.324	0.13	0.13	--	0.13
Molybdenum	106	84.91%	0.625	0.41	0.41	--	0.41
Nickel	106	10.38%	27.2	20.17	20.17	--	20.17
Selenium	106	99.06%	0.78	0.78	0.78	--	0.78
Silver	106	91.51%	1.29	2.32	1.29	--	1.29
Thallium	106	100.00%	N/A	0.23	0.23	--	0.23
Vanadium	106	0.00%	47.1	45.66	45.66	--	45.66
Zinc	105	0.00%	291	291.00	291.00	--	291.00
BAP TEQ	35	37.14%	0.179	0.10	0.10	0.9	0.9

**Notes:**

Values shown are based on background datasets after elimination of outliers

ND: Non detects

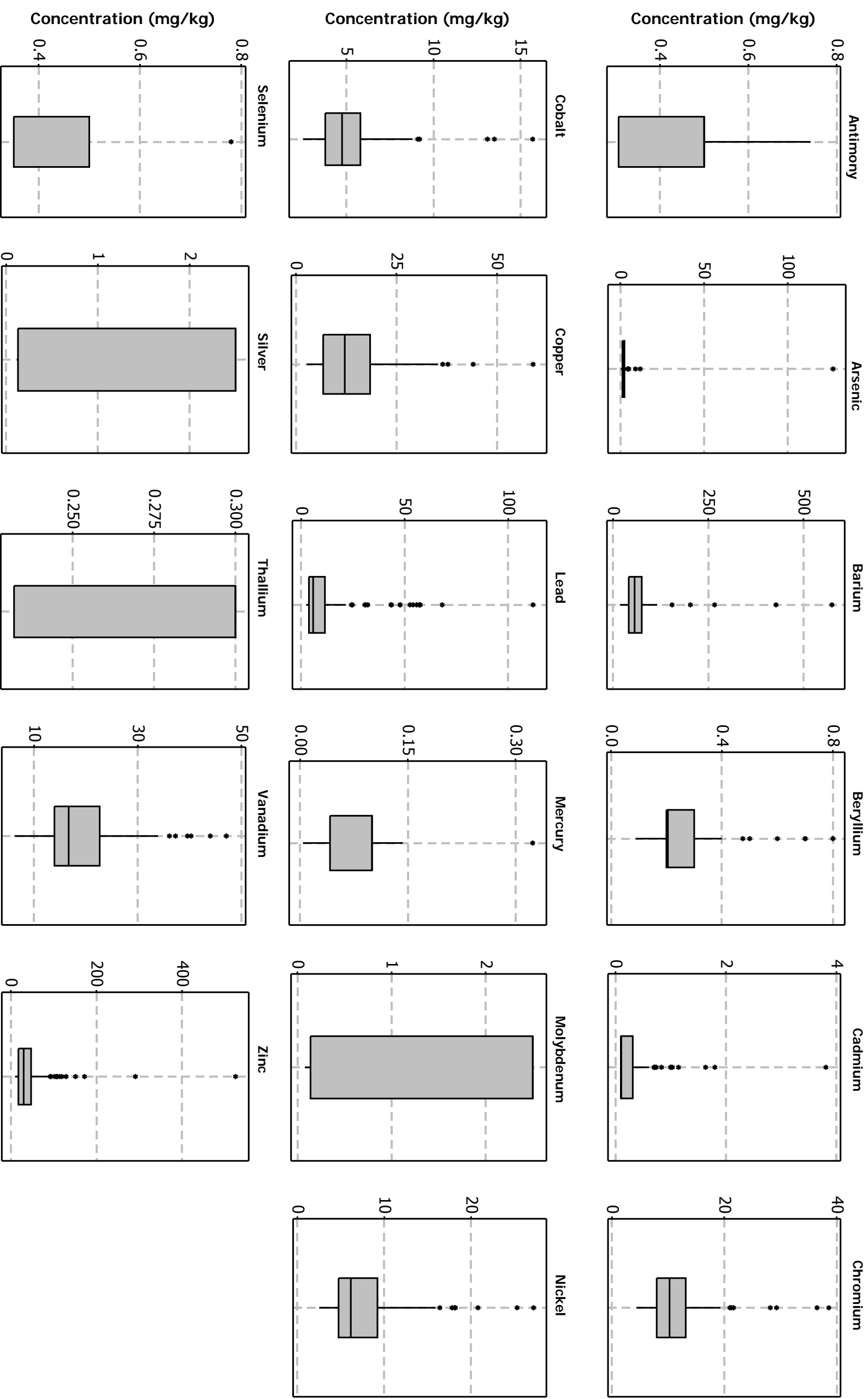
UTL: Upper Tolerance Limit

BTV: Background Threshold Value

## Figures

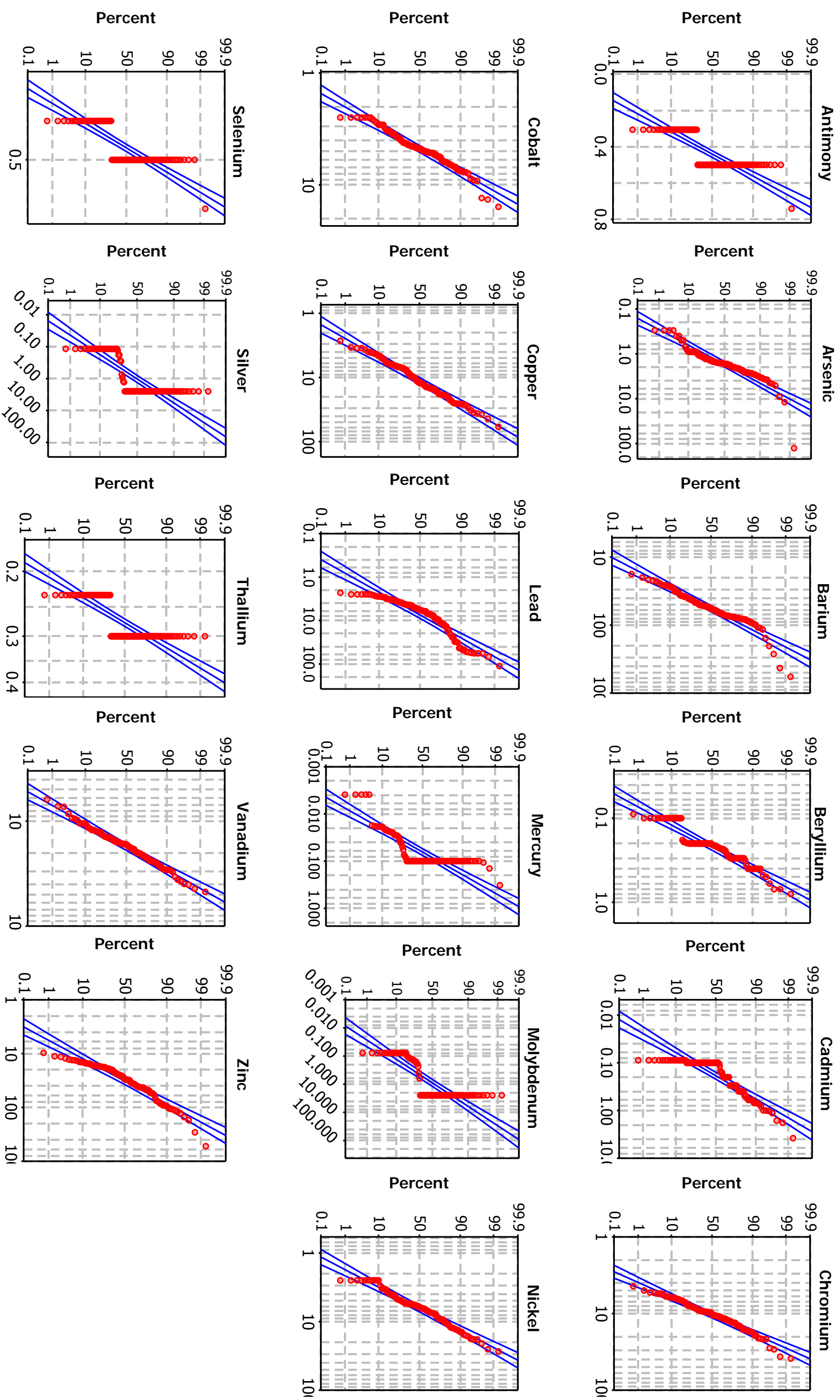
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Figure A2-1: Box Plots of Metals Background Datasets

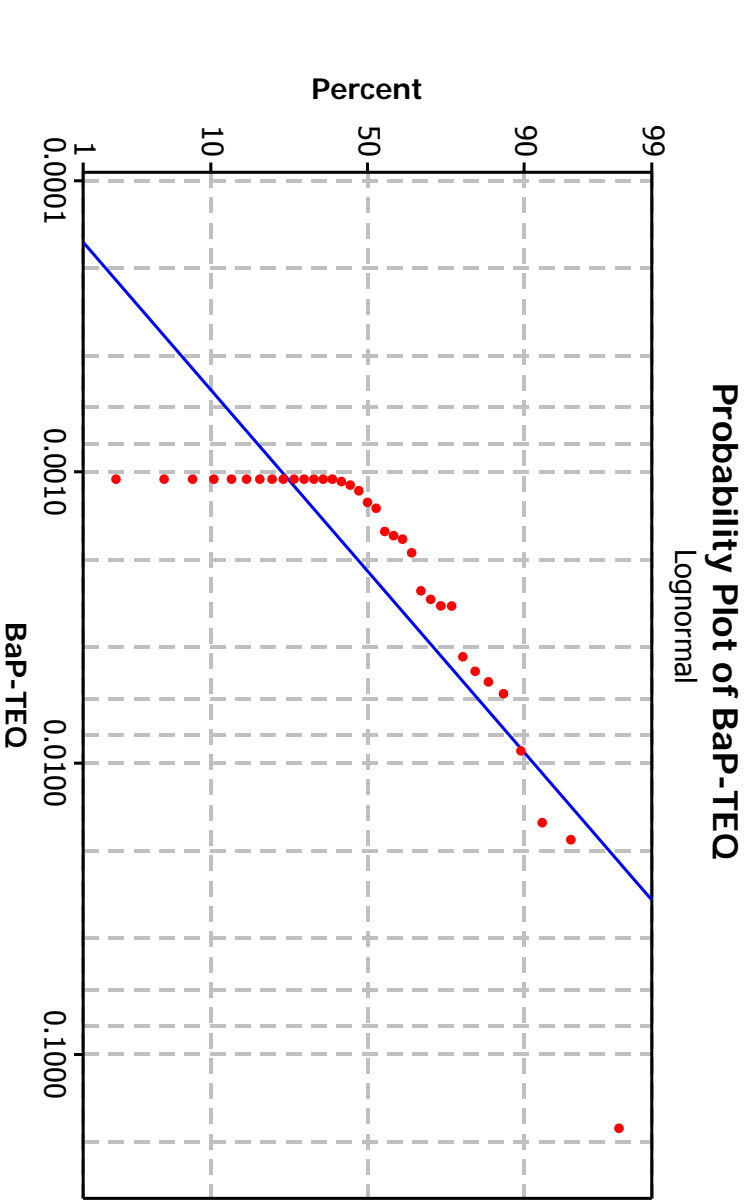
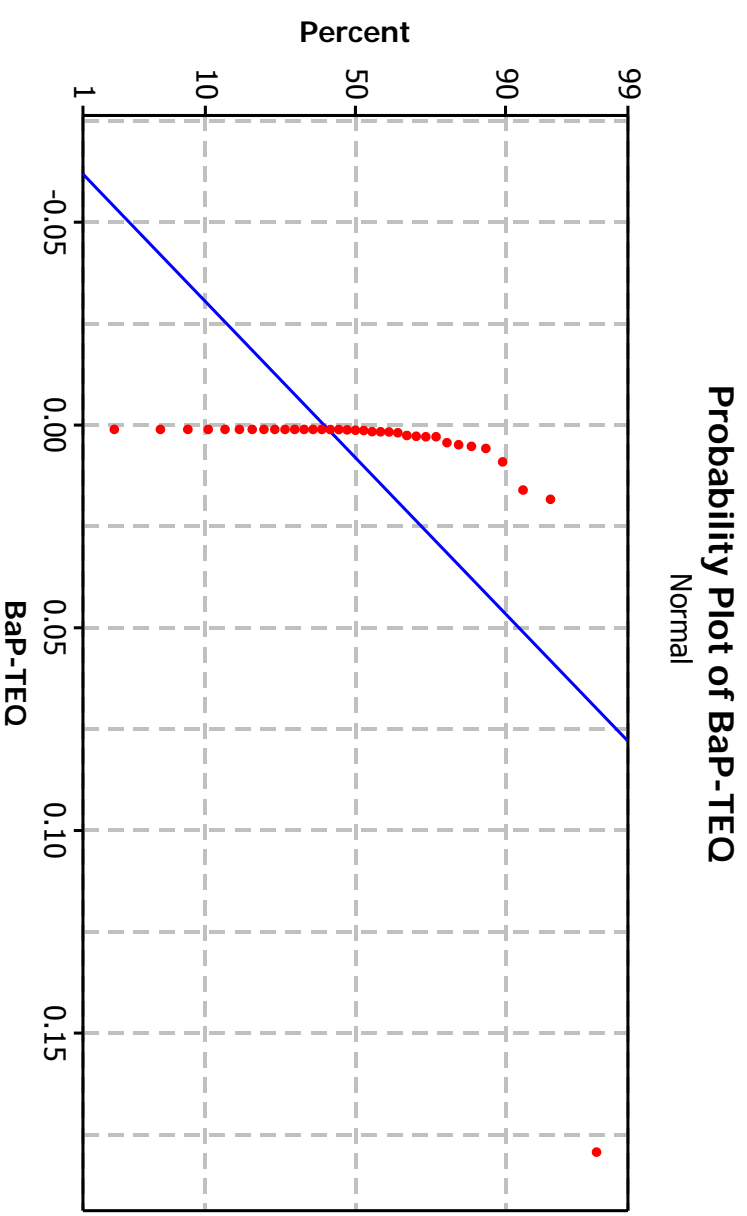
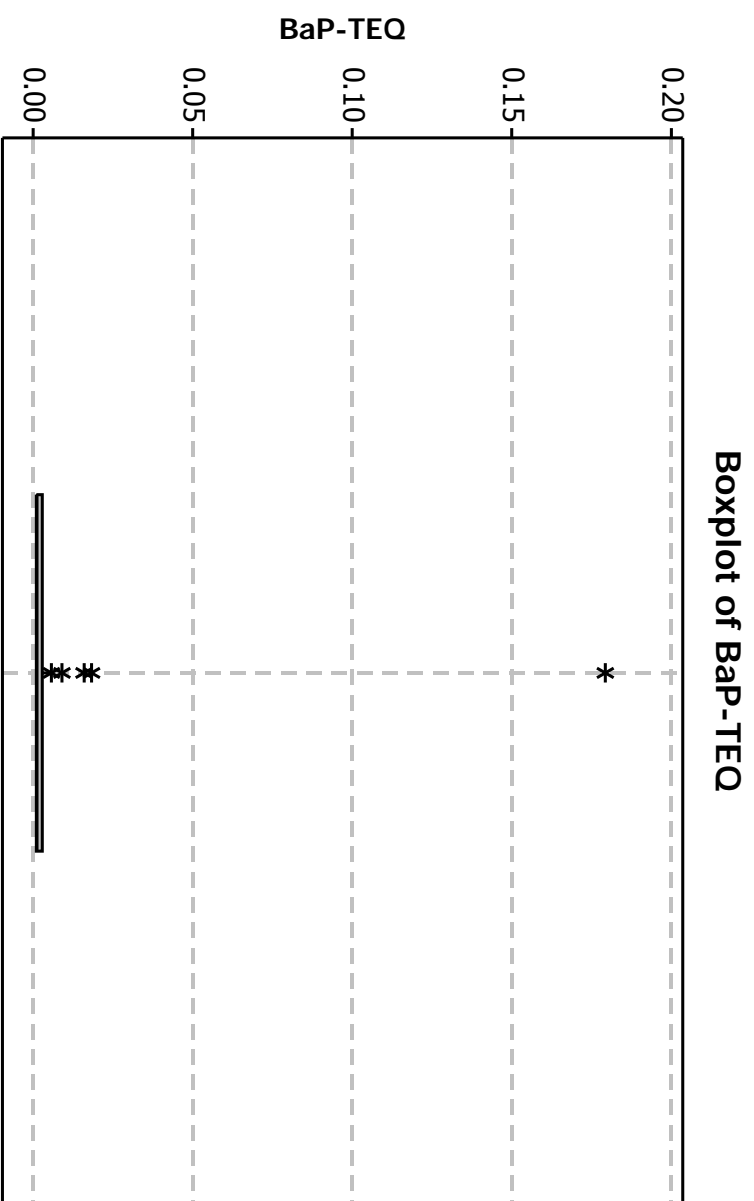




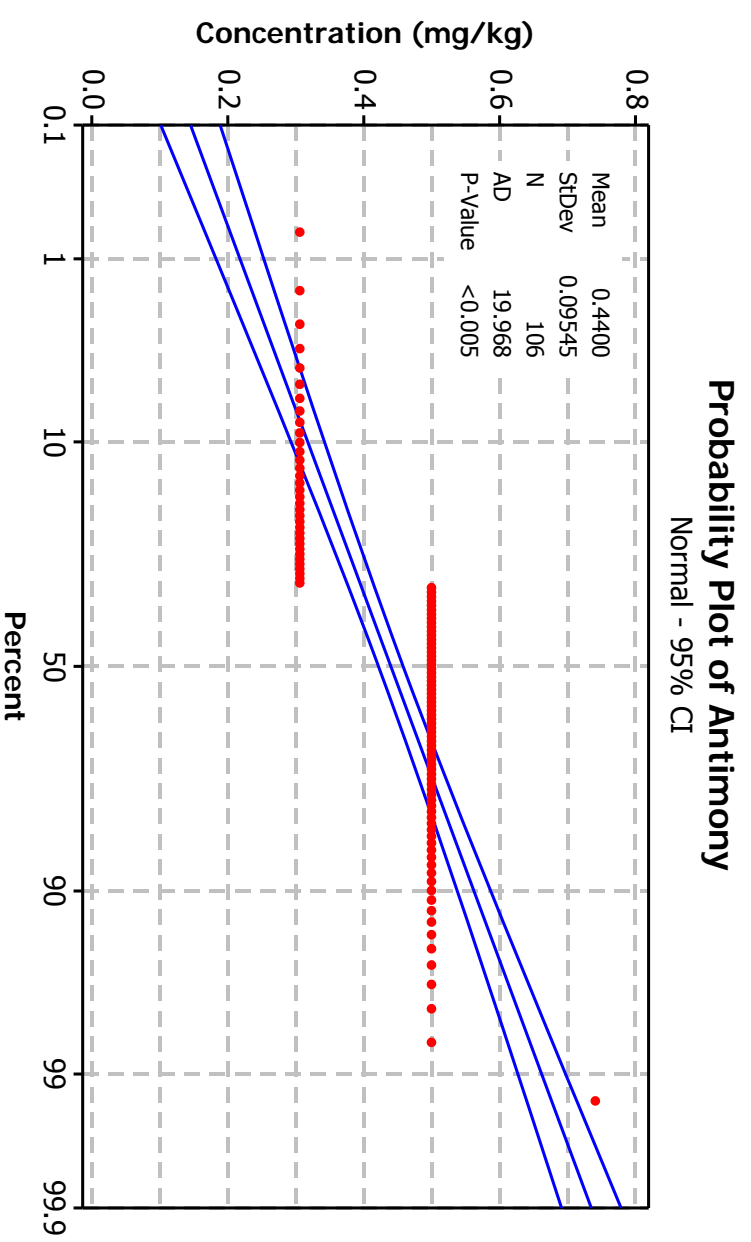
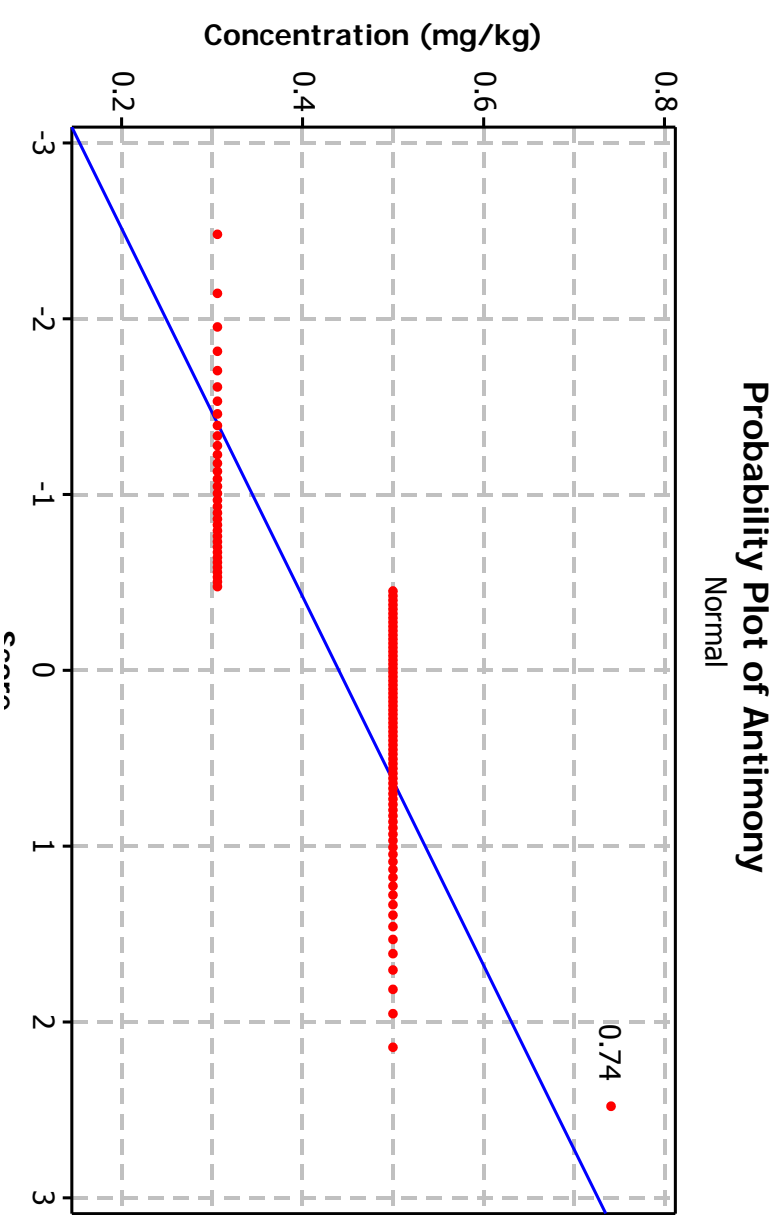
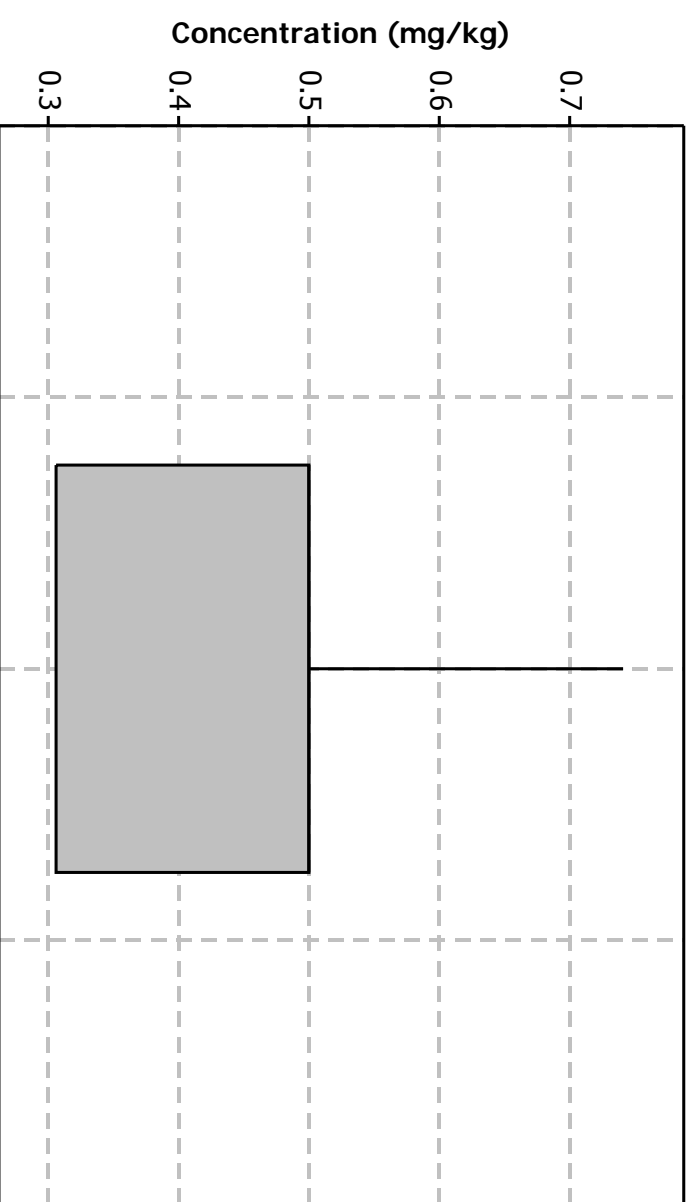
**Figure A2-2: Probability Plots of Metals Background Datasets**



**Figure A2-3: Box Plot and Probability Plots of cPAH Background Datasets**

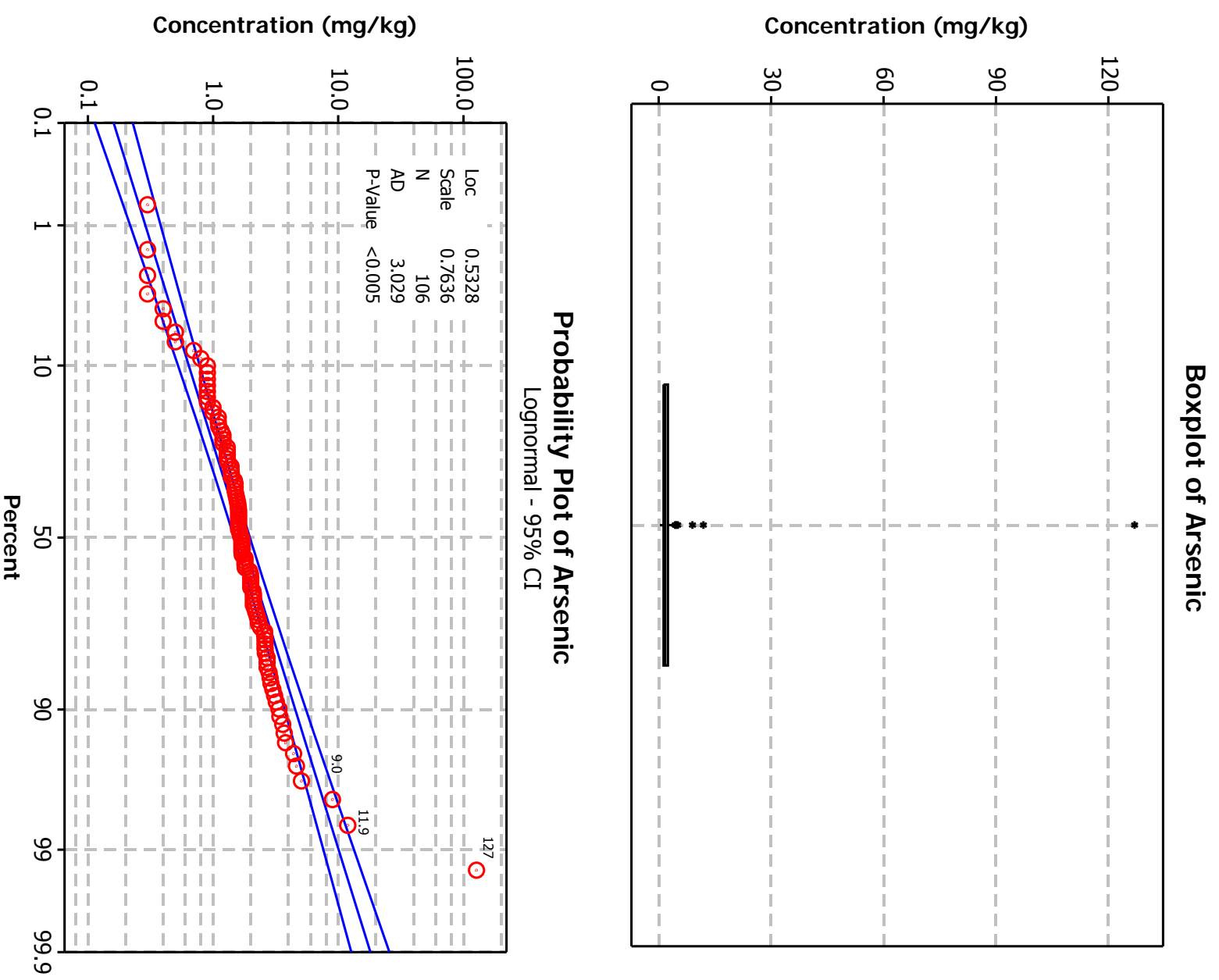


# Figure A2-4-1: Antimony Outlier Evaluation



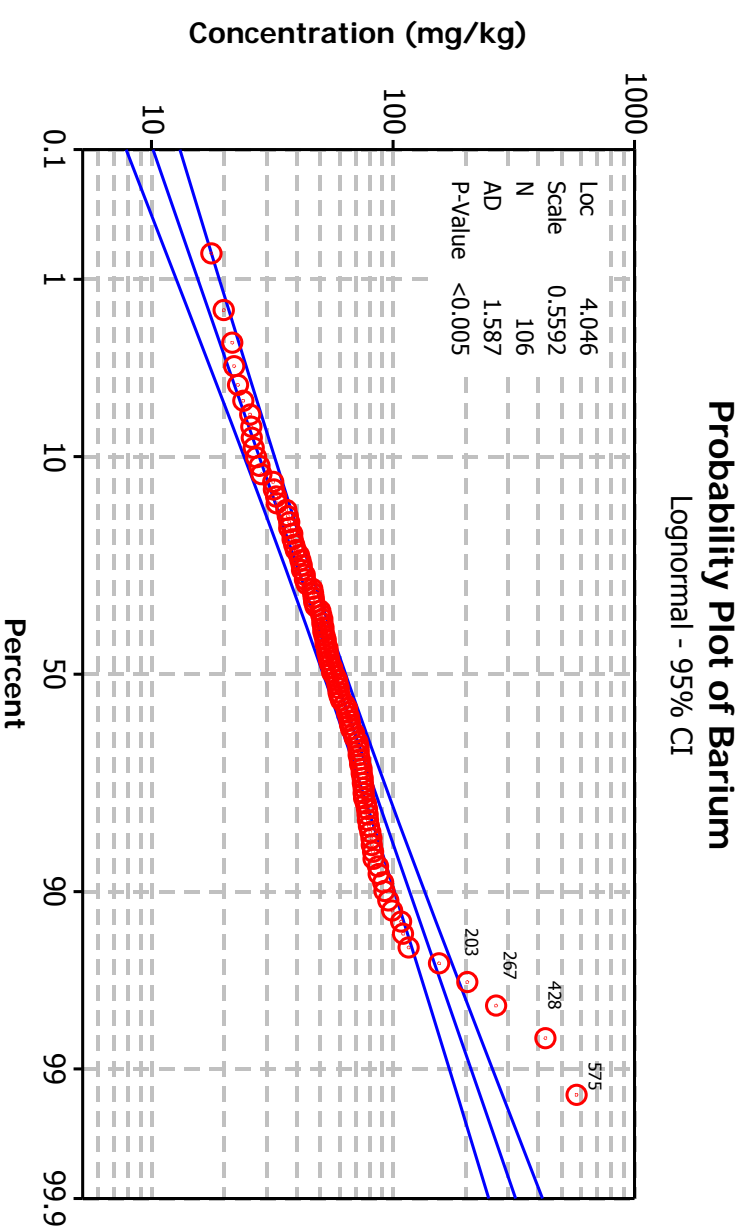
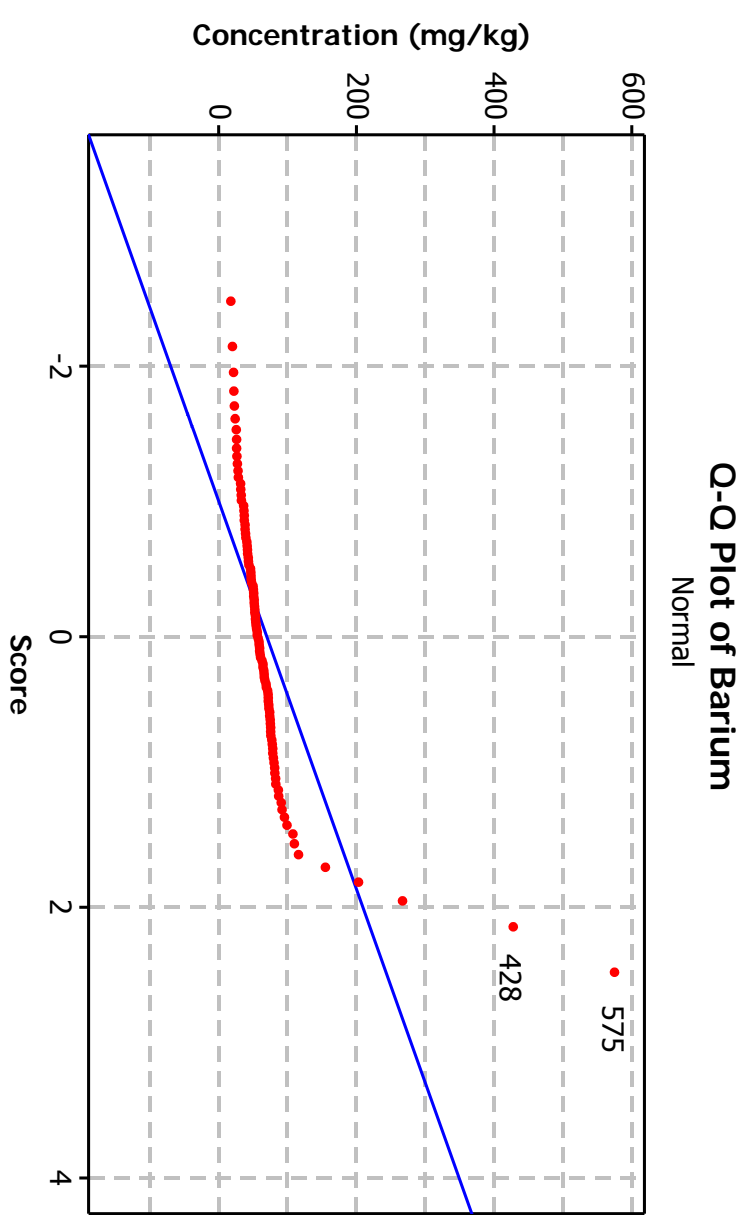
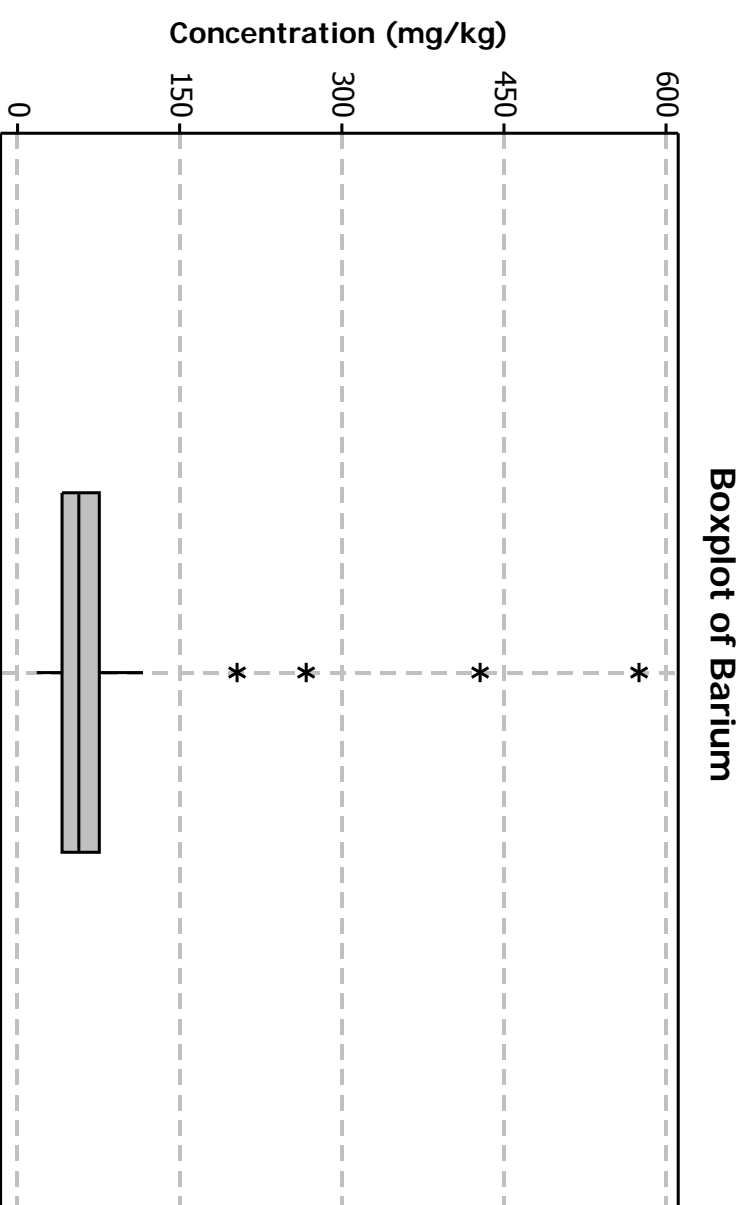
- Note: Samples 99% ND (only 1 sample detected)
- No reliable statistical tests
  - No samples were eliminated as outliers

# Figure A2-4-2: Arsenic Outlier Evaluation



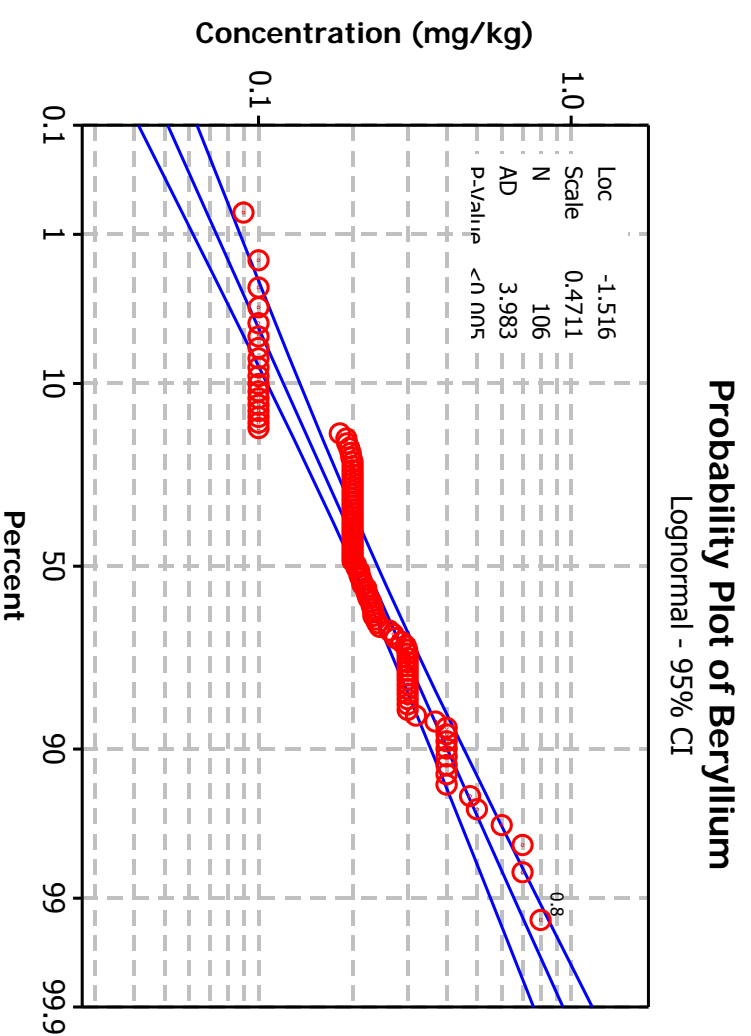
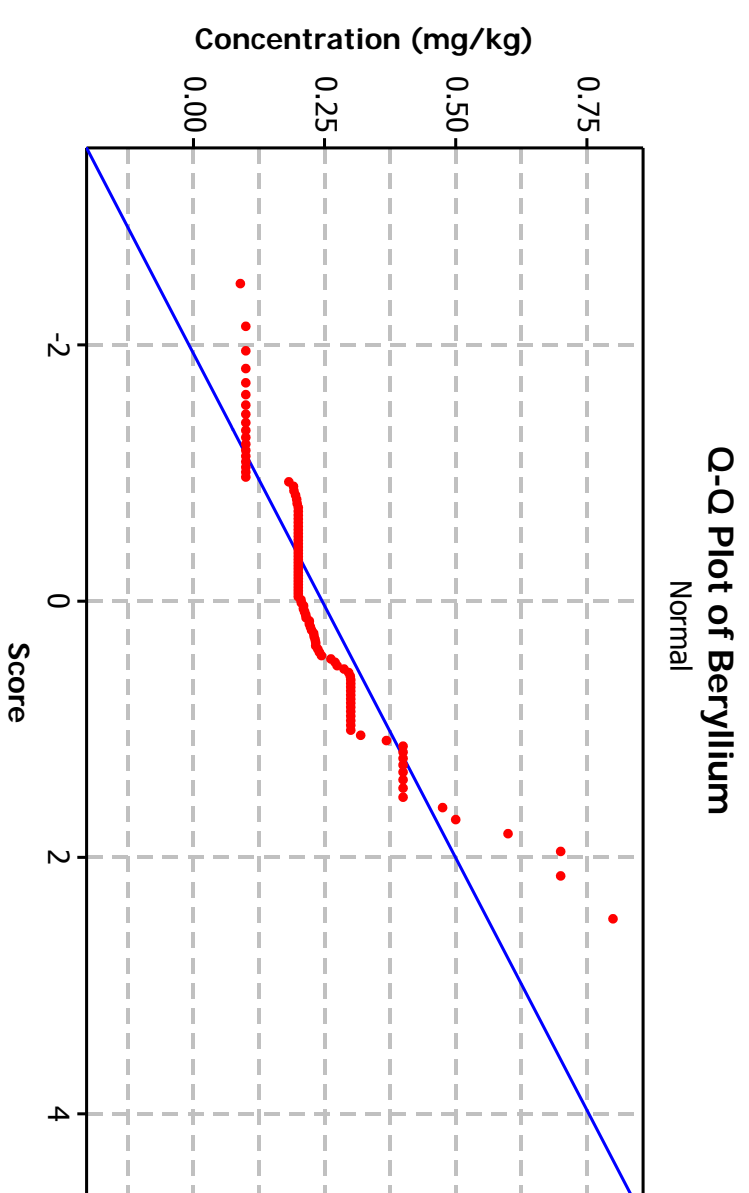
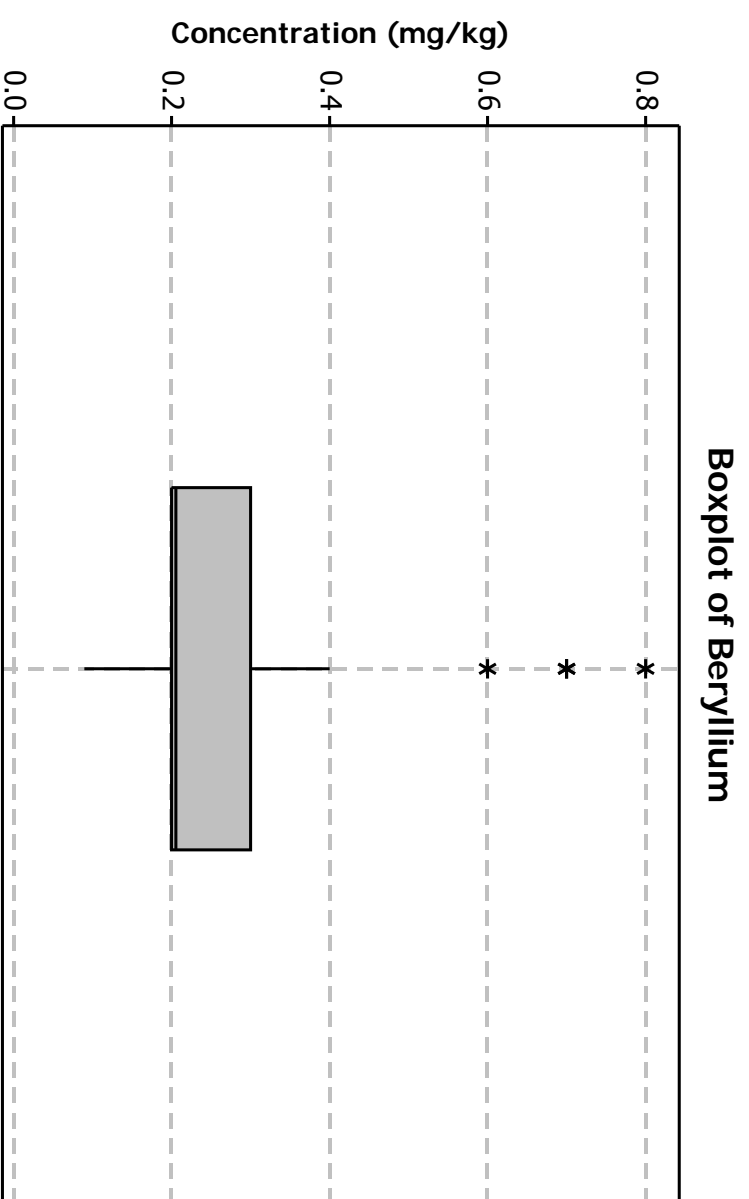
- 3IR box plot Tests indicate outliers: 9, 11.9 and 127.
- Rosner Test indicates outlier 127.
- Q-Q plot indicates one suspected outlier 127.
- GOF test: not normal or lognormal distribution. But the Lognormal fit shows strong linearity except one point: 127 may be considered an outlier.

# Figure A2-4-3: Barium Outlier Evaluation



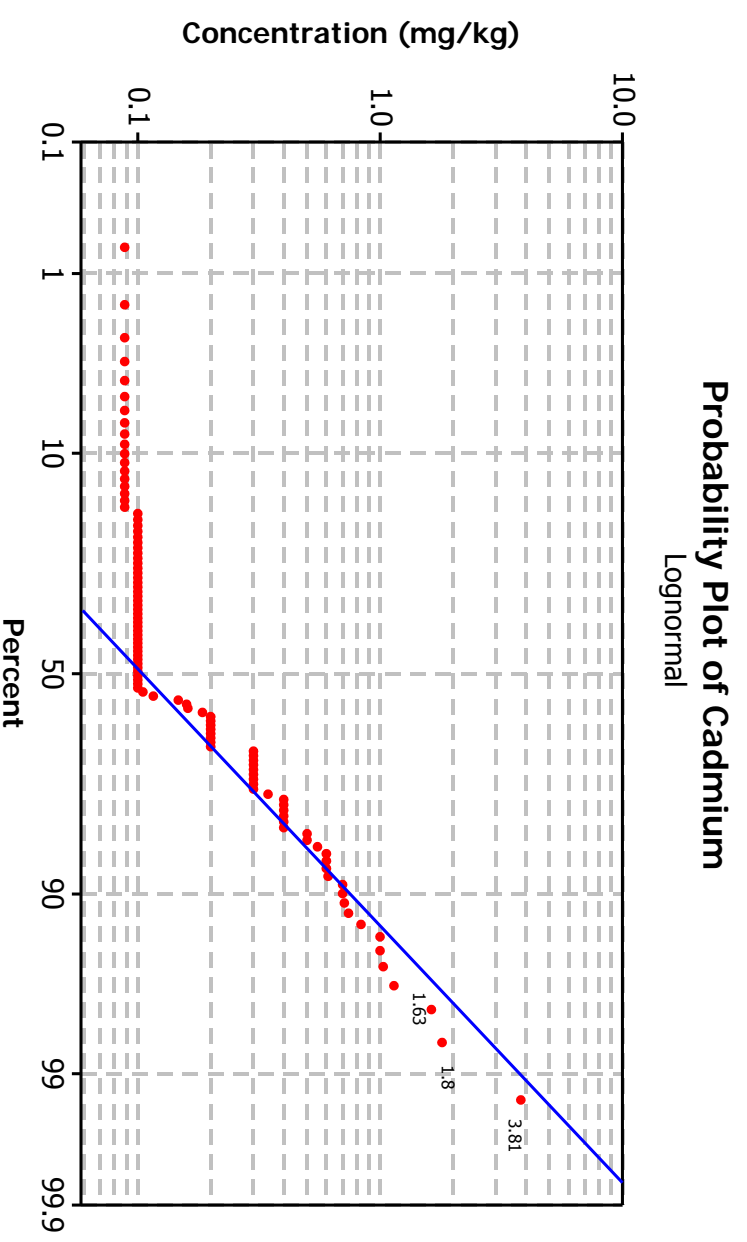
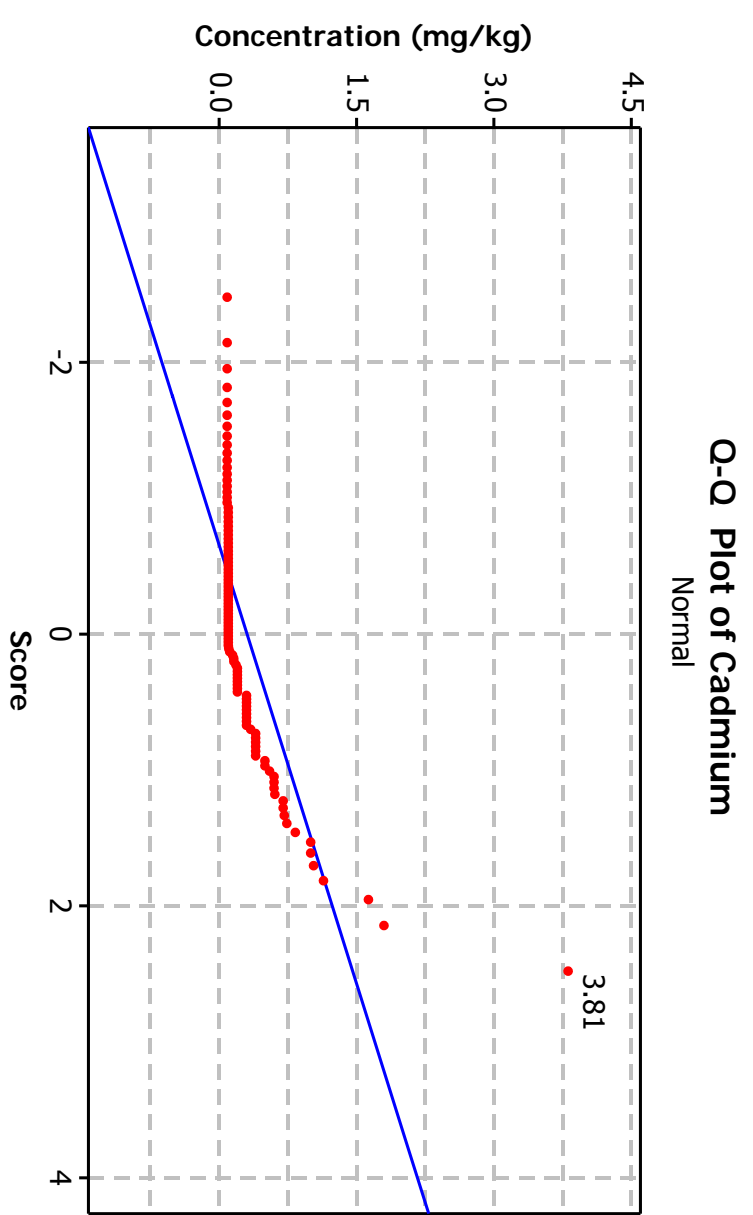
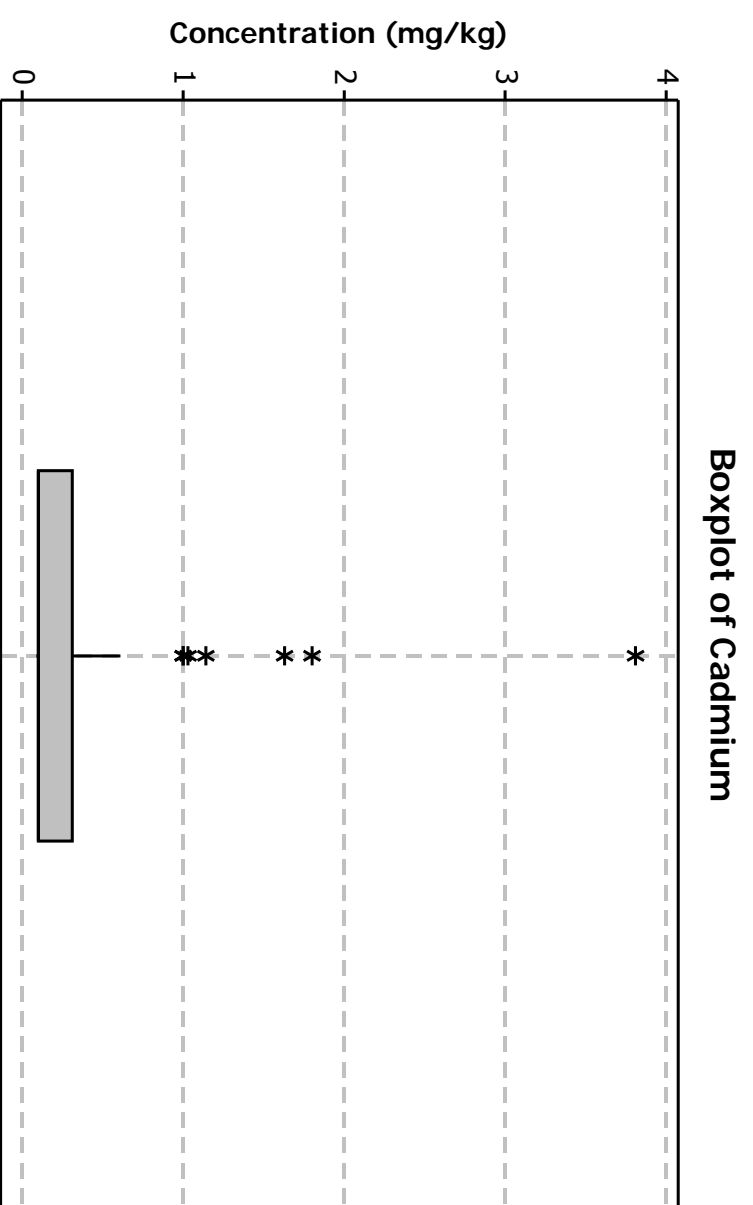
- 3IR suspected outliers - 203, 267, 428 and 575
- Rosner test suspect outlier: 575
- Q-Q plot based suspected outliers - 428 and 575
- Goodness of fit test: data does not fit normal, lognormal or gamma

# Figure A2-4-4: Beryllium Outlier Evaluation



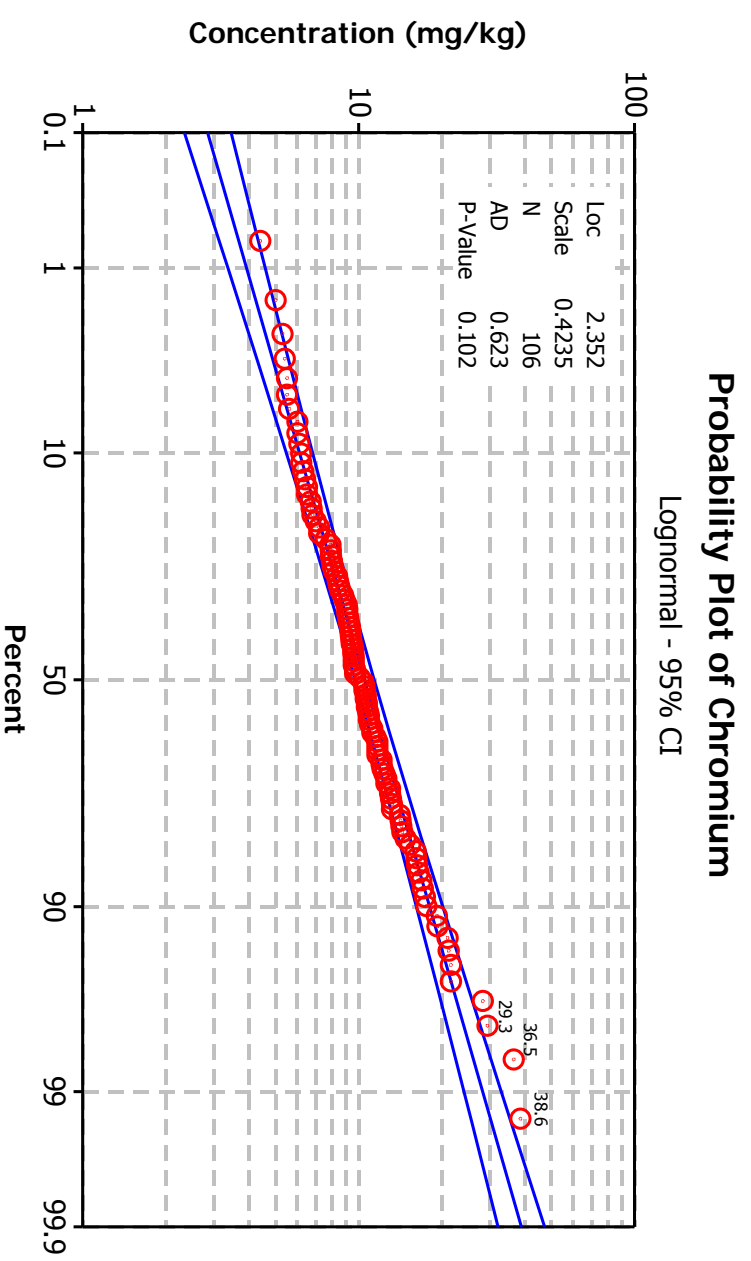
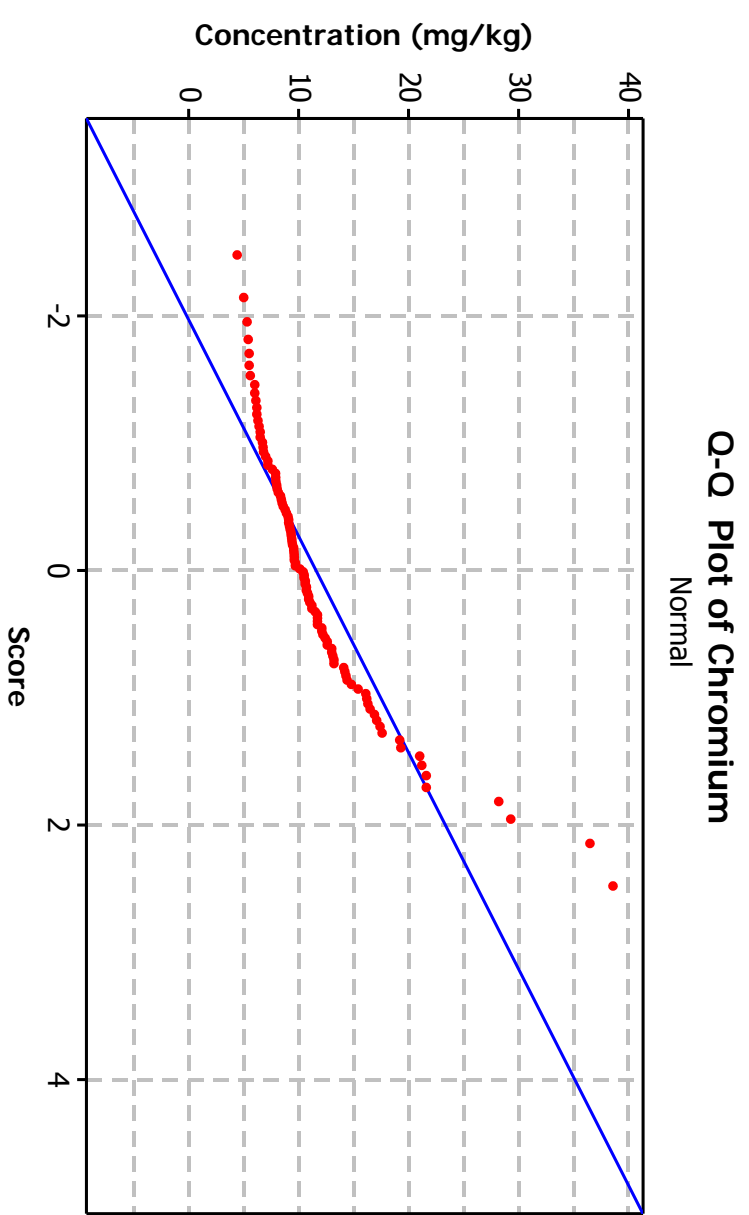
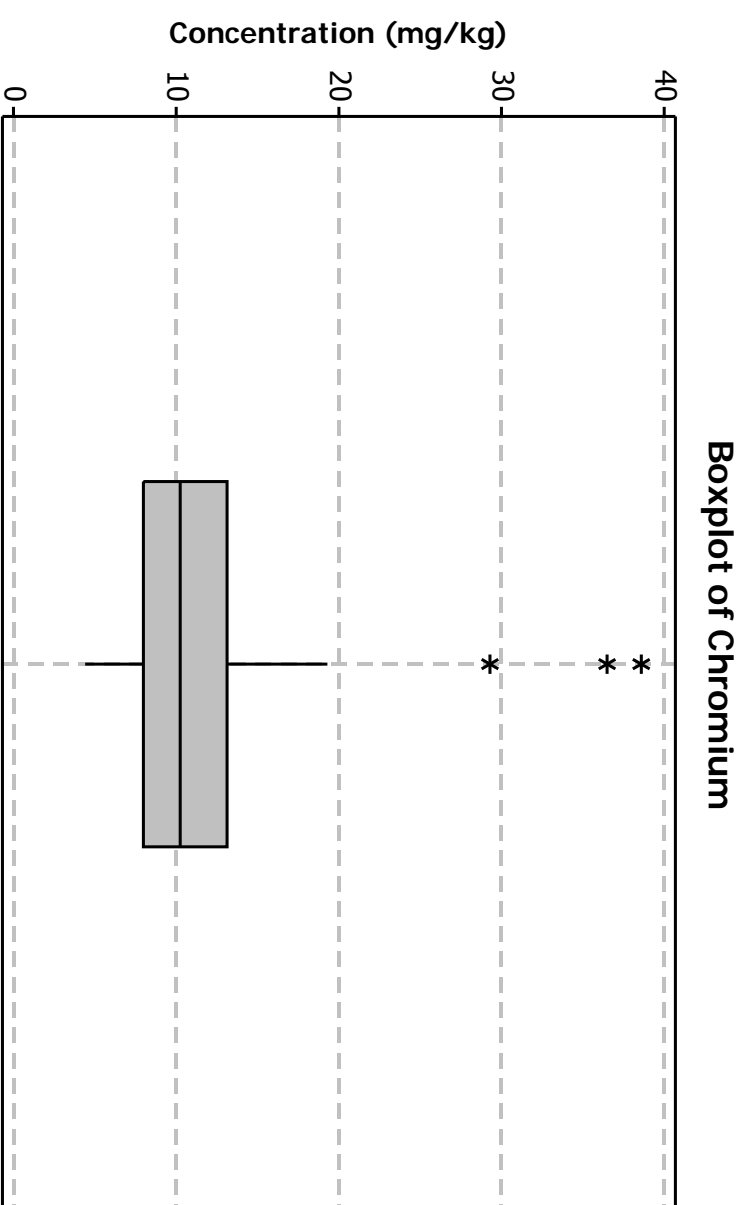
- 3IR suspect outliers - 0.6, 0.7, 0.7 and 0.8
- Rosner test suspect outlier - 0.8
- Q-Q plot based suspected outliers - None
- GOF test: not N, LN, GM (close to LN)
- No outlier

# Figure A2-4-5: Cadmium Outlier Evaluation



- 3IIR suspected outliers - 1.0 to 3.81
- Rosner test outlier - 3.81
- Q-Q plot based suspected outliers - 3.81
- GOF test: Data appear LN
- No outlier

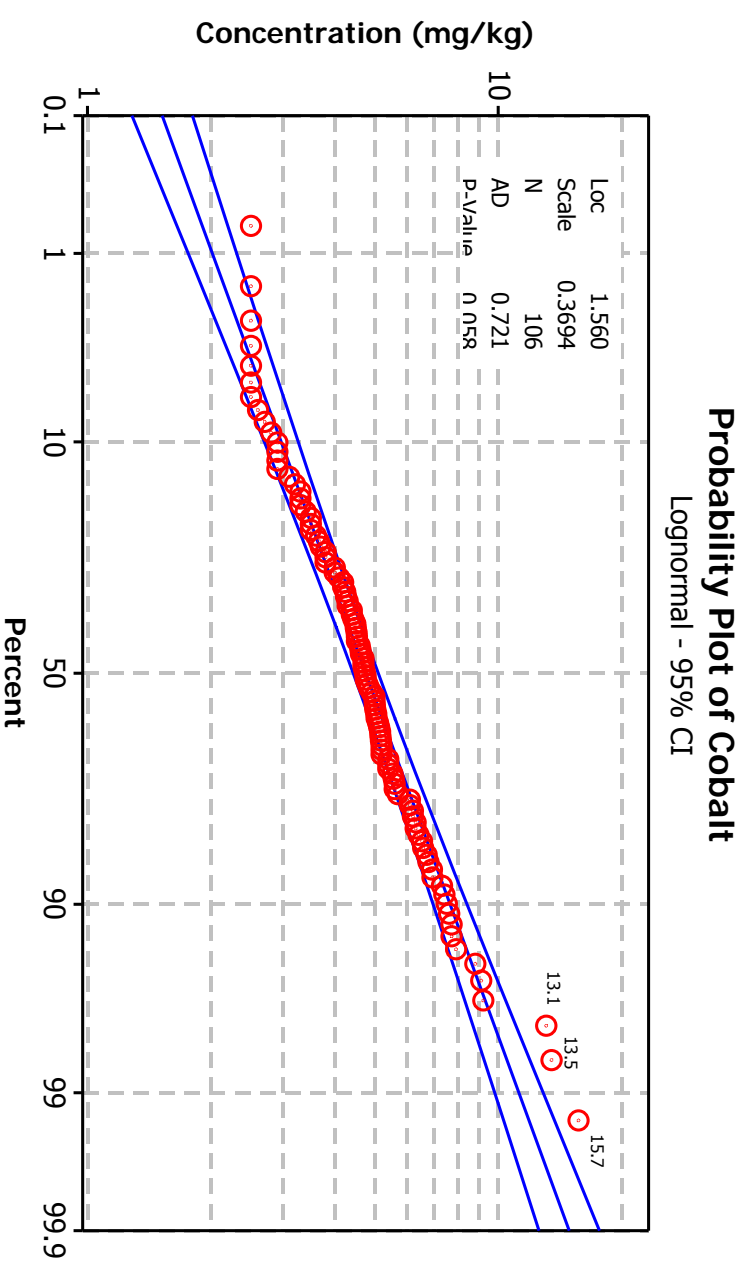
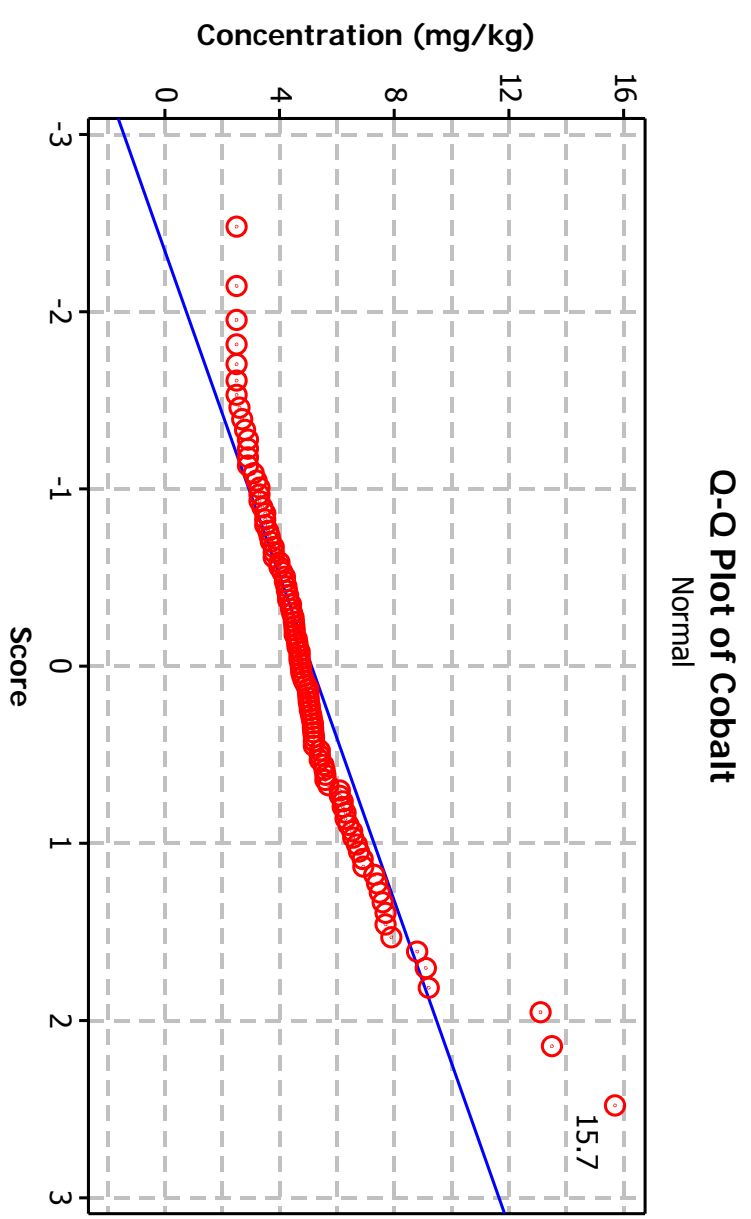
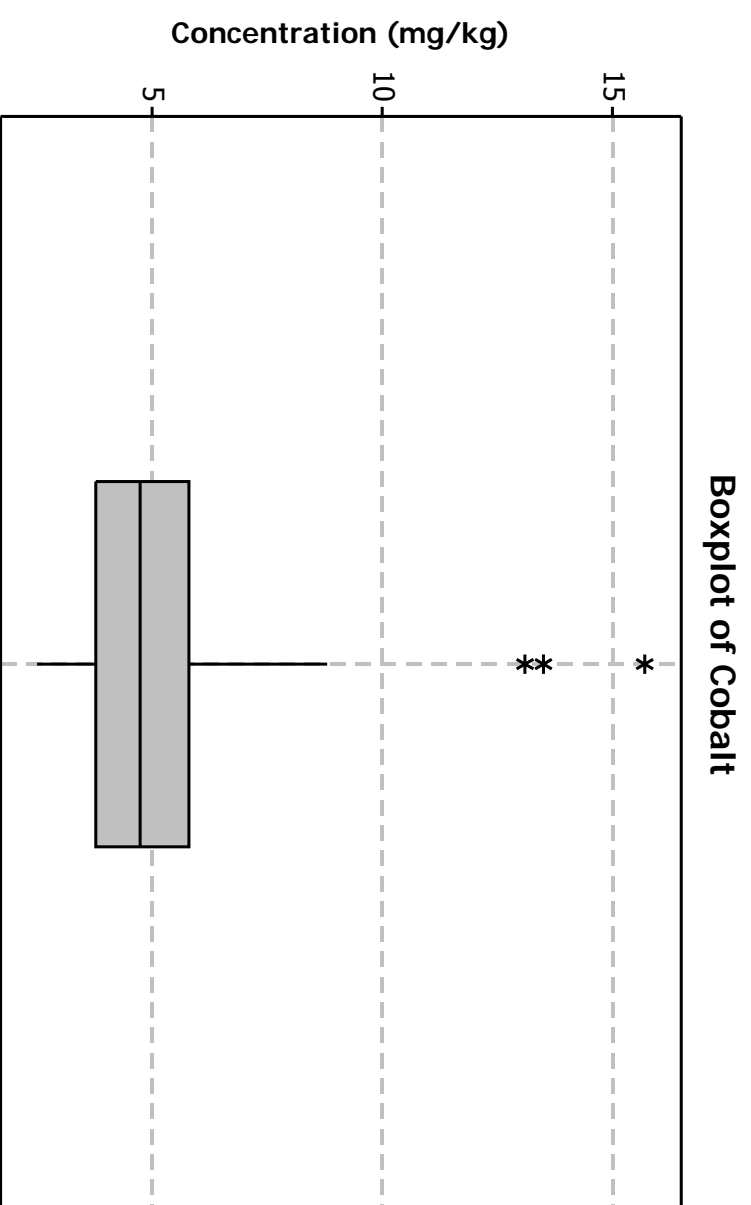
# Figure A2-4-6: Chromium Outlier Evaluation



- 3IR suspected outliers - 29.3, 36.5 and 38.6
- Rosner test: 38.6
- Q-Q plot based suspected outliers - None
- GOF: Data appear LN
- No outlier

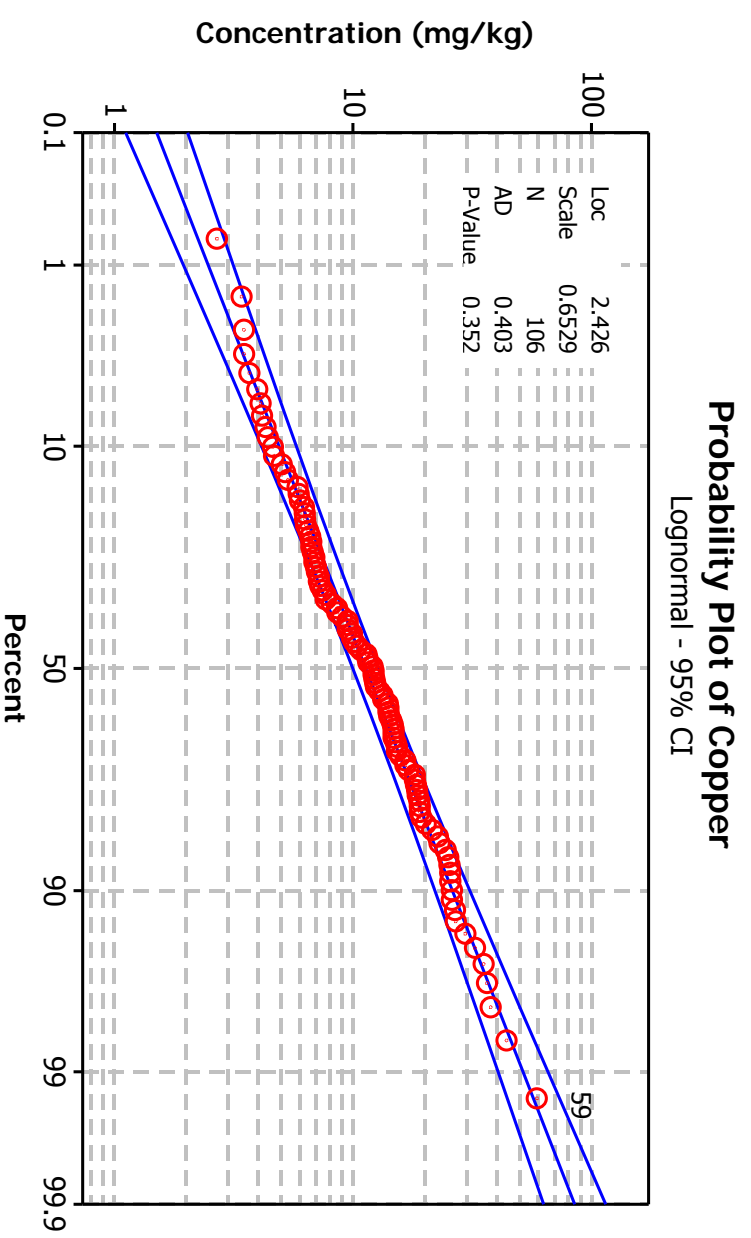
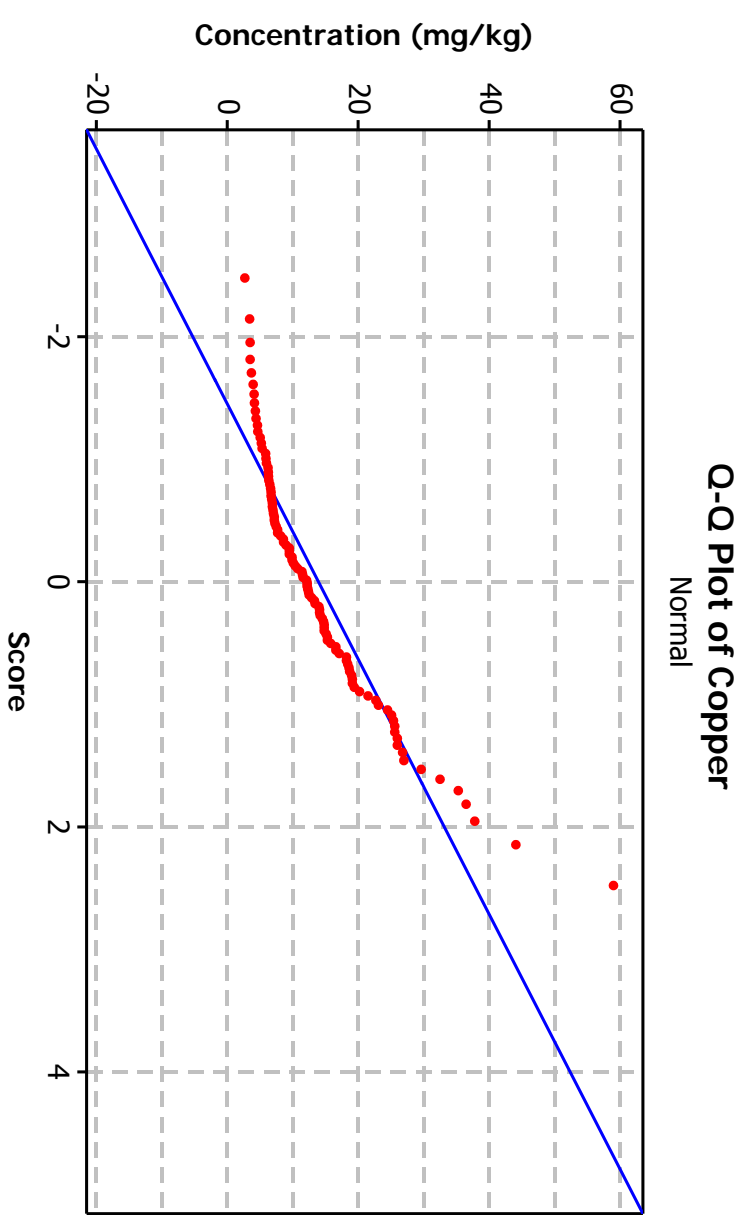
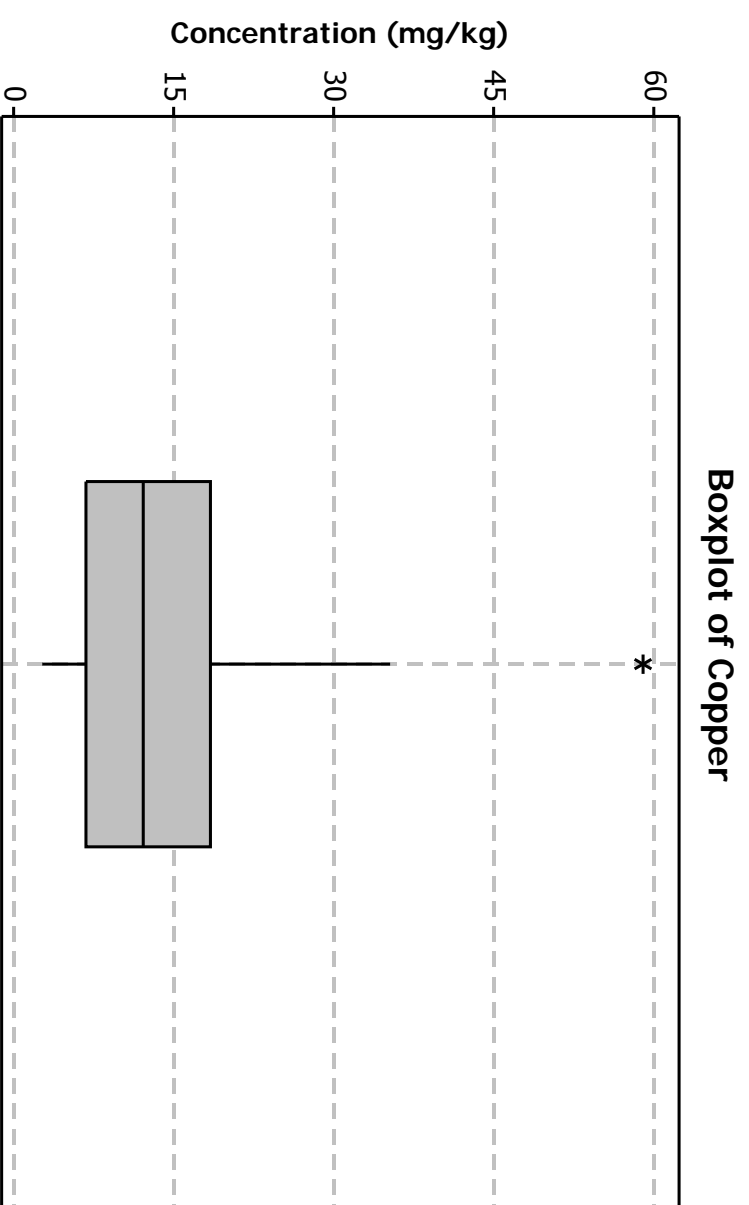


# Figure A2-4-7: Cobalt Outlier Evaluation



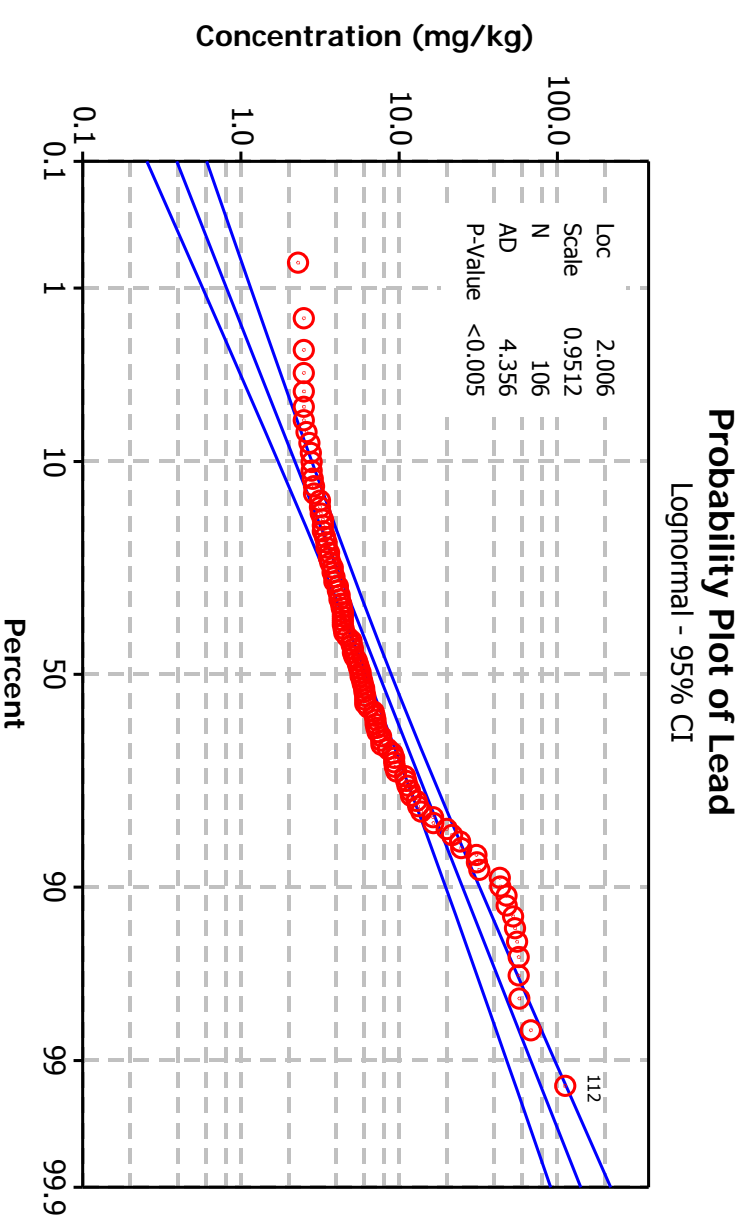
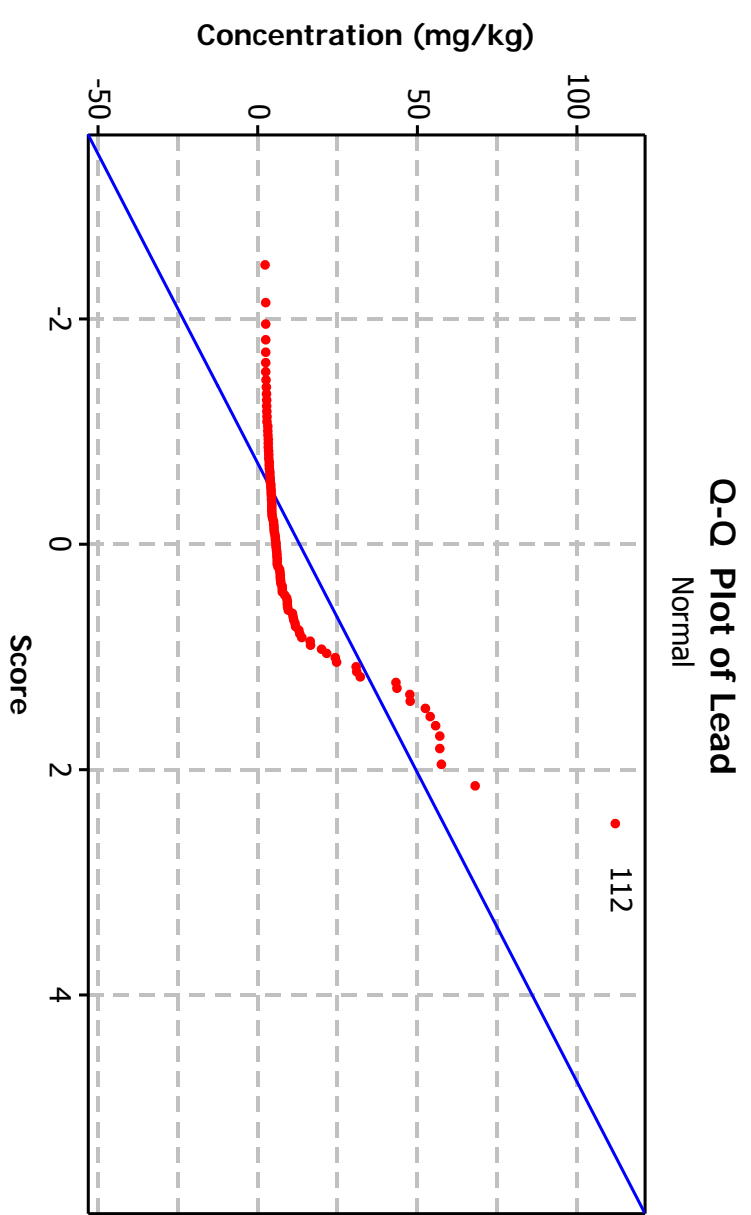
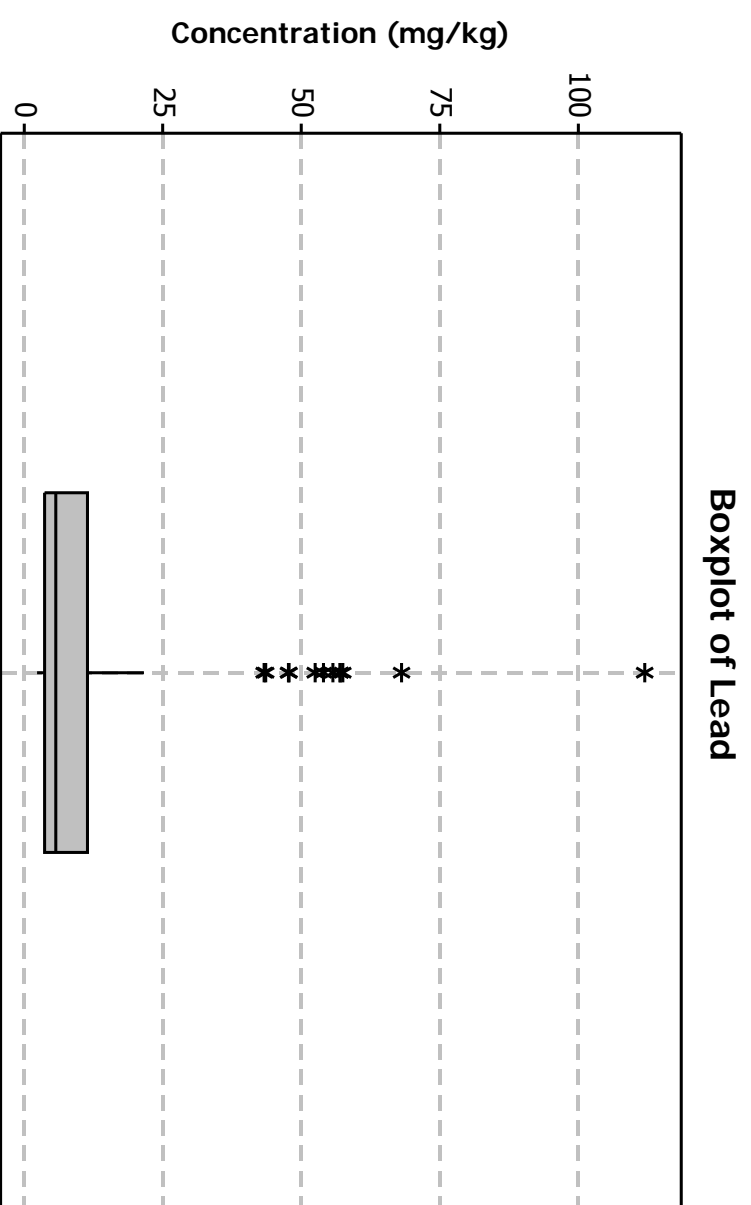
- 3IR suspected outliers - 13.1, 13.5, 15.7
- Rosner test: 15.7
- Q-Q plot based suspected outliers - None
- GOF test: Lognormal
- No outlier

# Figure A2-4-8: Copper Outlier Evaluation



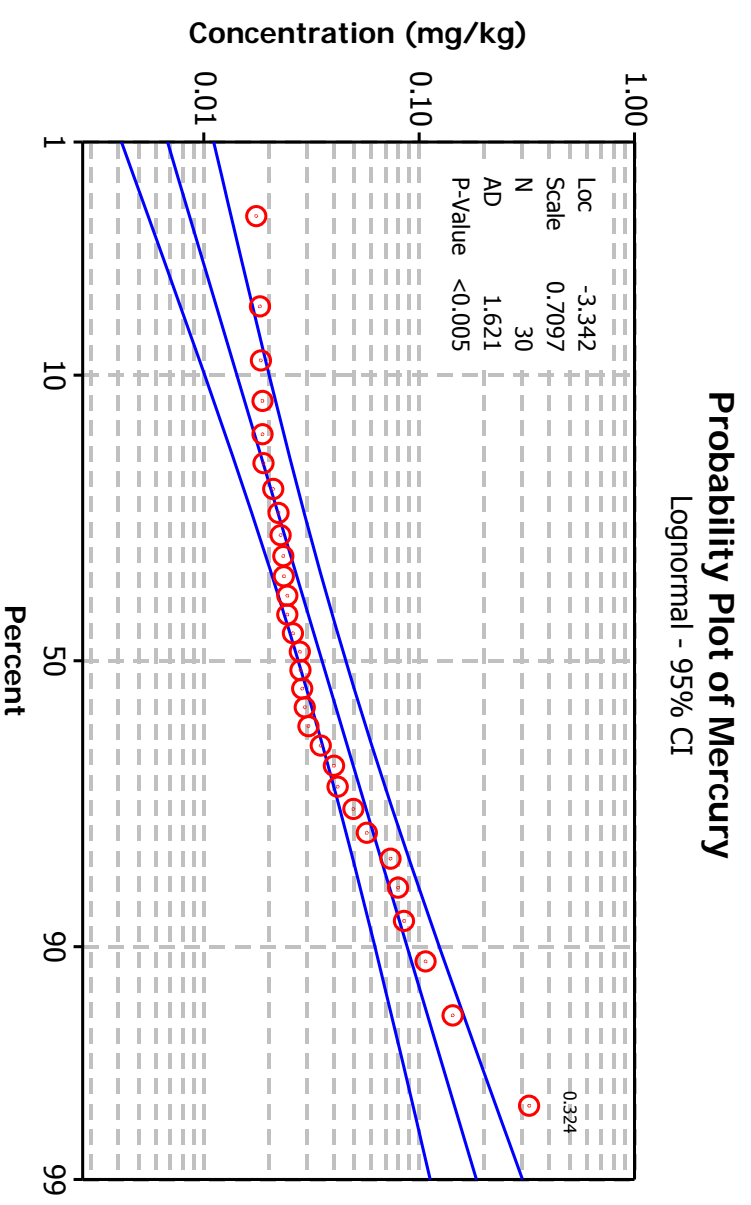
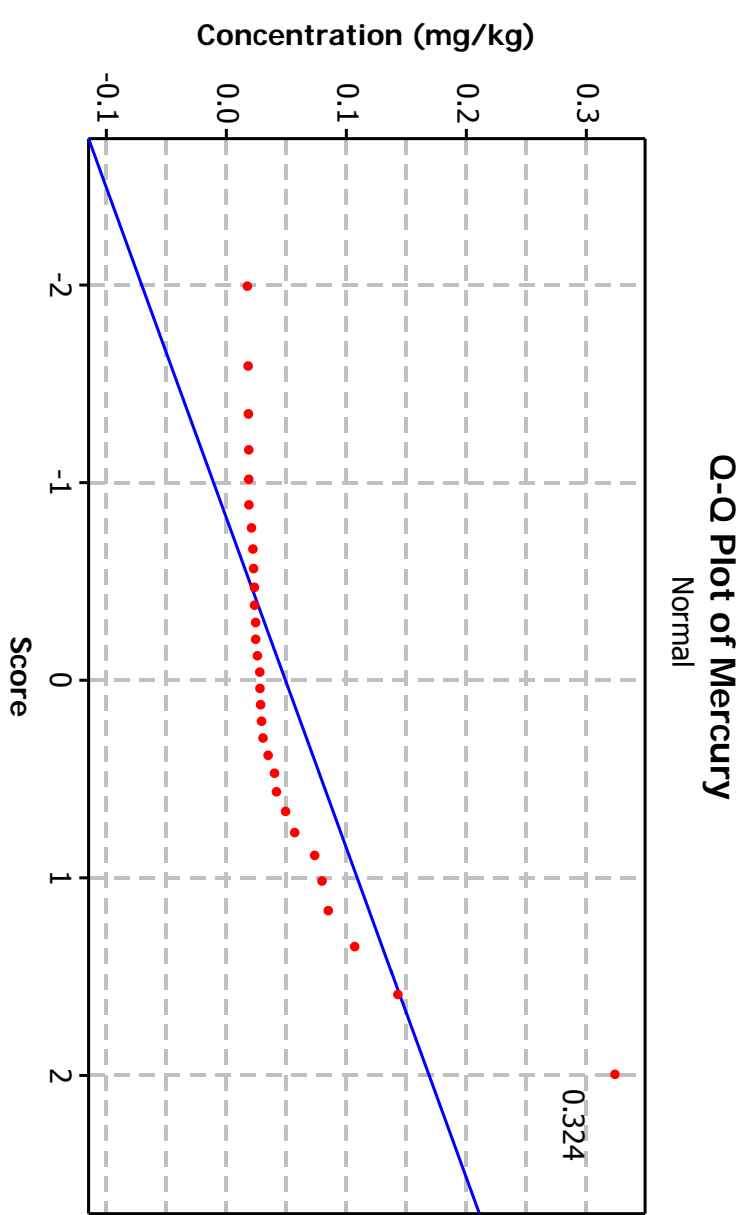
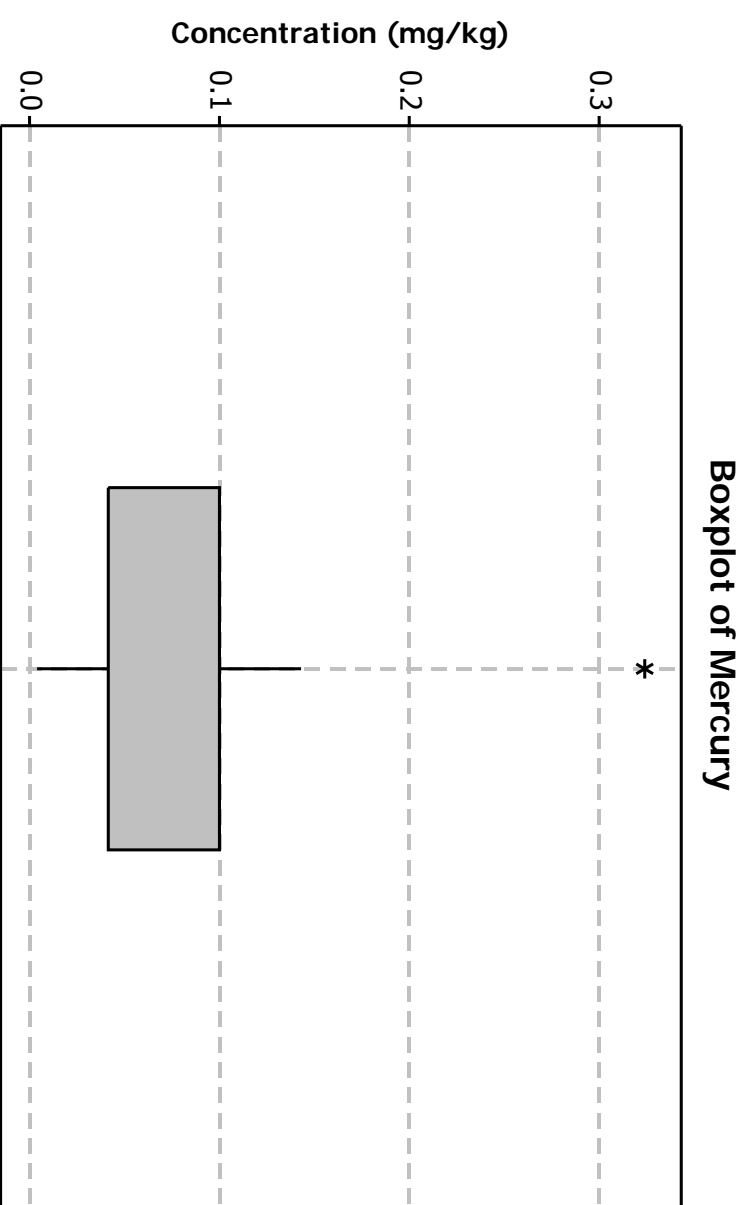
- 3IR suspected outliers - 59
- Rosner test = 59
- Q-Q plot based suspected outliers - None
- GOF test: Lognormal or gamma
- No outlier

# Figure A2-4-9: Lead Outlier Evaluation



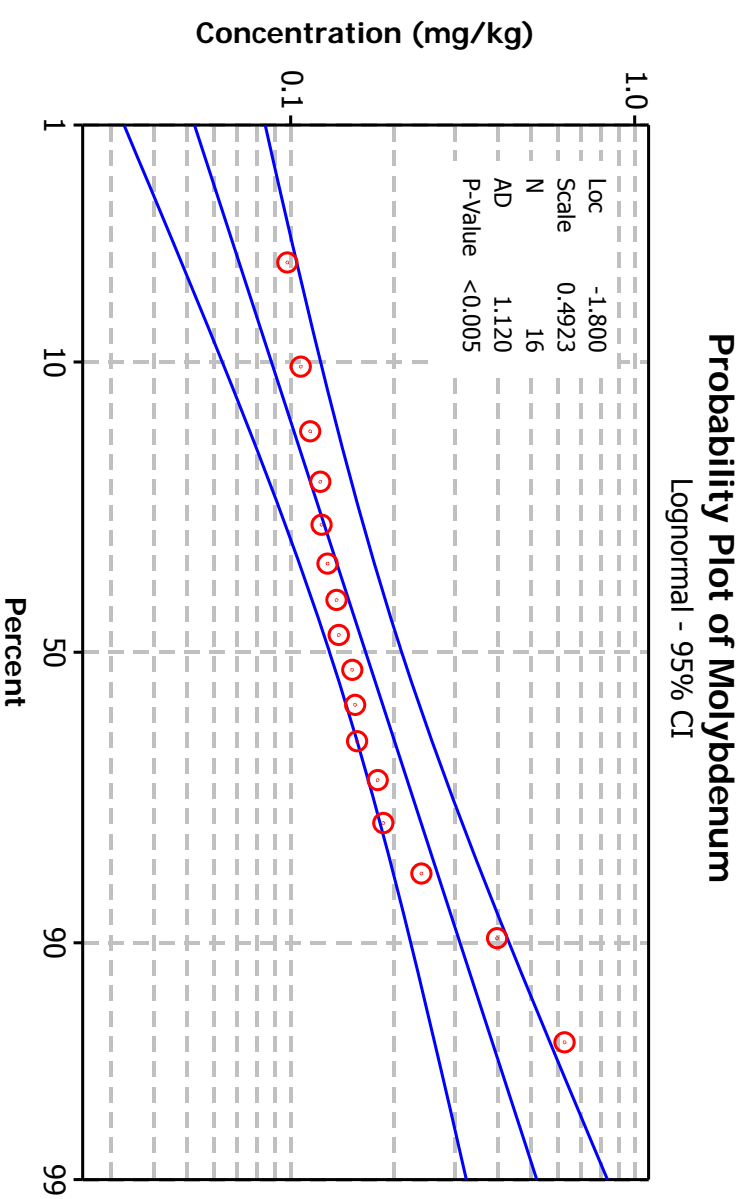
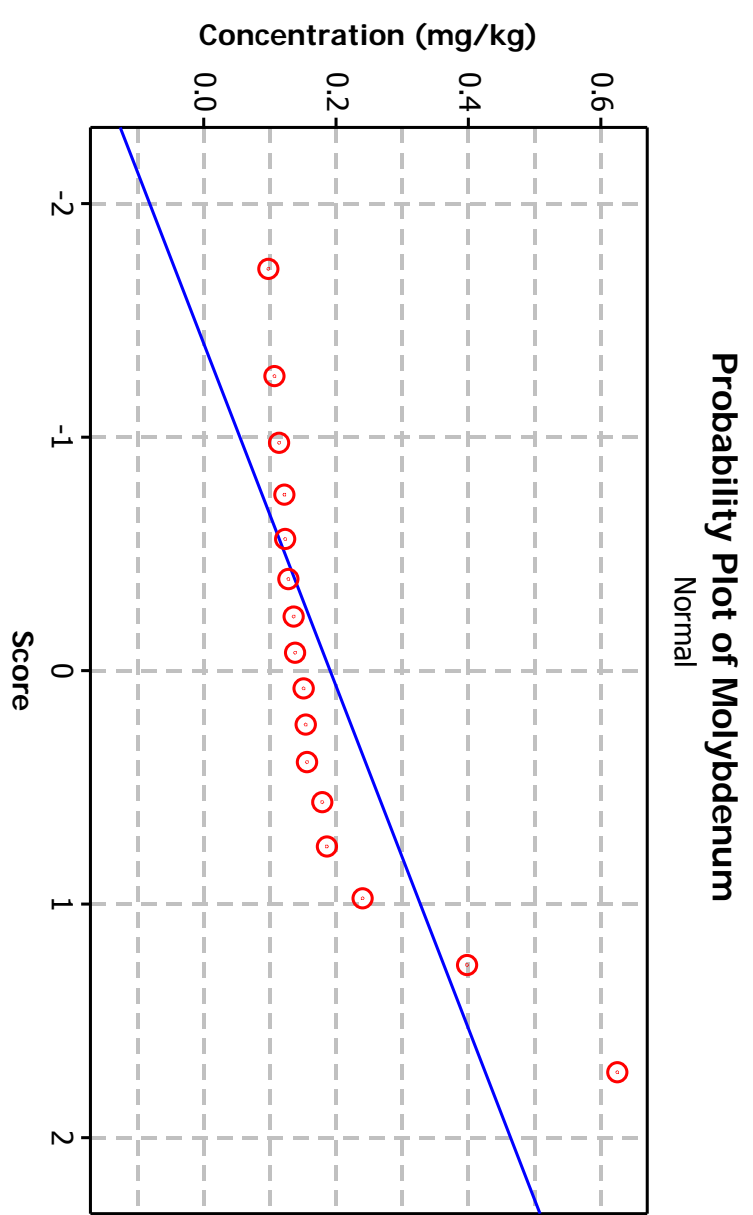
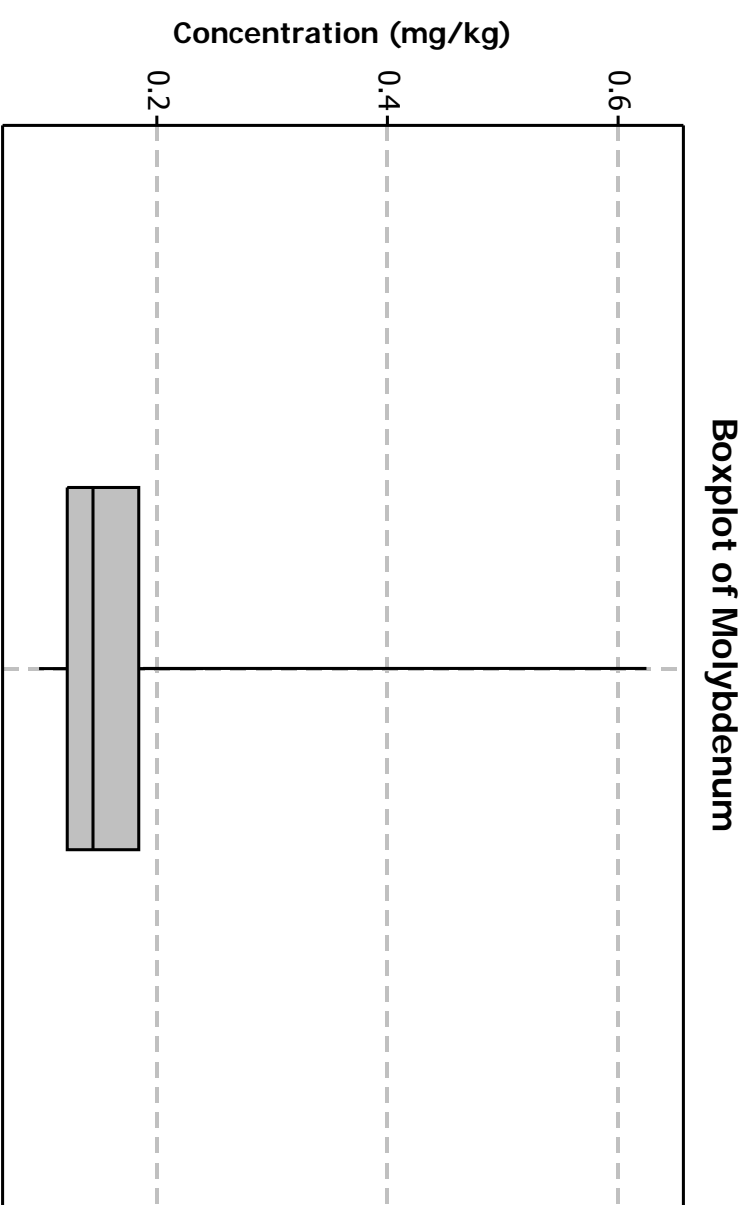
- 3IR suspected outliers - 43.3 to 112
- Rosner test outlier = 112
- Q-Q plot based suspected outliers - 112
- GOF test: not N, LN or GM
- Suspected outlier 112 does not appear to be significantly elevated than rest of data
- No outlier

# Figure A2-4-10: Mercury Outlier Evaluation



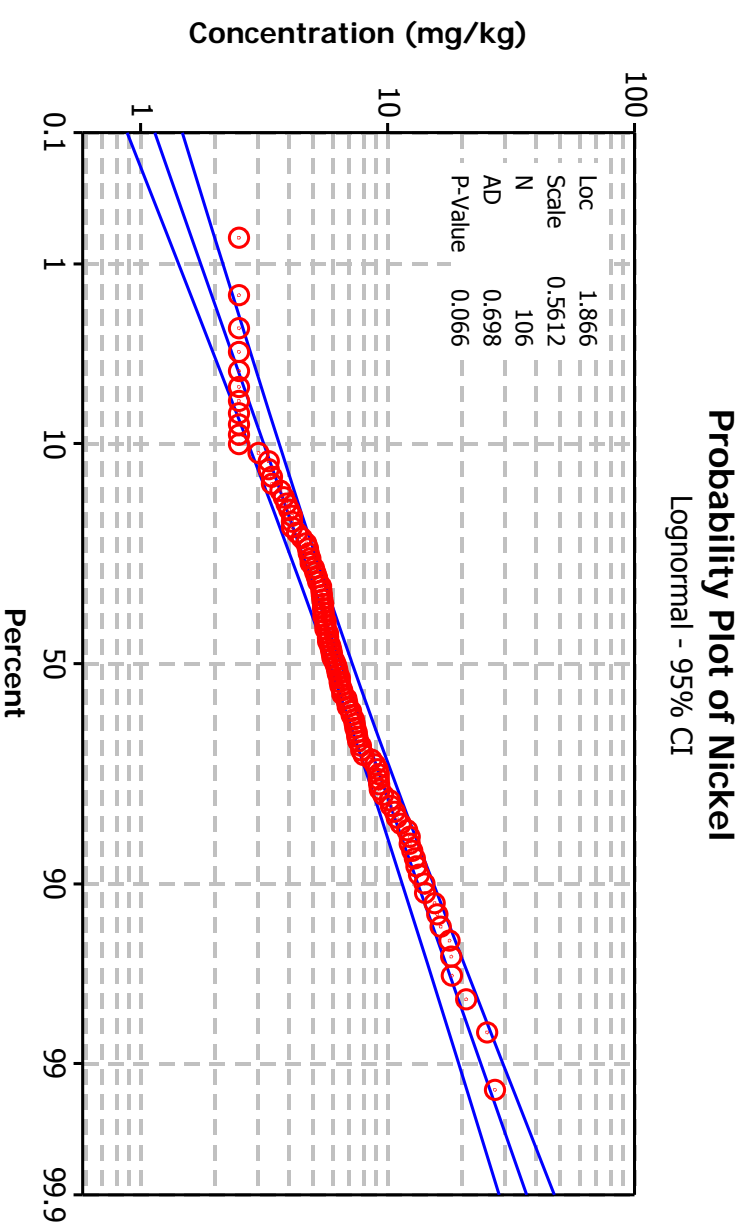
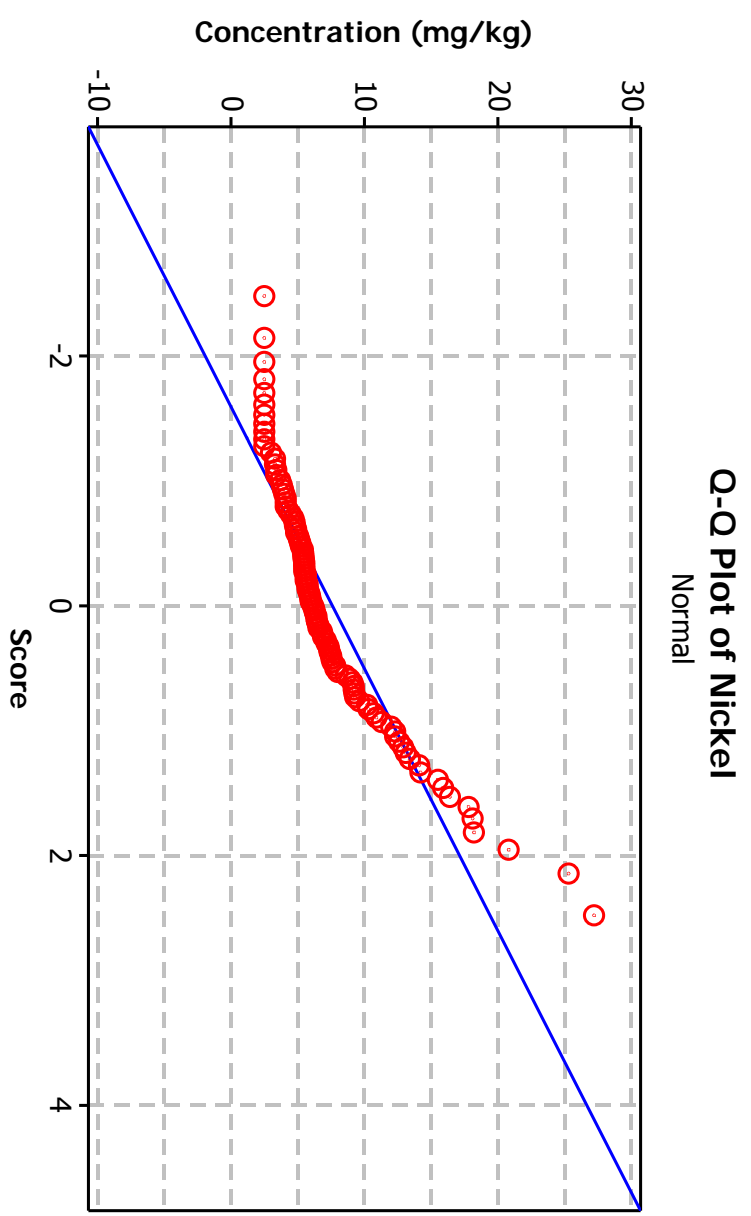
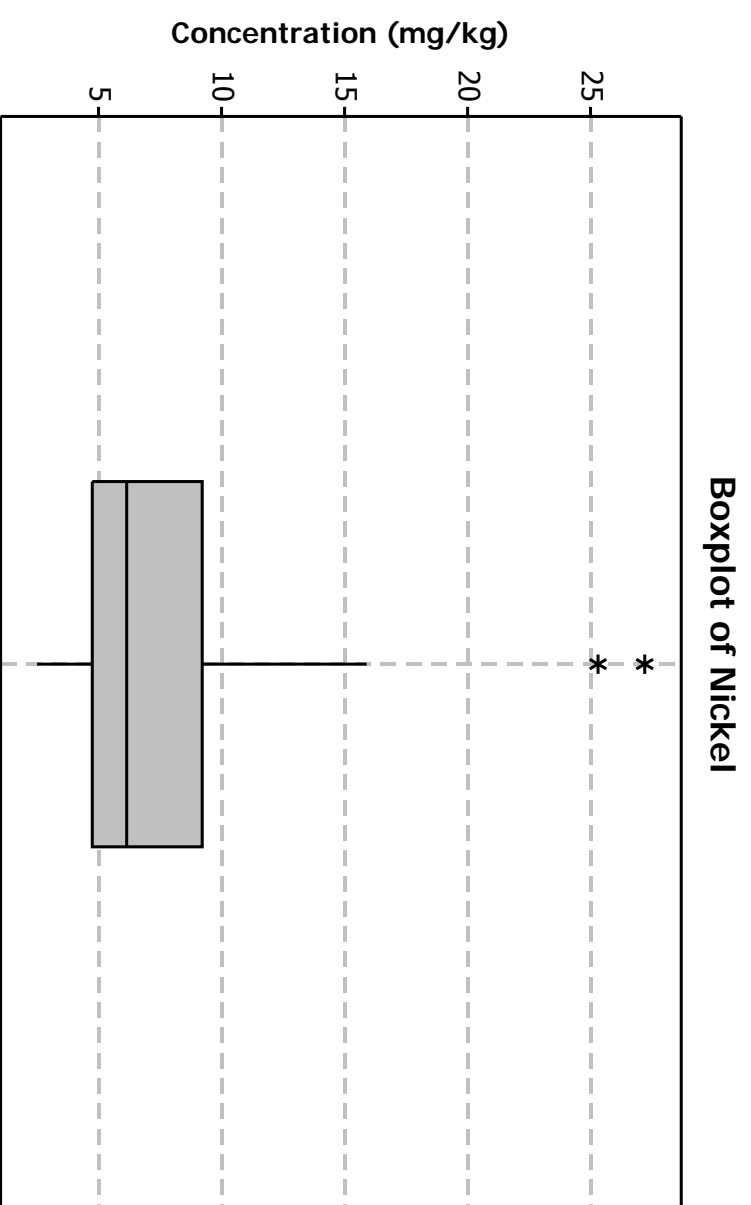
- Rosner test and 3IR suspected outliers - 0.324
  - Q-Q plot based suspected outliers - none
  - GOF: not N or LN. Data appears fairly linear under LN.
- Note: %ND = 71.7%.
- Only detected values used in probability plot
  - No outlier

# Figure A2-4-11: Molybdenum Outlier Evaluation



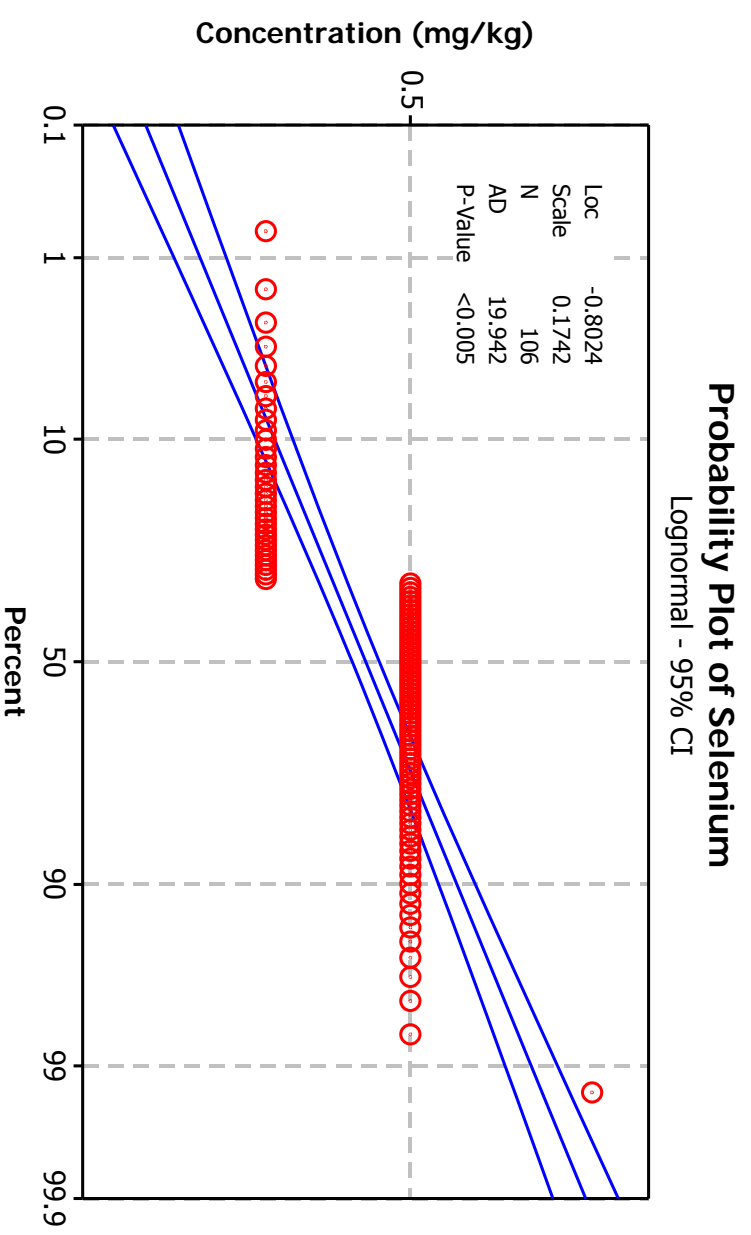
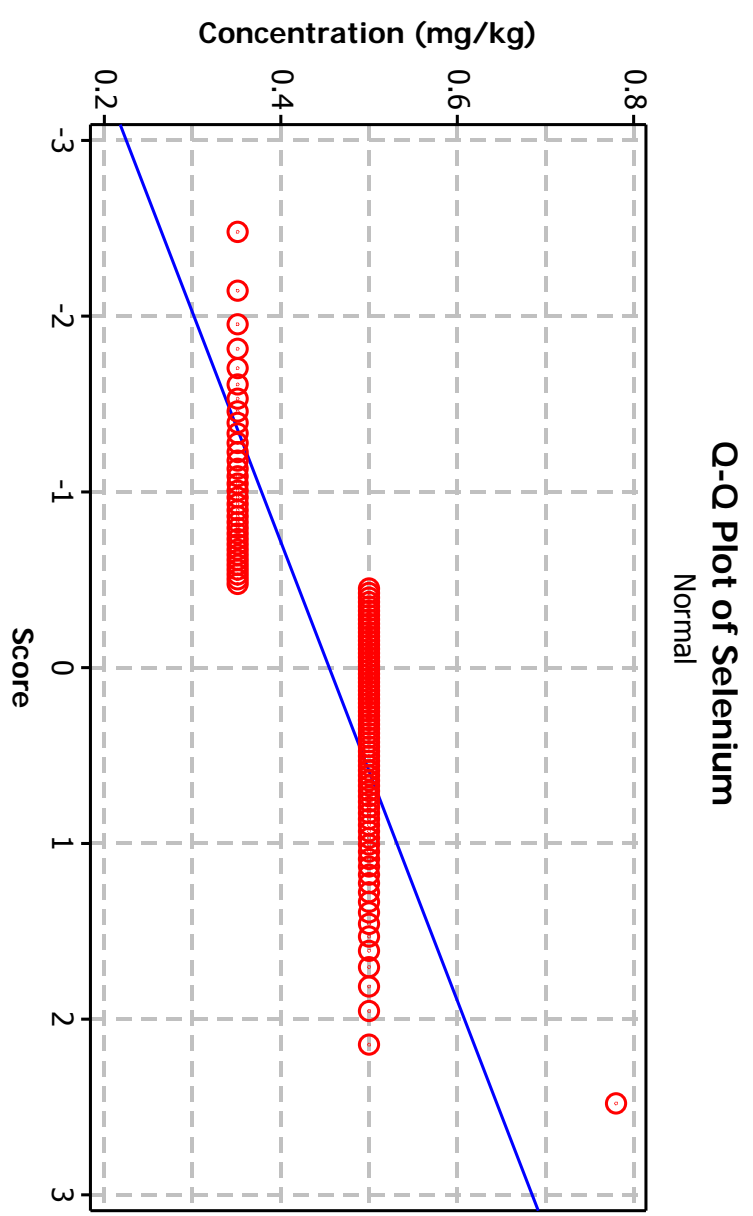
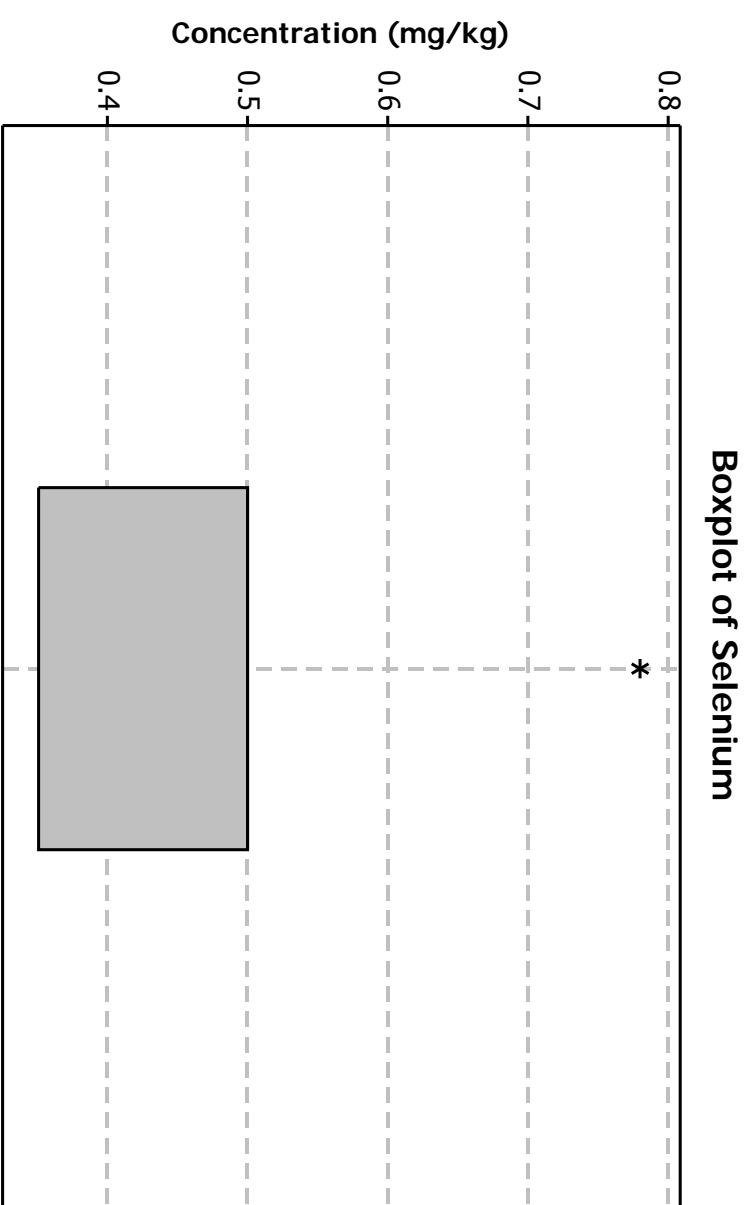
- Rosner test and 3IR suspected outliers - none
  - Probability plot based suspected outliers - none
- Note: %ND = 84.9%.  
 - Only detected values used in probability plot

# Figure A2-4-12: Nickel Outlier Evaluation



- 3IR suspected outliers -25.3, 27.2
- Rosner test 27.2
- Q-Q plot based suspected outliers - none
- GOF test: Lognormal
- No outlier

# Figure A2-4-13: Selenium Outlier Evaluation

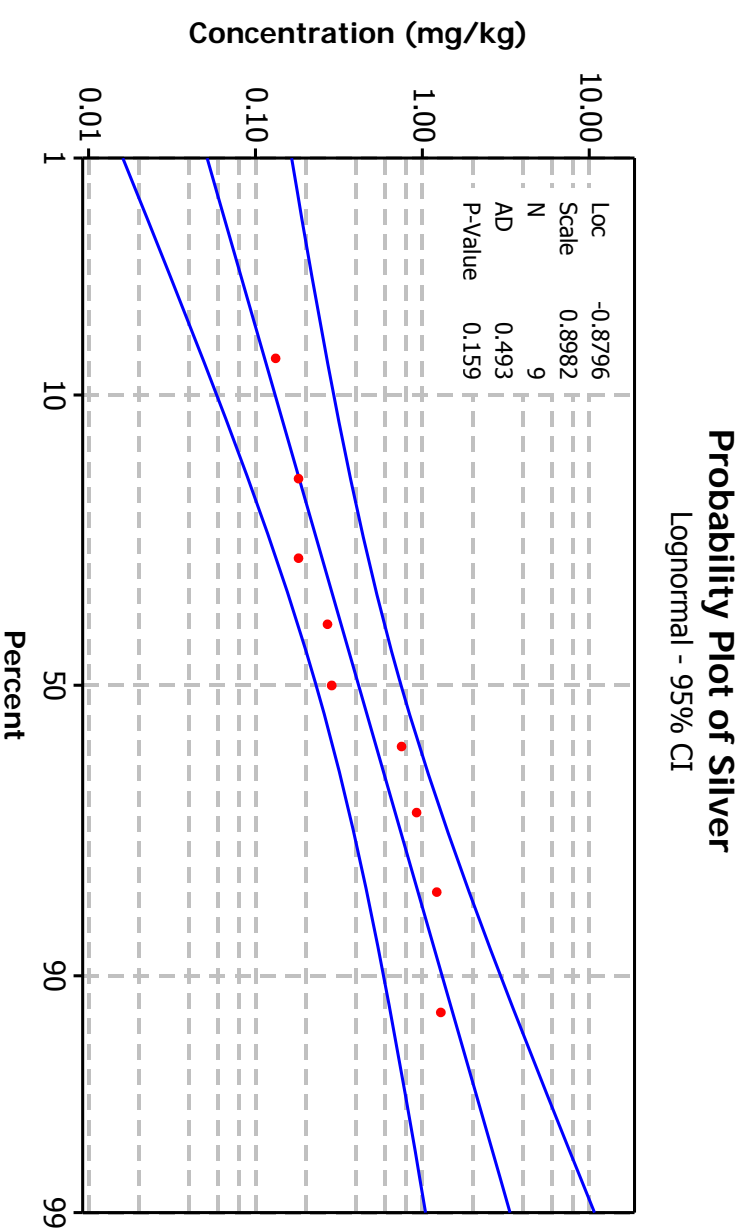
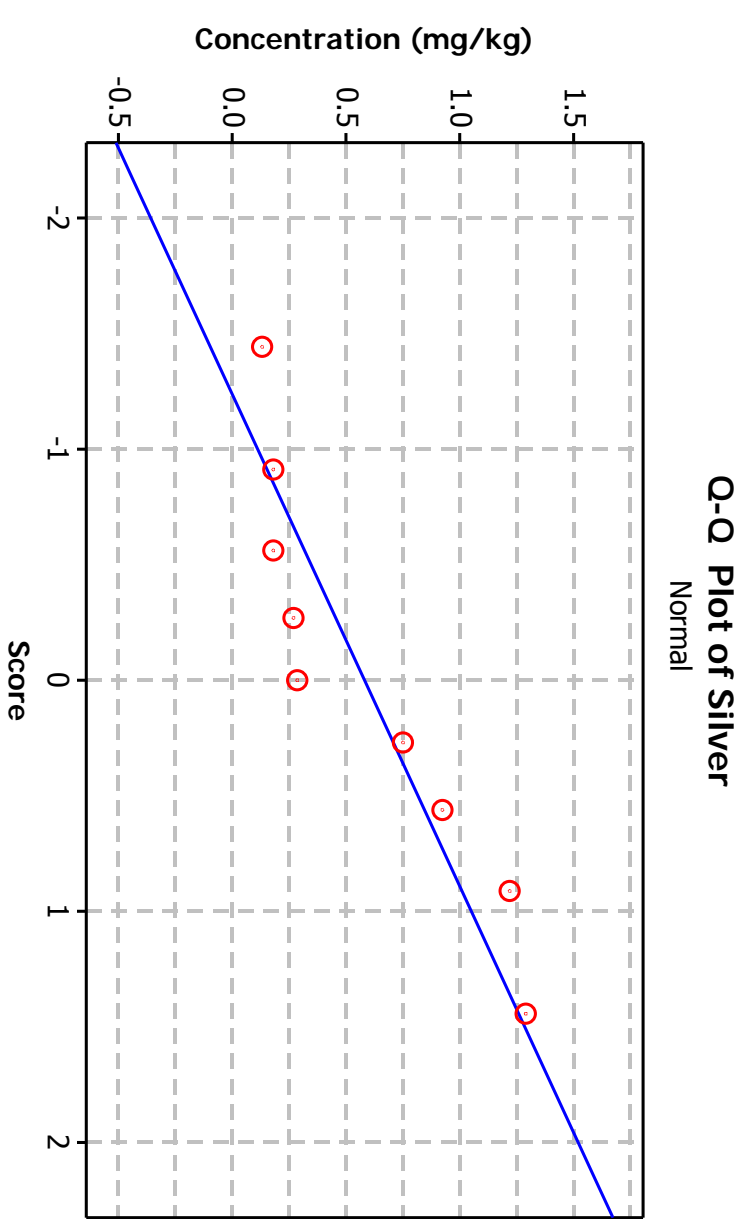
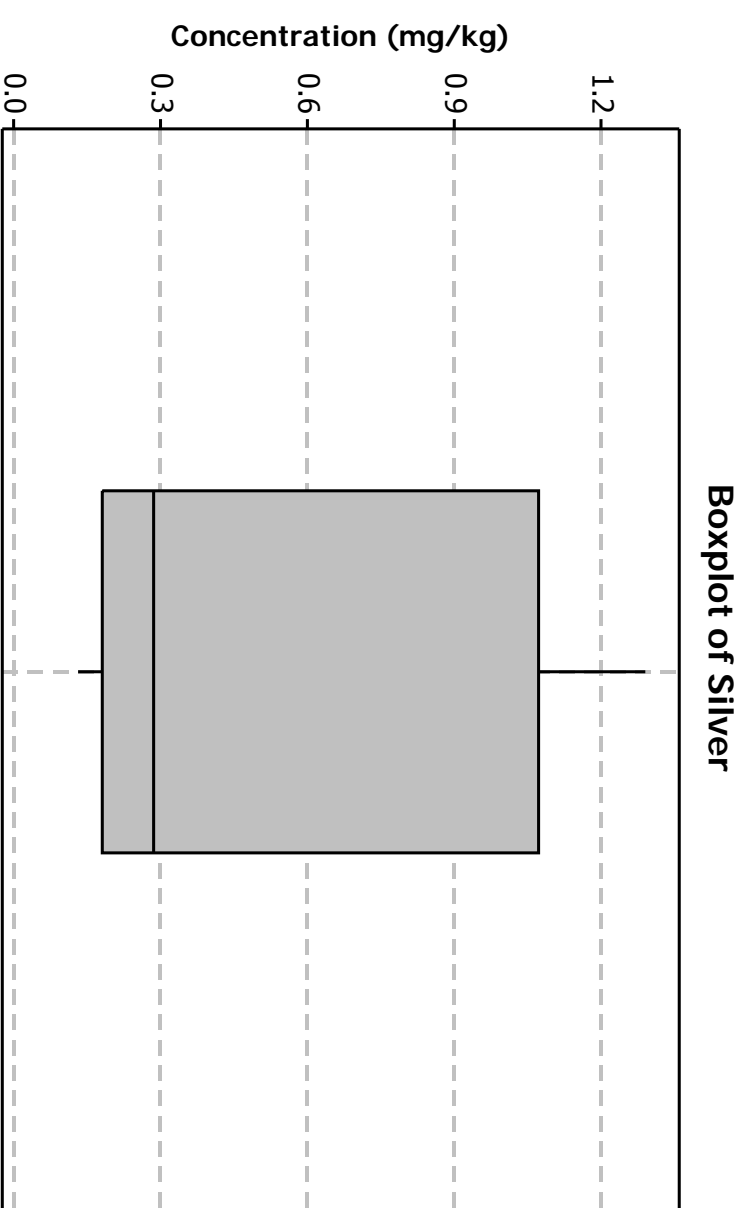


Note: Samples 99% ND (only 1 sample detected)

- No reliable statistical tests

- No samples were eliminated as outliers

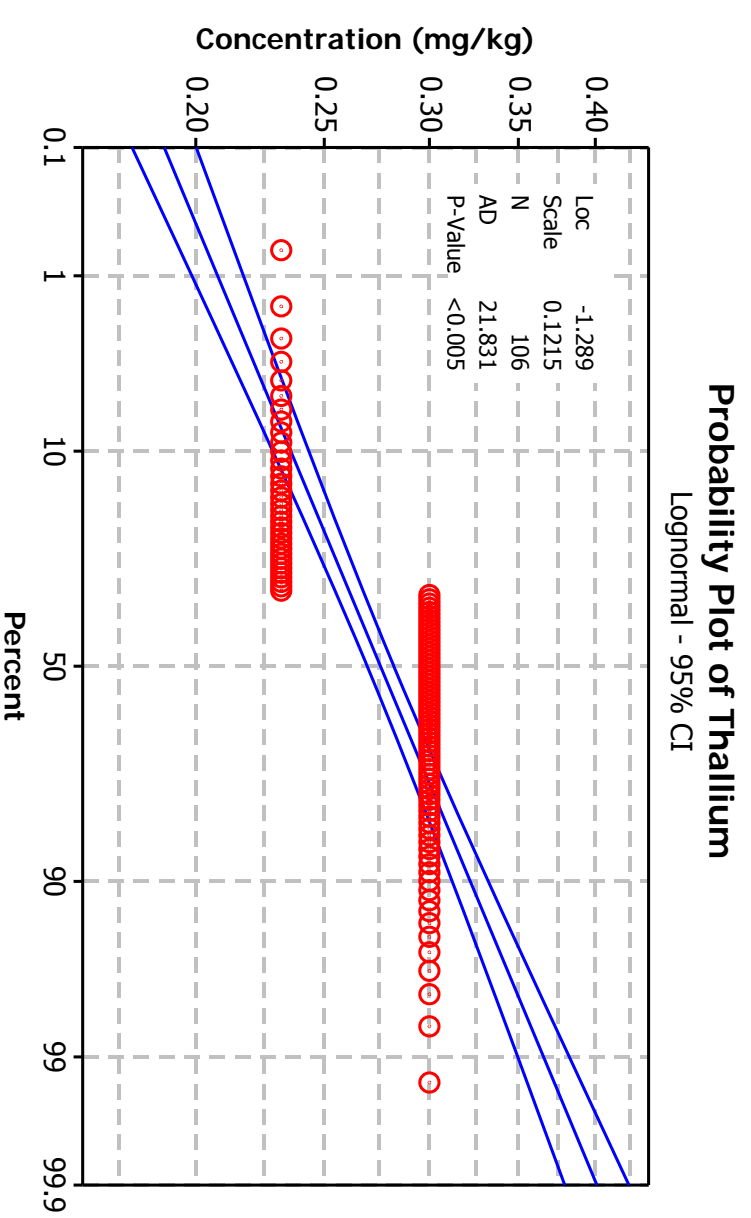
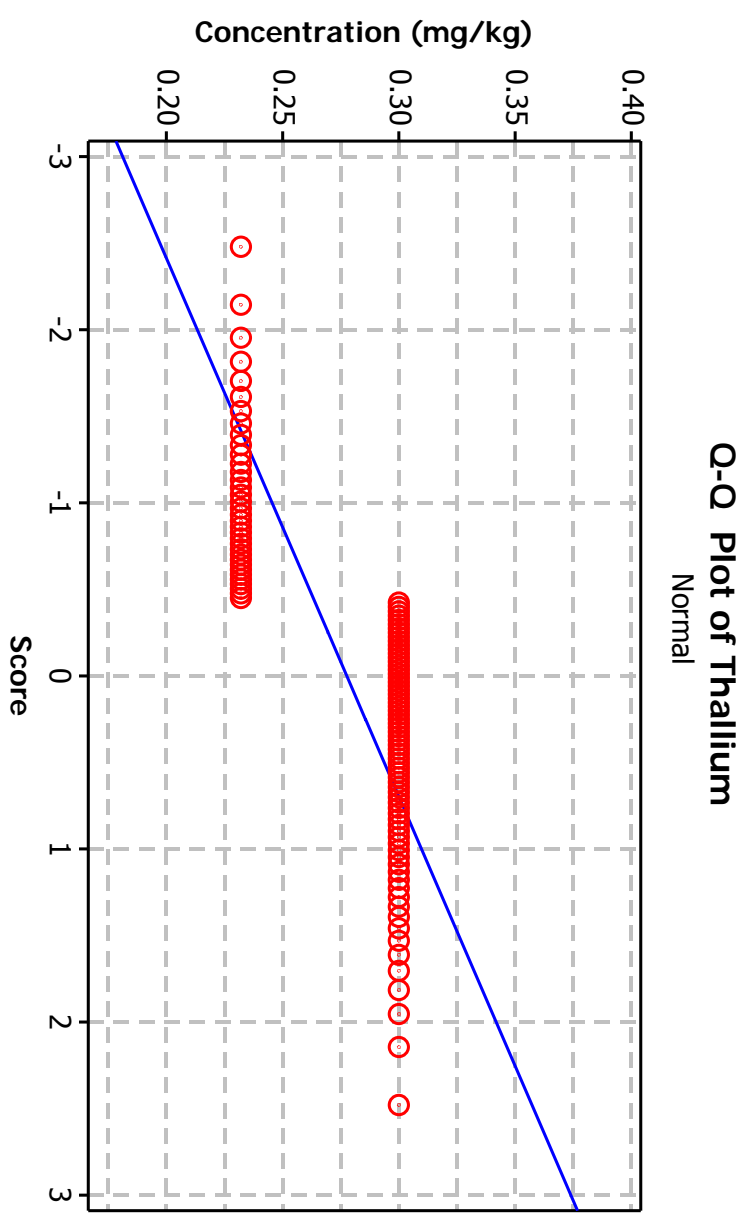
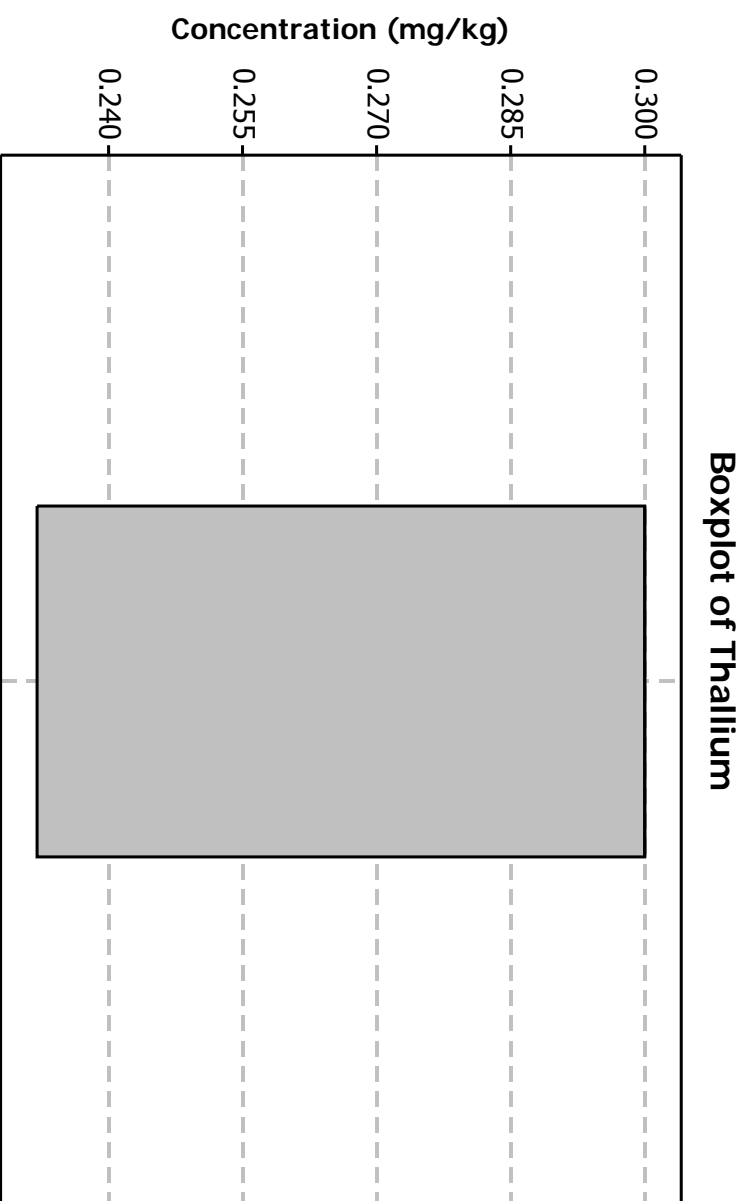
**Figure A2-4-14: Silver Outlier Evaluation**



- Rosner test and 3IR suspected outliers - none
  - Q-Q plot based suspected outliers - none
- Note: %ND = 91.5%.
- Only detected values used in probability plot
  - No outlier

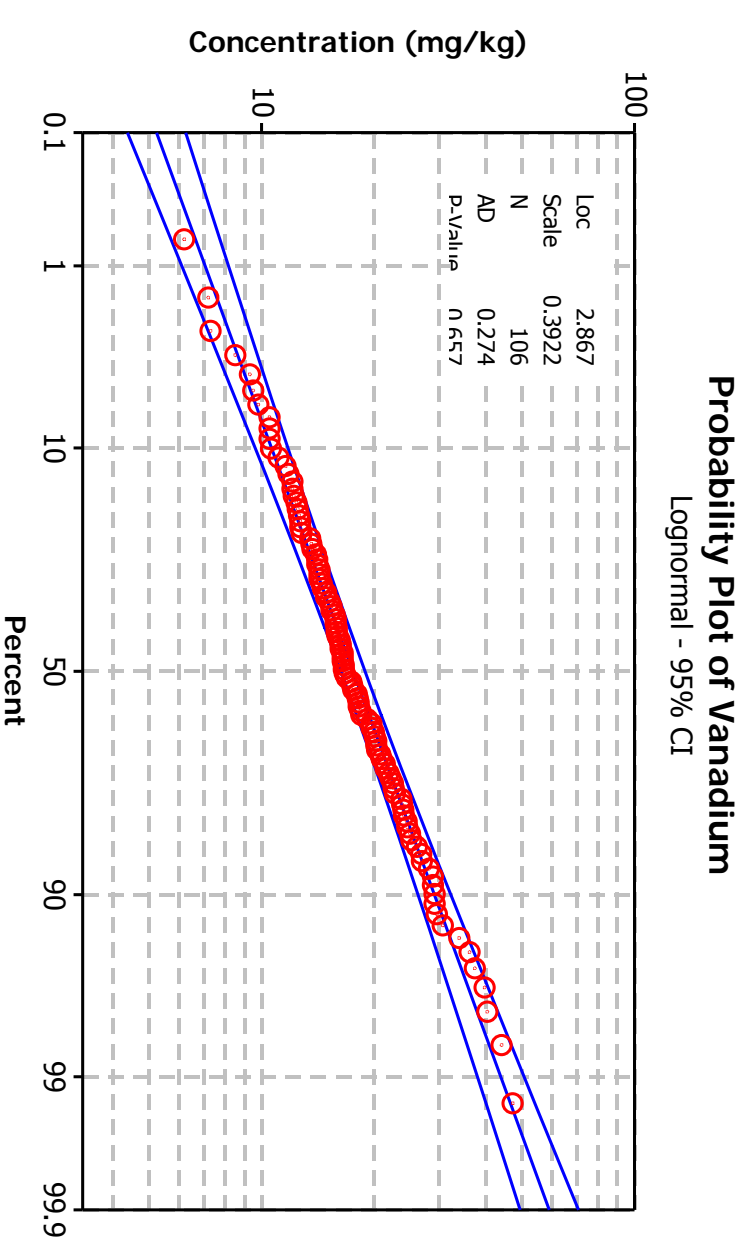
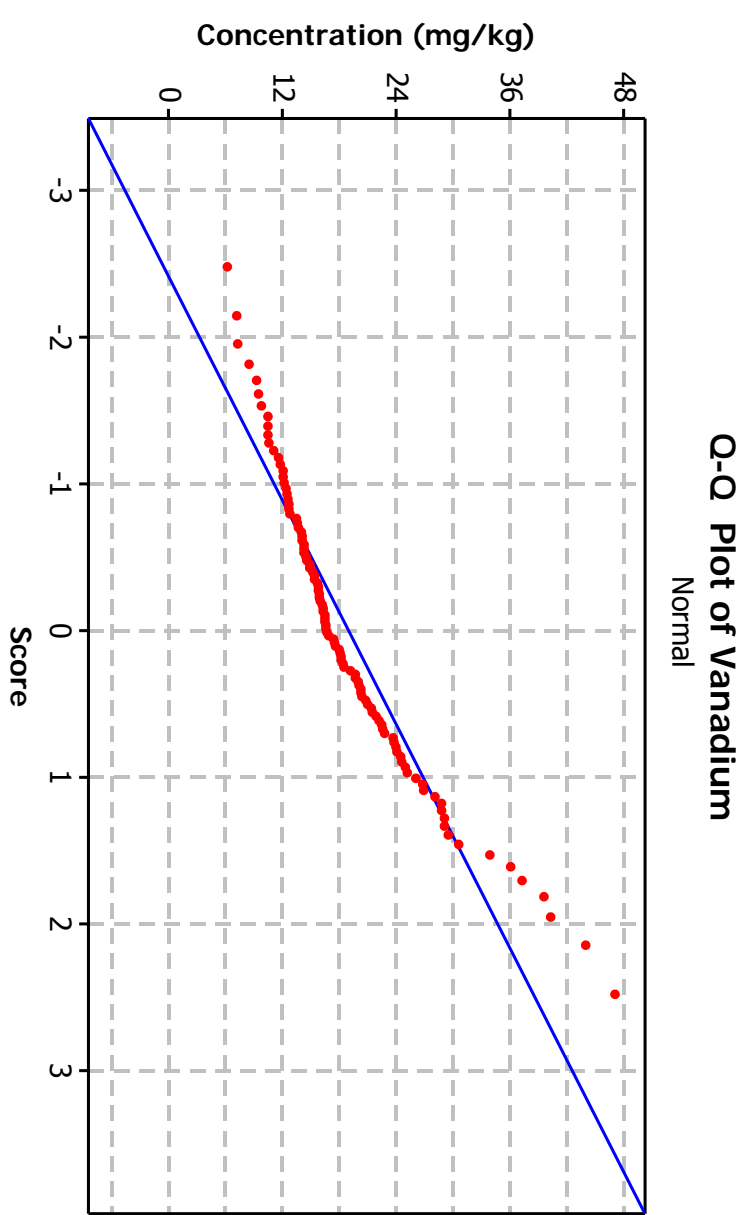
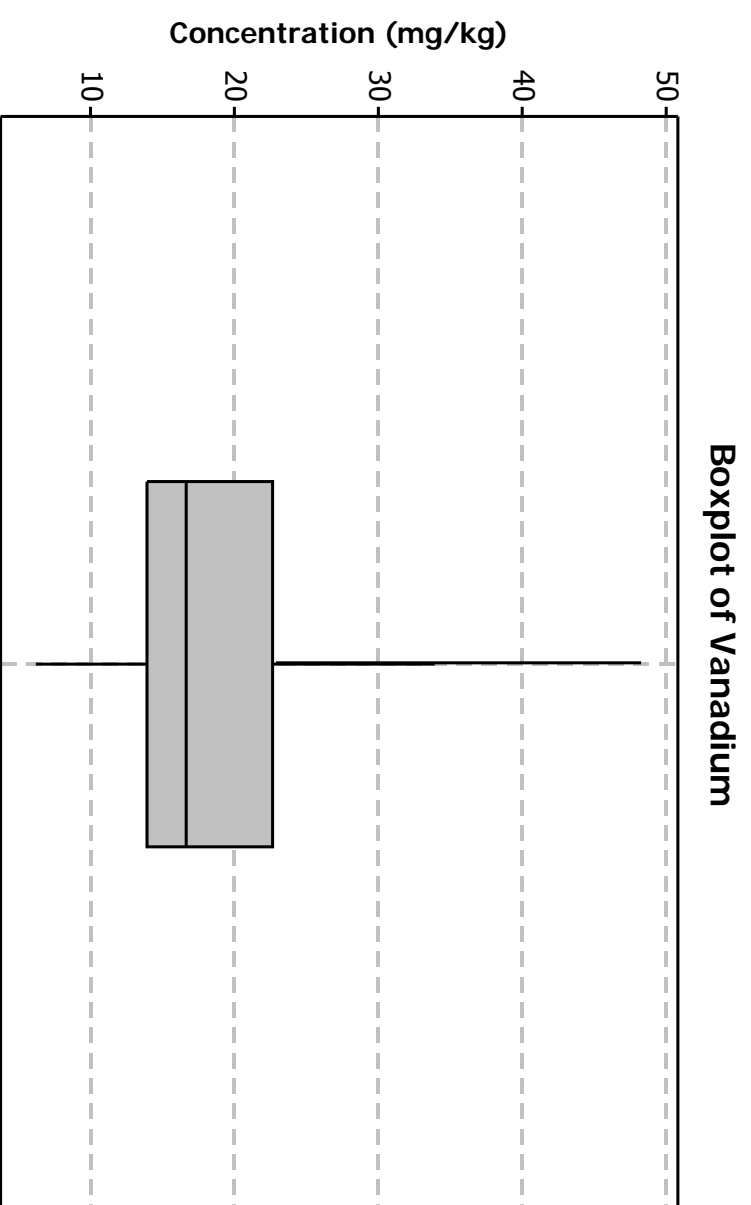


# Figure A2-4-15: Thallium Outlier Evaluation



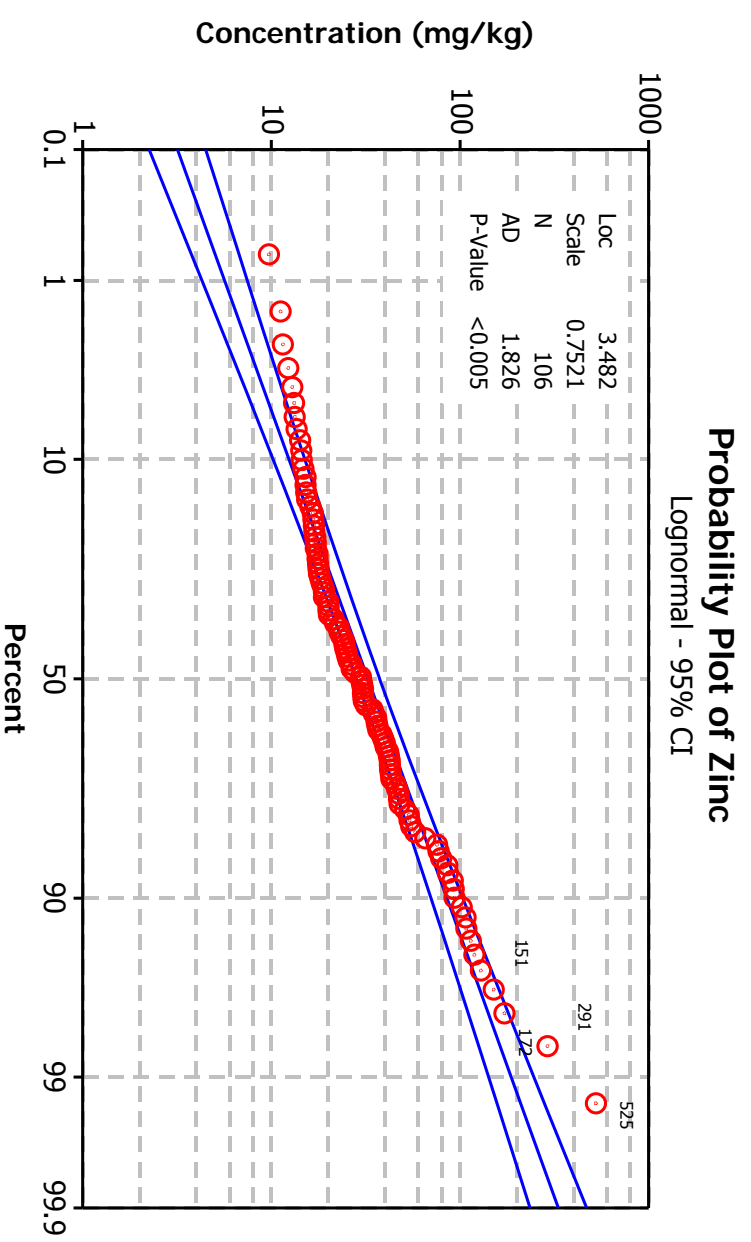
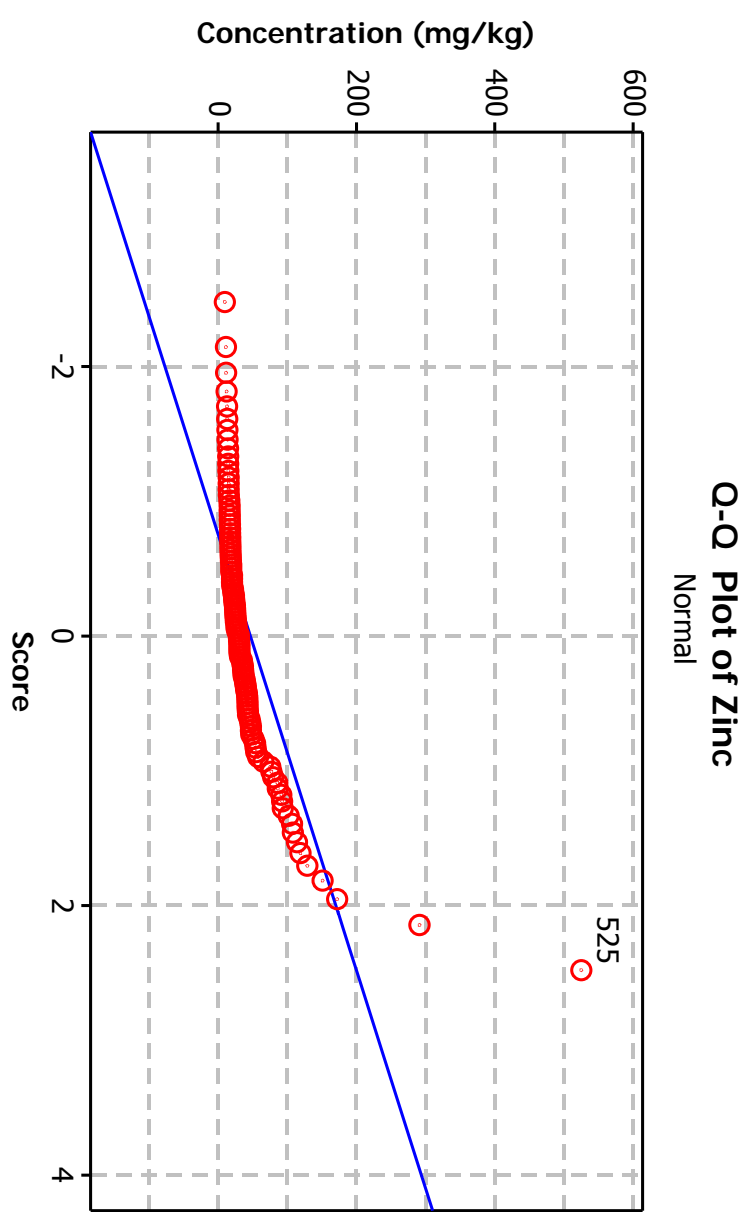
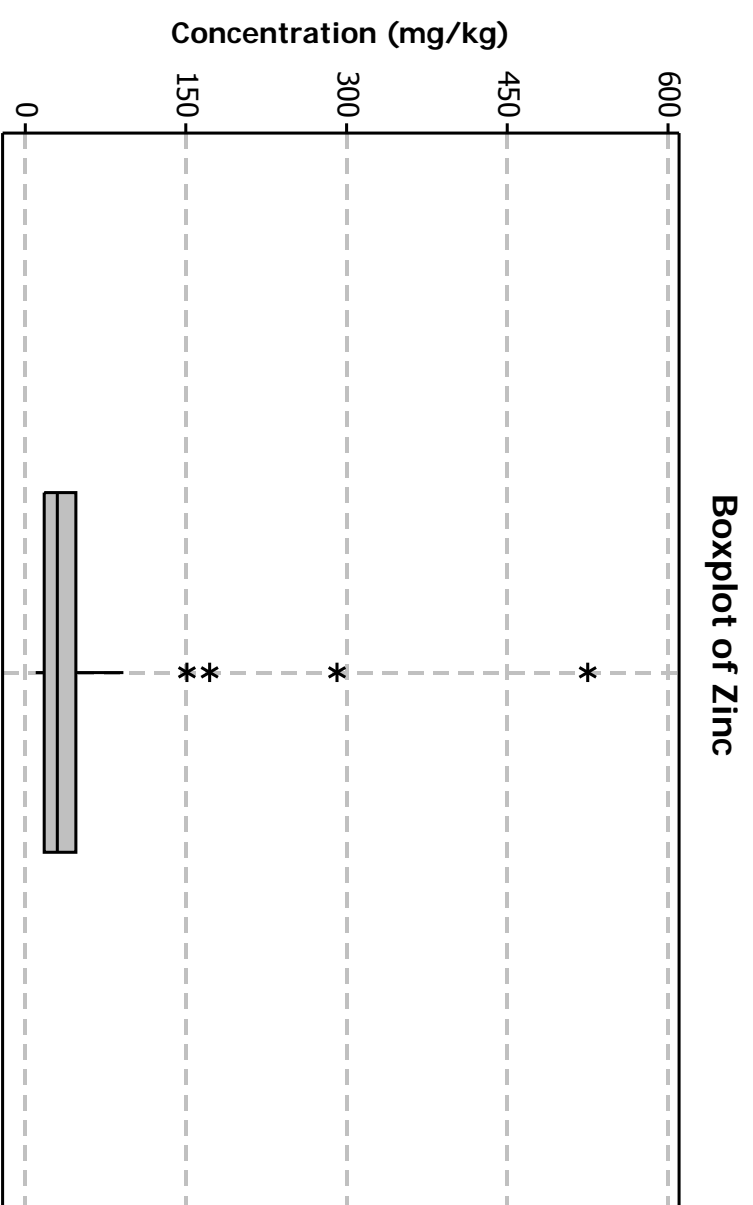
%ND = 100%

**Figure A2-4-16: Vanadium Outlier Evaluation**



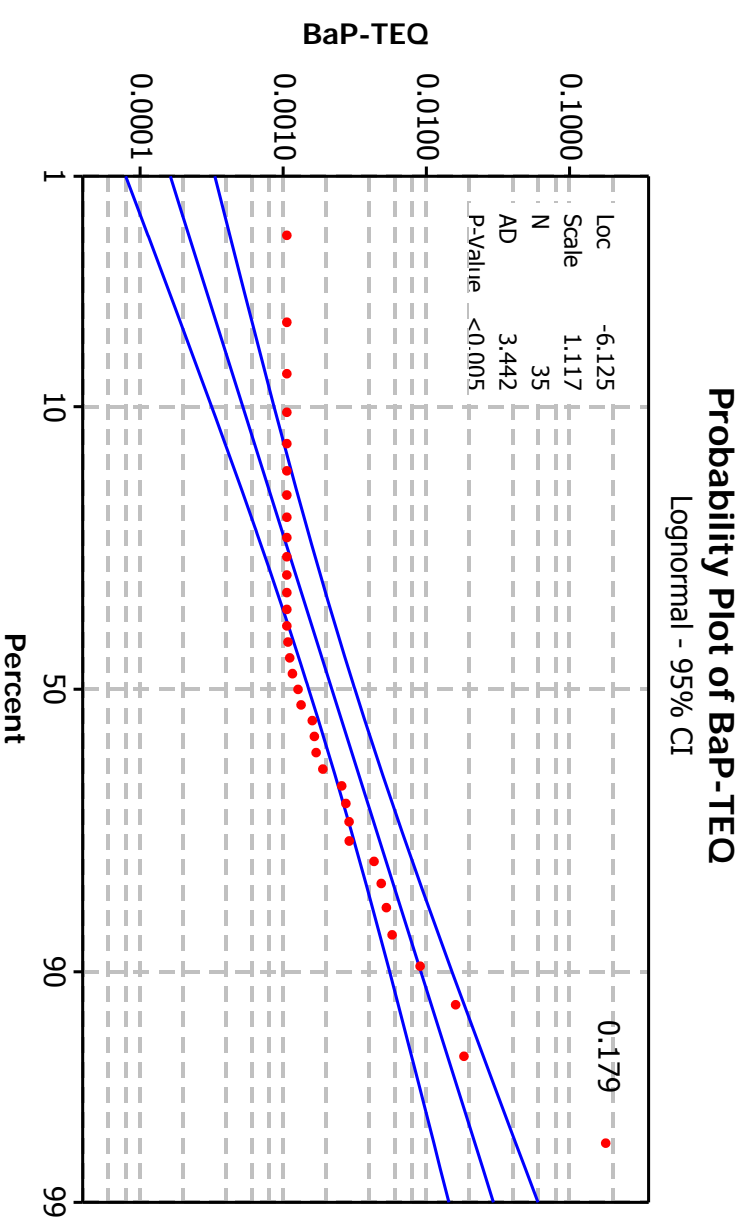
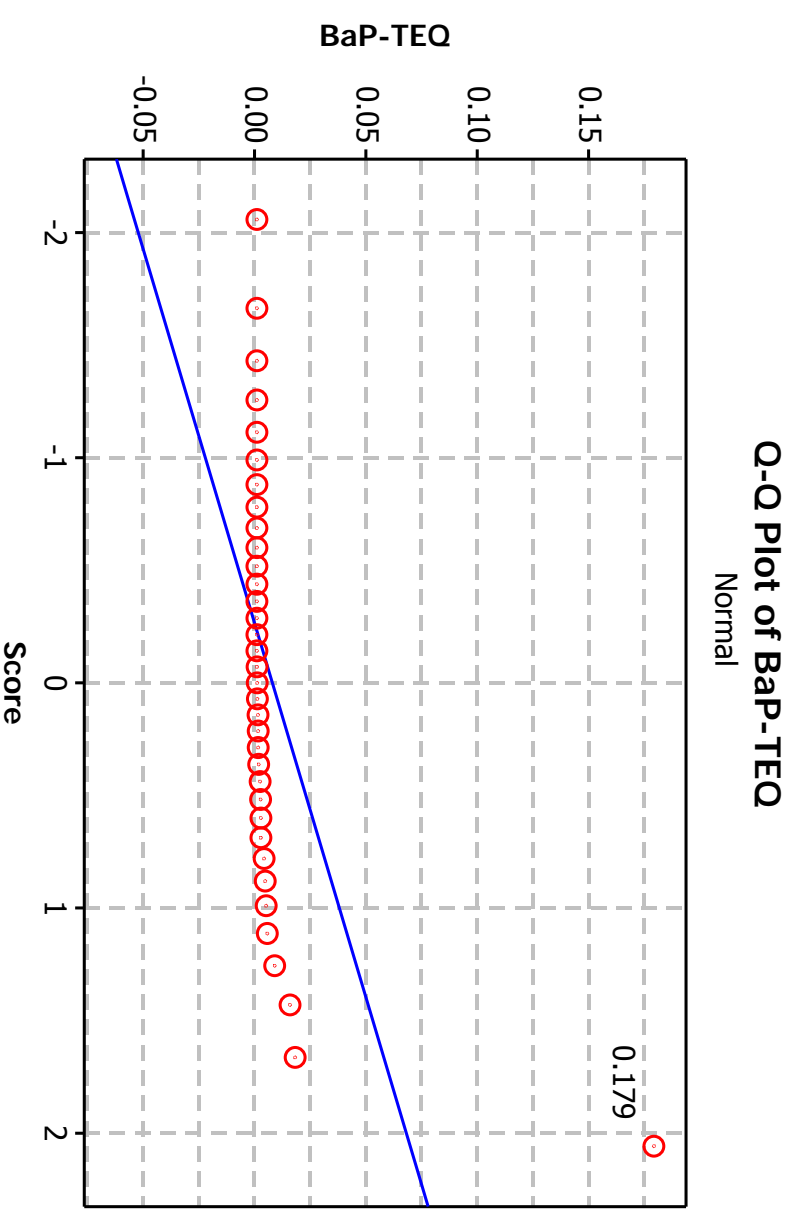
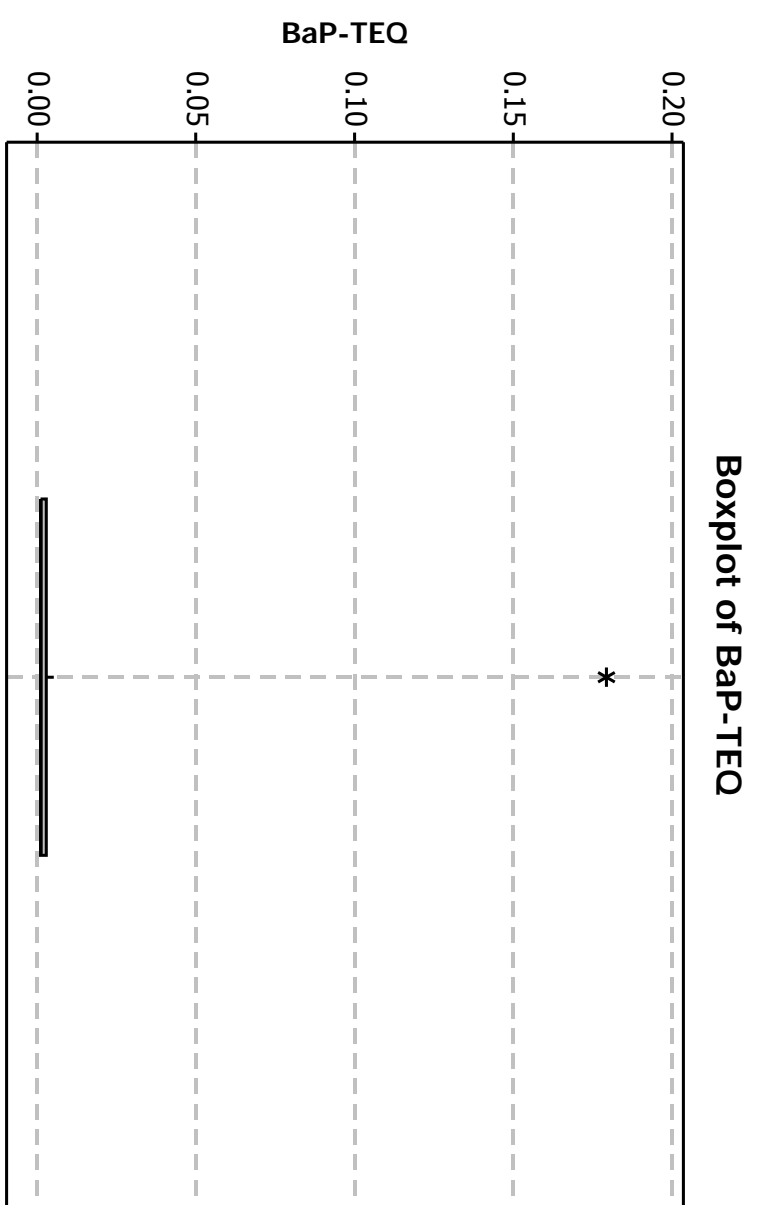
- Rosner test and 3IR suspected outliers - none
- Q-Q plot based suspected outliers - None
- GOF Test : Lognormal
- No outlier

# Figure A2-4-17: Zinc Outlier Evaluation



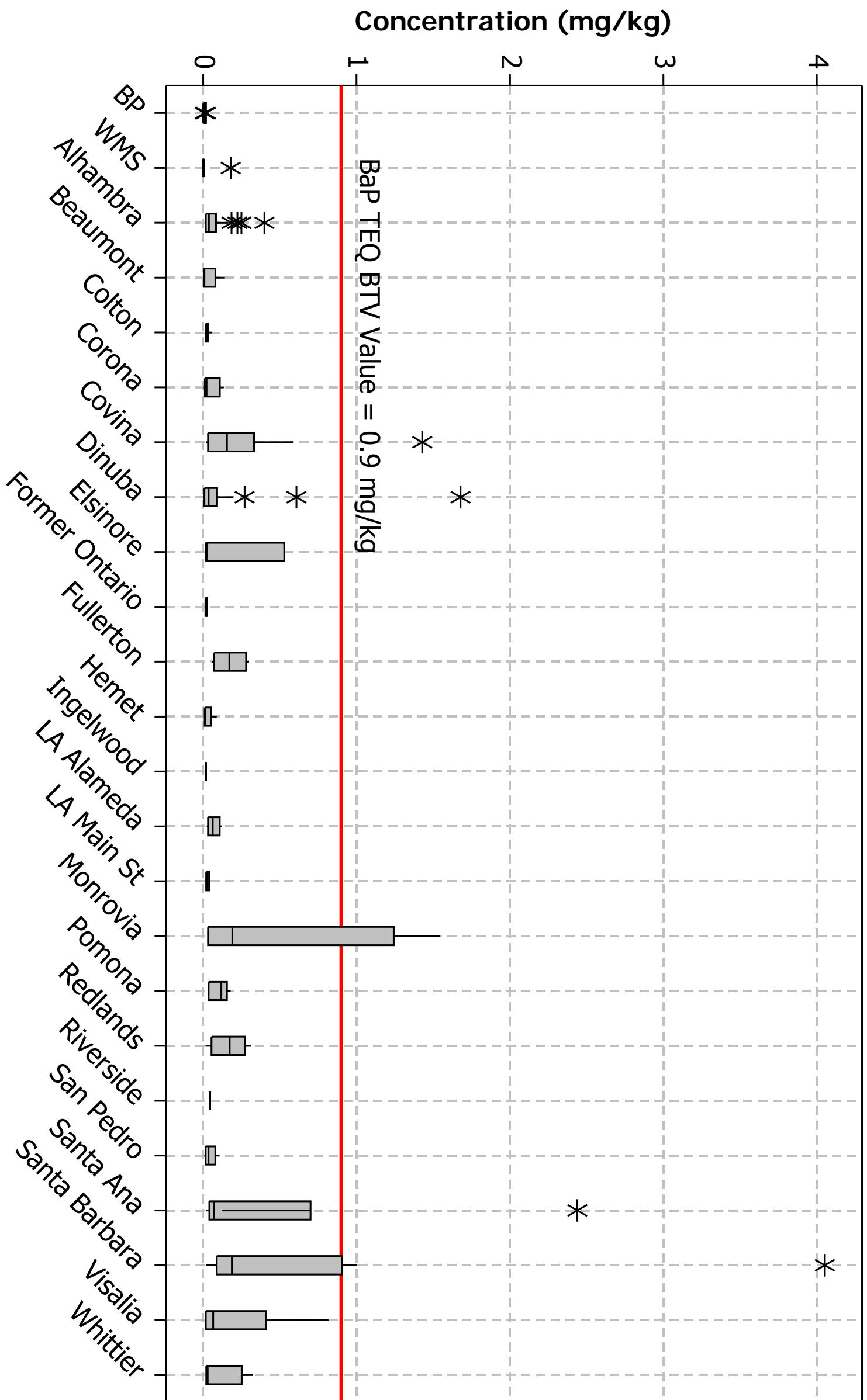
- 3IR suspected outliers - 151, 172, 291, 525
- Rosner test: 525
- Q-Q plot based suspected outliers - 525
- GOF test: not LN, N or GM (close to LN)
- potential suspect outlier = 525

# Figure A2-4-18: cPAH Outlier Evaluation



- 3IR suspected outliers - 0.179
- Rosner test = 0.179
- Q-Q plot based suspected outliers - 0.179
- GOF test: No discernible distribution (not N, LN or GM)
- No outlier

Figure A2-5: Boxplots of Local Background and Southern California Background cPAH Datasets



## **ProUCL Output**

---

A	B	C	D	E	F	G	H	I	J	K	L	
1	<b>General Background Statistics for Data Sets with Non-Detects</b>											
2	<b>User Selected Options</b>											
3	From File		WorkSheet.wst									
4	Full Precision		OFF									
5	Confidence Coefficient		95%									
6	Coverage		99%									
7	Different or Future K Values		1									
8	Number of Bootstrap Operations		2000									
9												
10												
11	<b>Antimony</b>											
12												
13	<b>General Statistics</b>											
14	Number of Valid Data				106			Number of Detected Data				1
15	Number of Distinct Detected Data				1			Number of Non-Detect Data				105
16												
17	<b>Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!</b>											
18	<b>It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).</b>											
19												
20	<b>The data set for variable Antimony was not processed!</b>											
21												
22												
23												
24	<b>Arsenic</b>											
25												
26	<b>General Statistics</b>											
27	Number of Valid Data				105			Number of Detected Data				102
28	Number of Distinct Detected Data				61			Number of Non-Detect Data				3
29	Tolerance Factor				2.671			Percent Non-Detects				2.86%
30	Number of Missing Values				1							
31												
32	<b>Raw Statistics</b>						<b>Log-transformed Statistics</b>					
33	Minimum Detected			0.3			Minimum Detected			-1.204		
34	Maximum Detected			11.9			Maximum Detected			2.477		
35	Mean of Detected			2.041			Mean of Detected			0.542		
36	SD of Detected			1.511			SD of Detected			0.577		
37	Minimum Non-Detect			0.3			Minimum Non-Detect			-1.204		
38	Maximum Non-Detect			0.3			Maximum Non-Detect			-1.204		
39												
40												
41	<b>Background Statistics</b>											
42	<b>Normal Distribution Test with Detected Values Only</b>						<b>Lognormal Distribution Test with Detected Values Only</b>					
43	Lilliefors Test Statistic			0.181			Lilliefors Test Statistic			0.0886		
44	5% Lilliefors Critical Value			0.0877			5% Lilliefors Critical Value			0.0877		
45	<b>Data not Normal at 5% Significance Level</b>						<b>Data not Lognormal at 5% Significance Level</b>					
46												
47	<b>Assuming Normal Distribution</b>						<b>Assuming Lognormal Distribution</b>					
48	DL/2 Substitution Method						DL/2 Substitution Method					
49	Mean			1.987			Mean (Log Scale)			0.472		
50	SD			1.522			SD (Log Scale)			0.7		
51	95% UTL 99% Coverage			6.053			95% UTL 99% Coverage			10.38		
52	95% UPL (t)			4.526			95% UPL (t)			5.148		
53	90% Percentile (z)			3.938			90% Percentile (z)			3.929		

A	B	C	D	E	F	G	H	I	J	K	L
54			95% Percentile (z)	4.491					95% Percentile (z)	5.067	
55			99% Percentile (z)	5.529					99% Percentile (z)	8.162	
56											
57	Maximum Likelihood Estimate(MLE) Method					Log ROS Method					
58			Mean	1.969					Mean in Original Scale	1.995	
59			SD	1.545					SD in Original Scale	1.513	
60			95% UTL with 99% Coverage	6.095					95% UTL with 99% Coverage	8.536	
61									95% BCA UTL with 99% Coverage	11.9	
62									95% Bootstrap (%) UTL with 99% Coverage	11.9	
63			95% UPL (t)	4.545					95% UPL (t)	4.605	
64			90% Percentile (z)	3.949					90% Percentile (z)	3.632	
65			95% Percentile (z)	4.51					95% Percentile (z)	4.542	
66			99% Percentile (z)	5.563					99% Percentile (z)	6.907	
67											
68	<b>Gamma Distribution Test with Detected Values Only</b>					<b>Data Distribution Test with Detected Values Only</b>					
69			k star (bias corrected)	2.978					Data do not follow a Discernable Distribution (0.05)		
70			Theta Star	0.685							
71			nu star	607.6							
72											
73			A-D Test Statistic	1.627					<b>Nonparametric Statistics</b>		
74			5% A-D Critical Value	0.758					Kaplan-Meier (KM) Method		
75			K-S Test Statistic	0.101					Mean	1.992	
76			5% K-S Critical Value	0.0895					SD	1.51	
77	<b>Data not Gamma Distributed at 5% Significance Level</b>								SE of Mean	0.148	
78									95% KM UTL with 99% Coverage	6.025	
79	<b>Assuming Gamma Distribution</b>								95% KM Chebyshev UPL	8.605	
80	Gamma ROS Statistics with Extrapolated Data								95% KM UPL (t)	4.51	
81			Mean	1.983					90% Percentile (z)	3.927	
82			Median	1.66					95% Percentile (z)	4.476	
83			SD	1.528					99% Percentile (z)	5.505	
84			k star	1.015							
85			Theta star	1.953					<b>Gamma ROS Limits with Extrapolated Data</b>		
86			Nu star	213.2					95% Wilson Hilferty (WH) Approx. Gamma UPL	4.962	
87			95% Percentile of Chisquare (2k)	6.051					95% Hawkins Wixley (HW) Approx. Gamma UPL	5.684	
88									95% WH Approx. Gamma UTL with 99% Coverage	8.224	
89			90% Percentile	4.549					95% HW Approx. Gamma UTL with 99% Coverage	10.41	
90			95% Percentile	5.909							
91			99% Percentile	9.063							
92											
93	<b>Note: DL/2 is not a recommended method.</b>										
94											
95											
96	<b>Barium</b>										
97											
98	<b>General Statistics</b>										
99			Total Number of Observations	104					Number of Distinct Observations	95	
100			Tolerance Factor	2.672					Number of Missing Values	2	
101											
102	<b>Raw Statistics</b>					<b>Log-Transformed Statistics</b>					
103			Minimum	17.7					Minimum	2.874	
104			Maximum	267					Maximum	5.587	
105			Second Largest	203					Second Largest	5.313	
106			First Quartile	41.25					First Quartile	3.72	



107	Median	56	Median	4.025
108	Third Quartile	74.85	Third Quartile	4.315
109	Mean	61.58	Mean	4.005
110	SD	34.25	SD	0.475
111	Coefficient of Variation	0.556		
112	Skewness	2.953		
113				
114	<b>Background Statistics</b>			
115	<b>Normal Distribution Test</b>		<b>Lognormal Distribution Test</b>	
116	Lilliefors Test Statistic	0.15	Lilliefors Test Statistic	0.0764
117	Lilliefors Critical Value	0.0869	Lilliefors Critical Value	0.0869
118	<b>Data not Normal at 5% Significance Level</b>		<b>Data appear Lognormal at 5% Significance Level</b>	
119				
120	<b>Assuming Normal Distribution</b>		<b>Assuming Lognormal Distribution</b>	
121	95% UTL with 99% Coverage	153.1	95% UTL with 99% Coverage	195.4
122	95% UPL (t)	118.7	95% UPL (t)	121.2
123	90% Percentile (z)	105.5	90% Percentile (z)	100.9
124	95% Percentile (z)	117.9	95% Percentile (z)	119.9
125	99% Percentile (z)	141.3	99% Percentile (z)	165.8
126				
127	<b>Gamma Distribution Test</b>		<b>Data Distribution Test</b>	
128	k star	4.356	<b>Data appear Lognormal at 5% Significance Level</b>	
129	Theta Star	14.14		
130	MLE of Mean	61.58		
131	MLE of Standard Deviation	29.51		
132	nu star	906		
133				
134	A-D Test Statistic	0.826	<b>Nonparametric Statistics</b>	
135	5% A-D Critical Value	0.755	90% Percentile	87.05
136	K-S Test Statistic	0.091	95% Percentile	106.7
137	5% K-S Critical Value	0.0887	99% Percentile	201.6
138	<b>Data not Gamma Distributed at 5% Significance Level</b>			
139				
140	<b>Assuming Gamma Distribution</b>		95% UTL with 99% Coverage	267
141	90% Percentile	101.1	95% Percentile Bootstrap UTL with 99% Coverage	267
142	95% Percentile	116.7	95% BCA Bootstrap UTL with 99% Coverage	267
143	99% Percentile	150	95% UPL	109.5
144			95% Chebyshev UPL	211.6
145	95% WH Approx. Gamma UPL	116.6	Upper Threshold Limit Based upon IQR	125.3
146	95% HW Approx. Gamma UPL	117.3		
147	95% WH Approx. Gamma UTL with 99% Coverage	167.4		
148	95% HW Approx. Gamma UTL with 99% Coverage	172.2		
149				
150				
151				
152	<b>Beryllium</b>			
153				
154	<b>General Statistics</b>			
155	Number of Valid Data	106	Number of Detected Data	88
156	Number of Distinct Detected Data	38	Number of Non-Detect Data	18
157	Tolerance Factor	2.669	Percent Non-Detects	16.98%
158				
159	<b>Raw Statistics</b>		<b>Log-transformed Statistics</b>	

A	B	C	D	E	F	G	H	I	J	K	L
160			Minimum Detected	0.182					Minimum Detected	-1.704	
161			Maximum Detected	0.8					Maximum Detected	-0.223	
162			Mean of Detected	0.276					Mean of Detected	-1.353	
163			SD of Detected	0.119					SD of Detected	0.333	
164			Minimum Non-Detect	0.0894					Minimum Non-Detect	-2.415	
165			Maximum Non-Detect	0.1					Maximum Non-Detect	-2.303	
166											
167	<b>Data with Multiple Detection Limits</b>					<b>Single Detection Limit Scenario</b>					
168	Note: Data have multiple DLs - Use of KM Method is recommended					Number treated as Non-Detect with Single DL					18
169	For all methods (except KM, DL/2, and ROS Methods),					Number treated as Detected with Single DL					88
170	Observations < Largest ND are treated as NDs					Single DL Non-Detect Percentage					16.98%
171											
172	<b>Background Statistics</b>										
173	<b>Normal Distribution Test with Detected Values Only</b>					<b>Lognormal Distribution Test with Detected Values Only</b>					
174	Lilliefors Test Statistic			0.237	Lilliefors Test Statistic			0.19			
175	5% Lilliefors Critical Value			0.0944	5% Lilliefors Critical Value			0.0944			
176	<b>Data not Normal at 5% Significance Level</b>					<b>Data not Lognormal at 5% Significance Level</b>					
177											
178	<b>Assuming Normal Distribution</b>					<b>Assuming Lognormal Distribution</b>					
179	DL/2 Substitution Method				DL/2 Substitution Method						
180	Mean			0.237	Mean (Log Scale)			-1.633			
181	SD			0.138	SD (Log Scale)			0.692			
182	95% UTL 99% Coverage			0.605	95% UTL 99% Coverage			1.238			
183	95% UPL (t)			0.467	95% UPL (t)			0.619			
184	90% Percentile (z)			0.414	90% Percentile (z)			0.474			
185	95% Percentile (z)			0.464	95% Percentile (z)			0.609			
186	99% Percentile (z)			0.558	99% Percentile (z)			0.977			
187											
188	Maximum Likelihood Estimate(MLE) Method					Log ROS Method					
189	Mean			0.232	Mean in Original Scale			0.25			
190	SD			0.147	SD in Original Scale			0.122			
191	95% UTL with 99% Coverage			0.624	95% UTL with 99% Coverage			0.687			
192					95% BCA UTL with 99% Coverage			0.795			
193					95% Bootstrap (%) UTL with 99% Coverage			0.8			
194	95% UPL (t)			0.477	95% UPL (t)			0.455			
195	90% Percentile (z)			0.42	90% Percentile (z)			0.388			
196	95% Percentile (z)			0.474	95% Percentile (z)			0.451			
197	99% Percentile (z)			0.574	99% Percentile (z)			0.597			
198											
199	<b>Gamma Distribution Test with Detected Values Only</b>					<b>Data Distribution Test with Detected Values Only</b>					
200	k star (bias corrected)			7.677	Data do not follow a Discernable Distribution (0.05)						
201	Theta Star			0.0359							
202	nu star			1351							
203											
204	A-D Test Statistic			6.767	<b>Nonparametric Statistics</b>						
205	5% A-D Critical Value			0.753	Kaplan-Meier (KM) Method						
206	K-S Test Statistic			0.201	Mean			0.26			
207	5% K-S Critical Value			0.0954	SD			0.113			
208	<b>Data not Gamma Distributed at 5% Significance Level</b>					SE of Mean					
209					95% KM UTL with 99% Coverage			0.562			
210	<b>Assuming Gamma Distribution</b>					95% KM Chebyshev UPL					
211	Gamma ROS Statistics with Extrapolated Data				95% KM UPL (t)			0.449			
212	Mean			0.232	90% Percentile (z)			0.405			

213			Median	0.206			95% Percentile (z)	0.446	
214			SD	0.145			99% Percentile (z)	0.523	
215			k star	0.512					
216			Theta star	0.453	<b>Gamma ROS Limits with Extrapolated Data</b>				
217			Nu star	108.6			95% Wilson Hilferty (WH) Approx. Gamma UPL	0.742	
218			95% Percentile of Chisquare (2k)	3.903			95% Hawkins Wixley (HW) Approx. Gamma UPL	0.961	
219							95% WH Approx. Gamma UTL with 99% Coverage	1.379	
220			90% Percentile	0.625			95% HW Approx. Gamma UTL with 99% Coverage	2.113	
221			95% Percentile	0.884					
222			99% Percentile	1.52					
223									
224	<b>Note: DL/2 is not a recommended method.</b>								
225									
226									
227	<b>Cadmium</b>								
228									
229	<b>General Statistics</b>								
230			Number of Valid Data	106			Number of Detected Data	49	
231			Number of Distinct Detected Data	24			Number of Non-Detect Data	57	
232			Tolerance Factor	2.669			Percent Non-Detects	53.77%	
233									
234	<b>Raw Statistics</b>				<b>Log-transformed Statistics</b>				
235			Minimum Detected	0.105			Minimum Detected	-2.254	
236			Maximum Detected	3.81			Maximum Detected	1.338	
237			Mean of Detected	0.551			Mean of Detected	-0.917	
238			SD of Detected	0.599			SD of Detected	0.749	
239			Minimum Non-Detect	0.0883			Minimum Non-Detect	-2.427	
240			Maximum Non-Detect	0.1			Maximum Non-Detect	-2.303	
241									
242	<b>Data with Multiple Detection Limits</b>				<b>Single Detection Limit Scenario</b>				
243	Note: Data have multiple DLs - Use of KM Method is recommended				Number treated as Non-Detect with Single DL				57
244	For all methods (except KM, DL/2, and ROS Methods),				Number treated as Detected with Single DL				49
245	Observations < Largest ND are treated as NDs				Single DL Non-Detect Percentage				53.77%
246									
247	<b>Background Statistics</b>								
248	<b>Normal Distribution Test with Detected Values Only</b>				<b>Lognormal Distribution Test with Detected Values Only</b>				
249			Shapiro Wilk Test Statistic	0.623			Shapiro Wilk Test Statistic	0.962	
250			5% Shapiro Wilk Critical Value	0.947			5% Shapiro Wilk Critical Value	0.947	
251	<b>Data not Normal at 5% Significance Level</b>				<b>Data appear Lognormal at 5% Significance Level</b>				
252									
253	<b>Assuming Normal Distribution</b>				<b>Assuming Lognormal Distribution</b>				
254			DL/2 Substitution Method				DL/2 Substitution Method		
255			Mean	0.28			Mean (Log Scale)	-2.056	
256			SD	0.477			SD (Log Scale)	1.177	
257			95% UTL 99% Coverage	1.554			95% UTL 99% Coverage	2.958	
258			95% UPL (t)	1.076			95% UPL (t)	0.91	
259			90% Percentile (z)	0.892			90% Percentile (z)	0.578	
260			95% Percentile (z)	1.065			95% Percentile (z)	0.887	
261			99% Percentile (z)	1.39			99% Percentile (z)	1.977	
262									
263	Maximum Likelihood Estimate(MLE) Method				Log ROS Method				
264			Mean	-0.0672			Mean in Original Scale	0.288	
265			SD	0.794			SD in Original Scale	0.474	

A	B	C	D	E	F	G	H	I	J	K	L
266	95% UTL with 99% Coverage				2.052	95% UTL with 99% Coverage				4.055	
267						95% BCA UTL with 99% Coverage				3.81	
268						95% Bootstrap (%) UTL with 99% Coverage				3.81	
269	95% UPL (t)				1.257	95% UPL (t)				1.114	
270	90% Percentile (z)				0.95	90% Percentile (z)				0.677	
271	95% Percentile (z)				1.239	95% Percentile (z)				1.082	
272	99% Percentile (z)				1.78	99% Percentile (z)				2.607	
273											
274	<b>Gamma Distribution Test with Detected Values Only</b>					<b>Data Distribution Test with Detected Values Only</b>					
275	k star (bias corrected)				1.62	Data appear Lognormal at 5% Significance Level					
276	Theta Star				0.34						
277	nu star				158.7						
278											
279	A-D Test Statistic				1.429	<b>Nonparametric Statistics</b>					
280	5% A-D Critical Value				0.765	Kaplan-Meier (KM) Method					
281	K-S Test Statistic				0.165	Mean				0.311	
282	5% K-S Critical Value				0.129	SD				0.461	
283	<b>Data not Gamma Distributed at 5% Significance Level</b>					SE of Mean				0.0452	
284						95% KM UTL with 99% Coverage				1.54	
285	<b>Assuming Gamma Distribution</b>					95% KM Chebyshev UPL				2.328	
286	Gamma ROS Statistics with Extrapolated Data					95% KM UPL (t)				1.079	
287	Mean				0.254	90% Percentile (z)				0.901	
288	Median				0.000001	95% Percentile (z)				1.068	
289	SD				0.49	99% Percentile (z)				1.382	
290	k star				0.125						
291	Theta star				2.038	<b>Gamma ROS Limits with Extrapolated Data</b>					
292	Nu star				26.47	95% Wilson Hilferty (WH) Approx. Gamma UPL				1.083	
293	95% Percentile of Chisquare (2k)				1.417	95% Hawkins Wixley (HW) Approx. Gamma UPL				1.292	
294						95% WH Approx. Gamma UTL with 99% Coverage				2.919	
295	90% Percentile				0.729	95% HW Approx. Gamma UTL with 99% Coverage				4.69	
296	95% Percentile				1.445						
297	99% Percentile				3.609						
298											
299	<b>Note: DL/2 is not a recommended method.</b>										
300											
301											
302	<b>Chromium</b>										
303											
304	<b>General Statistics</b>										
305	Total Number of Observations				106	Number of Distinct Observations				86	
306	Tolerance Factor				2.669						
307											
308	<b>Raw Statistics</b>					<b>Log-Transformed Statistics</b>					
309	Minimum				4.4	Minimum				1.482	
310	Maximum				38.6	Maximum				3.653	
311	Second Largest				36.5	Second Largest				3.597	
312	First Quartile				8.013	First Quartile				2.081	
313	Median				10.25	Median				2.327	
314	Third Quartile				13.08	Third Quartile				2.571	
315	Mean				11.58	Mean				2.352	
316	SD				5.884	SD				0.424	
317	Coefficient of Variation				0.508						
318	Skewness				2.235						

A	B	C	D	E	F	G	H	I	J	K	L
319											
320	<b>Background Statistics</b>										
321	<b>Normal Distribution Test</b>					<b>Lognormal Distribution Test</b>					
322	Lilliefors Test Statistic				0.165	Lilliefors Test Statistic				0.0696	
323	Lilliefors Critical Value				0.0861	Lilliefors Critical Value				0.0861	
324	<b>Data not Normal at 5% Significance Level</b>					<b>Data appear Lognormal at 5% Significance Level</b>					
325											
326	<b>Assuming Normal Distribution</b>					<b>Assuming Lognormal Distribution</b>					
327	95% UTL with 99% Coverage				27.28	95% UTL with 99% Coverage				32.54	
328	95% UPL (t)				21.39	95% UPL (t)				21.29	
329	90% Percentile (z)				19.12	90% Percentile (z)				18.08	
330	95% Percentile (z)				21.25	95% Percentile (z)				21.09	
331	99% Percentile (z)				25.26	99% Percentile (z)				28.14	
332											
333	<b>Gamma Distribution Test</b>					<b>Data Distribution Test</b>					
334	k star				5.177	<b>Data appear Lognormal at 5% Significance Level</b>					
335	Theta Star				2.236						
336	MLE of Mean				11.58						
337	MLE of Standard Deviation				5.088						
338	nu star				1098						
339											
340	A-D Test Statistic				1.551	<b>Nonparametric Statistics</b>					
341	5% A-D Critical Value				0.754	90% Percentile				17.5	
342	K-S Test Statistic				0.103	95% Percentile				21.5	
343	5% K-S Critical Value				0.088	99% Percentile				36.14	
344	<b>Data not Gamma Distributed at 5% Significance Level</b>										
345											
346	<b>Assuming Gamma Distribution</b>					95% UTL with 99% Coverage				38.6	
347	90% Percentile				18.39	95% Percentile Bootstrap UTL with 99% Coverage				38.6	
348	95% Percentile				21.01	95% BCA Bootstrap UTL with 99% Coverage				38.6	
349	99% Percentile				26.55	95% UPL				21.6	
350						95% Chebyshev UPL				37.34	
351	95% WH Approx. Gamma UPL				21.01	Upper Threshold Limit Based upon IQR				20.67	
352	95% HW Approx. Gamma UPL				21.04						
353	95% WH Approx. Gamma UTL with 99% Coverage				29.43						
354	95% HW Approx. Gamma UTL with 99% Coverage				30.01						
355											
356											
357											
358	<b>Cobalt</b>										
359											
360	<b>General Statistics</b>										
361	Number of Valid Data				106	Number of Detected Data				102	
362	Number of Distinct Detected Data				74	Number of Non-Detect Data				4	
363	Tolerance Factor				2.669	Percent Non-Detects				3.77%	
364											
365	<b>Raw Statistics</b>					<b>Log-transformed Statistics</b>					
366	Minimum Detected				2.5	Minimum Detected				0.916	
367	Maximum Detected				15.7	Maximum Detected				2.754	
368	Mean of Detected				5.215	Mean of Detected				1.585	
369	SD of Detected				2.16	SD of Detected				0.353	
370	Minimum Non-Detect				2.5	Minimum Non-Detect				0.916	
371	Maximum Non-Detect				2.5	Maximum Non-Detect				0.916	

A	B	C	D	E	F	G	H	I	J	K	L
372											
373											
374	<b>Background Statistics</b>										
375	<b>Normal Distribution Test with Detected Values Only</b>					<b>Lognormal Distribution Test with Detected Values Only</b>					
376	Lilliefors Test Statistic				0.17	Lilliefors Test Statistic				0.0953	
377	5% Lilliefors Critical Value				0.0877	5% Lilliefors Critical Value				0.0877	
378	<b>Data not Normal at 5% Significance Level</b>					<b>Data not Lognormal at 5% Significance Level</b>					
379											
380	<b>Assuming Normal Distribution</b>					<b>Assuming Lognormal Distribution</b>					
381	DL/2 Substitution Method					DL/2 Substitution Method					
382	Mean				5.066	Mean (Log Scale)				1.534	
383	SD				2.25	SD (Log Scale)				0.434	
384	95% UTL 99% Coverage				11.07	95% UTL 99% Coverage				14.75	
385	95% UPL (t)				8.818	95% UPL (t)				9.552	
386	90% Percentile (z)				7.95	90% Percentile (z)				8.081	
387	95% Percentile (z)				8.767	95% Percentile (z)				9.46	
388	99% Percentile (z)				10.3	99% Percentile (z)				12.71	
389											
390	Maximum Likelihood Estimate(MLE) Method					Log ROS Method					
391	Mean				5.071	Mean in Original Scale				5.097	
392	SD				2.239	SD in Original Scale				2.202	
393	95% UTL with 99% Coverage				11.05	95% UTL with 99% Coverage				13.15	
394						95% BCA UTL with 99% Coverage				15.7	
395						95% Bootstrap (%) UTL with 99% Coverage				15.7	
396	95% UPL (t)				8.803	95% UPL (t)				8.957	
397	90% Percentile (z)				7.94	90% Percentile (z)				7.725	
398	95% Percentile (z)				8.753	95% Percentile (z)				8.88	
399	99% Percentile (z)				10.28	99% Percentile (z)				11.53	
400											
401	<b>Gamma Distribution Test with Detected Values Only</b>					<b>Data Distribution Test with Detected Values Only</b>					
402	k star (bias corrected)				7.461	Data do not follow a Discernable Distribution (0.05)					
403	Theta Star				0.699						
404	nu star				1522						
405											
406	A-D Test Statistic				1.318	<b>Nonparametric Statistics</b>					
407	5% A-D Critical Value				0.753	Kaplan-Meier (KM) Method					
408	K-S Test Statistic				0.122	Mean				5.113	
409	5% K-S Critical Value				0.089	SD				2.171	
410	<b>Data not Gamma Distributed at 5% Significance Level</b>					SE of Mean					
411						95% KM UTL with 99% Coverage				10.91	
412	<b>Assuming Gamma Distribution</b>					95% KM Chebyshev UPL					
413	Gamma ROS Statistics with Extrapolated Data					95% KM UPL (t)				8.732	
414	Mean				5.021	90% Percentile (z)				7.895	
415	Median				4.74	95% Percentile (z)				8.684	
416	SD				2.337	99% Percentile (z)				10.16	
417	k star				1.125						
418	Theta star				4.464	<b>Gamma ROS Limits with Extrapolated Data</b>					
419	Nu star				238.4	95% Wilson Hilferty (WH) Approx. Gamma UPL				11.5	
420	95% Percentile of Chisquare (2k)				6.466	95% Hawkins Wixley (HW) Approx. Gamma UPL				13.64	
421						95% WH Approx. Gamma UTL with 99% Coverage				18.02	
422	90% Percentile				11.23	95% HW Approx. Gamma UTL with 99% Coverage				23.83	
423	95% Percentile				14.43						
424	99% Percentile				21.81						

A	B	C	D	E	F	G	H	I	J	K	L
425											
426	Note: DL/2 is not a recommended method.										
427											
428											
429	Copper										
430											
431	<b>General Statistics</b>										
432	Total Number of Observations				106		Number of Distinct Observations				89
433	Tolerance Factor				2.669						
434											
435	<b>Raw Statistics</b>					<b>Log-Transformed Statistics</b>					
436	Minimum			2.69		Minimum			0.99		
437	Maximum			59		Maximum			4.078		
438	Second Largest			44.1		Second Largest			3.786		
439	First Quartile			6.818		First Quartile			1.919		
440	Median			12.15		Median			2.497		
441	Third Quartile			18.35		Third Quartile			2.91		
442	Mean			13.94		Mean			2.426		
443	SD			9.607		SD			0.653		
444	Coefficient of Variation			0.689							
445	Skewness			1.735							
446											
447	<b>Background Statistics</b>										
448	<b>Normal Distribution Test</b>					<b>Lognormal Distribution Test</b>					
449	Lilliefors Test Statistic			0.132		Lilliefors Test Statistic			0.0712		
450	Lilliefors Critical Value			0.0861		Lilliefors Critical Value			0.0861		
451	<b>Data not Normal at 5% Significance Level</b>					<b>Data appear Lognormal at 5% Significance Level</b>					
452											
453	<b>Assuming Normal Distribution</b>					<b>Assuming Lognormal Distribution</b>					
454	95% UTL with 99% Coverage			39.58		95% UTL with 99% Coverage			64.62		
455	95% UPL (t)			29.96		95% UPL (t)			33.6		
456	90% Percentile (z)			26.25		90% Percentile (z)			26.12		
457	95% Percentile (z)			29.74		95% Percentile (z)			33.11		
458	99% Percentile (z)			36.29		99% Percentile (z)			51.67		
459											
460	<b>Gamma Distribution Test</b>					<b>Data Distribution Test</b>					
461	k star			2.482		<b>Data Follow Appr. Gamma Distribution at 5% Significance Level</b>					
462	Theta Star			5.618							
463	MLE of Mean			13.94							
464	MLE of Standard Deviation			8.85							
465	nu star			526.1							
466											
467	A-D Test Statistic			0.689		<b>Nonparametric Statistics</b>					
468	5% A-D Critical Value			0.762		90% Percentile			25.8		
469	K-S Test Statistic			0.0891		95% Percentile			31.78		
470	5% K-S Critical Value			0.0888		99% Percentile			43.79		
471	<b>Data follow Appx. Gamma Distribution at 5% Significance Level</b>										
472											
473	<b>Assuming Gamma Distribution</b>					95% UTL with 99% Coverage					
474	90% Percentile			25.8		95% Percentile Bootstrap UTL with 99% Coverage			59		
475	95% Percentile			30.94		95% BCA Bootstrap UTL with 99% Coverage			59		
476	99% Percentile			42.2		95% UPL			34.32		
477						95% Chebyshev UPL			56.02		

478	95% WH Approx. Gamma UPL				30.94	Upper Threshold Limit Based upon IQR				35.65
479	95% HW Approx. Gamma UPL				31.39					
480	95% WH Approx. Gamma UTL with 99% Coverage				48.4					
481	95% HW Approx. Gamma UTL with 99% Coverage				51.01					
482										
483										
484										
485	<b>Lead</b>									
486										
487	<b>General Statistics</b>									
488	Number of Valid Data				106	Number of Detected Data				100
489	Number of Distinct Detected Data				82	Number of Non-Detect Data				6
490	Tolerance Factor				2.669	Percent Non-Detects				5.66%
491										
492	<b>Raw Statistics</b>					<b>Log-transformed Statistics</b>				
493	Minimum Detected				2.3	Minimum Detected				0.833
494	Maximum Detected				112	Maximum Detected				4.718
495	Mean of Detected				13.7	Mean of Detected				2.071
496	SD of Detected				18.57	SD of Detected				0.94
497	Minimum Non-Detect				2.5	Minimum Non-Detect				0.916
498	Maximum Non-Detect				2.5	Maximum Non-Detect				0.916
499										
500										
501	<b>Background Statistics</b>									
502	<b>Normal Distribution Test with Detected Values Only</b>					<b>Lognormal Distribution Test with Detected Values Only</b>				
503	Lilliefors Test Statistic				0.299	Lilliefors Test Statistic				0.161
504	5% Lilliefors Critical Value				0.0886	5% Lilliefors Critical Value				0.0886
505	<b>Data not Normal at 5% Significance Level</b>					<b>Data not Lognormal at 5% Significance Level</b>				
506										
507	<b>Assuming Normal Distribution</b>					<b>Assuming Lognormal Distribution</b>				
508	DL/2 Substitution Method					DL/2 Substitution Method				
509	Mean				13	Mean (Log Scale)				1.966
510	SD				18.26	SD (Log Scale)				1.008
511	95% UTL 99% Coverage				61.73	95% UTL 99% Coverage				105.4
512	95% UPL (t)				43.44	95% UPL (t)				38.39
513	90% Percentile (z)				36.4	90% Percentile (z)				26.02
514	95% Percentile (z)				43.03	95% Percentile (z)				37.54
515	99% Percentile (z)				55.47	99% Percentile (z)				74.63
516										
517	Maximum Likelihood Estimate(MLE) Method					Log ROS Method				
518	Mean				12.27	Mean in Original Scale				12.99
519	SD				19	SD in Original Scale				18.27
520	95% UTL with 99% Coverage				62.97	95% UTL with 99% Coverage				111.1
521						95% BCA UTL with 99% Coverage				112
522						95% Bootstrap (%) UTL with 99% Coverage				112
523	95% UPL (t)				43.95	95% UPL (t)				39.49
524	90% Percentile (z)				36.62	90% Percentile (z)				26.51
525	95% Percentile (z)				43.52	95% Percentile (z)				38.58
526	99% Percentile (z)				56.47	99% Percentile (z)				77.98
527										
528	<b>Gamma Distribution Test with Detected Values Only</b>					<b>Data Distribution Test with Detected Values Only</b>				
529	k star (bias corrected)				1.025	Data do not follow a Discernable Distribution (0.05)				
530	Theta Star				13.36					



A	B	C	D	E	F	G	H	I	J	K	L
531	nu star				205.1						
532											
533	A-D Test Statistic				7.995	<b>Nonparametric Statistics</b>					
534	5% A-D Critical Value				0.782	Kaplan-Meier (KM) Method					
535	K-S Test Statistic				0.227	Mean					13.06
536	5% K-S Critical Value				0.092	SD					18.14
537	<b>Data not Gamma Distributed at 5% Significance Level</b>					SE of Mean					1.77
538						95% KM UTL with 99% Coverage					61.46
539	<b>Assuming Gamma Distribution</b>					95% KM Chebyshev UPL					92.48
540	Gamma ROS Statistics with Extrapolated Data					95% KM UPL (t)					43.29
541	Mean				12.93	90% Percentile (z)					36.3
542	Median				5.7	95% Percentile (z)					42.89
543	SD				18.31	99% Percentile (z)					55.25
544	k star				0.456						
545	Theta star				28.32	<b>Gamma ROS Limits with Extrapolated Data</b>					
546	Nu star				96.77	95% Wilson Hilferty (WH) Approx. Gamma UPL					41.9
547	95% Percentile of Chisquare (2k)				3.622	95% Hawkins Wixley (HW) Approx. Gamma UPL					47.27
548						95% WH Approx. Gamma UTL with 99% Coverage					83.28
549	90% Percentile				35.62	95% HW Approx. Gamma UTL with 99% Coverage					107
550	95% Percentile				51.29						
551	99% Percentile				90.15						
552											
553	<b>Note: DL/2 is not a recommended method.</b>										
554											
555											
556	<b>Mercury</b>										
557											
558	<b>General Statistics</b>										
559	Number of Valid Data				106	Number of Detected Data				30	
560	Number of Distinct Detected Data				28	Number of Non-Detect Data				76	
561	Tolerance Factor				2.669	Percent Non-Detects				71.70%	
562											
563	<b>Raw Statistics</b>					<b>Log-transformed Statistics</b>					
564	Minimum Detected				0.0175	Minimum Detected				-4.046	
565	Maximum Detected				0.324	Maximum Detected				-1.127	
566	Mean of Detected				0.0493	Mean of Detected				-3.342	
567	SD of Detected				0.0599	SD of Detected				0.71	
568	Minimum Non-Detect				0.0039	Minimum Non-Detect				-5.547	
569	Maximum Non-Detect				0.1	Maximum Non-Detect				-2.303	
570											
571	<b>Data with Multiple Detection Limits</b>					<b>Single Detection Limit Scenario</b>					
572	Note: Data have multiple DLs - Use of KM Method is recommended					Number treated as Non-Detect with Single DL				103	
573	For all methods (except KM, DL/2, and ROS Methods),					Number treated as Detected with Single DL				3	
574	Observations < Largest ND are treated as NDs					Single DL Non-Detect Percentage				97.17%	
575											
576	<b>Background Statistics</b>										
577	<b>Normal Distribution Test with Detected Values Only</b>					<b>Lognormal Distribution Test with Detected Values Only</b>					
578	Shapiro Wilk Test Statistic				0.54	Shapiro Wilk Test Statistic				0.84	
579	5% Shapiro Wilk Critical Value				0.927	5% Shapiro Wilk Critical Value				0.927	
580	<b>Data not Normal at 5% Significance Level</b>					<b>Data not Lognormal at 5% Significance Level</b>					
581											
582	<b>Assuming Normal Distribution</b>					<b>Assuming Lognormal Distribution</b>					
583	DL/2 Substitution Method					DL/2 Substitution Method					

A	B	C	D	E	F	G	H	I	J	K	L	
584				Mean	0.0475				Mean (Log Scale)		-3.247	
585				SD	0.0331				SD (Log Scale)		0.782	
586			95% UTL	99% Coverage	0.136				95% UTL	99% Coverage	0.313	
587				95% UPL (t)	0.103				95% UPL (t)		0.143	
588				90% Percentile (z)	0.0899				90% Percentile (z)		0.106	
589				95% Percentile (z)	0.102				95% Percentile (z)		0.141	
590				99% Percentile (z)	0.124				99% Percentile (z)		0.24	
591												
592			Maximum Likelihood Estimate(MLE) Method						Log ROS Method			
593				Mean	-0.368				Mean in Original Scale		0.0351	
594				SD	0.245				SD in Original Scale		0.0371	
595			95% UTL with	99% Coverage	0.286				95% UTL with	99% Coverage	0.187	
596									95% BCA UTL with	99% Coverage	0.324	
597									95% Bootstrap (%) UTL with	99% Coverage	0.324	
598				95% UPL (t)	0.0409				95% UPL (t)		0.0893	
599				90% Percentile (z)	-0.0537				90% Percentile (z)		0.0672	
600				95% Percentile (z)	0.0354				95% Percentile (z)		0.0878	
601				99% Percentile (z)	0.202				99% Percentile (z)		0.145	
602												
603			<b>Gamma Distribution Test with Detected Values Only</b>						<b>Data Distribution Test with Detected Values Only</b>			
604				k star (bias corrected)	1.511				Data do not follow a Discernable Distribution (0.05)			
605				Theta Star	0.0326							
606				nu star	90.69							
607												
608				A-D Test Statistic	2.521				<b>Nonparametric Statistics</b>			
609				5% A-D Critical Value	0.762				Kaplan-Meier (KM) Method			
610				K-S Test Statistic	0.25				Mean		0.0355	
611				5% K-S Critical Value	0.163				SD		0.0359	
612			<b>Data not Gamma Distributed at 5% Significance Level</b>						SE of Mean		0.00443	
613									95% KM UTL with	99% Coverage	0.131	
614			<b>Assuming Gamma Distribution</b>						95% KM Chebyshev UPL		0.193	
615			Gamma ROS Statistics with Extrapolated Data						95% KM UPL (t)		0.0953	
616				Mean	0.0393				90% Percentile (z)		0.0815	
617				Median	0.0284				95% Percentile (z)		0.0945	
618				SD	0.0429				99% Percentile (z)		0.119	
619				k star	0.283							
620				Theta star	0.139				<b>Gamma ROS Limits with Extrapolated Data</b>			
621				Nu star	59.92				95% Wilson Hilferty (WH) Approx. Gamma UPL		0.16	
622				95% Percentile of Chisquare (2k)	2.635				95% Hawkins Wixley (HW) Approx. Gamma UPL		0.21	
623									95% WH Approx. Gamma UTL with	99% Coverage	0.354	
624				90% Percentile	0.117				95% HW Approx. Gamma UTL with	99% Coverage	0.575	
625				95% Percentile	0.183							
626				99% Percentile	0.357							
627												
628			<b>Note: DL/2 is not a recommended method.</b>									
629												
630												
631			<b>Molybdenum</b>									
632												
633			<b>General Statistics</b>									
634				Number of Valid Data	106				Number of Detected Data		16	
635				Number of Distinct Detected Data	16				Number of Non-Detect Data		90	
636				Tolerance Factor	2.669				Percent Non-Detects		84.91%	

A	B	C	D	E	F	G	H	I	J	K	L	
637												
638	<b>Raw Statistics</b>					<b>Log-transformed Statistics</b>						
639	Minimum Detected				0.0978	Minimum Detected				-2.325		
640	Maximum Detected				0.625	Maximum Detected				-0.47		
641	Mean of Detected				0.191	Mean of Detected				-1.8		
642	SD of Detected				0.136	SD of Detected				0.492		
643	Minimum Non-Detect				0.0777	Minimum Non-Detect				-2.555		
644	Maximum Non-Detect				2.5	Maximum Non-Detect				0.916		
645												
646	<b>Data with Multiple Detection Limits</b>					<b>Single Detection Limit Scenario</b>						
647	Note: Data have multiple DLs - Use of KM Method is recommended					Number treated as Non-Detect with Single DL				106		
648	For all methods (except KM, DL/2, and ROS Methods),					Number treated as Detected with Single DL				0		
649	Observations < Largest ND are treated as NDs					Single DL Non-Detect Percentage				100.00%		
650												
651	<b>Background Statistics</b>											
652	<b>Normal Distribution Test with Detected Values Only</b>					<b>Lognormal Distribution Test with Detected Values Only</b>						
653	Shapiro Wilk Test Statistic				0.629	Shapiro Wilk Test Statistic				0.816		
654	5% Shapiro Wilk Critical Value				0.887	5% Shapiro Wilk Critical Value				0.887		
655	<b>Data not Normal at 5% Significance Level</b>					<b>Data not Lognormal at 5% Significance Level</b>						
656												
657	<b>Assuming Normal Distribution</b>					<b>Assuming Lognormal Distribution</b>						
658	DL/2 Substitution Method					DL/2 Substitution Method						
659	Mean				0.873	Mean (Log Scale)				-0.704		
660	SD				0.544	SD (Log Scale)				1.404		
661	95% UTL 99% Coverage				2.324	95% UTL 99% Coverage				20.94		
662	95% UPL (t)				1.779	95% UPL (t)				5.134		
663	90% Percentile (z)				1.57	90% Percentile (z)				2.987		
664	95% Percentile (z)				1.767	95% Percentile (z)				4.974		
665	99% Percentile (z)				2.138	99% Percentile (z)				12.95		
666												
667	Maximum Likelihood Estimate(MLE) Method				N/A	Log ROS Method						
668						Mean in Original Scale				0.111		
669						SD in Original Scale				0.109		
670						Mean in Log Scale				-2.564		
671						SD in Log Scale				0.867		
672						95% UTL 99% Coverage				0.778		
673						95% UPL (t)				0.327		
674						90% Percentile (z)				0.234		
675						95% Percentile (z)				0.32		
676						99% Percentile (z)				0.578		
677												
678	<b>Gamma Distribution Test with Detected Values Only</b>					<b>Data Distribution Test with Detected Values Only</b>						
679	k star (bias corrected)				2.987	Data do not follow a Discernable Distribution (0.05)						
680	Theta Star				0.0639							
681	nu star				95.57							
682												
683	A-D Test Statistic				1.555	<b>Nonparametric Statistics</b>						
684	5% A-D Critical Value				0.743	Kaplan-Meier (KM) Method						
685	K-S Test Statistic				0.264	Mean				0.14		
686	5% K-S Critical Value				0.216	SD				0.101		
687	<b>Data not Gamma Distributed at 5% Significance Level</b>					SE of Mean				0.0176		
688						95% KM UTL with 99% Coverage				0.409		
689	<b>Assuming Gamma Distribution</b>					95% KM Chebyshev UPL				0.581		

A	B	C	D	E	F	G	H	I	J	K	L	
690	Gamma ROS Statistics with Extrapolated Data						95% KM UPL (t)					0.308
691				Mean	0.0863		90% Percentile (z)					0.269
692				Median	0.000001		95% Percentile (z)					0.306
693				SD	0.121		99% Percentile (z)					0.374
694				k star	0.136							
695				Theta star	0.635	<b>Gamma ROS Limits with Extrapolated Data</b>						
696				Nu star	28.79	95% Wilson Hilferty (WH) Approx. Gamma UPL					0.384	
697	95% Percentile of Chisquare (2k)					1.522	95% Hawkins Wixley (HW) Approx. Gamma UPL					0.465
698							95% WH Approx. Gamma UTL with 99% Coverage					1.026
699				90% Percentile	0.252	95% HW Approx. Gamma UTL with 99% Coverage					1.667	
700				95% Percentile	0.483							
701				99% Percentile	1.17							
702												
703	<b>Note: DL/2 is not a recommended method.</b>											
704												
705												
706	<b>Nickel</b>											
707												
708	<b>General Statistics</b>											
709	Number of Valid Data				106	Number of Detected Data				95		
710	Number of Distinct Detected Data				84	Number of Non-Detect Data				11		
711	Tolerance Factor				2.669	Percent Non-Detects				10.38%		
712												
713	<b>Raw Statistics</b>					<b>Log-transformed Statistics</b>						
714	Minimum Detected				3	Minimum Detected				1.099		
715	Maximum Detected				27.2	Maximum Detected				3.303		
716	Mean of Detected				8.186	Mean of Detected				1.976		
717	SD of Detected				4.689	SD of Detected				0.484		
718	Minimum Non-Detect				2.5	Minimum Non-Detect				0.916		
719	Maximum Non-Detect				2.5	Maximum Non-Detect				0.916		
720												
721												
722	<b>Background Statistics</b>											
723	<b>Normal Distribution Test with Detected Values Only</b>					<b>Lognormal Distribution Test with Detected Values Only</b>						
724	Lilliefors Test Statistic				0.194	Lilliefors Test Statistic				0.105		
725	5% Lilliefors Critical Value				0.0909	5% Lilliefors Critical Value				0.0909		
726	<b>Data not Normal at 5% Significance Level</b>					<b>Data not Lognormal at 5% Significance Level</b>						
727												
728	<b>Assuming Normal Distribution</b>					<b>Assuming Lognormal Distribution</b>						
729	DL/2 Substitution Method					DL/2 Substitution Method						
730	Mean				7.466	Mean (Log Scale)				1.794		
731	SD				4.919	SD (Log Scale)				0.706		
732	95% UTL 99% Coverage				20.6	95% UTL 99% Coverage				39.54		
733	95% UPL (t)				15.67	95% UPL (t)				19.5		
734	90% Percentile (z)				13.77	90% Percentile (z)				14.86		
735	95% Percentile (z)				15.56	95% Percentile (z)				19.2		
736	99% Percentile (z)				18.91	99% Percentile (z)				31.05		
737												
738	Maximum Likelihood Estimate(MLE) Method					Log ROS Method						
739	Mean				7.306	Mean in Original Scale				7.586		
740	SD				5.173	SD in Original Scale				4.779		
741	95% UTL with 99% Coverage				21.11	95% UTL with 99% Coverage				29.75		
742						95% BCA UTL with 99% Coverage				27.2		

A	B	C	D	E	F	G	H	I	J	K	L
743						95% Bootstrap (%) UTL with 99% Coverage				27.2	
744				95% UPL (t)	15.93	95% UPL (t)				16.74	
745				90% Percentile (z)	13.94	90% Percentile (z)				13.41	
746				95% Percentile (z)	15.81	95% Percentile (z)				16.52	
747				99% Percentile (z)	19.34	99% Percentile (z)				24.44	
748											
749	<b>Gamma Distribution Test with Detected Values Only</b>					<b>Data Distribution Test with Detected Values Only</b>					
750				k star (bias corrected)	3.991	Data do not follow a Discernable Distribution (0.05)					
751				Theta Star	2.051						
752				nu star	758.3						
753											
754				A-D Test Statistic	2.313	<b>Nonparametric Statistics</b>					
755				5% A-D Critical Value	0.756	Kaplan-Meier (KM) Method					
756				K-S Test Statistic	0.135	Mean				7.648	
757				5% K-S Critical Value	0.0921	SD				4.69	
758	<b>Data not Gamma Distributed at 5% Significance Level</b>					SE of Mean				0.458	
759						95% KM UTL with 99% Coverage				20.17	
760	<b>Assuming Gamma Distribution</b>					95% KM Chebyshev UPL					28.19
761	Gamma ROS Statistics with Extrapolated Data					95% KM UPL (t)					15.47
762				Mean	7.336	90% Percentile (z)				13.66	
763				Median	6.145	95% Percentile (z)				15.36	
764				SD	5.097	99% Percentile (z)				18.56	
765				k star	0.393						
766				Theta star	18.68	<b>Gamma ROS Limits with Extrapolated Data</b>					
767				Nu star	83.28	95% Wilson Hilferty (WH) Approx. Gamma UPL				23.91	
768				95% Percentile of Chisquare (2k)	3.285	95% Hawkins Wixley (HW) Approx. Gamma UPL				31.7	
769						95% WH Approx. Gamma UTL with 99% Coverage				45	
770				90% Percentile	20.79	95% HW Approx. Gamma UTL with 99% Coverage				71.44	
771				95% Percentile	30.67						
772				99% Percentile	55.58						
773											
774	<b>Note: DL/2 is not a recommended method.</b>										
775											
776											
777	<b>Selenium</b>										
778											
779	<b>General Statistics</b>										
780				Number of Valid Data	106	Number of Detected Data				1	
781				Number of Distinct Detected Data	1	Number of Non-Detect Data				105	
782											
783	<b>Warning: Only one distinct data value was detected! ProUCL (or any other software) should not be used on such a data set!</b>										
784	<b>It is suggested to use alternative site specific values determined by the Project Team to estimate environmental parameters (e.g., EPC, BTV).</b>										
785											
786	<b>The data set for variable Selenium was not processed!</b>										
787											
788											
789											
790	<b>Silver</b>										
791											
792	<b>General Statistics</b>										
793				Number of Valid Data	106	Number of Detected Data				9	
794				Number of Distinct Detected Data	8	Number of Non-Detect Data				97	
795				Tolerance Factor	2.669	Percent Non-Detects				91.51%	

A	B	C	D	E	F	G	H	I	J	K	L	
796												
797	<b>Raw Statistics</b>					<b>Log-transformed Statistics</b>						
798	Minimum Detected				0.132	Minimum Detected				-2.025		
799	Maximum Detected				1.29	Maximum Detected				0.255		
800	Mean of Detected				0.582	Mean of Detected				-0.88		
801	SD of Detected				0.469	SD of Detected				0.898		
802	Minimum Non-Detect				0.117	Minimum Non-Detect				-2.146		
803	Maximum Non-Detect				2.5	Maximum Non-Detect				0.916		
804												
805	<b>Data with Multiple Detection Limits</b>					<b>Single Detection Limit Scenario</b>						
806	Note: Data have multiple DLs - Use of KM Method is recommended					Number treated as Non-Detect with Single DL				106		
807	For all methods (except KM, DL/2, and ROS Methods),					Number treated as Detected with Single DL				0		
808	Observations < Largest ND are treated as NDs					Single DL Non-Detect Percentage				100.00%		
809												
810												
811	<b>Warning: There are only 9 Detected Values in this data</b>											
812	<b>Note: It should be noted that even though bootstrap may be performed on this data set</b>											
813	<b>the resulting calculations may not be reliable enough to draw conclusions</b>											
814												
815	<b>It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.</b>											
816												
817	<b>Background Statistics</b>											
818	<b>Normal Distribution Test with Detected Values Only</b>					<b>Lognormal Distribution Test with Detected Values Only</b>						
819	Shapiro Wilk Test Statistic				0.832	Shapiro Wilk Test Statistic				0.878		
820	5% Shapiro Wilk Critical Value				0.829	5% Shapiro Wilk Critical Value				0.829		
821	<b>Data appear Normal at 5% Significance Level</b>					<b>Data appear Lognormal at 5% Significance Level</b>						
822												
823	<b>Assuming Normal Distribution</b>					<b>Assuming Lognormal Distribution</b>						
824	DL/2 Substitution Method					DL/2 Substitution Method						
825	Mean				0.901	Mean (Log Scale)				-0.622		
826	SD				0.533	SD (Log Scale)				1.329		
827	95% UTL 99% Coverage				2.322	95% UTL 99% Coverage				18.65		
828	95% UPL (t)				1.789	95% UPL (t)				4.927		
829	90% Percentile (z)				1.584	90% Percentile (z)				2.951		
830	95% Percentile (z)				1.777	95% Percentile (z)				4.782		
831	99% Percentile (z)				2.14	99% Percentile (z)				11.83		
832												
833	Maximum Likelihood Estimate(MLE) Method					N/A	Log ROS Method					
834							Mean in Original Scale				0.184	
835							SD in Original Scale				0.445	
836							Mean in Log Scale				-3.451	
837							SD in Log Scale				2.015	
838							95% UTL 99% Coverage				6.87	
839							95% UPL (t)				0.913	
840							90% Percentile (z)				0.42	
841							95% Percentile (z)				0.873	
842							99% Percentile (z)				3.445	
843												
844	<b>Gamma Distribution Test with Detected Values Only</b>					<b>Data Distribution Test with Detected Values Only</b>						
845	k star (bias corrected)				1.159	Data appear Normal at 5% Significance Level						
846	Theta Star				0.502							
847	nu star				20.86							
848												

A	B	C	D	E	F	G	H	I	J	K	L		
849	A-D Test Statistic				0.606	Nonparametric Statistics							
850	5% A-D Critical Value				0.733	Kaplan-Meier (KM) Method							
851	K-S Test Statistic				0.259	Mean 0.248							
852	5% K-S Critical Value				0.284	SD 0.298							
853	Data appear Gamma Distributed at 5% Significance Level					SE of Mean 0.0535							
854						95% KM UTL with 99% Coverage 1.044							
855	Assuming Gamma Distribution					95% KM Chebyshev UPL 1.554							
856	Gamma ROS Statistics with Extrapolated Data					95% KM UPL (t) 0.745							
857	Mean				0.147	90% Percentile (z) 0.63							
858	Median				0.000001	95% Percentile (z) 0.738							
859	SD				0.335	99% Percentile (z) 0.942							
860	k star				0.0956								
861	Theta star				1.541	Gamma ROS Limits with Extrapolated Data							
862	Nu star				20.26	95% Wilson Hilferty (WH) Approx. Gamma UPL 0.481							
863	95% Percentile of Chisquare (2k)				1.112	95% Hawkins Wixley (HW) Approx. Gamma UPL 0.432							
864						95% WH Approx. Gamma UTL with 99% Coverage 1.475							
865	90% Percentile				0.384	95% HW Approx. Gamma UTL with 99% Coverage 1.851							
866	95% Percentile				0.857								
867	99% Percentile				2.393								
868													
869	Note: DL/2 is not a recommended method.												
870													
871													
872	Thallium												
873													
874	General Statistics												
875	Number of Valid Data				106	Number of Detected Data				0			
876	Number of Distinct Detected Data				0	Number of Non-Detect Data				106			
877													
878	Warning: All observations are Non-Detects (NDs), therefore all statistics and estimates should also be NDs!												
879	Specifically, sample mean, UCLs, UPLs, and other statistics are also NDs lying below the largest detection limit!												
880	The Project Team may decide to use alternative site specific values to estimate environmental parameters (e.g., EPC, BTV).												
881													
882	The data set for variable Thallium was not processed!												
883													
884													
885													
886	Vanadium												
887													
888	General Statistics												
889	Total Number of Observations				106	Number of Distinct Observations				86			
890	Tolerance Factor				2.669								
891													
892	Raw Statistics					Log-Transformed Statistics							
893	Minimum				6.2	Minimum				1.825			
894	Maximum				47.1	Maximum				3.852			
895	Second Largest				44	Second Largest				3.784			
896	First Quartile				14.03	First Quartile				2.641			
897	Median				16.65	Median				2.812			
898	Third Quartile				22.58	Third Quartile				3.117			
899	Mean				18.99	Mean				2.867			
900	SD				7.863	SD				0.392			
901	Coefficient of Variation				0.414								



A	B	C	D	E	F	G	H	I	J	K	L	
902	Skewness				1.276							
903												
904	<b>Background Statistics</b>											
905	<b>Normal Distribution Test</b>					<b>Lognormal Distribution Test</b>						
906	Lilliefors Test Statistic				0.129	Lilliefors Test Statistic				0.0615		
907	Lilliefors Critical Value				0.0861	Lilliefors Critical Value				0.0861		
908	<b>Data not Normal at 5% Significance Level</b>					<b>Data appear Lognormal at 5% Significance Level</b>						
909												
910	<b>Assuming Normal Distribution</b>					<b>Assuming Lognormal Distribution</b>						
911	95% UTL with 99% Coverage				39.97	95% UTL with 99% Coverage				50.07		
912	95% UPL (t)				32.1	95% UPL (t)				33.81		
913	90% Percentile (z)				29.07	90% Percentile (z)				29.06		
914	95% Percentile (z)				31.92	95% Percentile (z)				33.51		
915	99% Percentile (z)				37.28	99% Percentile (z)				43.78		
916												
917	<b>Gamma Distribution Test</b>					<b>Data Distribution Test</b>						
918	k star				6.467	<b>Data appear Gamma Distributed at 5% Significance Level</b>						
919	Theta Star				2.936							
920	MLE of Mean				18.99							
921	MLE of Standard Deviation				7.467							
922	nu star				1371							
923												
924	A-D Test Statistic				0.684	<b>Nonparametric Statistics</b>						
925	5% A-D Critical Value				0.754	90% Percentile				28.95		
926	K-S Test Statistic				0.086	95% Percentile				35.55		
927	5% K-S Critical Value				0.088	99% Percentile				43.82		
928	<b>Data appear Gamma Distributed at 5% Significance Level</b>											
929												
930	<b>Assuming Gamma Distribution</b>					95% UTL with 99% Coverage				47.1		
931	90% Percentile				28.96	95% Percentile Bootstrap UTL with 99% Coverage				47.1		
932	95% Percentile				32.7	95% BCA Bootstrap UTL with 99% Coverage				47.1		
933	99% Percentile				40.51	95% UPL				36.88		
934						95% Chebyshev UPL				53.42		
935	95% WH Approx. Gamma UPL				32.76	Upper Threshold Limit Based upon IQR						35.4
936	95% HW Approx. Gamma UPL				32.96							
937	95% WH Approx. Gamma UTL with 99% Coverage				44.61							
938	95% HW Approx. Gamma UTL with 99% Coverage				45.66							
939												
940												
941												
942	<b>Zinc</b>											
943												
944	<b>General Statistics</b>											
945	Total Number of Observations				105	Number of Distinct Observations				98		
946	Tolerance Factor				2.671	Number of Missing Values				1		
947												
948	<b>Raw Statistics</b>					<b>Log-Transformed Statistics</b>						
949	Minimum				9.7	Minimum				2.272		
950	Maximum				291	Maximum				5.673		
951	Second Largest				172	Second Largest				5.147		
952	First Quartile				17.7	First Quartile				2.874		
953	Median				29.8	Median				3.395		
954	Third Quartile				46.4	Third Quartile				3.837		





A	B	C	D	E	F	G	H	I	J	K	L
1	<b>General Background Statistics for Data Sets with Non-Detects</b>										
2	<b>User Selected Options</b>										
3	From File	C:\Users\latesfamichael\Desktop\SB0484 KAST\Feb 2012 Analysis\July 2012 Reporting\PAH 0 to 5 wo outliers.v									
4	Full Precision	OFF									
5	Confidence Coefficient	95%									
6	Coverage	99%									
7	Different or Future K Values	1									
8	Number of Bootstrap Operations	2000									
9											
10											
11	<b>BaP-TEQ</b>										
12											
13	<b>General Statistics</b>										
14	Number of Valid Data				35		Number of Detected Data				22
15	Number of Distinct Detected Data				22		Number of Non-Detect Data				13
16	Tolerance Factor				2.983		Percent Non-Detects				37.14%
17											
18	<b>Raw Statistics</b>					<b>Log-transformed Statistics</b>					
19	Minimum Detected				0.00106		Minimum Detected				-6.849
20	Maximum Detected				0.179		Maximum Detected				-1.718
21	Mean of Detected				0.0122		Mean of Detected				-5.696
22	SD of Detected				0.0376		SD of Detected				1.226
23	Minimum Non-Detect				0.00106		Minimum Non-Detect				-6.849
24	Maximum Non-Detect				0.00106		Maximum Non-Detect				-6.849
25											
26											
27	<b>Background Statistics</b>										
28	<b>Normal Distribution Test with Detected Values Only</b>					<b>Lognormal Distribution Test with Detected Values Only</b>					
29	Shapiro Wilk Test Statistic				0.303		Shapiro Wilk Test Statistic				0.823
30	5% Shapiro Wilk Critical Value				0.911		5% Shapiro Wilk Critical Value				0.911
31	<b>Data not Normal at 5% Significance Level</b>					<b>Data not Lognormal at 5% Significance Level</b>					
32											
33	<b>Assuming Normal Distribution</b>					<b>Assuming Lognormal Distribution</b>					
34	DL/2 Substitution Method					DL/2 Substitution Method					
35	Mean				0.00785		Mean (Log Scale)				-6.382
36	SD				0.0301		SD (Log Scale)				1.322
37	95% UTL 99% Coverage				0.0977		95% UTL 99% Coverage				0.0874
38	95% UPL (t)				0.0595		95% UPL (t)				0.0163
39	90% Percentile (z)				0.0464		90% Percentile (z)				0.00921
40	95% Percentile (z)				0.0574		95% Percentile (z)				0.0149
41	99% Percentile (z)				0.0779		99% Percentile (z)				0.0367
42											
43	Maximum Likelihood Estimate(MLE) Method					Log ROS Method					
44	Mean				-0.00432		Mean in Original Scale				0.00774
45	SD				0.0392		SD in Original Scale				0.0301
46	95% UTL with 99% Coverage				0.113		95% UTL with 99% Coverage				0.267
47							95% BCA UTL with 99% Coverage				0.179
48							95% Bootstrap (%) UTL with 99% Coverage				0.179
49	95% UPL (t)				0.0629		95% UPL (t)				0.0258
50	90% Percentile (z)				0.0459		90% Percentile (z)				0.0116
51	95% Percentile (z)				0.0601		95% Percentile (z)				0.0227
52	99% Percentile (z)				0.0868		99% Percentile (z)				0.0796

	A	B	C	D	E	F	G	H	I	J	K	L
53												
54	<b>Gamma Distribution Test with Detected Values Only</b>						<b>Data Distribution Test with Detected Values Only</b>					
55	k star (bias corrected)				0.457		Data do not follow a Discernable Distribution (0.05)					
56	Theta Star				0.0266							
57	nu star				20.11							
58												
59	A-D Test Statistic				3.184		<b>Nonparametric Statistics</b>					
60	5% A-D Critical Value				0.806		Kaplan-Meier (KM) Method					
61	K-S Test Statistic				0.307		Mean 0.00805					
62	5% K-S Critical Value				0.196		SD 0.0296					
63	<b>Data not Gamma Distributed at 5% Significance Level</b>						SE of Mean 0.00513					
64							95% KM UTL with 99% Coverage 0.0965					
65	<b>Assuming Gamma Distribution</b>						95% KM Chebyshev UPL 0.139					
66	Gamma ROS Statistics with Extrapolated Data						95% KM UPL (t) 0.0589					
67	Mean				0.00765		90% Percentile (z) 0.046					
68	Median				0.00127		95% Percentile (z) 0.0568					
69	SD				0.0302		99% Percentile (z) 0.077					
70	k star				0.195							
71	Theta star				0.0392		<b>Gamma ROS Limits with Extrapolated Data</b>					
72	Nu star				13.67		95% Wilson Hilferty (WH) Approx. Gamma UPL 0.0259					
73	95% Percentile of Chisquare (2k)				2.025		95% Hawkins Wixley (HW) Approx. Gamma UPL 0.0269					
74							95% WH Approx. Gamma UTL with 99% Coverage 0.0823					
75	90% Percentile				0.0231		95% HW Approx. Gamma UTL with 99% Coverage 0.111					
76	95% Percentile				0.0397							
77	99% Percentile				0.0854							
78												
79	<b>Note: DL/2 is not a recommended method.</b>											
80												

# ATTACHMENT A3

## Soil Leaching to Groundwater SSCG Derivation Spreadsheets

Attachment A3  
Determining Soil Cleanup Levels, LARWQCB Approach  
Former Kast Property  
Carson, CA

**Compound:** Benzene

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL MCL (mg/L): 1.0E-03

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	--	Value not used
Soil/Water Partition Coeff. (mL/g)	Kd	2.8E+01	Site-specific
Henry's Law Constant (-)	Kh	2.3E-01	USEPA RSL

Chemical-Specific Attenuation Factor	AF	180
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	33	33	1.3E-01
45	25	25	1.0E-01
40	18	18	7.3E-02
35	16	16	6.4E-02
30	14	14	5.6E-02
25	12	12	4.7E-02
24	11	11	4.5E-02
23	11	11	4.4E-02
22	10	10	4.2E-02
21	10	10	4.0E-02
20	10	10	3.9E-02
19	9	9	3.7E-02
18	9	9	3.5E-02
17	8	8	3.3E-02
16	8	8	3.2E-02
15	7	7	3.0E-02
14	7	7	2.8E-02
13	7	7	2.6E-02
12	6	6	2.5E-02
11	6	6	2.3E-02
10	5	5	2.1E-02
5	3	3	1.3E-02
0	1	1	4.1E-03

Notes:

$$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$$

D = Depth of Contaminant above the groundwater level

$$AFd = D(0.1*AF - 1)/40 + 1 - \text{Eqn. 7. For depths less than or equal to 40 feet.}$$

$$AFd = (0.9(D-40)/110+0.1)AF - \text{Eqn. 6. For depths } 40 < D < 150 \text{ feet.}$$

$$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL) - \text{Eqn. 12}$$

$$\text{Soil Cleanup Level} = C = Af_t \times MCL - \text{Eqn. 13}$$

Attachment A3  
Determining Soil Cleanup Levels, LARWQCB Approach  
Former Kast Property  
Carson, CA

**Compound:** Naphthalene

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL CDPH NL (mg/L): 1.7E-02

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	--	Value not used
Soil/Water Partition Coeff. (mL/g)	Kd	1.1E+03	Site-specific
Henry's Law Constant (-)	Kh	1.8E-02	USEPA RSL
Chemical-Specific Attenuation Factor	AF	7,045	
Dilution Attenuation Factor	DAF	6	

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	1281	1281	8.8E+01
45	993	993	6.8E+01
40	705	705	4.9E+01
35	617	617	4.2E+01
30	529	529	3.6E+01
25	441	441	3.0E+01
24	423	423	2.9E+01
23	406	406	2.8E+01
22	388	388	2.7E+01
21	370	370	2.6E+01
20	353	353	2.4E+01
19	335	335	2.3E+01
18	318	318	2.2E+01
17	300	300	2.1E+01
16	282	282	1.9E+01
15	265	265	1.8E+01
14	247	247	1.7E+01
13	230	230	1.6E+01
12	212	212	1.5E+01
11	194	194	1.3E+01
10	177	177	1.2E+01
5	89	89	6.1E+00
0	1	1	8.1E-02

Notes:

$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$

D = Depth of Contaminant above the groundwater level

$AFd = D(0.1*AF - 1)/40 + 1$  - Eqn. 7. For depths less than or equal to 40 feet.

$AFd = (0.9(D-40)/110+0.1)AF$  - Eqn. 6. For depths 40<D<150 feet.

$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL)$  - Eqn. 12

Soil Cleanup Level = C = Af<sub>t</sub> x MCL - Eqn. 13

Attachment A3  
Determining Soil Cleanup Levels, LARWQCB Approach  
Former Kast Property  
Carson, CA

**Compound:** TPH as Diesel

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL ESL-nc (mg/L): 2.0E-01

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	--	Value not used
Soil/Water Partition Coeff. (mL/g)	Kd	4.1E+03	Site-specific
Henry's Law Constant (-)	Kh	1.7E-05	TPHCWG 1997

Chemical-Specific Attenuation Factor	AF	26,540
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	4825	4825	3.9E+03
45	3740	3740	3.0E+03
40	2654	2654	2.2E+03
35	2322	2322	1.9E+03
30	1991	1991	1.6E+03
25	1659	1659	1.3E+03
24	1593	1593	1.3E+03
23	1526	1526	1.2E+03
22	1460	1460	1.2E+03
21	1394	1394	1.1E+03
20	1327	1327	1.1E+03
19	1261	1261	1.0E+03
18	1195	1195	9.7E+02
17	1129	1129	9.1E+02
16	1062	1062	8.6E+02
15	996	996	8.1E+02
14	930	930	7.5E+02
13	863	863	7.0E+02
12	797	797	6.5E+02
11	731	731	5.9E+02
10	664	664	5.4E+02
5	333	333	2.7E+02
0	2	2	1.3E+00

Notes:

$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$

D = Depth of Contaminant above the groundwater level

$AFd = D(0.1*AF - 1)/40 + 1$  - Eqn. 7. For depths less than or equal to 40 feet.

$AFd = (0.9(D-40)/110+0.1)AF$  - Eqn. 6. For depths 40<D<150 feet.

$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL)$  - Eqn. 12

Soil Cleanup Level = C = Af<sub>t</sub> x MCL - Eqn. 13

Attachment A3  
 Determining Soil Cleanup Levels, LARWQCB Approach  
 Former Kast Property  
 Carson, CA

**Compound:** TPH as Gasoline

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL ESL-nc (mg/L): 4.1E-01

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	--	Value not used
Soil/Water Partition Coeff. (mL/g)	Kd	3.7E+02	Site-specific
Henry's Law Constant (-)	Kh	1.7E-05	TPHCWG 1997

Chemical-Specific Attenuation Factor	AF	2,410
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	438	438	7.3E+02
45	340	340	5.6E+02
40	241	241	4.0E+02
35	211	211	3.5E+02
30	181	181	3.0E+02
25	151	151	2.5E+02
24	145	145	2.4E+02
23	139	139	2.3E+02
22	133	133	2.2E+02
21	127	127	2.1E+02
20	121	121	2.0E+02
19	115	115	1.9E+02
18	109	109	1.8E+02
17	103	103	1.7E+02
16	97	97	1.6E+02
15	91	91	1.5E+02
14	85	85	1.4E+02
13	79	79	1.3E+02
12	73	73	1.2E+02
11	67	67	1.1E+02
10	61	61	1.0E+02
5	31	31	5.2E+01
0	1	1	1.8E+00

Notes:

$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$

D = Depth of Contaminant above the groundwater level

$AFd = D(0.1*AF - 1)/40 + 1$  - Eqn. 7. For depths less than or equal to 40 feet.

$AFd = (0.9(D-40)/110+0.1)AF$  - Eqn. 6. For depths 40<D<150 feet.

$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL)$  - Eqn. 12

Soil Cleanup Level = C = Af<sub>t</sub> x MCL - Eqn. 13



Attachment A3  
 Determining Soil Cleanup Levels, LARWQCB Approach  
 Former Kast Property  
 Carson, CA

**Compound:** TPH as Motor Oil

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL ESL-nc (mg/L): 6.2E+00

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	--	Value not used
Soil/Water Partition Coeff. (mL/g)	Kd	7.0E+03	Site-specific
Henry's Law Constant (-)	Kh	1.7E-05	TPHCWG 1997

Chemical-Specific Attenuation Factor	AF	44,831
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	8151	8151	2.0E+05
45	6317	6317	1.6E+05
40	4483	4483	1.1E+05
35	3923	3923	9.9E+04
30	3363	3363	8.4E+04
25	2802	2802	7.0E+04
24	2690	2690	6.8E+04
23	2578	2578	6.5E+04
22	2466	2466	6.2E+04
21	2354	2354	5.9E+04
20	2242	2242	5.6E+04
19	2130	2130	5.4E+04
18	2018	2018	5.1E+04
17	1906	1906	4.8E+04
16	1794	1794	4.5E+04
15	1682	1682	4.2E+04
14	1570	1570	3.9E+04
13	1458	1458	3.7E+04
12	1346	1346	3.4E+04
11	1234	1234	3.1E+04
10	1122	1122	2.8E+04
5	561	561	1.4E+04
0	2	2	5.3E+01

Notes:

$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$

D = Depth of Contaminant above the groundwater level

$AFd = D(0.1*AF - 1)/40 + 1$  - Eqn. 7. For depths less than or equal to 40 feet.

$AFd = (0.9(D-40)/110+0.1)AF$  - Eqn. 6. For depths 40<D<150 feet.

$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL)$  - Eqn. 12

Soil Cleanup Level = C = Af<sub>t</sub> x MCL - Eqn. 13

Attachment A3  
Determining Soil Cleanup Levels, LARWQCB Approach  
Former Kast Property  
Carson, CA

**Compound:** 1,2,3-Trichloropropane

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL CDPH NL (mg/L): 5.0E-06

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	1.2E+02	USEPA RSL
Soil/Water Partition Coeff. (mL/g)	Kd	9.6E-01	Kd = Koc × foc
Henry's Law Constant (-)	Kh	1.4E-02	USEPA RSL

Chemical-Specific Attenuation Factor	AF	7
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	1	1	2.6E-05
45	1	1	2.0E-05
40	1	1	2.0E-05
35	1	1	2.0E-05
30	1	1	2.0E-05
25	1	1	2.0E-05
24	1	1	2.0E-05
23	1	1	2.0E-05
22	1	1	2.0E-05
21	1	1	2.0E-05
20	1	1	2.0E-05
19	1	1	2.0E-05
18	1	1	2.0E-05
17	1	1	2.0E-05
16	1	1	2.0E-05
15	1	1	2.0E-05
14	1	1	2.0E-05
13	1	1	2.0E-05
12	1	1	2.0E-05
11	1	1	2.0E-05
10	1	1	2.0E-05
5	1	1	2.0E-05
0	1	1	2.0E-05

Notes:

$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$

D = Depth of Contaminant above the groundwater level

$AFd = D(0.1*AF - 1)/40 + 1$  - Eqn. 7. For depths less than or equal to 40 feet.

$AFd = (0.9(D-40)/110+0.1)AF$  - Eqn. 6. For depths 40<D<150 feet.

$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL)$  - Eqn. 12

Soil Cleanup Level = C = Af<sub>t</sub> x MCL - Eqn. 13

Attachment A3  
Determining Soil Cleanup Levels, LARWQCB Approach  
Former Kast Property  
Carson, CA

**Compound:** 1,2-Dichloroethane

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL MCL (mg/L): 5.0E-04

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	4.0E+01	USEPA RSL
Soil/Water Partition Coeff. (mL/g)	Kd	3.3E-01	Kd = Koc × foc
Henry's Law Constant (-)	Kh	4.8E-02	USEPA RSL

Chemical-Specific Attenuation Factor	AF	3
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	1	1	2.0E-03
45	1	1	2.0E-03
40	1	1	2.0E-03
35	1	1	2.0E-03
30	1	1	2.0E-03
25	1	1	2.0E-03
24	1	1	2.0E-03
23	1	1	2.0E-03
22	1	1	2.0E-03
21	1	1	2.0E-03
20	1	1	2.0E-03
19	1	1	2.0E-03
18	1	1	2.0E-03
17	1	1	2.0E-03
16	1	1	2.0E-03
15	1	1	2.0E-03
14	1	1	2.0E-03
13	1	1	2.0E-03
12	1	1	2.0E-03
11	1	1	2.0E-03
10	1	1	2.0E-03
5	1	1	2.0E-03
0	1	1	2.0E-03

Notes:

$$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$$

D = Depth of Contaminant above the groundwater level

$$AFd = D(0.1*AF - 1)/40 + 1 - \text{Eqn. 7. For depths less than or equal to 40 feet.}$$

$$AFd = (0.9(D-40)/110+0.1)AF - \text{Eqn. 6. For depths } 40 < D < 150 \text{ feet.}$$

$$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL) - \text{Eqn. 12}$$

$$\text{Soil Cleanup Level} = C = Af_t \times \text{MCL} - \text{Eqn. 13}$$

Attachment A3  
Determining Soil Cleanup Levels, LARWQCB Approach  
Former Kast Property  
Carson, CA

**Compound:** 1,4-Dichlorobenzene

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL MCL (mg/L): 5.0E-03

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	3.8E+02	USEPA RSL
Soil/Water Partition Coeff. (mL/g)	Kd	3.1E+00	Kd = Koc × foc
Henry's Law Constant (-)	Kh	9.9E-02	USEPA RSL

Chemical-Specific Attenuation Factor	AF	21
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	4	4	7.7E-02
45	3	3	6.0E-02
40	2	2	4.3E-02
35	2	2	4.0E-02
30	2	2	3.7E-02
25	2	2	3.4E-02
24	2	2	3.4E-02
23	2	2	3.3E-02
22	2	2	3.3E-02
21	2	2	3.2E-02
20	2	2	3.1E-02
19	2	2	3.1E-02
18	1	1	3.0E-02
17	1	1	3.0E-02
16	1	1	2.9E-02
15	1	1	2.9E-02
14	1	1	2.8E-02
13	1	1	2.8E-02
12	1	1	2.7E-02
11	1	1	2.6E-02
10	1	1	2.6E-02
5	1	1	2.3E-02
0	1	1	2.0E-02

Notes:

$$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$$

D = Depth of Contaminant above the groundwater level

$$AFd = D(0.1*AF - 1)/40 + 1 - \text{Eqn. 7. For depths less than or equal to 40 feet.}$$

$$AFd = (0.9(D-40)/110+0.1)AF - \text{Eqn. 6. For depths } 40 < D < 150 \text{ feet.}$$

$$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL) - \text{Eqn. 12}$$

$$\text{Soil Cleanup Level} = C = Af_t \times \text{MCL} - \text{Eqn. 13}$$

Attachment A3  
Determining Soil Cleanup Levels, LARWQCB Approach  
Former Kast Property  
Carson, CA

**Compound:** cis-1,2-dichloroethylene

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL MCL (mg/L): 6.0E-03

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	4.0E+01	USEPA RSL
Soil/Water Partition Coeff. (mL/g)	Kd	3.3E-01	Kd = Koc × foc
Henry's Law Constant (-)	Kh	1.7E-01	USEPA RSL

Chemical-Specific Attenuation Factor	AF	3
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	1	1	2.4E-02
45	1	1	2.4E-02
40	1	1	2.4E-02
35	1	1	2.4E-02
30	1	1	2.4E-02
25	1	1	2.4E-02
24	1	1	2.4E-02
23	1	1	2.4E-02
22	1	1	2.4E-02
21	1	1	2.4E-02
20	1	1	2.4E-02
19	1	1	2.4E-02
18	1	1	2.4E-02
17	1	1	2.4E-02
16	1	1	2.4E-02
15	1	1	2.4E-02
14	1	1	2.4E-02
13	1	1	2.4E-02
12	1	1	2.4E-02
11	1	1	2.4E-02
10	1	1	2.4E-02
5	1	1	2.4E-02
0	1	1	2.4E-02

Notes:

$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$

D = Depth of Contaminant above the groundwater level

$AFd = D(0.1*AF - 1)/40 + 1$  - Eqn. 7. For depths less than or equal to 40 feet.

$AFd = (0.9(D-40)/110+0.1)AF$  - Eqn. 6. For depths 40<D<150 feet.

$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL)$  - Eqn. 12

Soil Cleanup Level = C = Af<sub>t</sub> x MCL - Eqn. 13

Attachment A3  
 Determining Soil Cleanup Levels, LARWQCB Approach  
 Former Kast Property  
 Carson, CA

**Compound:** tert-butyl alcohol

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL CDPH NL (mg/L): 1.2E-02

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	3.7E+01	Toxnet, NIH
Soil/Water Partition Coeff. (mL/g)	Kd	3.5E-02	Kd = Koc × foc
Henry's Law Constant (-)	Kh	3.7E-04	SRC PhysProp Database

Chemical-Specific Attenuation Factor	AF	1
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	1	1	4.9E-02
45	1	1	4.9E-02
40	1	1	4.9E-02
35	1	1	4.9E-02
30	1	1	4.9E-02
25	1	1	4.9E-02
24	1	1	4.9E-02
23	1	1	4.9E-02
22	1	1	4.9E-02
21	1	1	4.9E-02
20	1	1	4.9E-02
19	1	1	4.9E-02
18	1	1	4.9E-02
17	1	1	4.9E-02
16	1	1	4.9E-02
15	1	1	4.9E-02
14	1	1	4.9E-02
13	1	1	4.9E-02
12	1	1	4.9E-02
11	1	1	4.9E-02
10	1	1	4.9E-02
5	1	1	4.9E-02
0	1	1	4.9E-02

Notes:

$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$

D = Depth of Contaminant above the groundwater level

$AFd = D(0.1*AF - 1)/40 + 1$  - Eqn. 7. For depths less than or equal to 40 feet.

$AFd = (0.9(D-40)/110+0.1)AF$  - Eqn. 6. For depths 40<D<150 feet.

$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL)$  - Eqn. 12

Soil Cleanup Level = C = Af<sub>t</sub> × MCL - Eqn. 13

Attachment A3  
 Determining Soil Cleanup Levels, LARWQCB Approach  
 Former Kast Property  
 Carson, CA

**Compound:** Tetrachloroethene

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL MCL (mg/L): 5.0E-03

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	1.6E+02	USEPA RSL
Soil/Water Partition Coeff. (mL/g)	Kd	1.3E+00	Kd = Koc × foc
Henry's Law Constant (-)	Kh	7.5E-01	USEPA RSL

Chemical-Specific Attenuation Factor	AF	10
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	2	2	3.6E-02
45	1	1	2.8E-02
40	1	1	2.0E-02
35	1	1	2.0E-02
30	1	1	2.0E-02
25	1	1	2.0E-02
24	1	1	2.0E-02
23	1	1	2.0E-02
22	1	1	2.0E-02
21	1	1	2.0E-02
20	1	1	2.0E-02
19	1	1	2.0E-02
18	1	1	2.0E-02
17	1	1	2.0E-02
16	1	1	2.0E-02
15	1	1	2.0E-02
14	1	1	2.0E-02
13	1	1	2.0E-02
12	1	1	2.0E-02
11	1	1	2.0E-02
10	1	1	2.0E-02
5	1	1	2.0E-02
0	1	1	2.0E-02

Notes:

$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$

D = Depth of Contaminant above the groundwater level

$AFd = D(0.1*AF - 1)/40 + 1$  - Eqn. 7. For depths less than or equal to 40 feet.

$AFd = (0.9(D-40)/110+0.1)AF$  - Eqn. 6. For depths 40<D<150 feet.

$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL)$  - Eqn. 12

Soil Cleanup Level = C = Af<sub>t</sub> × MCL - Eqn. 13

Attachment A3  
Determining Soil Cleanup Levels, LARWQCB Approach  
Former Kast Property  
Carson, CA

**Compound:** Trichloroethene

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL MCL (mg/L): 5.0E-03

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	6.1E+01	USEPA RSL
Soil/Water Partition Coeff. (mL/g)	Kd	5.0E-01	Kd = Koc × foc
Henry's Law Constant (-)	Kh	4.0E-01	USEPA RSL

Chemical-Specific Attenuation Factor	AF	5
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	1	1	2.0E-02
45	1	1	2.0E-02
40	1	1	2.0E-02
35	1	1	2.0E-02
30	1	1	2.0E-02
25	1	1	2.0E-02
24	1	1	2.0E-02
23	1	1	2.0E-02
22	1	1	2.0E-02
21	1	1	2.0E-02
20	1	1	2.0E-02
19	1	1	2.0E-02
18	1	1	2.0E-02
17	1	1	2.0E-02
16	1	1	2.0E-02
15	1	1	2.0E-02
14	1	1	2.0E-02
13	1	1	2.0E-02
12	1	1	2.0E-02
11	1	1	2.0E-02
10	1	1	2.0E-02
5	1	1	2.0E-02
0	1	1	2.0E-02

Notes:

$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$

D = Depth of Contaminant above the groundwater level

$AFd = D(0.1*AF - 1)/40 + 1$  - Eqn. 7. For depths less than or equal to 40 feet.

$AFd = (0.9(D-40)/110+0.1)AF$  - Eqn. 6. For depths 40<D<150 feet.

$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL)$  - Eqn. 12

Soil Cleanup Level = C = Af<sub>t</sub> × MCL - Eqn. 13



Attachment A3  
 Determining Soil Cleanup Levels, LARWQCB Approach  
 Former Kast Property  
 Carson, CA

**Compound:** Vinyl Chloride

**Soil lithology:**

	% gravel	% sand	% silt	% clay	TOTAL
LITHOLOGY:		100%			100%

CHEMICAL MCL (mg/L): 5.0E-04

**AF Calculation**

			Source
Soil density (g/cm <sup>3</sup> )	ρb	1.54	Site-specific
porosity (-)	n	0.421	Site-specific
water content (-)	qw	0.239	Site-specific
fract. Org. carbon (-)	foc	0.83%	Site-specific
Org. carbon/water Partition Coeff. (mL/g)	Koc	2.2E+01	USEPA RSL
Soil/Water Partition Coeff. (mL/g)	Kd	1.8E-01	Kd = Koc × foc
Henry's Law Constant (-)	Kh	1.1E+00	USEPA RSL

Chemical-Specific Attenuation Factor	AF	3
Dilution Attenuation Factor	DAF	6

**Result Table**

DEPTH (D) (ft) above GW	DEPTH FACTOR (AFd)	TOTAL ATTENUATIO N FACTOR (AFt)	SOIL CLEAN UP LEVEL (mg/kg)
50	1	1	2.0E-03
45	1	1	2.0E-03
40	1	1	2.0E-03
35	1	1	2.0E-03
30	1	1	2.0E-03
25	1	1	2.0E-03
24	1	1	2.0E-03
23	1	1	2.0E-03
22	1	1	2.0E-03
21	1	1	2.0E-03
20	1	1	2.0E-03
19	1	1	2.0E-03
18	1	1	2.0E-03
17	1	1	2.0E-03
16	1	1	2.0E-03
15	1	1	2.0E-03
14	1	1	2.0E-03
13	1	1	2.0E-03
12	1	1	2.0E-03
11	1	1	2.0E-03
10	1	1	2.0E-03
5	1	1	2.0E-03
0	1	1	2.0E-03

Notes:

$AF = 1 + (rb/qw)*foc*Koc + (n-qw)*KH/qw$

D = Depth of Contaminant above the groundwater level

$AFd = D(0.1*AF - 1)/40 + 1$  - Eqn. 7. For depths less than or equal to 40 feet.

$AFd = (0.9(D-40)/110+0.1)AF$  - Eqn. 6. For depths 40<D<150 feet.

$AFt = (AFd/D)*(TGR/20+TSA/10+TSI/5+TCL)$  - Eqn. 12

Soil Cleanup Level = C = Af<sub>t</sub> × MCL - Eqn. 13

Attachment A3  
 Determining Soil Cleanup Levels, USEPA RSL Approach  
 Former Kast Property  
 Carson, CA

Compound	C <sub>w</sub> (µg/L)	DAF	Kd (L/kg)	θ <sub>w</sub> (-)	θ <sub>a</sub> (-)	K <sub>H</sub> (-)	pb (kg/L)	Site Cleanup Goals (mg/kg)
Antimony	6	6.2	45	0.239	0.182	1.7E-05	1.54	1.7
Arsenic	10	6.2	29	0.239	0.182	1.7E-05	1.54	1.8
Thallium	2	6.2	71	0.239	0.182	1.7E-05	1.54	0.9

Note:

$$C_{cleanup} = C_w \times DAF \times \left[ Kd + \frac{\theta_w + \theta_a K_H}{\rho_b} \right]$$

- C<sub>w</sub> Groundwater quality criterion
- DAF Dilution Attenuation Factor
- Kd Soil/Water partitioning coefficient
- θ<sub>w</sub> Water content
- θ<sub>a</sub> Air content
- H' Dimensionless Henry's Law Constant
- ρ<sub>b</sub> Soil bulk density

*Prepared for:*

**Shell Oil Products US**  
20945 S. Wilmington Avenues  
Carson, CA 90810

# **Revised Site-Specific Cleanup Goal Report**

**Former Kast Property  
Carson, California**

*Prepared by:*

**Geosyntec**   
consultants

engineers | scientists | innovators

924 Anacapa Street, Suite 4A  
Santa Barbara, CA 93101  
Telephone: (805) 897-3800  
Fax (805) 899-8689  
[www.geosyntec.com](http://www.geosyntec.com)

Project Number: SB0484-04-2

October 21, 2013

# REVISED SITE-SPECIFIC CLEANUP GOAL REPORT

## Former Kast Property Carson, California

*Prepared for:*

**Shell Oil Products US**

*Prepared by:*

**Geosyntec Consultants, Inc.**



*Mark Grivetti*

Mark Grivetti, P.G., CHG  
Principal Hydrogeologist

*Ruth Custance*

Ruth Custance  
Principal

*Robert Ettinger*

Robert Ettinger  
Principal

**CERTIFICATION**  
**REVISED SITE-SPECIFIC CLEANUP GOAL REPORT**  
**FORMER KAST PROPERTY**  
**CARSON, CALIFORNIA**

I am the Project Manager for Equilon Enterprises LLC doing business as Shell Oil Products US for this project. I am informed and believe that the matters stated in the Revised Site-Specific Cleanup Goal Report dated October 21, 2013 are true, and on that ground I declare, under penalty of perjury in accordance with Water Code section 13267, that the statements contained therein are true and correct.



---

Doug Weimer  
Project Manager  
Shell Oil Products US  
October 21, 2013

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**APPENDIX B**  
**Vapor Intrusion Evaluation**

## 1. INTRODUCTION

This appendix provides a detailed assessment of the vapor intrusion pathway at the former Kast Property (Site). A multiple-lines-of-evidence evaluation was conducted to assess whether volatile organic compounds (VOCs) detected in soil and soil vapor at the Site are resulting in a measureable effect on indoor air. The results of this evaluation are also used to develop site-specific cleanup goals (SSCGs) that may be used to make corrective action decisions regarding this pathway.

There are various potential sources of VOCs in indoor air, and background sources can make the interpretation of indoor air difficult. Background sources include VOCs in outdoor air or emissions from household building materials (e.g. rugs, paints), household products, or materials brought into the home. The contribution of background sources to indoor air concentrations is an important element in evaluation of the role of soil vapor to the indoor air pathway. Indoor and outdoor air concentrations measured during the Phase II Site Characterization at the Site were compared to literature values of “typical” concentrations found in indoor and outdoor air.

The Phase II Site Characterization data were further evaluated to assess the empirical correlation between soil vapor and indoor air data. Correlation, or the lack thereof, can be used to establish if subsurface soil vapor is contributing to indoor air concentrations. This analysis is used to support the development of a site-specific vapor intrusion attenuation factor that can be used for corrective action planning. The vapor intrusion attenuation factor is the ratio of indoor and subsurface vapor concentrations for constituents measured in both media assuming that the contributions from background sources are insignificant. Development of site-specific empirical attenuation factors is consistent with implementation of USEPA guidance for sites across the United States (USEPA, 2012).

## 2. DATA SUMMARY

Through August 31, 2013, indoor and sub-slab soil vapor data have been collected at 241 properties of the 285 properties<sup>1</sup>. The addresses and sampling dates for these properties are listed in **Table B-1** and the locations of these properties are shown on **Figure B-1**. To address spatial variability associated with vapor intrusion pathway evaluations, indoor and sub-slab soil vapor samples were collected at properties throughout the Site as access for the sampling activities was granted by property owners. To address questions regarding temporal variability, concomitant indoor and sub-slab soil vapor samples were collected on two separate dates at each property, and indoor and sub-slab soil vapor samples have been collected throughout the Site

---

<sup>1</sup> Sub-slab soil vapor samples were collected at an additional 24 properties, but indoor air samples were not collected at these properties as of August 31, 2013. Consequently data from these properties are not included in this evaluation.

since January 2010. **Figure B-2** shows the frequency of indoor and sub-slab soil vapor sampling during the investigation. This section summarizes the sub-slab soil vapor and indoor air data sets and describes how they are used in this evaluation.

## 2.1 Sub-Slab Soil Vapor

Sub-slab soil vapor samples were generally collected from three locations at each residential property: one from beneath the living area and two beneath pavement outside the building footprint. The specific locations of the sub-slab soil vapor samples varied due to the property layout and access (e.g., at some properties a sub-slab probe was installed in the garage rather than a front yard hardscape location). Generally, the sub-slab soil vapor samples were collected immediately following completion of the 24-hour indoor/outdoor air sampling for each property. Sub-slab soil vapor analytical results for the properties considered in this vapor intrusion evaluation are summarized on **Table B-2**.

Sub-slab soil vapor analytical results were compared to conservative risk-based screening levels (RBSLs) used in the human health screening risk evaluations (HHSRE) presented in the Interim, Follow-up, and Final Interim Phase II Site Characterization reports for the individual properties. For the HHSREs, the sub-slab soil vapor RBSLs were calculated by dividing the indoor air RBSLs by a generic screening-level attenuation factor of 0.01. The analysis presented in this appendix shows that the generic screening-level attenuation factor used to calculate the soil vapor RBSLs was conservative (i.e., over-estimates potential contribution of VOCs detected in soil vapor to indoor air). A summary of COCs exceeding sub-slab soil vapor RBSLs is provided in **Table B-3**. **Figures B-3 and B-4** show the sub-slab soil vapor analytical results for benzene and naphthalene, the key Site-related COCs for vapor intrusion pathway analysis. Spatial variability is evident at many properties; exceedances were infrequently or inconsistently observed at each property (**Figures B-3 and B-4**). Temporal variability is also evident in the analytical results presented in **Table B-2**.

## 2.2 Indoor/Outdoor Air Sampling

The indoor air sampling typically consisted of two to three indoor air samples (two primary indoor air samples and periodically a duplicate sample from one of the locations). Concurrently, an air sample from the garage and two outdoor air samples – one at the front and one at the back of the residence – were also collected. Through August 31, 2013, two rounds of indoor/outdoor/garage air sampling were conducted at 147 of the 241 properties where sub-slab soil vapor and indoor air data were collected. Indoor, garage, and outdoor air analytical results for the samples considered in this evaluation are summarized in **Table B-4**. A statistical summary of the analytical results of the air samples collected for the vapor intrusion evaluation is provided in **Table B-5**.

As reported in the Interim, Follow-up, and Final Interim Phase II Site Characterization reports, indoor, garage, and outdoor air concentrations for several constituents exceed RBSLs. However, as discussed below, background concentrations of these compounds commonly exceed these screening levels, and the measured air concentrations for samples collected at the site are within the range reported for background levels. These conclusions were discussed in the Interim and Follow-up Phase II Site Characterization reports which have been reviewed by the California Regional Water Quality Control Board – Los Angeles Region (RWQCB) and California Environmental Protection Agency Office of Environmental Health Hazard Assessment (OEHHA). The regulatory agency reviews of the Interim, Follow-up, and Final Interim Phase II Site Characterization reports have generally concurred that the VOCs detected in indoor air appear to be due to background sources.

**Figures B-5 and B-6** show the indoor air analytical results for benzene and naphthalene. The figures highlight the distribution of concentrations of these constituents in indoor air and illustrate the spatial variability observed among homes across the Site. Within the homes, however, indoor air samples collected in different rooms (e.g., kitchen and bedroom) on the same date are generally similar. Temporal variability is evident in the analytical results for indoor, outdoor, and garage air samples presented in **Table B-4**.

### **3. BACKGROUND CONCENTRATION EVALUATION**

In order to evaluate the significance of concentrations of VOCs detected in indoor air, a literature review of background levels of VOCs and other petroleum compounds was conducted. For vapor intrusion evaluations, background is defined as sources that are not due to subsurface impacts (e.g., contributions due to outdoor air or indoor sources). This section presents a review of background sources and concentrations and compares Site data to literature values.

#### **3.1 Background Sources**

There are a variety of background sources that can contribute to concentrations of VOCs in indoor air. These sources include outdoor air, sources within attached garages, indoor product use and activities, offgassing from municipal water, residential building materials (e.g., paint, carpet, vinyl flooring), and materials brought into the home (e.g., dry cleaned clothing). Outdoor air, which in urban environments contains VOCs, mixes with indoor air through open doors and windows as well as through leaks/penetrations in the building envelope (i.e., buildings are not constructed to be air tight even when doors and windows are closed). Impacted air in attached garages can migrate into indoor areas as a result of poor seals between the garage and the residential living spaces (CARB, 2005). Elevated concentrations of VOCs in indoor air are often associated with indoor product use, occupant activities (e.g., hobbies, smoking), new building materials (Van Winkle and Scheff, 2001), and off-gassing from municipal drinking water. Typical sources of these background impacts include environmental tobacco smoke from

cigarettes and cigars, gasoline- or diesel- powered equipment, paints, glues, solvents, cleaners, and natural gas.

- Environmental tobacco smoke is known to contain VOCs including benzene, toluene, xylenes, naphthalene, and styrene (Offermann et al., 1991; CARB, 2005; Jia and Batterman, 2010).
- Gasoline- and diesel-powered equipment such as automobiles and lawn mowers emit VOCs typical of petroleum products including benzene, toluene, ethylbenzene, and xylenes (BTEX), heptane, hexane, naphthalene, 1,2,4-trimethylbenzene, and 1,3,5-trimethylbenzene (CARB, 2005).
- Municipal drinking water contains trihalomethanes (e.g., chloroform and bromodichloromethane) which is a common by-product of municipal water disinfection.
- Paints, glues, solvents, cleaners, and deodorizers contain a wide variety of VOCs and are commonly found and used in residential households. VOCs associated with these products include (but are not limited to) BTEX, naphthalene, carbon tetrachloride, tetrachloroethene (PCE), and 1,4-dichlorobenzene (CARB, 2005).
- Natural gas contains low concentrations of low molecular weight hydrocarbons (e.g., benzene) and leaking natural gas lines/connections can be a source of VOCs to indoor air.

**Table B-6** summarizes common background sources of VOCs detected in indoor air and includes typical and maximum values that have been observed in air.

### **3.2 Indoor vs. Outdoor Concentrations**

Studies have consistently shown that background concentrations of VOCs are higher in indoor air than in outdoor air (Van Winkle and Scheff, 2001; Hodgson and Levin, 2003; Sexton et al., 2004; CARB, 2005). On average, indoor concentrations were one (Jia and Batterman, 2010) to five (CARB, 2005) orders of magnitude higher than measured outdoor concentrations. This trend is likely due to two primary factors: indoor sources (as discussed above) and lower indoor ventilation compared to outdoor dispersion (Sexton et al., 2004). Studies have also shown that background levels in indoor air are building-specific due to household use and occupant activities (Van Winkle and Scheff, 2001; CARB, 2005).

### **3.3 Indoor Air Background Evaluation**

Six studies were reviewed to evaluate VOC background concentrations in indoor air. These studies included original investigations (Van Winkle and Scheff, 2001; Sexton et al., 2004) and data compilations (Hodgson and Levin, 2003; CARB, 2005; Jia and Batterman, 2010; USEPA,

2011). A summary of the documents reviewed and the background concentrations reported is presented below.

- Van Winkle and Scheff (2001) monitored ten homes at regular intervals for just under a year to evaluate background VOC and polycyclic aromatic hydrocarbons (PAH) concentrations in indoor air. The study excluded homes with smokers. Background concentrations in this study were attributed to mothball storage, air freshener use, and cooking activities.
- Sexton et al. (2004) conducted a study to evaluate personal, indoor, and outdoor air exposures in three different neighborhoods during spring, summer, and fall of 1999. The study excluded homes with smokers and found that concentrations in indoor air were greater than concentrations in outdoor air, and that concentrations in personal air (breathing zone) were greater than concentrations in indoor air. Background concentrations in this study were attributed to outdoor sources, including industry and automotive exhaust, and indoor sources including consumer products and cooking emissions.
- Hodgson and Levin (2003) conducted a review of VOC concentrations measured in North America since 1990. Data collected from studies in which environmental tobacco smoke-specific compounds were reported were excluded from this assessment.
- In 2005, the California Air Resources Board (CARB) prepared a report on indoor air pollution in California. The report was extensive and documented the health effects, costs, sources, and concentrations of indoor air pollutants.
- Jia and Batterman (2010) conducted a review of naphthalene sources and exposures relevant to indoor and outdoor air. This study found that average naphthalene concentrations ranged from 0.02  $\mu\text{g}/\text{m}^3$  to 0.31  $\mu\text{g}/\text{m}^3$  in non-smoker's homes. Naphthalene emission sources include industry, open burning, combustion, and tailpipe emissions. The second largest source is off-gassing from products including deodorizers, repellants (including moth balls), and fumigants.
- In June 2011, the USEPA published a compilation of background indoor air VOC concentrations for North American residences from 1990 through 2005. Studies evaluated in this report were limited to those in which no known or suspected contamination was present below the ground surface unless a proven and effective vapor intrusion mitigation system was in place. The study also excluded data in which smokers were present. This technical report compiled summary statistics (e.g., 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, and 95<sup>th</sup> percentiles, number of samples, percent detection, and reporting limits) for the distribution of indoor air concentrations in thousands of residences that are not expected or known to be at risk of vapor intrusion. The study found that background



VOC concentrations in indoor air are highly variable and that the VOCs most commonly detected in indoor air due to background sources include BTEX and chlorinated solvents.

The impact of smoking was specifically excluded in the studies selected to represent background. However, smoking can greatly affect the quality of indoor air and contribute to concentrations of several petroleum-related compounds (Jenkins et al., 2000). Exclusion of smoking related background may bias the background indoor air data low.

Median indoor air background concentrations for petroleum hydrocarbons are summarized in the table below, and indoor air background concentrations reported in the USEPA study (USEPA, 2011) are shown in **Table B-7**.

**Median Indoor Air Background Concentrations for  
Petroleum Hydrocarbons from Literature Studies**  
(Concentrations reported in  $\mu\text{g}/\text{m}^3$ )

Compound	Van Winkle (2001)	Sexton (2004)	Hodgson and Levin (2003)	USEPA (2011)
Benzene	2.9	1.9	2.78	<RL - 4.7
Ethylbenzene	9.1	1.4	2.3	1 - 3.7
Toluene	3.2	12.3	12.4	4.8 - 24
m,p-Xylene	13.5	4.8	6.1	1.5 - 14
o-Xylene	3.6	1.6	2.3	1.1 - 3.6
Naphthalene	0.47	NR	0.47	<RL - 0.4

NR – Not reported

< RL – Median concentration below method reporting limit

The indoor air concentrations measured at the Site were compared to the literature values summarized by USEPA (USEPA, 2011). The USEPA study did not include raw data for the background data sets, but robust summary statistics were provided. The percentiles calculated from the onsite indoor air concentrations were compared to the background percentile ranges provided in the USEPA report.

**Table B-7** provides the summary statistics (e.g., 50<sup>th</sup>, 75<sup>th</sup>, 90<sup>th</sup>, and 95<sup>th</sup> percentiles), sample sizes, the reporting limits, and percent detections of the background indoor air concentrations

from the USEPA report. **Table B-8** summarizes the summary statistics (e.g., 25<sup>th</sup>, 50<sup>th</sup>, mean, 75<sup>th</sup>, 90<sup>th</sup>, and 95<sup>th</sup> percentiles), sample sizes, and percent detections for concentrations for indoor air samples collected at the Site<sup>2</sup>. These summary statistics show that indoor air concentrations from both data sets are highly variable (range spans an order of magnitude or more).

A comparison of the two data sets (USEPA, 2011 and Site data) is shown on **Figure B-7**. The box and whisker plot for each chemical shows the indoor air concentration distributions for ten compounds that were frequently detected in the indoor air samples at the Site (detection frequencies greater than 95%). The box in these figures shows the interquartile range (i.e., 25<sup>th</sup> to 75<sup>th</sup> percentile) and the bar in the middle of the box is the median value. The whiskers of the plots show the 10<sup>th</sup> and 90<sup>th</sup> percentile concentrations and outlier results are plotted to illustrate the range of detected concentrations. The colored symbols on this plot show the ranges of median, 90<sup>th</sup> percentile, and maximum indoor air concentrations reported in the USEPA report (USEPA, 2011). Open and closed symbols show the lower and upper end of the ranges for these statistics, respectively.

With the exception of 1,2-dichloroethane (1,2-DCA), the Site concentrations were within the background range reported by USEPA. Although 1,2-DCA was outside of the background range reported in the USEPA study, more current studies (Doucette et al., 2010; Kurtz et al., 2010) conclude that this compound has been detected in increasing frequency and higher concentrations since 2004 (i.e., the data considered in the USEPA study [1990 through 2005] did not reflect this more recent increase in indoor air concentrations).

The comparison of Site data with literature background values indicates that VOCs detected in indoor air are within the range of reported background concentrations. This complicates analysis of the vapor intrusion pathway as the indoor air concentrations are more likely reflective of background sources rather than related to sub-slab soil vapor concentrations.

### 3.4 Outdoor Air Background Evaluation

Two studies were identified that report regional background concentrations of VOCs in outdoor air (SCAQMD, 2008; DRI, 2009). Results from these studies were considered for the outdoor air background evaluation.

- The South Coast Air Quality Management District (SCAQMD) conducted a multi-year monitoring and evaluation study for the South Coast Air Basin. Sample collection and analysis for the Multiple Air Toxics Exposure Study III (MATES III) was performed between April 2004 and March 2006. Samples were collected from ten fixed monitoring stations every three days over the course of the study. Two of the monitoring stations

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<sup>2</sup> For the comparison, Table B-8 includes only constituents that are listed in the USEPA (2011) summary and that were detected in indoor air samples collected at the Site.

(West Long Beach and North Long Beach) were located in the general area of the Site. The study provided statistics of the concentrations of detected VOCs for the individual monitoring stations.

- CARB conducted the Harbor Community Monitoring Study (HCMS) to characterize the concentrations of VOCs in the area near the Site. There were 23 monitoring locations in this study; one of these locations was located just south of the Site. Samples were collected in 2007 over four consecutive weeks during each season. The study provided statistics of the concentrations of detected VOCs for the individual monitoring stations.

Average outdoor air background concentrations for petroleum hydrocarbons are summarized in the table below, and outdoor air background concentrations for all VOCs reported in these studies are shown in **Table B-9**.

**Average Outdoor Air Background Concentrations for  
Petroleum Hydrocarbons from Literature Studies**  
(Concentrations reported in  $\mu\text{g}/\text{m}^3$ )

Compound	MATES III North Long Beach		MATES III West Long Beach		HCMS 2007
	Apr. 2004 – Mar. 2005	Apr. 2005 – Mar. 2006	Apr. 2004 – Mar. 2005	Apr. 2005 – Mar. 2006	
Benzene	1.79 ± 0.19	1.53 ± 0.19	1.82 ± 0.26	1.60 ± 0.22	1.50 ± 0.26
Ethylbenzene	0.95 ± 0.13	0.87 ± 0.13	1.17 ± 0.17	0.95 ± 0.13	1.65 ± 0.56
Toluene	6.03 ± 0.75	5.28 ± 0.75	7.46 ± 1.17	5.88 ± 0.87	6.03 ± 0.98
m,p-Xylene	3.69 ± 0.48	2.95 ± 0.43	4.04 ± 0.65	3.12 ± 0.48	5.25 ± 0.65†
o-Xylene	0.82 ± 0.13	0.74 ± 0.17	0.95 ± 0.17	0.82 ± 0.17	
Naphthalene	NR	0.18 ± 0.03	NR	NR	NR

NR – Not reported

† HCMS presented results for Total Xylenes (m,p-Xylene + o-Xylene)

The outdoor air concentrations measured at the Site were compared to the literature values for studies conducted in the region (SCAQMD, 2008; DRI, 2009). **Table B-10** lists the summary statistics (e.g., 25<sup>th</sup>, 50<sup>th</sup>, mean, 75<sup>th</sup>, 90<sup>th</sup>, and 95<sup>th</sup> percentiles), sample sizes, and percent

detections for concentrations for outdoor air samples collected at the Site<sup>3</sup>. These summary statistics show that outdoor air concentrations from both data sets are highly variable (range spans an order of magnitude or more).

A comparison of the two data sets is shown on **Figure B-8**. The box and whisker plot for each chemical shows the outdoor air concentration distributions for eleven compounds reported in the regional studies. The box in these figures shows the interquartile range (i.e., 25<sup>th</sup> to 75<sup>th</sup> percentile) and the bar in the middle of the box is the median value. The whiskers of the plots show the 10<sup>th</sup> and 90<sup>th</sup> percentile concentrations and outlier results are plotted to illustrate the range of detected concentrations. The colored symbols on this plot show the ranges of mean and maximum outdoor air concentrations reported in the regional studies (SCAQMD, 2008; DRI, 2009). Open and closed symbols show the lower and upper end of the ranges for these statistics, respectively.

The concentrations of these constituents detected in samples collected from the Site are within the reported background ranges. The comparison of Site data with literature background values indicates that VOCs detected in outdoor air are reflective of background concentrations.

#### **4. SITE-SPECIFIC VAPOR INTRUSION PATHWAY EVALUATION**

Multiple-lines-of-evidence vapor intrusion evaluations have been presented in the Interim, Follow-up, and Final Phase II Site Characterization reports for properties where indoor air data were collected. These property-specific evaluations considered the following lines of evidence to assess the sources of VOCs detected in indoor air:

- An evaluation of chemicals detected in soil vapor. If a chemical (i) is not detected in soil vapor but detected in indoor air, or (ii) the indoor air concentration is greater than the sub-slab soil vapor concentration, then the VOC detected in indoor air is likely due to a background source (ITRC, 2007).
- Comparison of indoor air and outdoor air concentrations.
- Comparison of indoor air and garage air concentrations.
- Comparison with typical indoor air values reported in the literature.

Based on the evaluations for the individual residential properties, vapor intrusion of chemicals present in the subsurface does not appear to be significant. These evaluations were conducted for each individual property to address questions regarding the spatial variability of the vapor

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<sup>3</sup> For the comparison, Table B-10 includes only constituents that are listed in the regional studies summary and that were detected in outdoor air samples collected at the Site.

intrusion data. Additionally, data were collected throughout the investigation period during different seasons and weather conditions to address questions regarding temporal variability of the vapor intrusion data.

Both indoor air and outdoor air concentrations are within the range reported for relevant background comparison concentrations, which complicates evaluation of the vapor intrusion pathway at this site. As illustrated in **Figure B-9**, indoor air concentrations are potentially affected by (i) emissions from indoor sources, (ii) mixing with the garage air, (iii) mixing with outdoor air, and (iv) vapor intrusion. This section presents statistically rigorous approaches to determine whether an empirical relationship between indoor air and sub-slab soil vapor concentrations can be defined for the Site and supports development of a site-specific vapor intrusion attenuation factor. The relationships among the indoor, outdoor, and garage air results and sub-slab soil vapor results are analyzed using multiple linear regression. This analysis is supplemented with an evaluation of the indoor air and sub-slab soil vapor relationship using single linear regression coupled with a source-strength filtering approach similar to that presented in USEPA (2012).

#### **4.1 Data for Statistical Analysis**

The multiple regression analysis was conducted for ten compounds selected to consider a range of detection frequencies in indoor air, outdoor air, and sub-slab soil vapor samples collected at the Site. The selected compounds include petroleum hydrocarbons (BTEX [m,p-xylene was evaluated separately from o-xylene] and naphthalene), chlorinated hydrocarbons (1,2-DCA, carbon tetrachloride, and PCE) and a trihalomethane (chloroform). Seven of these compounds were detected at the Site at concentrations that exceed indoor air risk-based screening levels (toluene, m,p-xylene, and o-xylene were not detected in indoor air at concentrations exceeding risk-based screening levels). Four of these constituents (naphthalene, chloroform, benzene, and PCE) had the highest detection frequency in sub-slab soil vapor for these COCs at the Site. Statistical evaluation of these ten compounds is a representative sub-set to evaluate the potential vapor intrusion pathway at the Site. The source strength analysis used all compounds for which sub-slab soil vapor concentrations were above the detection limit.

The data sets used in the analyses met the following criteria:

- Analytical results for both air and sub-slab soil vapor samples collected from October 2010 through August 2013.
- Samples where sub-slab soil vapor and indoor air data were collected on consecutive days (typically, sub-slab soil vapor samples were collected following the completion of the 24-hour indoor air sampling event).

- For a given property and sample date, the maximum detected concentrations for (i) indoor air, (ii) garage air, (iii) outdoor air, and (iv) soil vapor were used in the statistical analysis.

The analytical data for all of the COCs for which sub-slab soil vapor concentrations were above detection are presented in **Table B-11** and summary statistics (sample size, detection frequency, minimum and maximum concentration) by COC are provided in **Table B-12**. High detection frequencies generally are reported for indoor air (98% to 100%), garage air (96% to 100%), and outdoor air (70% to 100%) for the representative compounds used in the multiple linear regression analysis. Lower detection frequencies were observed for the sub-slab soil vapor results. To limit the impact of non-detect sub-slab soil vapor results on the statistical analysis, the data sets for the multiple linear regression analysis and source strength analysis generally were limited to those with detected sub-slab soil vapor concentrations. However, for several of the compounds with low sub-slab soil vapor detection frequencies (i.e., 1,2-DCA, benzene, carbon tetrachloride, ethylbenzene, m,p-xylene, and o-xylene), the multiple regression analysis used the complete data set. If a constituent was not detected in any of the samples for a specific medium on a given sample date, the minimum analytical reporting limit was used in the analysis.

## 4.2 Multiple Linear Regression Approach

Multiple linear regression, as depicted in **Figure B-9**, was used to model the relationship between a variable of interest (called a response variable, which in this case is indoor air concentration) and explanatory variables (in this case, sub-slab soil vapor, garage air, and outdoor air concentrations). The relationship between the response and explanatory variables is fit to a linear equation using the observed data. Implicit in this approach is that the response variable is assumed to be linearly related to the explanatory variables. The assumption of linearity is reasonable considering indoor air concentrations resulting from mixing with external air (outdoor, garage, and sub-slab) can be estimated using simple algebraic relationships. Thus, a linear correlation is expected between indoor air and any of the explanatory (outdoor air, garage air, or sub-slab soil vapor concentrations) that are responsible for the observed indoor air concentrations. An additional term is included in the multiple linear regression equation to account for emissions from indoor air sources. More formally, the multiple linear regression equation for each compound is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon,$$

where

Y is the log-transformed indoor air concentration;

X<sub>1</sub> is the log-transformed garage concentration;

$X_2$  is the log-transformed outdoor air concentration;

$X_3$  is the log-transformed sub-slab soil vapor concentration;

$\beta_0$  is the intercept term, or the mean value of indoor air concentration when all explanatory variables are set to zero, and is representative of indoor sources;

$\beta_1$  represents the effect of a 1% increase in garage concentration on the mean indoor air concentration, while holding outdoor air and soil gas concentrations fixed;

$\beta_2$  represents the effect of a 1% increase in outdoor air concentration on the mean indoor air concentration, while holding garage and soil gas concentrations fixed;

$\beta_3$  represents the effect of a 1% increase in soil gas concentration on the mean indoor air concentration, while holding garage and outdoor air concentrations fixed; and

$\epsilon$  represents the residual or error term which quantifies the deviations of the observed value from the predicted value obtained from the linear regression equation.

Note that  $\epsilon$  is assumed to be independent and identically distributed with mean zero and constant variance.

Since the regression coefficients ( $\beta$  parameters) associated with each explanatory variable are unknown, they are estimated using a method of least squares. Statistical tests, known as hypothesis tests, are then conducted to determine whether these estimates are statistically different from zero. If the estimate is statistically significant (i.e., the estimate is statistically different from zero), then the value and sign of the estimate represent the magnitude and direction of the effect of that explanatory variable on the mean indoor air concentration.

Additionally, the coefficient of determination ( $R^2$  value) is a measure of the linear association between the response variable and the explanatory variables and is used to assess the model fit. Essentially, the  $R^2$  value quantifies the overall proportion of variability in indoor air concentrations that can be explained by garage, outdoor air, and soil gas concentrations. The greater the  $R^2$  value, the stronger the association between the indoor air concentration and the garage, outdoor air, and soil gas concentrations and the better the linear regression model fit. Conversely, if the  $R^2$  value is low, then there is generally a poor correlation between the indoor air concentration and the garage, outdoor air, and soil gas concentrations, and we would conclude that the variability in indoor air concentrations is due to variability in contributions from indoor sources (i.e., variability in  $\beta_0$ ).

For each compound, a multiple linear regression was performed on the log-transformed data sets. Log-transformation addresses the underlying distribution of the data and improves the statistical properties of the hypothesis testing since the variables themselves will exhibit normality, and

will ensure that the other model assumptions (i.e., errors are normally distributed and have constant variance) are better met. Log transforms of environmental data are frequently required because environmental data are often log-normally distributed (Gilbert, 1987).

### 4.3 Multiple Linear Regression Results

The multiple linear regression analysis statistically evaluated the log-transformed data sets to calculate coefficient estimates which characterize the log-linear relationship between the paired concentrations (e.g., increases in outdoor air concentrations result in an increase in indoor air concentrations). **Attachment A** contains the correlation plots for the log-transformed data sets for each compound. The top rows of these figures show the correlation plots of indoor air concentrations to (i) garage air concentrations, (ii) outdoor air concentrations, and (iii) sub-slab soil vapor concentrations. These plots can be used to qualitatively assess the relationships between measured concentrations in the different media.

- For the six compounds with low detection frequencies in sub-slab soil vapor (1,2 dichloroethane, benzene, carbon tetrachloride, ethylbenzene, m,p-xylene, and o-xylene), the sub-slab soil vapor versus indoor air correlation plots are predominantly comprised of results where the COC was not detected in sub-slab soil vapor (shown in these figures as low concentration soil vapor concentration bands). Since the COC was not detected in sub-slab soil vapor for these points, the indoor air concentrations are representative of background levels.
- For constituents with higher detection frequencies (chloroform, naphthalene, tetrachloroethene, and toluene), indoor air concentrations are representative of background levels. Note that the ranges of indoor air concentrations for samples with low sub-slab soil vapor concentrations are similar to those when higher sub-slab soil vapor concentrations were detected.

These figures indicate ranges of background concentrations for each COC that are likely due to variability in outdoor air concentrations and/or property-specific product use. Consequently, it is concluded that the measured indoor air concentrations at the Site are indistinguishable from background, even for properties with higher sub-slab soil vapor concentrations.

The multiple linear regression results are shown in **Table B-13**. The coefficient estimates for  $\beta_1$  (garage air to indoor air) and  $\beta_2$  (outdoor air to indoor air) were statistically significant, indicating that the indoor air concentrations are related to the garage and outdoor air concentrations<sup>4</sup>. The coefficient estimates for  $\beta_3$  (sub-slab soil vapor to indoor air) were not statistically significant for most compounds, but statistically significant coefficient estimates

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<sup>4</sup> Note that the outdoor air to garage air coefficient estimate for 1,2-DCA is not statistically significant.



## APPENDIX B

### Vapor Intrusion Evaluation

were seen for chloroform and naphthalene. Note that the sub-slab soil vapor to indoor air correlation coefficient for naphthalene is less than 0. This indicates an inverse relationship between measured concentrations in these media. The calculated coefficient of -0.10 for naphthalene indicates that the contribution to indoor air would be lower for cases with higher sub-slab soil vapor concentrations. This inverse relationship is not consistent with the vapor intrusion conceptual model, and consequently, it is concluded that the correlation between the sub-slab soil vapor and indoor air concentrations for naphthalene is not a result of vapor intrusion.

The magnitude of the coefficient estimate indicates the relative contribution to indoor air concentrations from the different explanatory variables. For example, for carbon tetrachloride, the outdoor air coefficient was higher than that for garage air; this indicates that carbon tetrachloride detected in outdoor air has a larger effect on indoor air concentrations than contributions of this compound detected in garage air. Conversely, 1,2-DCA has a higher coefficient for garage air and no significant correlation for outdoor air, which indicates that 1,2-DCA detected in garage air has a larger effect on indoor air concentrations than contributions from outdoor air. Also, note that the sub-slab soil vapor to indoor air correlation coefficient for naphthalene is much less than the garage air to indoor air and outdoor air to indoor air correlation coefficients, indicating that the inverse relationship for sub-slab soil vapor to indoor air identified for naphthalene is small relative to the garage or outdoor air concentrations.

The amount of variability ( $R^2$ ) in indoor air concentrations explained by garage, outdoor air, and soil vapor concentrations ranged from 18% (chloroform) to 78% (carbon tetrachloride) (**Table B-13**). The regressions for benzene and carbon tetrachloride showed the highest  $R^2$  values (64% to 78%, respectively). Therefore, a majority of the variability of indoor air concentrations for these compounds is explained by the garage air and outdoor air concentrations. The regressions performed for the remaining compounds included in the multiple linear regression analysis ranged from 18% to 47%; this suggests that indoor sources have a larger effect on the variability of indoor air concentrations for these constituents. Note that the  $R^2$  values for chloroform and naphthalene were the lowest for the COCs evaluated. Even though a statistically significant sub-slab soil vapor to indoor air coefficient was identified for these constituents, the low  $R^2$  values indicate that the multiple linear regression model does not provide a good fit for these data (i.e., the indoor air concentrations for these compounds are not well characterized by garage, outdoor air, and soil vapor concentrations, and are predominantly influenced by indoor sources).

Overall, the multiple linear regression analysis indicates that there is a poor correlation between sub-slab soil vapor and indoor air concentrations. Statistically significant correlations between sub-slab soil vapor and indoor air concentrations are not shown for most of the COCs included in the evaluation. Statistically significant sub-slab soil vapor to indoor air coefficients are shown for chloroform and naphthalene; however, based on the low  $R^2$  value and negative coefficient calculated for naphthalene, the contribution of sub-slab soil vapor to indoor air concentrations are not considered to be significant for these compounds.

Finally, model selection methods were used to evaluate the appropriateness of the selected linear regression model. For the COCs where the multiple linear regression analysis concluded that the soil vapor variables were not statistically significant, the data were re-fit using a reduced model which excludes the soil gas term (i.e., indoor air concentrations were modeled as a function of garage and outdoor air only or  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \epsilon$ ). In order to evaluate the effect of the removal of this variable, a statistical test (an F-test) was conducted to compare the multiple linear regression analysis results using the full and reduced models. This reduced-model test was not conducted for chloroform or naphthalene, because the full model indicated that the sub-slab soil vapor coefficient was statistically significant. **Table B-14** provides a summary of the full and reduced model fits and the results of the F-test for the comparison of the two models. The regression coefficients and  $R^2$  values for the reduced models are almost identical to those of the full model. Additionally, the results of the F-tests indicate that the reduced model (i.e., excluding sub-slab soil vapor concentrations as an explanatory variable) provide the same fit as the full model. In other words, for the COCs evaluated with the reduced model, the sub-slab soil vapor concentrations do not appear to be a significant influence on indoor air concentrations.

The multiple regression analysis results indicate that indoor air concentrations are generally correlated with outdoor or garage air concentrations and/or largely influenced by indoor sources. The statistical analysis indicates that the sub-slab soil vapor concentrations do not have a significant effect on indoor air concentrations as compared to these other sources. This evaluation corroborates the results of the comparison of indoor and outdoor air concentrations to the reported ranges of background air concentrations.

#### 4.4 Source Strength Analysis Approach

The source strength analysis approach presented in this section was used to determine if an empirical relationship between indoor air and sub-slab soil vapor concentrations can be defined when background influences on the indoor air concentrations are accounted for and minimized. This requires considering how background indoor air concentrations influence the empirical attenuation factor, which is shown in the equation below (USEPA, 2012):

$$AF_{EMP} = \frac{(C_{IA-VI} + C_{IA-BKGD})}{C_{SS}} = AF_{VI} + \frac{C_{IA-BKGD}}{C_{SS}}$$

where

$AF_{EMP}$  represents the empirical attenuation factor,

$AF_{VI}$  represents the attenuation factor for vapor intrusion in the absence of indoor sources,

$C_{IA-BKGD}$  represents the indoor air concentration due to background indoor sources,

$C_{IA-VI}$  represents the indoor air concentration due to vapor intrusion, and

$C_{SS}$  represents the sub-slab soil vapor concentration.

When background indoor air concentrations are equivalent to or greater than the concentration contributed by vapor intrusion, the empirical attenuation factor will be biased high relative to the vapor intrusion attenuation factor,  $AF_{VI}$ , by the contribution of background sources to indoor air. The bias varies in proportion to the relative contribution of background sources to the total indoor air concentration. This equation shows that the empirical attenuation factor is most likely to represent the attenuation due to vapor intrusion when the indoor air concentration from vapor intrusion is substantially greater than the background indoor air concentration, which is most likely to occur when subsurface vapor concentrations are high. As the background due to outdoor ambient air was quantified in this study, the outdoor air concentration was subtracted from the indoor air concentration when evaluating the sub-slab soil vapor to indoor air relationship.

#### 4.5 Source Strength Analysis Results

**Figure B-10** shows the relationship between the empirical attenuation factor and source strength (i.e., sub-slab soil vapor concentration) for all compounds detected in sub-slab soil vapor<sup>5</sup>. This figure shows significant scatter in the empirical attenuation factors, particularly at low source concentrations (including values greater than 1) which is a result of background effects. Empirical attenuation factors for non-chlorinated solvents (including compounds such as acetone, ethanol, and isopropyl alcohol) are higher than values for chlorinated and petroleum compounds. Due to the higher indoor air background concentrations for these common solvents, the empirical attenuation factors for these compounds are significantly impacted by background sources even for cases with higher source strengths.

As shown in **Figure B-11**, there is less variability for the results for sample pairs with higher sub-slab soil vapor concentrations (i.e., greater than  $100 \mu\text{g}/\text{m}^3$ ). The trends for petroleum and chlorinated compounds are similar and indicate empirical attenuation factors less than 0.001 with increasing source strength. A decreasing trend is evident in these data. This indicates that background sources are still affecting the empirical attenuation factor. However, this analysis suggests that a conservative attenuation factor of 0.001 may be used as a bounding estimate for corrective action planning.

An alternate approach to filter out background effects on the vapor intrusion data is to identify a data set of paired indoor air (corrected for outdoor air) and sub-slab soil vapor concentrations that show a statistically significant linear relationship. The rationale for this approach is that background sources result in a non-linear relationship between indoor air and sub-slab soil vapor.

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<sup>5</sup> Results for three samples with high sub-slab soil vapor concentrations ( $>2,000 \mu\text{g}/\text{m}^3$ ) are not shown on this figure. The empirical attenuation factors for these three samples range from  $5\text{E-}5$  to  $3\text{E-}4$ .

Plots of the relationships and correlations between indoor air and sub-slab soil vapor concentrations are shown in Attachment B and the calculated linear regression correlation coefficients are summarized in the table below.

**Correlation Coefficients for  
Compounds with Detected Sub-slab Soil Vapor Concentrations**

<b>Compound Type</b>	<b>All Data</b>	<b><math>AF_{EMP} 0.01</math></b>	<b><math>AF_{EMP} 0.005</math></b>	<b><math>AF_{EMP} 0.002</math></b>	<b><math>AF_{EMP} 0.001</math></b>
<b>All Compounds</b>	-0.07	0.29	0.34	0.65	0.72
<b>Chlorinated Compounds</b>	-0.13	0.25	0.49	0.67	0.78
<b>Petroleum Compounds</b>	-0.15	0.33	0.34	0.64	INS
<b>Non-Chlorinated Solvents</b>	-0.18	-1.7	-0.91	INS	INS

INS – Insufficient Data

Correlation is obtained only for high sub-slab soil vapor concentrations, at attenuation factors of 0.001 or less. Higher correlation coefficients are calculated for chlorinated compounds and slightly lower values for petroleum compounds. However, the correlations for non-chlorinated compounds are poor. These results are consistent with the conclusion that  $AF_{VI} = 0.001$  may be used as a conservative upper-bound estimate of the vapor intrusion attenuation factor that was obtained by evaluating the attenuation factor as a function of sub-slab soil vapor concentration.

## 5. SUMMARY

The results of this multiple-lines-of-evidence evaluation of the vapor intrusion pathway at the Site indicate:

- Indoor air and outdoor air concentrations of VOCs detected at the properties evaluated are generally indistinguishable from background and within the typical ranges of background concentrations reported in the literature.
- The multiple regression analysis results indicate that indoor air concentrations are generally correlated with outdoor or garage air concentrations and/or largely influenced by indoor sources. The statistical analysis indicates that the sub-slab soil vapor

concentrations do not have a significant effect on indoor air concentrations as compared to these other sources.

- Spatial and temporal variability are evident in the indoor air results. Such variability is typically observed in vapor intrusion data owing to differences in building characteristics, owner/occupant habits, and seasonal variations in temperature and other climatic conditions. This analysis also indicates that the presence of indoor sources of VOCs likely contributes to the variability in indoor air concentrations detected at the Site.
- The multiple linear regression analyses for benzene and carbon tetrachloride showed the highest correlation values, indicating that a large proportion of the variability in indoor air concentrations for those constituents can be explained by garage and outdoor air concentrations. The regressions for other constituents showed lower correlation values and, therefore, weaker linear relationships with garage and outdoor air concentrations and sub-slab soil vapor, which suggests that the variability in indoor air concentrations is predominantly due to indoor sources.
- Evaluation of the relationship between the empirical attenuation factor and sub-slab soil vapor concentrations (i.e., source strength) shows that there is less variability in the results for sample pairs with higher sub-slab soil vapor concentrations (i.e., greater than  $100 \mu\text{g}/\text{m}^3$ ); although a decreasing trend with increasing source strength is evident even at these higher sub-slab soil vapor concentrations. By minimizing the influence of background sources on indoor air concentrations, a linear trend is observed between indoor air and increasing sub-slab soil vapor concentrations for petroleum and chlorinated compounds for empirical attenuation factors less than 0.001. This analysis suggests that an attenuation factor of 0.001 may be used as a conservative upper-bound estimate for corrective action planning.

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**Tables**

Table B-1 – Sub-slab Soil Vapor and Indoor Air Sampling Properties

Table B-2 – Sub-slab Soil Vapor Analytical Results (CD Only)

Table B-3 – Sub-slab Soil Vapor Risk-Based Screening Level Evaluation

Table B-4 – Indoor, Garage, and Outdoor Air Analytical Results (CD Only)

Table B-5 – Statistical Summary of Air Analytical Results

Table B-6 – Background Sources of Chemicals in Indoor Air

Table B-7 – USEPA Indoor Air Background Summary

Table B-8 – Summary Statistics of Site Indoor Air Analytical Results

Table B-9 – Literature Summary of Regional Outdoor Air Background Concentrations

Table B-10 – Summary Statistics of Site Outdoor Air Analytical Results

Table B-11 – Multiple Linear Regression Analysis Input Data

Table B-12 – Multiple Linear Regression Analysis Input Data Summary Statistics

Table B-13 – Multiple Linear Regression Analysis Results

Table B-14 – Full and Reduced Model Multiple Linear Regression Analysis Results

**Figures**

Figure B-1 – Vapor Intrusion Evaluation Properties

Figure B-2 – Vapor Intrusion Evaluation Sampling Frequency

Figure B-3 – Benzene Sub-slab Soil Vapor Analytical Results

Figure B-4 – Naphthalene Sub-slab Soil Vapor Analytical Results

Figure B-5 – Benzene Indoor Air Analytical Results

Figure B-6 – Naphthalene Indoor Air Analytical Results



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Figure B-7 – Comparison of Indoor Air Results to Literature Background Concentrations

Figure B-8 - Comparison of Outdoor Air Results to Literature Background Concentrations

Figure B-9 – Multiple Linear Regression Conceptual Model

Figure B-10 – Correlation Between Empirical Attenuation Factor and Sub-Slab Soil Vapor Concentration – All Data

Figure B-11 – Correlation Between Empirical Attenuation Factor and Sub-Slab Soil Vapor Concentration – Sub-Slab Soil Vapor Concentrations Greater than  $100 \mu\text{g}/\text{m}^3$

**Attachments**

Attachment A – Correlation Plots for Log-Transformed Data

Attachment B – Single Correlation Plots

APPENDIX B  
Vapor Intrusion Evaluation

TABLES

Table B-1  
Indoor Air Sample Locations Through August 31, 2013  
Former Kast Property  
Carson, California

Address	Sample Date	
24401 MARBELLA AVE	3/28/2012	
24402 NEPTUNE AVE	10/3/2012	4/24/2013
24402 PANAMA AVE	12/20/2012	5/13/2013
24402 RAVENNA AVE	12/8/2010	5/24/2012
24403 NEPTUNE AVE	11/8/2012	4/23/2013
24403 RAVENNA AVE	3/27/2013	
24405 MARBELLA AVE	3/21/2012	
24406 MARBELLA AVE	3/8/2012	8/14/2013
24406 NEPTUNE AVE	11/12/2010	1/25/2012
24406 PANAMA AVE	8/15/2012	6/6/2013
24409 NEPTUNE AVE	5/3/2012	7/10/2013
24409 RAVENNA AVE	3/20/2013	8/8/2013
24410 PANAMA AVE	7/18/2012	
24411 MARBELLA AVE	4/26/2012	
24411 PANAMA AVE	12/13/2012	5/6/2013
24413 NEPTUNE AVE	10/10/2012	5/30/2013
24413 RAVENNA AVE	9/19/2012	5/9/2013
24416 NEPTUNE AVE	7/12/2012	
24416 PANAMA AVE	5/17/2012	
24416 RAVENNA AVE	1/31/2013	7/18/2013
24419 NEPTUNE AVE	8/2/2012	5/28/2013
24419 RAVENNA AVE	6/14/2012	4/11/2013
24420 PANAMA AVE	12/6/2012	7/31/2013
24421 PANAMA AVE	3/13/2013	7/22/2013
24422 MARBELLA AVE	7/11/2012	
24422 NEPTUNE AVE	1/19/2011	8/7/2013
24422 RAVENNA AVE	12/19/2012	6/20/2013
24423 MARBELLA AVE	6/20/2012	
24423 NEPTUNE AVE	10/11/2012	5/7/2013
24423 RAVENNA AVE	10/25/2012	7/17/2013
24426 MARBELLA AVE	2/23/2012	
24426 NEPTUNE AVE	10/29/2010	4/18/2013
24426 PANAMA AVE	12/5/2012	6/13/2013
24426 RAVENNA AVE	2/27/2013	7/16/2013
24427 MARBELLA AVE	4/5/2012	
24427 PANAMA AVE	5/23/2013	
24429 NEPTUNE AVE	1/13/2011	8/6/2013
24429 RAVENNA AVE	7/29/2013	
24430 PANAMA AVE	11/29/2012	5/6/2013
24431 PANAMA AVE	1/16/2013	5/28/2013
24432 MARBELLA AVE	3/15/2012	
24433 MARBELLA AVE	3/1/2012	
24436 PANAMA AVE	6/27/2012	

Table B-1  
Indoor Air Sample Locations Through August 31, 2013  
Former Kast Property  
Carson, California

Address	Sample Date	
24502 MARBELLA AVE	5/3/2012	8/15/2013
24502 NEPTUNE AVE	1/24/2013	7/11/2013
24502 PANAMA AVE	1/17/2013	
24502 RAVENNA AVE	10/6/2010	7/25/2012
24503 MARBELLA AVE	3/29/2012	
24503 NEPTUNE AVE	4/12/2012	6/26/2013
24503 PANAMA AVE	8/9/2012	
24503 RAVENNA AVE	11/7/2012	
24506 MARBELLA AVE	3/14/2012	7/1/2013
24508 NEPTUNE AVE	1/27/2011	
24508 PANAMA AVE	4/25/2012	
24508 RAVENNA AVE	3/28/2013	
24509 NEPTUNE AVE	7/5/2012	3/13/2013
24509 PANAMA AVE	2/6/2013	6/27/2013
24509 RAVENNA AVE	4/11/2012	8/14/2013
24512 MARBELLA AVE	1/19/2012	
24512 NEPTUNE AVE	7/25/2013	
24512 PANAMA AVE	11/14/2012	6/12/2013
24513 NEPTUNE AVE	8/1/2012	6/4/2013
24513 RAVENNA AVE	5/24/2012	7/24/2013
24516 MARBELLA AVE	5/23/2012	
24517 MARBELLA AVE	3/23/2012	8/19/2013
24518 NEPTUNE AVE	4/25/2013	7/15/2013
24518 RAVENNA AVE	7/11/2012	
24519 NEPTUNE AVE	6/28/2012	
24519 PANAMA AVE	6/5/2013	
24522 MARBELLA AVE	4/19/2012	
24522 NEPTUNE AVE	4/4/2012	6/5/2013
24522 PANAMA AVE	3/21/2013	
24522 RAVENNA AVE	8/22/2012	5/20/2013
24523 MARBELLA AVE	4/26/2012	8/27/2013
24523 NEPTUNE AVE	10/3/2012	2/21/2013
24523 RAVENNA AVE	8/23/2010	3/24/2011
24526 MARBELLA AVE	4/18/2012	
24528 NEPTUNE AVE	3/7/2012	8/19/2013
24529 NEPTUNE AVE	3/1/2012	8/22/2013
24529 PANAMA AVE	5/16/2012	
24529 RAVENNA AVE	8/17/2011	8/1/2013
24532 MARBELLA AVE	4/4/2012	8/22/2013
24532 NEPTUNE AVE	2/28/2013	6/18/2013
24532 PANAMA AVE	5/9/2012	8/20/2013
24532 RAVENNA AVE	11/15/2012	7/30/2013
24533 NEPTUNE AVE	3/6/2013	7/2/2013

Table B-1  
Indoor Air Sample Locations Through August 31, 2013  
Former Kast Property  
Carson, California

Address	Sample Date	
24533 PANAMA AVE	9/19/2012	7/23/2013
24533 RAVENNA AVE	9/26/2012	8/26/2013
24602 MARBELLA AVE	5/31/2012	8/26/2013
24602 NEPTUNE AVE	3/3/2011	6/28/2012
24602 RAVENNA AVE	10/4/2012	4/9/2013
24603 MARBELLA AVE	1/14/2010	10/14/2010
24603 NEPTUNE AVE	3/6/2013	7/17/2013
24603 PANAMA AVE	10/18/2012	
24603 RAVENNA AVE	5/31/2012	
24606 MARBELLA AVE	1/12/2012	
24608 NEPTUNE AVE	5/17/2012	8/29/2013
24608 PANAMA AVE	4/5/2012	
24608 RAVENNA AVE	5/16/2012	8/21/2013
24609 NEPTUNE AVE	12/9/2010	5/2/2013
24609 PANAMA AVE	2/17/2011	
24609 RAVENNA AVE	9/20/2012	4/29/2013
24612 MARBELLA AVE	5/9/2012	
24612 NEPTUNE AVE	3/10/2011	8/12/2013
24612 PANAMA AVE	1/24/2013	5/16/2013
24612 RAVENNA AVE	10/31/2012	6/24/2013
24613 MARBELLA AVE	10/10/2012	4/18/2013
24613 NEPTUNE AVE	5/10/2012	8/28/2013
24613 PANAMA AVE	2/9/2011	9/12/2012
24613 RAVENNA AVE	5/19/2011	
24616 MARBELLA AVE	3/17/2011	8/5/2013
24617 MARBELLA AVE	5/2/2012	
24618 NEPTUNE AVE	1/26/2011	7/26/2012
24618 PANAMA AVE	4/18/2012	
24618 RAVENNA AVE	2/14/2013	6/24/2013
24619 NEPTUNE AVE	7/12/2012	
24619 PANAMA AVE	2/10/2011	12/7/2011
24619 RAVENNA AVE	2/28/2013	7/18/2013
24622 MARBELLA AVE	11/15/2012	6/6/2013
24622 NEPTUNE AVE	3/29/2012	8/20/2013
24623 MARBELLA AVE	1/27/2011	
24623 NEPTUNE AVE	3/30/2011	
24627 MARBELLA AVE	5/10/2012	
24628 MARBELLA AVE	6/22/2011	10/26/2011
24628 NEPTUNE AVE	2/6/2013	6/18/2013
24629 NEPTUNE AVE	2/2/2011	
24632 NEPTUNE AVE	2/7/2013	8/8/2013
24700 MARBELLA AVE	3/14/2013	
24702 PANAMA AVE	2/23/2011	6/11/2013

Table B-1  
Indoor Air Sample Locations Through August 31, 2013  
Former Kast Property  
Carson, California

Address	Sample Date	
24703 MARBELLA AVE	4/19/2012	7/10/2013
24703 NEPTUNE AVE	4/25/2013	
24703 RAVENNA AVE	3/7/2013	7/23/2013
24706 MARBELLA AVE	2/20/2013	6/25/2013
24706 RAVENNA AVE	4/24/2013	
24707 MARBELLA AVE	9/6/2012	4/17/2013
24708 PANAMA AVE	8/15/2012	5/14/2013
24709 NEPTUNE AVE	8/9/2012	5/21/2013
24709 PANAMA AVE	3/7/2012	6/26/2013
24709 RAVENNA AVE	3/20/2013	8/13/2013
24710 MARBELLA AVE	5/2/2012	
24712 NEPTUNE AVE	1/17/2013	6/11/2013
24712 PANAMA AVE	2/24/2011	
24712 RAVENNA AVE	6/9/2011	
24713 MARBELLA AVE	3/7/2013	7/29/2013
24713 PANAMA AVE	4/4/2013	
24713 RAVENNA AVE	7/31/2013	
24715 NEPTUNE AVE	2/17/2011	8/6/2013
24716 MARBELLA AVE	5/23/2012	7/24/2013
24716 RAVENNA AVE	2/29/2012	
24717 MARBELLA AVE	7/25/2012	5/22/2013
24718 NEPTUNE AVE	2/23/2012	
24718 PANAMA AVE	10/17/2012	5/15/2013
24719 NEPTUNE AVE	7/18/2012	
24719 PANAMA AVE	9/27/2012	
24719 RAVENNA AVE	11/28/2012	
24722 MARBELLA AVE	6/6/2012	4/10/2013
24722 NEPTUNE AVE	4/12/2012	
24722 PANAMA AVE	4/25/2012	
24722 RAVENNA AVE	11/8/2012	5/1/2013
24723 MARBELLA AVE	6/20/2012	
24723 RAVENNA AVE	11/7/2012	4/22/2013
24725 NEPTUNE AVE	6/21/2012	
24726 MARBELLA AVE	12/13/2012	
24726 RAVENNA AVE	12/19/2012	
24728 NEPTUNE AVE	5/30/2013	
24728 PANAMA AVE	11/1/2012	6/17/2013
24729 NEPTUNE AVE	10/18/2012	
24729 RAVENNA AVE	8/23/2012	6/19/2013
24732 MARBELLA AVE	1/10/2013	5/22/2013
24732 NEPTUNE AVE	3/9/2011	
24732 PANAMA AVE	6/13/2012	
24732 RAVENNA AVE	6/21/2012	

Table B-1  
Indoor Air Sample Locations Through August 31, 2013  
Former Kast Property  
Carson, California

Address	Sample Date	
24733 MARBELLA AVE	6/7/2012	4/3/2013
24733 PANAMA AVE	2/20/2013	7/22/2013
24733 RAVENNA AVE	7/26/2012	
24735 NEPTUNE AVE	11/14/2012	6/10/2013
24736 RAVENNA AVE	6/3/2013	
24737 MARBELLA AVE	12/6/2012	5/23/2013
24738 NEPTUNE AVE	2/22/2012	8/27/2013
24738 PANAMA AVE	9/6/2012	6/10/2013
24739 NEPTUNE AVE	9/20/2012	4/29/2013
24739 PANAMA AVE	10/25/2012	6/12/2013
24739 RAVENNA AVE	3/2/2011	7/2/2013
24741 MARBELLA AVE	6/14/2012	
24743 RAVENNA AVE	2/13/2013	7/9/2013
24744 MARBELLA AVE	3/14/2012	
24748 RAVENNA AVE	9/13/2012	4/15/2013
24749 RAVENNA AVE	12/16/2010	8/5/2013
24752 RAVENNA AVE	7/19/2012	
24803 NEPTUNE AVE	1/31/2013	7/11/2013
24803 PANAMA AVE	1/30/2013	8/7/2013
24809 NEPTUNE AVE	7/19/2012	
24809 PANAMA AVE	3/23/2012	
24812 PANAMA AVE	12/5/2012	4/30/2013
24813 PANAMA AVE	8/22/2012	6/3/2013
24815 NEPTUNE AVE	3/28/2012	
24818 PANAMA AVE	6/7/2012	3/28/2013
24819 PANAMA AVE	4/20/2011	8/21/2013
24822 PANAMA AVE	6/19/2013	
24828 PANAMA AVE	9/12/2012	4/15/2013
24829 PANAMA AVE	5/8/2013	
24832 PANAMA AVE	9/27/2012	5/15/2013
24833 PANAMA AVE	11/28/2012	5/8/2013
24838 PANAMA AVE	5/7/2013	
24904 NEPTUNE AVE	9/13/2012	6/17/2013
24912 NEPTUNE AVE	3/15/2012	
301 244TH ST	1/30/2013	6/25/2013
305 244TH ST	10/17/2012	4/23/2013
317 244TH ST	3/23/2011	
321 244TH ST	3/21/2013	8/1/2013
327 244TH ST	2/13/2013	7/30/2013
331 244TH ST	8/29/2012	4/30/2013
337 244TH ST	11/11/2010	
341 244TH ST	8/1/2012	6/4/2013
344 249TH ST	1/23/2013	5/13/2013

Table B-1  
Indoor Air Sample Locations Through August 31, 2013  
Former Kast Property  
Carson, California

Address	Sample Date	
345 249TH ST	11/1/2012	4/22/2013
347 244TH ST	12/20/2012	5/9/2013
348 248TH ST	8/25/2010	1/12/2011
348 249TH ST	8/16/2012	
351 244TH ST	10/22/2010	4/11/2013
352 249TH ST	2/9/2011	
353 249TH ST	2/3/2011	7/9/2013
354 248TH ST	6/13/2012	
357 244TH ST	11/29/2012	6/20/2013
357 249TH ST	8/2/2012	6/13/2013
358 249TH ST	3/8/2012	8/28/2013
360 248TH ST	7/5/2012	
361 244TH ST	11/11/2010	8/13/2013
362 249TH ST	2/27/2013	
363 249TH ST	7/25/2013	
364 248TH ST	4/3/2013	
367 249TH ST	10/24/2012	5/1/2013
368 249TH ST	8/8/2012	5/20/2013
373 249TH ST	4/11/2012	
374 248TH ST	10/4/2012	4/8/2013
377 244TH ST	6/27/2012	
377 249TH ST	8/23/2012	5/14/2013
378 249TH ST	5/11/2011	2/23/2012
383 249TH ST	6/6/2012	4/17/2013
402 249TH ST	3/21/2012	7/1/2013
412 249TH ST	9/26/2012	5/21/2013





Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units		Oxygen/Argon		Carbon Dioxide		Acetone		Naphthalene		Ethanol		2-Butanone (Methyl Ethyl Ketone)		Chloroform		Tetrachloro-ethene		Toluene		Benzene		Freon 12		Methane	
					Oxygen MOL %	Argon MOL %	MOL %	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	MOL %	MOL %	MOL %	UG/M3	UG/M3
R24403SVF	24403 RAVENNA AVE	2013-03-28	10:26	Front	21			0.27	58	1.2 J, b	< 9.1	30	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 15										
R24403SVS	24403 RAVENNA AVE	2013-03-28	10:26	Front		21.7		0.29	< 20 U	< 0.85 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 0.16 U	< 0.12	< 20 U										
M24405SVF	24405 MARBELLA AVE	2010-11-10	12:36	Front	21		< 0.025	24	24	0.91 J, b	< 9.3	< 3.6	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 3.8										
M24405SVH	24405 MARBELLA AVE	2010-11-10	14:10	House	21		0.024	21	21	0.43 J, b	< 8.8	< 3.5	< 5.7	120	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6										
M24405 SVF	24405 MARBELLA AVE	2012-03-22	15:21	Front	21		0.03	22	22	0.87 J, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00017	< 0.084	< 10										
M24405 SVH	24405 MARBELLA AVE	2012-03-22	15:27	House	21		0.1	< 17	< 17	6.3 J, b	< 5.5	< 8.6	< 3.6	< 8	< 2.8	< 2.3	< 3.8	< 0.00015	< 0.073	< 9.1										
M244065VG	24406 MARBELLA AVE	2010-09-17	08:58	Back	18		1.2	25	25	1.4 J, b	< 8.9	3.9	< 5.8	< 7.9	< 4.5	< 3.7	< 5.9	< 0.00024	< 0.12	< 3.7										
M244065VG	24406 MARBELLA AVE	2010-09-17	09:39	Garage	20		< 0.023	89	89	1.6 J, b	11	5.2	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6										
M244065VGD	24406 MARBELLA AVE	2010-09-17	09:39	Garage	20		< 0.023	140	140	1.7 J, b	20	11	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6										
M244065VH	24406 MARBELLA AVE	2010-09-17	10:22	House	18		1.1	20	20	1.4 J, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	8.7	< 5.8	< 0.00023	< 0.12	< 3.6										
M244065VH	24406 MARBELLA AVE	2012-03-09	15:13	Garage	21		0.24	< 19	< 19	1.8 J, b	< 6.1	< 9.5	4	< 5.5	< 3	< 2.6	< 4	< 0.00021	< 0.1	< 10										
M244065VH	24406 MARBELLA AVE	2012-03-09	15:40	House	21		0.44	< 19	< 19	1.4 J, b	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4	< 0.00021	< 0.1	< 10										
M244065VB	24406 MARBELLA AVE	2012-03-09	16:07	Back	21		1	27	27	1.6 J, b	12	< 8.8	< 3.6	< 5	22 J	< 2.4	< 3.7	< 0.00021	< 0.11	< 9.3										
M244065VBD	24406 MARBELLA AVE	2012-03-09	16:07	Back	20		1.2	< 19	< 19	1.6 J, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00022	< 0.11	< 9.8										
M244065VB	24406 MARBELLA AVE	2013-08-15	13:41	Back	20		2	30	30	0.97 J, b	< 9.4	< 15	< 6.1	< 8.4	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16										
M244065VB	24406 MARBELLA AVE	2013-08-15	13:53	House	19		1.2	< 27	< 27	1.5 J, b	< 8.7	< 14	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14										
M244065VH	24406 MARBELLA AVE	2013-08-15	14:22	Garage	21		0.37	< 28	< 28	1.2 J, b	< 9	< 14	6.4	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15										
M244065VH	24406 NEPTUNE AVE	2010-04-29	13:45	House	21		0.11	16	16	< 6.2	27 b	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	7										
M244065VF	24406 NEPTUNE AVE	2010-04-29	14:31	Front	21		0.045	22	22	< 6.4	33 b	4.4	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	0.59	< 3.8										
M244065VFD	24406 NEPTUNE AVE	2010-04-29	14:31	Front	21		0.042	89	89	6.7 J	1200 E, b	210	< 5.9	< 8.2	9.4	< 3.8	< 6	< 0.00024	0.57	18										
M244065VB	24406 NEPTUNE AVE	2010-04-29	15:22	Back	21		< 0.024	98	98	80 J	25 b	< 3.6	42	< 8.2	6.4	7.6	< 6	< 0.00024	< 0.12	< 3.8										
M244065VH	24406 NEPTUNE AVE	2010-11-12	11:08	House	21		0.21	< 11	< 11	0.71 J, b	< 8.6	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6										
M244065VH	24406 NEPTUNE AVE	2010-11-12	12:22	Back	21		0.099	< 14	< 14	0.73 J, b	< 11	< 4.3	< 7	< 9.8	< 5.4	< 4.6	< 7.1	< 0.00029	< 0.14	< 4.5										
M244065VBS	24406 NEPTUNE AVE	2010-11-12	12:22	Back		21.7		< 0.2	< 21	< 1.6	< 21	< 21	< 2.1	< 2.1	< 2.2	< 2.1	< 2.3	< 0.2	< 0.08	< 21										
M244065VH	24406 NEPTUNE AVE	2012-01-26	11:02	House	22		0.17	30	30	0.71 J, b	6.5	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	0.00017	< 0.08	< 10										
M244065VG	24406 NEPTUNE AVE	2012-01-26	11:44	Garage	23		0.08	38	38	< 0.41	15	< 12	< 5.1	< 7	< 3.9	< 3.3	< 5.1	0.00021	< 0.094	< 13										
M244065VB	24406 NEPTUNE AVE	2012-01-26	11:59	Back	22		0.087	19	19	< 0.32	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4	0.00017	< 0.082	< 10										
M244065VBS	24406 NEPTUNE AVE	2012-01-26	11:59	Back		21.6		< 0.17 U	23	< 1 U	< 18 U	< 18 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 3.3	< 0.17 U	< 3.5	< 18 U										
P244065VB	24406 PANAMA AVE	2009-09-17	11:47	Back	18		0.2	42	42	< 3.2	< 9.7	5.1	< 6.3	< 8.7	< 4.8	< 4.1	< 6.4	< 0.00026	< 0.12	< 4										
P244065VBD	24406 PANAMA AVE	2009-09-17	11:47	Back	18		0.2	38	38	6 J	< 9.9	4.1	< 6.4	< 9	< 5	< 4.2	< 6.5	< 0.00026	< 0.12	< 4.1										
P244065VF	24406 PANAMA AVE	2009-09-17	13:22	Front	19		0.74	130	130	< 2.9	< 8.7	11	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.088	< 3.6										
P244065VB	24406 PANAMA AVE	2010-07-21	09:22	Back	19		2.2	25	25	< 6	< 8.6	7.8	< 5.6	< 7.8	4.4 b	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6										
P244065VH	24406 PANAMA AVE	2010-07-21	10:50	House	20		0.7	18	18	< 6.2	9	< 3.4	6.4	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	4.5										
P244065VB	24406 PANAMA AVE	2011-02-14	10:31	Back	20		1.4	38	38	< 0.32	< 8.5	7.6	< 5.5	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.5										
P244065VH	24406 PANAMA AVE	2011-02-14	11:14	House	21		1	< 11	< 11	< 0.34	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.6	< 0.00024	< 0.12	< 3.7										
P244065VH	24406 PANAMA AVE	2012-08-16	15:05	House	19		1.2	< 19	< 19	3.9 J, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 6.2	< 0.00016	< 0.079	< 9.8										
P244065VF2	24406 PANAMA AVE	2012-08-16	15:24	Front	20		0.45	43	43	2.2 J, b	420	< 10	< 4.3	< 5.9	6.6	< 2.8	< 4.3	< 0.00018	< 0.088	< 11										
P244065VB	24406 PANAMA AVE	2012-08-16	15:48	Back	18		2.8	23	23	1.4 J, b	11	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8										
P244065VB D	24406 PANAMA AVE	2012-08-16	15:48	Back	18		2.8	22	22	1.5 J, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8										
P244065VH	24406 PANAMA AVE	2013-06-07	14:42	House	20		1.2	< 30	< 30	5.6 J, b	< 9.4	< 15	< 6.1	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16										
P244065VH	24406 PANAMA AVE	2013-06-07	14:46	Front	20		0.47	30	30	2.7 J, b	< 8.8	< 14	< 5.7	< 8	5.9	< 3.8	< 5.8	< 0.00024	< 0.12	< 15										
P244065VF2	24406 PANAMA AVE	2013-06-07	15:14	Back	18		2.4	< 27	< 27	< 2.5	< 8.6	< 13	< 5.5	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14										
N244095VG	24409 NEPTUNE AVE	2010-07-16	09:09	Garage	20		0.17	41	41	< 6	16	9.9	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6										
N244095VB	24409 NEPTUNE AVE	2010-07-16	10:03	Back	18		0.26	34	34	< 6.4	14	5	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	5.7										
N244095VBD	24409 NEPTUNE AVE	2010-07-16	10:03	Back	18		0.26	50	50	< 6.4	18	17	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8										
N244095VH	24409 NEPTUNE AVE	2012-05-04	09:58	House	21		< 0.016	36	36	4.7 J, b	19	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	0.1	< 9.8										
N244095VG	24409 NEPTUNE AVE	2012-05-04	10:05	Garage	21		0.61	< 18	< 18	0.78 J, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6										
N244095VGS	24409 NEPTUNE AVE	2012-05-04	10:05	Garage		21.1		0.595	< 17 U	< 0.73 U	< 17 U	< 17 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	2.2	< 0.16 U	< 0.078	< 17 U										
N244095VSB	24409 NEPTUNE AVE	2012-05-04	10:39	Back	20		0.75	< 18	< 18	0.58 J, b	< 5.6	< 8.8	< 3.6	< 5	< 2.8	< 2.4	< 3.7	< 0.00015	< 0.074	< 9.3										
N244095VBS	24409 NEPTUNE AVE	2012-05-04	10:39	Back		20		0.773	< 16 U	< 0.69 U	< 16 U	< 16 U	1.7	< 1.6 U	< 1.6 U	< 1.6 U	2.2	< 0.15 U	< 16 U											
N244095VB	24409 NEPTUNE AVE	2013-07-11	15:40	Back	20		0.82	51	51	< 0.86	< 9.6	< 15	< 6.2	< 8.6	< 4.8	< 4	< 6.3	< 0.00025	< 0.13	< 16										
N244095VH	24409 NEPTUNE AVE	2013-07-11	15:43	House	21		0.96	< 29	< 29	< 0.83	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15										

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																														
					Analyte Units		Oxygen/Argon		Carbon Dioxide		Acetone		Naphthalene		Ethanol		2-Butanone (Methyl Ethyl Ketone)		Chloroform		Tetrachloro-ethene		Toluene		Benzene		Freon 12		Methane		Helium		Carbon Disulfide		
					Oxygen MOL %	Argon MOL %	MOL %	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	MOL %	MOL %	UG/M3	UG/M3					
R244095VG	24409 NEPTUNE AVE	2013-07-11	16:02	Garage	21			1.1	< 28	< 0.79	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12																
R244095VH	24409 RAVENNA AVE	2010-08-04	09:03	House	19		0.96	19	< 19	< 6.1	< 8.7	3.4	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12																
R244095VB	24409 RAVENNA AVE	2010-08-04	09:44	Back	20		0.4	18	< 18	< 6.4	< 9.2	< 3.6	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12																
R244095VG	24409 RAVENNA AVE	2010-08-04	10:21	Garage	20		< 0.023	22	< 22	< 6.1	< 8.7	< 3.4	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12																
R244095VH	24409 RAVENNA AVE	2013-03-21	14:41	House	20		0.84	< 29	< 29	< 0.61 PF	< 9.3	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12																
R244095VG	24409 RAVENNA AVE	2013-03-21	14:53	Garage	21		0.15	< 28	< 28	< 0.58 PF	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12																
R244095VGD	24409 RAVENNA AVE	2013-03-21	14:53	Garage	21		0.15	< 28	< 28	< 0.58 PF	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12																
R244095VB	24409 RAVENNA AVE	2013-03-21	15:04	Back	20		0.22	35	< 35	< 0.61 PF	< 9.3	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12																
R244095VH	24409 RAVENNA AVE	2013-08-09	14:35	House	20		1.7	< 27	< 27	1.4 J, b	< 8.7	< 14	9.8	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12																
R244095VB	24409 RAVENNA AVE	2013-08-09	15:04	Back	21		0.31	< 30	< 30	0.87 J, b	< 9.6	< 15	< 6.2	< 8.6	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13																
R244095VG	24409 RAVENNA AVE	2013-08-09	15:08	Garage	21		0.26	< 28	< 28	1.5 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12																
R244105VH	24410 PANAMA AVE	2010-07-30	14:06	House	20		1	18 b	< 18 b	< 6.2	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12																
R244105VB	24410 PANAMA AVE	2010-07-30	14:58	Back	19		1.1	18 b	< 18 b	< 6.4	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12																
R244105VG	24410 PANAMA AVE	2010-07-30	15:02	Garage	19		1.8	20 b	< 20 b	< 6.2	17	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12																
P244105VGS	24410 PANAMA AVE	2010-07-30	15:02	Garage	19		1.23	< 17	< 17	< 1.4	< 17	< 1.7	< 1.7	1.9	< 1.7	< 1.7	2.2	< 0.16	< 0.12																
P244105VH	24410 PANAMA AVE	2012-07-19	09:52	House	20		0.89	< 19	< 19	< 3 PF	< 6.1	< 9.6	< 4	< 5.5	< 3.1	< 2.6	< 4	< 0.00016	< 0.082																
P244105VG	24410 PANAMA AVE	2012-07-19	09:53	Garage	17		2.7	< 20	< 20	< 3.1 PF	< 6.2	< 9.8	< 4	< 5.6	< 3.1	< 2.6	< 4.1	< 0.00017	< 0.083																
P244105VGD	24410 PANAMA AVE	2012-07-19	09:53	Garage	18		2.8	< 20	< 20	< 3.1 PF	< 6.2	< 9.8	< 4	< 5.6	< 3.1	< 2.6	< 4.1	< 0.00017	< 0.083																
P244105VB	24410 PANAMA AVE	2012-07-19	10:25	Back	19		1.8	< 18	< 18	< 2.8 PF	< 5.6	< 8.8	4.2	< 5.1	< 2.8	< 2.4	< 3.7	< 0.00015	< 0.075																
M244115VH	24411 MARBELLA AVE	2010-09-13	13:36	House	21		0.044	44	< 44	2.2 J	23	11	< 5.8	19	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12																
M244115VF	24411 MARBELLA AVE	2010-09-13	14:19	Front	21		< 0.025	69	< 69	2.8 J	22	6.8	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13																
M244115VB2	24411 MARBELLA AVE	2011-02-03	13:41	Back	21		< 0.024	13	< 13	2.5 b	< 8.9	< 3.5	< 5.8	< 8	4.8	8.4	< 5.9	< 0.00024	< 0.12																
M244115VFD	24411 MARBELLA AVE	2012-04-27	13:58	Front	21		< 0.02	24	< 24	1.4 J, b	< 5.9	< 9.2	< 3.8	< 5.3	< 2.9	< 2.5	< 3.8	< 0.0002	< 0.098																
M244115VB2	24411 MARBELLA AVE	2012-04-27	14:24	Back	22		0.041	< 18	< 18	0.91 J, b	< 5.9	< 9.2	< 3.8	< 5.3	< 2.9	< 2.5	< 3.8	< 0.0002	< 0.1																
P244115VH	24411 PANAMA AVE	2010-07-06	09:31	House	17		2.7	56	< 56	< 2.3 Q	11	5	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12																
P244115VG	24411 PANAMA AVE	2010-07-06	10:24	Garage	19		1.9	16	< 16	2.7 J, Q, b	< 8.8	< 3.4	< 5.7	74	190	34	< 5.8	< 0.00023	< 0.12																
P244115VB	24411 PANAMA AVE	2010-07-06	11:08	Back	19		1.2	21	< 21	< 2.3 Q	< 8.8	< 3.4	< 5.7	8.5	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12																
P244115VH	24411 PANAMA AVE	2012-12-14	10:07	House	18		3.6	< 27	< 27	1 J, b	< 8.4	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.18																
P244115VB	24411 PANAMA AVE	2012-12-14	10:13	Back	17		3.3	< 29	< 29	1.6 J, b	< 9.3	< 15	< 6	< 8.4	< 4.7	< 4	< 6.1	< 0.00025	< 0.12																
P244115VBD	24411 PANAMA AVE	2012-12-14	10:13	Back	18		3.1	< 28	< 28	1.1 J, b	< 8.9	< 14	< 5.8	< 8	6.5	< 3.8	< 5.9	< 0.00024	< 0.12																
P244115VG	24411 PANAMA AVE	2012-12-14	10:50	Garage	20		1.7	< 27	< 27	1.9 J, b	< 8.5	< 13	< 5.5	4.8	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11																
P244115VGD	24411 PANAMA AVE	2013-05-07	10:15	Garage	20		1.9	< 28	< 28	3.2 J, b	< 8.7	< 14	< 5.7	71	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12																
P244115VHA	24411 PANAMA AVE	2013-05-07	10:35	House	19		0.41	220	< 220	3.7 J, b	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12																
P244115VB	24411 PANAMA AVE	2013-05-07	10:55	Back	19		2.2	37	< 37	2.2 J, b	< 8.5	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.6	< 0.00022	< 0.11																
P244115VBD	24411 PANAMA AVE	2013-05-07	10:55	Back	19		2.2	< 27	< 27	1.3 J, b	< 8.4	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11																
N244135VH	24413 NEPTUNE AVE	2010-11-01	09:20	House	19		2.5	20	< 20	< 1.4	11	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12																
N244135VHD	24413 NEPTUNE AVE	2010-11-01	09:20	House	19		2.5	15	< 15	< 1.4	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12																
N244135VF	24413 NEPTUNE AVE	2010-11-01	10:01	Front	20		0.18	120	< 120	< 1.4	< 9	< 3.5	< 5.8	< 8.1	4.5	< 3.8	< 5.9	< 0.00024	< 0.12																
N244135VB	24413 NEPTUNE AVE	2010-11-01	10:34	Back	20		0.89	< 11	< 11	< 1.4	12	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12																
N244135VB	24413 NEPTUNE AVE	2012-10-11	14:59	Back	20		1.2	< 29	< 29	< 0.61	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12																
N244135VH	24413 NEPTUNE AVE	2012-10-11	15:15	House	18		2.3	< 29	< 29	< 0.6	< 9.1	< 14	< 5.9	< 8.2	< 4.6	3.9	< 6	< 0.00024	< 0.12																
N244135VHD	24413 NEPTUNE AVE	2012-10-11	15:15	House	18		2.4	< 29	< 29	< 0.6	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12																
N244135VF	24413 NEPTUNE AVE	2012-10-11	15:15	House	18		0.96	100	< 100	3.4 J, b	< 9.7	< 15	< 6.3	< 8.8	1200	< 4.6	< 3.9	< 6	< 0.00024	< 0.12															
N244135VH	24413 NEPTUNE AVE	2013-05-31	14																																

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
R24413SVGD	24413 RAVENNA AVE	2012-09-20	14:50	Garage	19		1.7	< 29	0.83, j, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
R24413SVH	24413 RAVENNA AVE	2012-09-20	15:06	House	15		4.9	< 28	1, j, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
R24413SVB	24413 RAVENNA AVE	2012-09-20	15:31	Back	12		9.8	34	1, j, b	11	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
R24413SVG	24413 RAVENNA AVE	2013-05-10	14:45	Garage	21		1	46	1.8, j, b	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
R24413SVH	24413 RAVENNA AVE	2013-05-10	14:45	House	18		4.6	30	8, j, b	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00055	< 0.13	< 15
R24413SVB	24413 RAVENNA AVE	2013-05-10	15:14	Back	10		13	< 31	1.4, j, b	< 9.8	< 15	< 6.4	< 8.8	< 4.9	< 4.2	< 6.4	< 0.00026	< 0.13	< 16
N24416SVBA	24416 NEPTUNE AVE	2011-01-21	09:15	Back	20		< 0.023	36	< 1.3	< 8.8	< 3.4	8	< 7.9	< 4.4	< 3.7	< 5.8	0.00014	< 0.12	< 3.6
N24416SVF	24416 NEPTUNE AVE	2011-01-21	10:01	Front	20		0.042	21	< 1.3	< 8.6	< 3.4	5.8	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
N24416SVH	24416 NEPTUNE AVE	2011-01-21	10:01	Front	20		0.036	24	2, j	< 8.6	< 3.4	8.4	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
N24416SVH	24416 NEPTUNE AVE	2011-01-21	11:00	House	19		0.42	71	2.1, j	< 9.1	7.7	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
N24416SVH	24416 NEPTUNE AVE	2012-07-13	15:12	House	14		4.2	< 20	< 3.2	< 6.4	< 10	5.2	< 5.8	< 3.2	< 2.7	< 4.2	< 0.00017	< 0.086	< 11
N24416SVF	24416 NEPTUNE AVE	2012-07-13	15:37	Front	20		0.55	22	< 3.1	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4	< 0.00016	< 0.082	< 10
N24416SVH	24416 PANAMA AVE	2010-09-13	08:57	House	17		3.7	25	2.8, j	< 8.3	5.4	< 5.4	< 7.5	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 3.4
P24416SVF	24416 PANAMA AVE	2010-09-13	09:32	Front	21		0.19	< 11	7.5, j	17	< 3.4	< 5.6	< 7.8	13	27	< 5.7	< 0.00023	< 0.11	< 3.6
P24416SVF	24416 PANAMA AVE	2010-09-13	09:32	Front	21		0.2	25	0.86, j	< 17	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	2.3	< 0.00015	< 0.11	< 17
P24416SVB	24416 PANAMA AVE	2010-09-13	10:13	Back	20		0.13	31	1.6, j	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
P24416SVF	24416 PANAMA AVE	2012-05-18	09:55	Front	21		0.29	< 20	0.68, j, b	< 6.2	< 9.8	< 4	< 5.6	< 3.1	< 2.6	< 4.1	< 0.00017	< 0.083	< 10
P24416SVF	24416 PANAMA AVE	2012-05-18	09:55	Front	21		0.28	< 20	0.61, j, b	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4.1	< 0.00016	< 0.082	< 10
P24416SVH	24416 PANAMA AVE	2012-05-18	10:15	House	18		3.4	< 18	0.6, j, b	< 5.8	< 9	< 3.7	< 5.2	< 2.9	< 2.4	< 3.8	< 0.00017	< 0.083	< 9.5
P24416SVB	24416 PANAMA AVE	2012-05-18	10:44	Back	21		0.74	< 19	0.42, j, b	< 5.9	< 9.2	< 3.8	< 5.3	< 3	< 2.5	< 3.9	< 0.00016	< 0.078	< 9.8
R24416SVF	24416 RAVENNA AVE	2009-09-19	14:20	Front	17		1.9	18	5.8, j	280	3.7	< 4.5	< 6.3	8.2	< 3	< 4.6	< 0.00019	< 0.12	< 2.9
R24416SVB	24416 RAVENNA AVE	2009-09-19	15:16	Back	21		0.18	< 11	< 2.8	< 8.5	< 3.3	< 5.5	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.12	< 3.5
R24416SVH	24416 RAVENNA AVE	2010-07-26	09:24	House	20		0.38	14	9.3, j, b	100	12	< 5.7	< 7.9	9.5	< 3.7	< 5.8	< 0.00023	< 0.12	14
R24416SVH	24416 RAVENNA AVE	2010-07-26	10:00	House	20		0.2	30	< 6	< 8.6	3.8	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
R24416SVF	24416 RAVENNA AVE	2010-07-26	10:40	Front	16		3.1	260	5.8, j, b	31	19	< 4.9	< 6.8	< 3.8	220	< 3.1	< 0.0002	< 0.1	< 3.1
R24416SVF	24416 RAVENNA AVE	2010-10-29	10:10	Front	21		< 0.024	28	< 1.4	< 8.9	4.1	< 5.8	< 8	< 4.5	< 3.8	< 5.9	0.00024	< 0.12	< 3.7
R24416SVH	24416 RAVENNA AVE	2013-02-01	09:44	House	20		0.79	< 28	2.3, j, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00036	< 0.18	< 14
R24416SVB	24416 RAVENNA AVE	2013-02-01	09:54	Back	22		0.16	36	1.6, j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24416SVB	24416 RAVENNA AVE	2013-02-01	09:54	Back	21		0.16	41	0.81, j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24416SVH	24416 RAVENNA AVE	2013-02-01	10:17	Front	21		0.19	< 28	0.74, j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24416SVH	24416 RAVENNA AVE	2013-07-19	09:41	House	20		0.87	< 28	1.6, j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24416SVH	24416 RAVENNA AVE	2013-07-19	09:45	Front	19		1.6	< 30	1.4, j, b	< 9.5	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16
R24416SVF2	24416 RAVENNA AVE	2013-07-19	09:45	Front	19		1.5	< 30	1.3, j, b	< 9.5	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16
R24416SVF2D	24416 RAVENNA AVE	2013-07-19	09:45	Front	19		0.39	1300 E	1, j, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
R24419SVB	24419 RAVENNA AVE	2010-06-16	09:13	House	21		0.17	53	< 2.4	14	13	< 5.8	< 8	< 4.5	8.9	< 5.9	< 0.00024	< 0.12	< 3.7
N24419SVH	24419 NEPTUNE AVE	2010-06-16	10:13	Front	20		0.16	32	< 2.4	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N24419SVB	24419 NEPTUNE AVE	2010-06-16	11:03	Back	19		0.1	30	< 2.4	10	4	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
N24419SVH	24419 NEPTUNE AVE	2012-08-03	09:46	House	21		0.21	23	< 3	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
N24419SVF	24419 NEPTUNE AVE	2012-08-03	10:11	Front	20		2.2	< 26	< 4.1	92, j	< 13	< 5.3	< 7.4	< 4.1	< 3.5	< 5.4	< 0.00017	< 0.084	< 14
N24419SVF5	24419 NEPTUNE AVE	2012-08-03	10:11	Front	20		2.26	< 21 U	< 0.88 U	< 21 U	< 21 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 0.00017	< 0.084	< 14
N24419SVB	24419 NEPTUNE AVE	2012-08-03	10:31	Back	19		2.5	< 19	< 3	< 6	< 9.3	1400	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
N24419SVB5	24419 NEPTUNE AVE	2012-08-03	10:31	Back	19		2.64	< 21 U	< 0.86 U	< 21 U	< 21 U	1100 D	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 0.00016	< 0.079	< 9.8
N24419SVH	24419 NEPTUNE AVE	2013-05-29	14:50	House	22		0.16	42	< 1.7	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.4	< 3.8	< 0.00021	< 0.1	< 9.6
N24419SVB	24419 NEPTUNE AVE	2013-05-29	14:52	Back	20		2.5	39	< 2.5	< 8.7	< 14	160	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
N24419SVB5	24419 NEPTUNE AVE	2013-05-29	14:52	Back	20		2.49	23	< 0.71 U	< 20 U	< 20 U	130	< 8.2	< 2 U	< 2 U	< 2 U	< 0.00024	< 0.12	< 20 U
N24419SVF	24419 NEPTUNE AVE	2013-05-29	15:14	Front	20		1.7	33	< 2.6	10	< 14	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 15
R24419SVB	24419 RAVENNA AVE	2009-09-21	15:24	Back	21		0.2	< 7.4	< 1.9	< 5.8	< 2.3	20	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.12	< 2.4
R24419SVF	24419 RAVENNA AVE	2009-09-21	16:49	Front	21		< 0.019	< 9.1	< 2.4	< 7.2	< 2.8	20	< 6.5	< 3.6	3.2	< 4.7	< 0.00019	< 0.096	< 3
R24419SVF	24419 RAVENNA AVE	2010-07-12	14:47	Front	21		0.043	18	< 2.4 Q	< 9.1	< 3.6	18	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
R24419SVB	24419 RAVENNA AVE	2010-07-12	15:27	Back	21		0.37	39	< 2.4 Q	15	13	6.1	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 3.8
R24419 SVHA	24419 RAVENNA AVE	2011-02-09	14:06	House	20		0.26	< 11	1.6, j, b	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
R24419 SVF	24419 RAVENNA AVE	2011-02-09	14:38	Front	21		0.053	< 11	1.2, j, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%		
N24422SVBS	24422 NEPTUNE AVE	2013-08-08	09:58	Back		20.5	1	< 22 U	< 0.77 U	< 22 U	< 22 U	12	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 0.17 U	< 0.12	< 22 U
N24422SVF	24422 NEPTUNE AVE	2013-08-08	10:22	Front	19		1.8	< 29	< 0.82	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.17 U	< 0.12	< 15	
R24422SVH	24422 RAVENNA AVE	2011-01-19	09:32	House	18		1	< 15	2.1, b	< 12	< 4.7	< 7.9	< 11	< 6.1	< 5.1	< 8	< 0.00032	< 0.16	< 0.16	< 5	
R24422SVBA	24422 RAVENNA AVE	2011-01-19	10:20	Back	20		0.076	79	2.1, b	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	0.0025	< 0.12	< 0.12	< 3.8	
R24422SVF	24422 RAVENNA AVE	2011-01-19	10:57	Front	21		< 0.023	17	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 0.12	< 3.6	
R24422SVFD	24422 RAVENNA AVE	2011-01-19	10:57	Front	21		< 0.023	23	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 0.12	< 3.6	
R24422SVBA	24422 RAVENNA AVE	2012-12-20	09:57	Back	21		0.54	< 58	2.2, b	< 18	< 29	< 12	< 16	< 9.1	< 7.7	< 4.4	< 0.00048	< 0.24	< 0.24	< 30	
R24422SVBAD	24422 RAVENNA AVE	2012-12-20	09:57	Back	21		0.53	< 28	0.63, b	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 0.12	< 15	
R24422SVH	24422 RAVENNA AVE	2012-12-20	10:11	House	19		1.7	59	0.64, b	10	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 0.12	< 15	
R24422SVF	24422 RAVENNA AVE	2012-12-20	10:35	Front	21		0.038	< 27	< 0.56	< 8.6	< 13	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 0.11	< 14	
R24422SVBA	24422 RAVENNA AVE	2013-06-21	09:45	Back	20		1.3	30	1.1, b	< 9.4	< 15	< 6.1	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 0.12	< 16	
R24422SVBAD	24422 RAVENNA AVE	2013-06-21	09:45	Back	20		1.3	< 30	0.94, b	< 9.6	< 15	< 6.2	< 8.6	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 0.13	< 16	
R24422SVH	24422 RAVENNA AVE	2013-06-21	09:45	House	18		1.9	< 27	0.78, b	< 8.5	< 13	< 5.5	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 0.11	< 14	
R24422SVF	24422 RAVENNA AVE	2013-06-21	10:11	Front	21		0.058	34	< 0.8	< 8.9	< 14	< 5.8	< 8	78	< 3.8	< 5.9	< 0.00024	< 0.12	< 0.12	< 15	
M24423SVH	24423 MARBELLA AVE	2010-06-02	13:55	House	21		0.03	26	< 4	< 8.6	4.9	< 5.6	150	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 0.11	< 3.6	
M24423SVB	24423 MARBELLA AVE	2010-06-02	14:36	Back	20		0.034	19	< 4.2	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 0.12	< 3.8	
M24423SVG	24423 MARBELLA AVE	2010-06-02	15:41	Garage	20		< 0.024	34	< 4.2	< 9.1	3.9	< 5.9	< 8.2	< 4.6	5.6	< 6	< 0.00024	< 0.12	< 0.12	< 3.8	
M24423SVG	24423 MARBELLA AVE	2012-06-21	10:00	Garage	22		0.047	< 19	1.2, b	< 6.1 PF	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	0.00018	< 0.08	< 0.08	< 10	
M24423SVGS	24423 MARBELLA AVE	2012-06-21	10:00	Garage			< 0.17 U	< 18 U	< 0.76 U	< 18 U	< 18 U	< 1.8 U	3.3	< 1.8 U	< 1.8 U	2.1	< 0.17 U	< 0.17 U	< 18 U		
M24423SVH	24423 MARBELLA AVE	2012-06-21	10:06	House	22		0.12	< 18	0.88, b	< 5.8 PF	< 9.1	< 3.8	260 PE	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 0.078	< 9.6	
M24423SVB	24423 MARBELLA AVE	2012-06-21	10:52	Back	22		0.033	< 19	0.54, b	< 6.1 PF	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00022	< 0.11	< 0.11	< 10	
M24423SVBS	24423 MARBELLA AVE	2012-06-21	10:52	Back			< 0.16 U	< 17 U	< 0.72 U	291	< 17 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	2.1	< 0.16 U	< 0.16 U	27		
N24423SVH	24423 NEPTUNE AVE	2010-09-23	14:34	House	1.7		14	93	< 15	< 21	13	930	< 19	180	16	< 1.7 U	< 0.17 U	< 0.11	< 0.11	81	
N24423SVF	24423 NEPTUNE AVE	2010-09-23	15:18	Front	20		< 0.023	99	< 6.2	9.5	7.8	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 0.12	< 3.6	
N24423SVB	24423 NEPTUNE AVE	2010-09-23	16:01	Back	18		0.025	20	< 6	< 8.6	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	0.037	< 0.11	< 0.11	< 3.6	
N24423SVH	24423 NEPTUNE AVE	2011-01-12	11:21	House	4.9		12	12	< 1.8	20	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	0.083	< 0.12	< 0.12	< 3.8	
N24423SVHD	24423 NEPTUNE AVE	2011-01-12	11:21	House	4.9		12	18	< 1.8	22	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	0.086	< 0.12	< 0.12	< 3.8	
N24423SVF	24423 NEPTUNE AVE	2011-10-26	12:54	Front	21		0.25	< 8	1.1, b	< 6.4	< 10	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00017	< 0.084	< 0.084	< 10	
N24423SVH	24423 NEPTUNE AVE	2011-10-26	13:44	House	7.6		11	27	2.8, b	12	< 9.3	9.2	< 5.4	23	4.5	< 3.9	< 0.00016	< 0.079	< 0.079	< 9.8	
N24423SVHD	24423 NEPTUNE AVE	2011-10-26	13:44	House	7.7		10	16	0.97, b	< 6.1	< 9.4	8.1	< 5.4	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 0.08	< 10	
N24423SVB	24423 NEPTUNE AVE	2011-10-26	14:24	Back	20		0.1	9.9	0.6, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 0.08	< 10	
N24423SVH	24423 NEPTUNE AVE	2012-10-12	15:02	House	19		1.7	33	< 0.59	20	< 14	6.5	< 8.1	6.5	< 3.8	< 5.9	< 0.00024	0.14	0.14	< 15	
N24423SVB	24423 NEPTUNE AVE	2012-10-12	15:21	Back	18		0.06	< 29	< 0.6	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	0.00082	< 0.12	< 0.12	< 15	
N24423SVBD	24423 NEPTUNE AVE	2012-10-12	15:21	Back	18		0.058	< 29	< 0.6	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 0.12	< 15	
N24423SVF	24423 NEPTUNE AVE	2012-10-12	15:43	Front	21		0.38	< 28	< 0.59	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	0.27	0.27	< 15	
N24423SVB	24423 NEPTUNE AVE	2013-05-08	14:55	Back	20		0.035	< 28	2.2, b	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 0.12	< 15	
N24423SVH	24423 NEPTUNE AVE	2013-05-08	15:20	House	21		1.2	< 32	2.1, b	< 10	< 16	8.6	< 9.1	< 5.1	< 4.3	< 6.6	< 0.00027	0.15	0.15	< 17	
N24423SVF	24423 NEPTUNE AVE	2013-05-08	15:28	Front	21		0.34	< 28	2.1, b	< 8.6	< 14	< 5.8	< 7.8	4.6	< 3.8	< 5.8	< 0.00024	< 0.12	< 0.12	< 15	
R24423SVB	24423 RAVENNA AVE	2009-09-24	09:10	Back	20		< 0.023	52	3.1	< 8.6	5.9	100	< 7.8	< 4.3	3.9	< 5.7	< 0.00023	< 0.12	< 0.12	< 3.6	
R24423SVF	24423 RAVENNA AVE	2009-09-24	10:25	Front	20		0.53	52	< 3.2	< 9.5	5.4	< 6.2	< 8.6	< 4.8	4	< 6.2	< 0.00025	< 0.12	< 0.12	< 3.9	
R24423SVFD	24423 RAVENNA AVE	2009-09-24	10:25	Front	20		0.52	50	< 3.2	< 9.5	4	< 6.2	< 8.6	< 4.8	4	< 6.2	< 0.00025	< 0.12	< 0.12	< 3.9	
R24423SVB	24423 RAVENNA AVE	2012-10-26	14:39	Back	19		0.72	< 30	5.8, b	< 9.7	< 15	9.4	< 8.7	< 4.8	< 4.1	< 6.4	< 0.00026	< 0.13	< 0.13	< 16	
R24423SVH	24423 RAVENNA AVE	2012-10-26	14:55	House	18		1.3	< 28	2.6, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 0.12	< 14	
R24423SVF	24423 RAVENNA AVE	2012-10-26	15:08	Front	20		0.39	< 27	1.5, b	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 0.12	< 14	
R24423SVB	24423 RAVENNA AVE	2013-07-18	09:44	Back	21		0.7	< 26	< 0.75	< 8.4	< 13	9.7	< 7.5	< 4.2	< 3.5	< 5.5	< 0.00022	< 0.11	< 0.11	< 14	
R24423SVBD	24423 RAVENNA AVE	2013-07-18	09:44	Back	21		0.7	< 26	< 0.75	< 8.4	< 13	10	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 0.11	< 14	
R24423SVH	24423 RAVENNA AVE	2013-07-18	09:49	House	20		1.2	130	< 0.78	< 8.7	< 14	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 0.12	< 14	
R24423SVF	24423 RAVENNA AVE	2013-07-18	10:04	Front	21		0.6	< 29	< 0.84	< 9.3	< 15	< 6	< 8.4	< 4.7	4	< 6.1	< 0.00025	< 0.12	< 0.12	< 15	
M24426SVB	24426 MARBELLA AVE	2009-09-18	12:32	Back	20		0.041	45	7.4, j	< 11	6	< 7	< 9.8	< 5.4	< 4.6	< 7.1	< 0.00029	< 0.12	< 0.12	5.7	
M24426SVF	24426 MARBELLA AVE	2009-09-21	10:04	Front	21		< 0.024	< 11	4.6, j	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 0.12	< 3.7	
M24426SVH	24426 MARBELLA AVE	2011-10-06	13:43	House	19		1.4	18	0.63, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 0.12	< 15	
M24426SVHD	24426 MARBELLA AVE	2011-10-06	13:43	House	19		1.4	13	< 0.48	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 0.12	< 15	

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide MOL %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane MOL %	Helium MOL %	Carbon Disulfide UG/M3
					Oxygen MOL %	Oxygen/Argon MOL %													
M244265VF	24426 MARBELLA AVE	2011-10-06	14:23	Front	21		0.15	<12	<0.49	<9.3	<14	<6	<8.4	<4.6	<3.9	<6.1	<0.00025	<0.12	<15
M244265VB	24426 MARBELLA AVE	2011-10-06	14:53	Back	21		0.27	<11	<0.46	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14
M244265VH	24426 MARBELLA AVE	2012-02-23	14:59	House	18		2	14	1.81, b	<6.3	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00017	<0.084	<10
M244265VF	24426 MARBELLA AVE	2012-02-23	15:36	Front	21		0.11	14	1.41, b	<6	<9.3	<3.8	<5.4	<3	<2.5	<3.9	<0.00016	<0.079	<9.8
M244265VFD	24426 MARBELLA AVE	2012-02-23	15:36	Front	21		0.11	11	0.471, b	<6	<9.3	<3.8	<5.4	<3	<2.5	<3.9	<0.00016	<0.079	<9.8
M244265VB	24426 MARBELLA AVE	2012-02-23	16:17	Back	21		0.45	19	0.551, b	<5.7	<9	<3.7	19	<2.9	<2.4	<3.8	<0.00015	<0.076	<9.5
M244265VB	24426 NEPTUNE AVE	2009-09-17	09:22	Back	21		0.025	47	5.21	<8.7	6.6	<5.6	<7.8	<4.3	<3.7	<5.7	<0.00023	<0.00023	<3.6
M244265VF	24426 NEPTUNE AVE	2009-09-17	10:19	Front	18		3.6	<11	<2.8	<8.4	<3.3	<5.5	<7.6	<4.2	<3.6	<5.5	<0.00022	<0.00022	<3.5
M244265VB	24426 NEPTUNE AVE	2010-06-25	15:03	Back	21		0.23	34	<2.3	9.6	3.6	<5.6	<7.8	<4.3	<3.7	<5.7	<0.00023	<0.12	5.5
M244265VH	24426 NEPTUNE AVE	2010-06-25	16:13	House	20		0.51	210	<2.4	8.81	3.5	<5.8	<8	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
M244265VF	24426 NEPTUNE AVE	2010-07-07	10:03	Front	16		4.7	53	<2.3 Q, uj	<8.8	4.4	<5.7	<7.9	<4.4	17	<5.8	0.00033	<0.12	<3.6
M244265VF	24426 NEPTUNE AVE	2010-09-15	09:27	Front	16		4.2	44	<1.4	<9.1	3.8	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	0.36	<3.8
M244265VH	24426 NEPTUNE AVE	2010-10-29	14:46	House	20		0.67	<11	<1.3	<8.5	<3.3	<5.5	<7.7	<4.2	<3.6	<5.6	<0.00023	<0.11	6.3
M244265VB	24426 NEPTUNE AVE	2010-10-29	15:02	Back	21		0.11	16	<1.3	<8.7	<3.4	<5.6	<7.8	<4.4	<3.7	<5.7	<0.00023	<0.12	13
M244265VBD	24426 NEPTUNE AVE	2010-10-29	15:02	Back	21		0.1	14	<1.3	<8.7	<3.4	<5.6	<7.8	<4.4	<3.7	<5.7	<0.00023	<0.12	<3.6
M244265VF	24426 NEPTUNE AVE	2010-10-29	15:31	Front	18		2.3	15	<1.3	<8.7	<3.4	<5.6	<7.8	<4.4	<3.7	<5.7	<0.00023	0.19	<3.6
M244265VH	24426 NEPTUNE AVE	2013-04-19	14:46	House	22		0.38	<28	0.651, b	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15
M244265VG	24426 NEPTUNE AVE	2013-04-19	15:14	Garage	20		0.51	34	<0.6 PF	<9.2	<14	<6	<8.3	<4.6	<3.9	<6	<0.00024	<0.12	<15
M244265VH	24426 PANAMA AVE	2010-08-05	09:15	House	19		0.54	31	<6.4	<9.1	5.8	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8
M244265VG	24426 PANAMA AVE	2010-08-05	10:08	Garage	19		0.073	37	<6	11	4.2	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<3.6
M244265VB	24426 PANAMA AVE	2010-08-05	10:47	Back	20		0.034	43	<6.2	10	9.7	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
M244265VH	24426 PANAMA AVE	2012-12-06	09:54	House	19		1.3	<29	0.671, b	12	<14	<5.9	<8.2	24	<3.9	<6	<0.00024	<0.12	<15
M244265VG	24426 PANAMA AVE	2012-12-06	10:23	Garage	20		1.6	<29	0.731, b	<9.1	<14	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<15
M244265VGD	24426 PANAMA AVE	2012-12-06	10:23	Garage	20		1.6	42	0.651, b	9.3	<14	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<15
M244265VB	24426 PANAMA AVE	2012-12-10	13:45	Back	21		0.31	<27	2.11, b	<8.6	<14	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<14
M244265VH	24426 PANAMA AVE	2013-06-14	19:29	House	20		1.2	32	<2.7	<9.2 PF	<14	<6	<8.3	<4.6	<3.9	<6	<0.00024	<0.12	<15
M244265VB	24426 PANAMA AVE	2013-06-14	19:31	Back	19		1.1	<27	<2.5	<8.6 PF	<13	<5.6	<7.7	<4.3	<3.6	<5.6	<0.00023	<0.11	<14
M244265VG	24426 PANAMA AVE	2013-06-14	20:05	Garage	20		1.5	<27	<2.5	<8.6 PF	<13	<5.5	<7.7	<4.3	<3.6	<5.6	<0.00023	<0.11	<14
M244265VH	24426 RAVENNA AVE	2010-06-22	09:13	House	20		0.29	23	<2.3	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	0.00052	<0.12	<3.6
M244265VH	24426 RAVENNA AVE	2010-06-22	09:55	Front	20		0.061	42	<2.5	<9.3	7.2	<6	<8.4	<4.7	<4	<6.1	<0.00025	<0.12	<3.9
M244265VB	24426 RAVENNA AVE	2010-06-22	10:45	Back	19		1.7	19	26	<8.8	<3.4	<5.7	<7.9	13	<3.7	<5.8	<0.00023	<0.12	<3.6
M244265VB	24426 RAVENNA AVE	2013-02-28	14:51	Back	21		0.33	<27	1.21, b	<8.6	<14	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<14
M244265VBD	24426 RAVENNA AVE	2013-02-28	14:51	Back	22		0.36	<28	3.91, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14
M244265VH	24426 RAVENNA AVE	2013-02-28	14:57	House	21		0.3	<28	0.831, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14
M244265VF	24426 RAVENNA AVE	2013-02-28	15:36	Front	21		0.14	<30	0.781, b	<9.5	<15	<6.2	<8.5	<4.7	<4	<6.2	<0.00025	<0.13	<16
M244265VH	24426 RAVENNA AVE	2013-07-17	14:50	House	20		0.72	28	<0.76	8.9	<13	<5.5	<7.7	5.1	<3.6	<5.6	<0.00023	<0.11	<14
M244265VB	24426 RAVENNA AVE	2013-07-17	14:55	Back	21		0.84	<29	1.61, b	<9.3	<14	<6	<8.3	<4.6	<3.9	<6.1	<0.00025	<0.12	<16
M244265VBD	24426 RAVENNA AVE	2013-07-17	14:55	Back	21		0.84	<30	1.11, b	<9.6	<15	<6.2	<8.6	<4.8	<4	<6.3	<0.00025	<0.13	<16
M244265VF	24426 RAVENNA AVE	2013-07-17	15:22	Front	20		0.56	52	1.61, b	<8.9	<14	<5.8	<8	<4.4	<3.8	<5.8	<0.00024	<0.12	<15
M244275VH	24427 MARBELLA AVE	2010-05-26	10:10	House	21		<0.023	44	<2.3	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
M244275VB	24427 MARBELLA AVE	2010-05-26	11:01	Back	21		<0.024	<11	<2.4	<9.1	<3.6	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8
M244275VG	24427 MARBELLA AVE	2010-05-26	11:42	Garage	21		<0.023	<11	<2.3	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
M244275VG	24427 MARBELLA AVE	2012-04-06	10:19	Garage	20		0.048	181	1.31, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00024	<0.12	<9.6
M244275VH	24427 MARBELLA AVE	2012-04-06	10:21	House	20		0.046	<18	1.1, b	<5.6	<8.8	<3.6	5.1	<2.8	<2.4	<3.7	<0.00024	<0.12	<9.3
M244275VB	24427 MARBELLA AVE	2012-04-06	10:57	Back	20		0.036	631	1.41, b	<5.7	13	<3.7	<5.2	<2.9	<2.4	<3.8	<0.00024	<0.12	<9.5
M244275VBD	24427 MARBELLA AVE	2012-04-06	10:57	Back	21		0.038	<18	1.61, b	191	<9	<3.7	<5.2	<2.9	<2.4	<3.8	<0.00024	<0.12	<9.5
M244275VB	24427 PANAMA AVE	2010-06-04	09:06	Back	20		0.069	50	<2.3	<8.6	6.6	13	<7.8	<4.3	6.7	<5.7	<0.00023	<0.11	<3.6
M244275VF	24427 PANAMA AVE	2010-06-04	09:40	Front	20		<0.022	28	<2.2	<8.4	<3.3	<5.5	<7.6	<4.2	<3.6	<5.5	<0.00022	<0.11	<3.5
M244275VH	24427 PANAMA AVE	2010-06-04	10:12	House	20		0.26	30	<2.3	<8.8	5.9	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
M244275VH	24427 PANAMA AVE	2013-05-24	15:00	House	21		1.1	<28	<2.6	<9 PF	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	0.26	<15
M244275VB	24427 PANAMA AVE	2013-05-24	15:07	Back	20		0.94	<29	<2.7	<9.2 PF	<14	28	<8.3	<4.6	<3.9	<6	<0.00024	<0.12	<15
M244275VF	24427 PANAMA AVE	2013-05-24	15:21	Front	21		0.49	<28	<2.5	<8.7 PF	<14	<5.7	<7.9	<4.4	<3.7	<5.7	<0.00023	<0.12	<14

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL %	Oxygen/ Argon MOL %	Carbon Dioxide MOL %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl) Ketone UG/M3	Chloroform UG/M3	Tetrachloro- ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane MOL %	Helium MOL %	Carbon Disulfide UG/M3
N24429SVB	24429 NEPTUNE AVE	2010-04-30	00:00	Back	21		0.11	16	< 6.3	40	5.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N24429SVH	24429 NEPTUNE AVE	2010-04-30	13:27	House	21		0.046	< 11	< 6.2	< 8.8	< 3.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6
N24429SVF	24429 NEPTUNE AVE	2010-04-30	14:40	Front	21		0.09	16	< 6.3	31	4.2	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N24429SVB	24429 NEPTUNE AVE	2011-01-14	15:08	Back	21		0.28	100	< 1.1	18	6.2	< 4.8	< 6.7	33	< 3.2	< 4.9	< 0.0002	< 0.1	< 3.1
N24429SVF	24429 NEPTUNE AVE	2011-01-14	15:34	Front	21		0.18	< 11	< 1.3	< 8.6	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
N24429SVH	24429 NEPTUNE AVE	2011-01-14	16:00	House	20		0.2	110	1.4 J, b	< 8.8	40	< 5.7	360	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24429SVH	24429 NEPTUNE AVE	2013-08-07	09:47	House	20		0.71	250	< 0.79	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
N24429SVF	24429 NEPTUNE AVE	2013-08-07	10:09	Front	19		1.6	< 29	< 0.82	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
N24429SVF5	24429 NEPTUNE AVE	2013-08-07	10:09	Front		20.1	1.67	< 20 U	< 0.73 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 0.16 U	< 0.16 U	< 20 U
N24429SVB	24429 NEPTUNE AVE	2013-08-07	10:26	Back	21		0.55	< 26	< 0.75	< 8.4	< 13	< 5.4	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
R24429SVG	24429 RAVENNA AVE	2010-09-17	13:46	Garage	20		0.18	13	1.6 J, b	< 8.6	3.8	24	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.6
R24429SVH	24429 RAVENNA AVE	2010-10-14	10:17	House	18		0.78	19	< 1.5	< 10	7.8	< 6.5	< 9	< 5	< 4.2	9	< 0.00027	< 0.13	< 4.1
R24429SVB	24429 RAVENNA AVE	2010-10-14	11:26	Back	19		0.34	15	< 1.4	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	7
R24429SVB	24429 RAVENNA AVE	2013-07-30	10:04	Back	21		0.75	< 29	< 0.82	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24429SVBD	24429 RAVENNA AVE	2013-07-30	10:04	Back	21		0.75	< 29	< 0.83	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
R24429SVH	24429 RAVENNA AVE	2013-07-30	10:09	House	20		0.84	< 28	1.1 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	0.00039	0.12	< 14
R24429SVG	24429 RAVENNA AVE	2013-07-30	10:36	Garage	20		0.98	< 28	0.88 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
P24430SVB	24430 PANAMA AVE	2009-10-01	09:28	Back	20		0.41	39	< 3.7	< 11	6.1	< 7.1	< 9.9	< 5.5	< 4.6	< 7.2	< 0.00029	< 0.12	< 4.5
P24430SVBD	24430 PANAMA AVE	2009-10-01	09:28	Back	20		0.41	38	8.6 J	< 11	6.2	< 7	< 9.7	31	< 4.6	< 7.1	< 0.00029	< 0.12	17
P24430SVF	24430 PANAMA AVE	2009-10-01	10:54	Front	20		0.87	45	6.7 J	< 8.6	59	< 5.6	21	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.12	< 3.6
P24430SVH	24430 PANAMA AVE	2010-06-14	09:42	House	20		0.29	37 b	3 J	37	4.4 b	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	0.25	< 3.8
P24430SVB	24430 PANAMA AVE	2010-06-14	10:48	Back	20		0.34	37 b	< 2.3	8.7 J	11 b	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6
P24430SVF	24430 PANAMA AVE	2010-06-14	11:46	Front	20		0.63	56 b	< 2.3	17	9.5 b	< 5.7	14	< 4.4	5.8	< 5.8	< 0.00023	< 0.12	< 3.6
P24430SVF	24430 PANAMA AVE	2012-11-30	15:16	Front	20		0.72	32	2.3 J, b	< 8.4	< 13	< 5.5	12	< 4.2	< 3.6	< 5.5	< 0.00022	0.21	< 14
P24430SVH	24430 PANAMA AVE	2010-09-20	09:59	Front	20		< 0.026	20	2.5 J	< 9.7	4.6	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	< 0.00026	< 0.13	< 4
P24430SVB	24430 PANAMA AVE	2010-09-20	11:22	Back	18		1.5	20	2.2 J	< 8.8	6.2	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
P24430SVH	24430 PANAMA AVE	2013-05-07	15:25	House	20		1.4	< 30	11 J, b	< 9.4	< 15	< 6.1	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
P24430SVB	24430 PANAMA AVE	2013-05-07	15:31	Back	21		0.16	< 29	5.6 J, b	< 9.3	< 15	< 6	< 8.4	< 4.7	< 4	< 6.1	< 0.00025	< 0.12	< 15
P24430SVF	24430 PANAMA AVE	2013-05-07	15:56	Front	20		0.8	< 29	3.6 J, b	< 9.1	< 14	< 5.9	18	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 15
P24431SVF	24431 PANAMA AVE	2010-09-20	09:59	Front	20		< 0.026	15	3.8 J	< 9.7	< 3.8	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	< 0.00026	< 0.13	< 4
P24431SVF	24431 PANAMA AVE	2010-09-20	09:59	Front	20		< 0.026	20	2.5 J	< 9.7	4.6	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	< 0.00026	< 0.13	< 4
P24431SVB	24431 PANAMA AVE	2010-09-20	11:22	Back	18		1.5	20	2.2 J	< 8.8	6.2	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
P24431SVH	24431 PANAMA AVE	2010-10-13	14:31	House	16		4	20	4.3 J	9.7	< 3.5	< 5.7	< 8	21	< 3.8	< 5.8	< 0.00024	0.17	< 3.6
P24431SVB	24431 PANAMA AVE	2013-01-17	10:12	Back	20		1.1	< 27	0.87 J, b	< 8.6	< 13	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
P24431SVH	24431 PANAMA AVE	2013-01-17	10:12	House	19		1.7	< 26	0.76 J, b	< 8.3	< 13	< 5.4	< 7.5	< 4.2	< 3.5	< 5.5	< 0.00022	< 0.11	< 14
P24431SVF	24431 PANAMA AVE	2013-01-17	10:43	Front	21		0.11	< 29	0.71 J, b	< 9.3	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
P24431SVB	24431 PANAMA AVE	2013-05-29	09:47	Back	20		1.3	29	< 2.5	< 8.6	< 13	< 5.5	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
P24431SVBD	24431 PANAMA AVE	2013-05-29	09:47	Back	20		1.3	32	< 2.4	< 8.2	< 13	< 5.3	< 7.4	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 14
P24431SVH2	24431 PANAMA AVE	2013-05-29	09:48	House	20		1.8	120	< 2.6	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
P24431SVF	24431 PANAMA AVE	2013-05-29	10:21	Front	22		0.092	30	< 2.6	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
M24432SVH	24432 MARBELLA AVE	2010-11-01	09:18	House	20		1.6	120	< 1.4	< 8.9	11	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24432SVF	24432 MARBELLA AVE	2010-11-01	09:53	Front	20		0.75	< 11	< 1.4	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
M24432SVB	24432 MARBELLA AVE	2010-11-01	10:38	Back	20		0.64	230	< 1.3	9.9	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24432SVH	24432 MARBELLA AVE	2011-01-27	14:09	House	20		1.1	< 11	0.58 J, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24432SVB	24432 MARBELLA AVE	2011-01-27	14:55	Back	21		0.93	< 10	< 0.32	< 8.4	< 3.3	< 5.4	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
M24432SVF	24432 MARBELLA AVE	2011-01-27	15:34	Front	21		0.85	16	0.39 J, b	< 8.4	4.8	< 5.5	< 7.6	41	8.3	< 5.5	< 0.00022	< 0.11	< 3.5
M24432SVH	24432 MARBELLA AVE	2012-03-16	10:24	House	20		1.1	21	5.7 J, b	< 6	< 9.3	14	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
M24432SVF	24432 MARBELLA AVE	2012-03-16	11:04	Front	21		0.82	20	0.68 J, b	< 5.4	< 8.5	< 3.5	< 4.9	< 2.7	< 2.3	< 3.6	< 0.00014	< 0.072	< 9
M24432SVB	24432 MARBELLA AVE	2012-03-16	11:28	Back	21		0.58	< 18	0.71 J, b	18	< 9	< 3.7	< 5.2	< 2.9	< 2.4	< 3.8	< 0.00015	< 0.076	< 9.5
M24432SVBD	24432 MARBELLA AVE	2012-03-16	11:28	Back	21		0.58	< 18	5.9 J, b	< 5.7	< 9	< 3.7	< 5.2	< 2.9	< 2.4	< 3.8	< 0.00015	< 0.076	< 9.5
M24433SVB	24433 MARBELLA AVE	2009-09-16	13:05	Back	21		0.027	< 11	< 2.8	< 8.5	< 3.3	< 5.5	< 7.7	< 4.2	5.8	< 5.6	< 0.00023	< 0.076	< 3.5
M24433SVF	24433 MARBELLA AVE	2009-09-16	14:14	Front	21		0.15	15	3 J	< 7.9	< 3.1	6.7	< 7.1	< 3.9	3.4	< 5.2	< 0.00021	< 0.072	< 3.2
M24433SVB2	24433 MARBELLA AVE	2009-09-18	15:39	Back	21		< 0.029	220	31	< 11	19	< 7	200	9.3	< 4.6	< 7.1	< 0.00029	< 0.12	< 4.5
M24433SVH	24433 MARBELLA AVE	2011-02-14	13:51	House	21		< 0.024	14	2.8 J, b	11	< 3.5	< 5.7	24	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6





Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide M/L %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane M/L %	Helium M/L %	Carbon Disulfide UG/M3
					Oxygen M/L %	Argon M/L %													
R24502SVH	24502 RAVENNA AVE	2010-04-22	13:38	House	21		0.15	130	2.5 J, b	39	13	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
R24502SVH	24502 RAVENNA AVE	2010-10-07	11:07	House	20		0.3	19	< 1.3	< 8.4	< 3.3	7.7	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
R24502SVB	24502 RAVENNA AVE	2010-10-07	11:58	Back	20		0.056	29	< 1.3	< 8.8	4.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
R24502SVF	24502 RAVENNA AVE	2010-10-07	12:58	Front	20		0.31	12	< 1.4	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
R24502SVH	24502 RAVENNA AVE	2010-10-11	14:40	House	19		0.29	33	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	5.7
R24502SVB	24502 RAVENNA AVE	2010-10-11	15:17	Back	20		0.058	18	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
R24502SVF	24502 RAVENNA AVE	2010-10-11	16:14	Front	19		0.44	12	< 1.4	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
R24502SVH	24502 RAVENNA AVE	2012-07-26	15:07	House	21		0.23	< 19	< 3	< 6	< 9.3	7.5	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
R24502SVB	24502 RAVENNA AVE	2012-07-26	15:20	Back	21		0.063	< 19	< 3	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
R24502SVF	24502 RAVENNA AVE	2012-07-26	15:51	Front	21		0.59	< 19	< 3.1	< 6.2	< 9.7	4.2	< 5.6	< 3.1	< 2.6	< 4	0.00028	< 0.082	< 10
M24503SVF	24503 MARBELLA AVE	2010-05-28	08:58	Front	21		< 0.024	22	< 4.1	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24503SVB	24503 MARBELLA AVE	2010-05-28	09:40	Back	21		0.05	< 11	< 4	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24503SVH	24503 MARBELLA AVE	2010-05-28	10:22	House	21		0.16	62	< 4.5	< 9.7	8.7	< 6.3	220	< 4.8	< 4.1	< 6.4	< 0.00026	0.28	< 4
M24503SVF	24503 MARBELLA AVE	2012-03-30	14:54	House	21		0.43	< 19	2.3 J, b	< 6	< 9.3	< 3.8	140	< 3	< 2.5	< 3.9	< 0.00016	0.11	< 9.8
M24503SVH	24503 MARBELLA AVE	2012-03-30	15:12	Front	21		0.056	< 19	3.5 J, b	< 5.9	< 9.2	< 3.8	< 5.3	< 3	< 2.5	< 3.9	< 0.00016	< 0.078	< 9.8
M24503SVB	24503 MARBELLA AVE	2012-03-30	15:12	Front	21		0.053	33	1.4 J, b	6	< 9.3	< 3.8	6.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
M24503SVH	24503 MARBELLA AVE	2012-03-30	15:40	Back	22		0.051	< 18	0.72 J, b	< 5.9	< 9.2	< 3.8	< 5.3	< 2.9	< 2.5	< 3.8	0.0002	< 0.078	< 9.7
M24503SVF	24503 NEPTUNE AVE	2010-06-18	09:48	Front	20		0.32	< 11	< 2.4	< 9	< 3.5	< 5.8	8.1	< 4.5	4.1	< 5.9	< 0.00024	< 0.12	< 3.7
M24503SVB	24503 NEPTUNE AVE	2010-06-18	10:30	Back	14		4.3	< 11	< 2.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24503SVH	24503 NEPTUNE AVE	2011-02-02	09:46	House	21		< 0.022	26	3.2 J, b	8.3	4.7	< 5.4	< 7.5	21	< 3.5	< 5.5	< 0.00022	< 0.11	< 3.4
M24503SVF	24503 NEPTUNE AVE	2012-04-13	10:30	House	22		0.062	< 19	1.1 J, b	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4	< 0.00025	< 0.13	< 10
M24503SVH	24503 NEPTUNE AVE	2012-04-13	10:46	Front	21		0.34	22	1 J, b	7	< 9.3	< 3.8	< 5.4	16 J	< 2.5	< 3.9	< 0.00024	< 0.12	< 9.8
M24503SVB	24503 NEPTUNE AVE	2012-04-13	10:46	Front	22		0.39	< 19	0.99 J, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00024	< 0.12	< 9.8
M24503SVH	24503 NEPTUNE AVE	2013-06-27	14:37	House	21		0.23	< 28	1.1 J, b	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
M24503SVF	24503 NEPTUNE AVE	2013-06-27	14:46	Back	17		4.3	30	< 0.82	< 9.2	< 14	< 6.4	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24503SVB	24503 NEPTUNE AVE	2013-06-27	15:10	Front	21		0.67	39	< 0.85	< 9.5	< 15	7.5	< 8.6	< 4.8	< 4	< 6.2	< 0.00025	< 0.13	< 16
M24503SVH	24503 PANAMA AVE	2011-04-04	14:05	Back	20		< 0.026	78	0.92 J, b	< 9.8	< 15	18	< 8.8	27	< 4.2	< 6.4	< 0.00026	< 0.13	< 16
M24503SVB	24503 PANAMA AVE	2011-04-04	14:55	House	17		2.7	< 12	0.47 J, b	< 9.5	< 15	< 6.2	23	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16
M24503SVH	24503 PANAMA AVE	2011-04-04	15:31	Garage	22		0.11	< 12	0.61 J, b	< 9.8	< 15	< 6.4	< 8.8	< 4.9	< 4.2	< 6.4	< 0.00054	< 0.27	< 16
M24503SVG	24503 PANAMA AVE	2012-08-10	14:54	House	11		7.2	< 20	< 3.1	< 6.2	< 9.8	< 4	< 5.6	< 3.1	< 2.6	< 4.1	< 0.00017	< 0.083	< 10
M24503SVB	24503 PANAMA AVE	2012-08-10	15:31	Back	16		3.4	57	2.2 J, b	170	< 13	15	< 7.5	4.6	< 3.5	< 5.5	< 0.00017	< 0.083	< 14
M24503SVH	24503 PANAMA AVE	2012-08-10	15:31	Back	16		3.3	< 40	4.5 J, b	290	< 20	14	< 12	< 6.4	< 5.4	< 8.4	< 0.00017	< 0.083	< 21
M24503SVG	24503 PANAMA AVE	2012-08-10	15:34	Garage	20		1.1	26	< 3	22	< 9.6	< 4	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.081	< 10
M24503SVH	24503 RAVENNA AVE	2010-08-09	09:13	House	19		0.88	16	< 6.4	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	0.00032	< 0.12	< 3.8
M24503SVG	24503 RAVENNA AVE	2010-08-09	10:01	Garage	17		3.6	38	< 6.2	12	11	13	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24503SVB	24503 RAVENNA AVE	2010-08-09	11:01	Back	19		0.62	32	< 6.2	< 8.8	5.7	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	9.5
M24503SVG	24503 RAVENNA AVE	2012-11-08	14:58	Garage	15		5.2	< 28	< 0.58	< 8.8	< 14	< 5.7	19	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M24503SVH	24503 RAVENNA AVE	2012-11-08	15:09	House	19		1.3	< 28	0.6 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M24503SVB	24503 RAVENNA AVE	2012-11-08	15:33	Back	22		0.98	< 29	< 0.6	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24506SVH	24506 MARBELLA AVE	2010-04-21	09:55	House	18		2.8	17	< 2.3	35	9	< 5.7	< 7.9	400	130	< 5.8	< 0.00023	< 0.12	< 3.6
M24506SVF	24506 MARBELLA AVE	2010-04-21	10:11	Front	20		0.23	230	< 2.4	10	19	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24506SVB2	24506 MARBELLA AVE	2010-08-10	09:00	Back	19		< 0.023	21	< 6.1	< 8.7	< 3.4	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
M24506SVH	24506 MARBELLA AVE	2011-01-26	10:01	House	17		2.5	< 11	1.6 J, b	< 8.6	< 3.4	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.6
M24506SVF	24506 MARBELLA AVE	2011-01-26	10:45	Front	21		0.16	< 11	1.1 J, b	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24506VFD	24506 MARBELLA AVE	2011-01-26	10:45	Front	21		0.16	< 11	0.53 J, b	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24506SVB2	24506 MARBELLA AVE	2011-01-26	11:36	Back	20		< 0.023	< 11	0.88 J, b	< 8.8	< 3.4	< 5.7	< 7.9	7.7	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24506SVF	24506 MARBELLA AVE	2012-03-15	10:29	Front	22		0.11	< 33	3.1 J, b	< 10	< 16	< 6.8	< 9.4	< 5.2	< 4.4	< 6.9	< 0.00016	< 0.079	< 17
M24506SVFS	24506 MARBELLA AVE	2012-03-15	10:29	Front			< 0.16 U	< 18 U	< 1 U	< 18 U	< 18 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	2.6	< 0.16 U	< 0.08	< 18 U
M24506SVH	24506 MARBELLA AVE	2012-03-15	10:29	House	18		2.9	< 19	0.71 J, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
M24506SVB2	24506 MARBELLA AVE	2012-03-15	11:23	Back	21		< 0.016	< 32	3.8 J, b	< 10	< 16	< 6.6	< 9.2	< 5.1	< 4.3	< 6.7	< 0.00016	< 0.078	< 17
M24506SVB2	24506 MARBELLA AVE	2013-07-02	14:47	Back	20		< 0.025	< 30	0.93 J, b	< 9.4	< 15	< 6.1	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
M24506SVB2D	24506 MARBELLA AVE	2013-07-02	14:47	Back	20		< 0.024	37	< 0.83	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection															
					Analyte Units	Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
M24506SVH	24506 MARELLA AVE	2013-07-02	14:55	House	17			3.8	40	0.81, b	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
M24506SVF	24506 MARELLA AVE	2013-07-02	15:12	Front	21		0.4	< 30	< 0.86	< 9.6	< 15	< 6.2	< 8.7	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 16	
N24508SVH	24508 NEPTUNE AVE	2010-06-11	09:06	House	20		0.45	37	< 2.2	20	10	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5	
N24508SVB	24508 NEPTUNE AVE	2010-06-11	10:01	Back	20		< 0.023	50	< 2.3	11	7	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
N24508SVF	24508 NEPTUNE AVE	2010-06-11	10:45	Front	20		0.063	37	< 2.5	9.9	6.9	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 3.8	
N24508SVH	24508 NEPTUNE AVE	2011-01-28	10:23	Front	21		0.098	< 11	0.74, j, b	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5	
N24508SVB	24508 NEPTUNE AVE	2011-01-28	11:03	House	20		0.46	37	0.61, b	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5	
N24508SVF	24508 NEPTUNE AVE	2011-01-28	11:35	Back	21		0.39	< 11	0.76, j, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
N24508SVB	24508 NEPTUNE AVE	2011-01-28	11:35	Back	21		0.438	< 18	< 1.4	< 18	< 18	< 1.8	< 1.8	< 1.8	< 1.8	2.6	< 0.16	< 0.12	< 18	
N24508SVF	24508 PANAMA AVE	2010-05-19	09:43	Front	21		0.71	17	< 6.2	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
P24508SVH	24508 PANAMA AVE	2010-05-19	10:26	House	21		0.19	59	180	17	9.2	< 5.8	< 8	< 4.5	9.9	6	< 0.00024	0.12	< 3.7	
P24508SVB	24508 PANAMA AVE	2010-05-19	11:06	Back	21		0.052	34	171	9	< 3.5	< 5.8	< 8	< 4.5	3.71	< 5.9	< 0.00024	< 0.12	< 3.7	
P24508SVH	24508 PANAMA AVE	2012-04-26	15:00	House	21		0.42	< 19	2.3, j, b	< 6.1	< 9.5	< 3.9	< 5.5	3.4	< 2.6	< 4	< 0.00021	0.19	< 10	
P24508SVF	24508 PANAMA AVE	2012-04-26	15:07	Front	20		0.72	< 19	1.8, j, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10	
P24508SVB	24508 PANAMA AVE	2012-04-26	15:07	Front	21		0.77	21	5.2, j, b	< 6.1	11	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00021	< 0.1	< 10	
P24508SVB	24508 PANAMA AVE	2012-04-26	15:34	Back	21		0.44	110	1.61, b	< 6	16	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8	
R24508SVHA	24508 RAVENNA AVE	2011-01-31	09:42	House	21		0.11	11	0.97, j, b	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5	
R24508SVF	24508 RAVENNA AVE	2011-01-31	10:21	Front	21		< 0.023	16	0.45, j, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
R24508SVB	24508 RAVENNA AVE	2011-01-31	11:00	Back	21		< 0.022	21	1.3, j, b	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5	
R24508SVHA	24508 RAVENNA AVE	2013-03-29	10:00	House	21		0.42	< 28	0.771	< 8.9	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	0.15	< 15	
R24508SVB	24508 RAVENNA AVE	2013-03-29	10:14	Back	20		1	< 28	0.591	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14	
R24508SVB	24508 RAVENNA AVE	2013-03-29	10:14	Back	20		0.587	< 22 U	< 0.92 U	< 22 U	< 22 U	3.7	< 2.2 U	< 2.2 U	< 2.2 U	2.3	< 0.18 U	< 0.12	< 22 U	
R24508SVF	24508 RAVENNA AVE	2013-03-29	10:49	Front	22		0.088	31	< 0.59	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
R24508SVB	24508 RAVENNA AVE	2013-03-29	10:49	Front	22		0.091	51	< 0.58	12	16	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15	
N24509SVH	24509 NEPTUNE AVE	2010-05-04	13:45	House	20		0.39	21	< 6.4	26	< 3.6	< 5.9	< 8.2	< 4.5	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.8	
N24509SVF	24509 NEPTUNE AVE	2010-05-04	15:44	Front	21		0.026	31	< 6.6	< 9.4	< 3.7	< 6.1	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	0.16	< 3.9	
N24509SVB2	24509 NEPTUNE AVE	2010-07-30	09:30	Back	20		0.88	90 b	< 6.2	14	8.2	< 5.7	< 7.9	< 4.4	4.4	< 5.8	< 0.00023	< 0.12	< 3.6	
N24509SVB2S	24509 NEPTUNE AVE	2010-07-30	09:30	Back	20		0.805	< 17	< 1.3	< 17	< 17	< 1.7	< 1.7	< 1.7	4.2	2.2	< 0.16	< 0.12	< 17	
N24509SVH	24509 NEPTUNE AVE	2012-07-06	10:10	House	20		0.84	19	< 2.8	< 5.7	< 9	< 3.7	< 5.2	< 2.9	< 2.4	< 3.8	< 0.00015	< 0.076	< 9.5	
N24509SVB2	24509 NEPTUNE AVE	2012-07-06	10:12	Back	21		0.54	21	< 2.7	8.7	< 8.6	< 3.5	< 4.9	13	< 2.3	< 3.6	< 0.00014	< 0.072	< 9	
N24509SVF	24509 NEPTUNE AVE	2012-07-06	11:02	Front	21		0.46	25	< 2.9	< 5.8	< 9	< 3.7	< 5.2	< 2.9	< 2.4	< 3.8	< 0.00015	< 0.076	< 9.5	
N24509SVF5	24509 NEPTUNE AVE	2012-07-06	11:02	Front	21		0.455	< 17 U	< 0.72 U	< 17 U	< 17 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	2.3	< 0.16 U	< 0.12	< 17 U	
N24509SVB2	24509 NEPTUNE AVE	2013-03-14	14:44	Back	21		0.29	32	1.61, b	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14	
N24509SVB2D	24509 NEPTUNE AVE	2013-03-14	14:44	Back	21		0.3	28	1.3, j, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14	
N24509SVH	24509 NEPTUNE AVE	2013-03-14	14:52	House	20		0.65	41	1.1, b	< 8.7	16	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14	
N24509SVF	24509 NEPTUNE AVE	2013-03-14	15:14	Front	20		0.32	65	2.6, j, b	< 9.4	21	< 5.9	< 8.2	< 4.5	< 3.8	< 5.7	< 0.00024	< 0.12	< 15	
P24509SVH	24509 PANAMA AVE	2010-11-12	13:31	House	13		5	12	2.2, j, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	4	
P24509SVF	24509 PANAMA AVE	2010-11-12	14:13	Front	20		1.1	< 11	1.1, j, b	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	0.19	< 3.7	
P24509SVB	24509 PANAMA AVE	2010-11-12	14:43	Back	19		1.6	13	1.1, j, b	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8	
P24509SVH	24509 PANAMA AVE	2013-02-07	09:44	House	18		3.3	< 29	1.2, j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15	
P24509SVB	24509 PANAMA AVE	2013-02-07	09:50	Back	21		1.6	< 60	< 1.2	< 19	< 30	< 12	< 17	< 9.6	< 8.1	< 12	< 0.00051	0.51	< 32	
P24509SVBD	24509 PANAMA AVE	2013-02-07	09:50	Back	20		1.6	< 29	< 0.6	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15	
P24509SVH	24509 PANAMA AVE	2013-06-28	10:31	House	14		5.4	< 30	3.4, j, b	< 9.4	< 15	< 6.1	< 8.5	< 4.7	4	< 6.2	< 0.00025	< 0.12	< 16	
P24509SVB	24509 PANAMA AVE	2013-06-28	10:34	Back	17		4.1	< 28	1.1, j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
P24509SVBD	24509 PANAMA AVE	2013-06-28	10:34	Back	17		4.1	< 28	1.2, j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
P24509SVF4	24509 PANAMA AVE	2013-06-28	10:54	Front	21		< 0.024	40	3.7, b	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15	
R24509SVH	24509 RAVENNA AVE	2010-06-21	10:03	House	20		0.44	27	< 2.4	11	< 3.5	< 5.8	< 8.1	52	< 3.8	< 5.9	< 0.00024	< 0.12	51	
R24509SVB	24509 RAVENNA AVE	2010-06-21	10:50	Back	20		0.12	54	< 2.3	10	5.2	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
R24509SVG	24509 RAVENNA AVE	2010-10-15	12:12	Garage	20		0.78	46	< 1.4	< 9	11	< 5.8	10	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7	
R24509SVG	24509 RAVENNA AVE	2012-04-12	15:49	Garage	20		0.58	54	0.77, j, b	< 6	< 9.3	< 3.8	10	< 3	< 2.5	< 3.9	< 0.00026	< 0.13	< 9.8	
R24509SVB	24509 RAVENNA AVE	2013-08-15	10:06	Back	17		2	< 28	0.99, j, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14	
R24509SVB5	24509 RAVENNA AVE	2013-08-15	10:06	Back	17		17.8	< 19 U	< 0.69 U	< 19 U	< 19 U	4.5	< 1.9 U	< 1.9 U	< 1.9 U	2.1	< 0.15 U	< 0.12	< 19 U	

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection		Oxygen/ Argon MOL %	Carbon Dioxide MOL %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl) Ketone UG/M3	Chloroform UG/M3	Tetrachloro- ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane MOL %	Helium MOL %	Carbon Disulfide UG/M3
					MOL %	100.00%														
R24509SVHA	24509 RAVENNA AVE	2013-08-15	10:13	House	20				< 29	5.1 J, b	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24509SVG	24509 RAVENNA AVE	2013-08-15	10:34	Garage	21				< 28	1.3 J, b	< 8.9	< 14	< 5.8	13	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
M24512SVB	24512 MARBELLA AVE	2011-04-28	08:53	Back	21				21	4.5 J, b	< 9.9	< 16	< 6.4	< 9	< 5	< 4.2	< 6.5	0.00032	< 0.13	< 16
M24512SVBS	24512 MARBELLA AVE	2011-04-28	08:53	Back		22.1			23	< 1.1	< 19	< 19	< 1.9	< 1.9	< 1.9	< 1.9	2.5	< 0.17	< 0.17	< 19
M24512SVH	24512 MARBELLA AVE	2011-04-28	09:34	House	21				< 11	2.4 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.0005	< 0.25	< 15
M24512SVF	24512 MARBELLA AVE	2011-04-28	10:12	Front	20				19	1.3 J, b	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
M24512SVFS	24512 MARBELLA AVE	2011-04-28	10:12	Front		21.7			< 20	< 1.2	< 20	< 20	2.3	< 2	< 2	< 2	2.8	< 0.0019	< 0.11	< 20
M24512SVH	24512 MARBELLA AVE	2012-01-20	09:53	House	20				< 7.2	0.92 J, b	< 5.7	< 9	< 3.7	< 5.2	< 2.9	< 2.4	< 3.8	< 0.00015	< 0.076	< 9.5
M24512SVF	24512 MARBELLA AVE	2012-01-20	11:36	Front	21				10	0.46 J, b	< 5.7	< 9	< 3.7	< 5.2	< 2.9	< 2.4	< 3.8	< 0.00015	< 0.076	< 9.5
M24512SVFS	24512 MARBELLA AVE	2012-01-20	11:36	Front		21.4			< 17 U	< 0.99 U	< 17 U	< 17 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	2.1	< 0.16 U	< 0.12	< 17 U
M24512SVB	24512 MARBELLA AVE	2012-01-20	12:28	Back	21				9.8	0.42 J, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	0.00018	< 0.08	< 10
M24512SVH	24512 NEPTUNE AVE	2013-07-26	14:42	House	20				< 28	2.2 J, b	< 8.8	< 14	< 5.7	< 7.9	8.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M24512SVB	24512 NEPTUNE AVE	2013-07-26	14:49	Back	21				77	1.3 J, b	56	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
M24512SVF	24512 NEPTUNE AVE	2013-07-26	15:09	Front	20				62	4.4 J, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
M24512SVH	24512 PANAMA AVE	2010-11-08	09:27	House	20				< 11	0.85 J, b	< 8.8 U	< 3.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6
M24512SVF	24512 PANAMA AVE	2010-11-08	10:01	Front	19				450	1.1 J, b	63.1	24	19	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6
M24512SVFS	24512 PANAMA AVE	2010-11-08	10:01	Front		19.9			500	0.91 J	110	40	16	< 2.7	< 2.7	< 2.7	< 2.7	< 0.15	< 0.12	< 27
M24512SVB	24512 PANAMA AVE	2010-11-08	10:43	Back	21				16	1.2 J, b	< 9.3 U	< 3.6	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 3.8
M24512SVH	24512 PANAMA AVE	2012-11-15	15:43	House	23				< 28	3 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00031	< 0.16	< 14
M24512SVF	24512 PANAMA AVE	2012-11-15	15:46	Front	19				21	1.8 J, b	< 8.4	< 13	12	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
M24512SVB	24512 PANAMA AVE	2012-11-15	16:26	Back	21				< 27	2.5 J, b	9.2	< 14	< 5.6	< 7.8	5.5	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
M24512SVH	24512 PANAMA AVE	2013-06-13	09:49	House	20				< 26	< 2.4	< 8.2	< 13	< 5.3	< 7.4	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 14
M24512SVF	24512 PANAMA AVE	2013-06-13	10:01	Front	20				< 29	< 2.7	< 9.3	< 15	< 6	< 8.4	< 4.7	< 4	< 6.1	< 0.00025	< 0.12	< 15
M24512SVFS	24512 PANAMA AVE	2013-06-13	10:01	Front		20.2			< 20 U	< 0.73 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 0.16 U	< 0.12	< 20 U
M24512SVB	24512 PANAMA AVE	2013-06-13	10:25	Back	22				36	< 2.7	< 9.4	< 15	< 6.1	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
M24513SVH	24513 NEPTUNE AVE	2010-08-05	09:03	House	18				32	10 J	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24513SVB	24513 NEPTUNE AVE	2010-08-05	09:41	Back	20				51	< 6.2	< 8.8	3.5	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24513SVBD	24513 NEPTUNE AVE	2010-08-05	09:41	Back	20				73	< 6.2	9.9	5.8	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	5.6
M24513SVF	24513 NEPTUNE AVE	2010-08-05	10:21	Front	20				73	< 6.2	10	9.9	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24513SVFD	24513 NEPTUNE AVE	2012-08-02	15:00	Front	20				< 20	< 3.1	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00017	< 0.084	< 10
M24513SVH	24513 NEPTUNE AVE	2012-08-02	15:00	Front	20				< 20	< 3.1	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00017	< 0.084	< 10
M24513SVB	24513 NEPTUNE AVE	2012-08-02	15:26	House	18				< 25	< 3.9	< 7.8	< 12	< 5.1	< 7	< 3.9	< 3.3	< 5.1	< 0.00016	< 0.078	< 13
M24513SVH	24513 NEPTUNE AVE	2012-08-02	15:30	Back	19				< 18	< 2.9	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6
M24513SVB	24513 NEPTUNE AVE	2013-06-05	14:57	Back	19				< 30	< 2.8	< 9.6	< 15	< 6.2	< 8.7	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 16
M24513SVBS	24513 NEPTUNE AVE	2013-06-05	14:57	Back		19.3			< 23 U	< 0.82 U	< 23 U	< 23 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 2.3 U	< 0.18 U	< 0.12	< 23 U
M24513SVH	24513 NEPTUNE AVE	2013-06-05	15:16	House	19				3	3.1 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
M24513SVF	24513 NEPTUNE AVE	2013-06-05	15:25	Front	21				< 29	< 2.6	< 9.1	< 14	< 5.9	< 8.2	5.9 b	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24513SVB	24513 RAVENNA AVE	2010-04-23	12:51	Back	20				29	< 2.3	8.4 J	4.1	< 5.6	< 7.8	< 4.3	9.3	< 5.7	< 0.00023	< 0.11	< 3.6
M24513SVH	24513 RAVENNA AVE	2010-04-23	14:30	House	18				150	3 J, b	110	22	< 5.7	< 7.9	11	57	< 5.8	< 0.00023	< 0.12	< 3.6
M24513SVF	24513 RAVENNA AVE	2010-04-23	15:45	Front	20				180	< 2.3	19	5.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24513SVH	24513 RAVENNA AVE	2010-08-19	13:44	House	15				14	< 1.4	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24513SVF	24513 RAVENNA AVE	2010-08-19	14:33	Front	20				15	< 1.4	< 9	4.2	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24513SVB	24513 RAVENNA AVE	2010-08-19	15:14	Back	18				25	< 1.3	< 8.8	8.3	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24513SVF	24513 RAVENNA AVE	2012-05-25	14:44	Front	21				< 19	< 0.31	< 6	< 9.4	< 3.9	< 5.4	< 3	< 2.6	< 4	< 0.00016	< 0.078	< 10
M24513SVFD	24513 RAVENNA AVE	2012-05-25	14:44	Front	21				< 19	< 0.31	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.078	< 9.8
M24513SVB	24513 RAVENNA AVE	2012-05-25	15:00	Back	20				< 18	0.38 J, b	< 5.6	< 8.8	< 3.7	< 5.1	< 2.8	< 2.4	< 3.7	< 0.00015	< 0.075	< 9.3
M24513SVHA	24513 RAVENNA AVE	2013-07-25	14:42	House	21				< 28	1.2 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	0.19	< 15
M24513SVB	24513 RAVENNA AVE	2013-07-25	14:51	Back	18				< 29	1.8 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24513SVF	24513 RAVENNA AVE	2013-07-25	15:15	Front	20				36	0.92 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24516SVH	24516 MARBELLA AVE	2010-05-27	09:16	House	18				110	14 J	87	14	< 5.7	< 7.9	10	3.7	< 5.8	< 0.00023	< 0.12	5
M24516SVB	24516 MARBELLA AVE	2010-05-27	10:11	Back	19				30	< 7	11	6	< 5.8	< 8.1	< 4.5	9.2	< 5.9	< 0.00024	< 0.12	< 3.7
M24516SVG	24516 MARBELLA AVE	2010-05-27	10:55	Garage	20				19	< 7	< 9	< 3.5	< 5.8	< 8.1	< 4.5	3.8	< 5.9	< 0.00024	< 0.12	< 3.7

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide M/L %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane M/L %	Helium M/L %	Carbon Disulfide UG/M3
					Oxygen M/L %	Argon M/L %													
M24516SVH	24516 MARBELLA AVE	2012-05-24	14:57	House	18		2.7	<18	1.61, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00016	<0.078	<9.6
M24516SVG	24516 MARBELLA AVE	2012-05-24	15:14	Garage	21		0.55	<18	0.71, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00016	<0.078	<9.6
M24516SVGD	24516 MARBELLA AVE	2012-05-24	15:14	Garage	21		0.56	<18	0.66, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00016	<0.078	<9.6
M24516SVB	24516 MARBELLA AVE	2012-05-24	15:39	Back	19		2.3	<18	0.71, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00016	<0.078	<9.6
M24517SVF	24517 MARBELLA AVE	2009-10-06	13:40	Front	21		0.068	120	4.81	14	6.9	<5.6	7.9	<4.3	<3.7	<5.7	<0.00023	<0.12	42
M24517SVB	24517 MARBELLA AVE	2009-10-06	17:16	Back	21		0.028	<11	<2.9	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
M24517SVBD	24517 MARBELLA AVE	2009-10-06	17:16	Back	21		0.029	<11	<2.9	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
M24517SVH	24517 MARBELLA AVE	2011-02-08	09:42	House	20		<0.024	15	0.92, b	<9.1	<3.6	<5.9	15	<4.6	<3.9	<6	<0.00024	<0.12	<3.8
M24517SVH	24517 MARBELLA AVE	2011-10-11	13:46	House	22		0.08	10	<0.31	<6	<9.4	<3.9	32	<3	<2.6	<4	<0.00021	<0.1	<10
M24517SVF	24517 MARBELLA AVE	2011-10-11	14:20	Front	20		1.1	19	<0.33	66	<9.9	<4.1	17	<3.2	<2.7	<4.2	<0.00022	<0.11	<10
M24517SVFD	24517 MARBELLA AVE	2011-10-11	14:20	Front	20		1.1	9.1	<0.33	<6.4	<10	<4.1	9.9	<3.2	<2.7	<4.2	<0.00022	<0.11	<10
M24517SVB	24517 MARBELLA AVE	2011-10-11	14:57	Back	22		0.13	8.3	<0.31	<5.9	<9.2	<3.8	66	<2.9	<2.5	<3.8	<0.0002	<0.1	<9.7
M24517SVBD	24517 MARBELLA AVE	2011-10-11	14:57	Back	21		0.14	8.4	<0.31	<5.9	<9.2	<3.8	66	<2.9	<2.5	<3.8	<0.0002	<0.1	<9.7
M24517SVH	24517 MARBELLA AVE	2012-03-23	15:05	Back	21		0.055	<18	0.49, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00016	<0.078	<9.6
M24517SVBD	24517 MARBELLA AVE	2012-03-23	15:05	Back	21		0.054	68.1	2.51, b	5.9, b	30.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00016	<0.078	<9.6
M24517SVF	24517 MARBELLA AVE	2012-03-23	15:16	Front	21		0.74	22	1.61, b	<5.8	26	<3.8	5.7	45	6.4	<3.8	<0.00016	<0.078	<9.6
M24517SVB	24517 MARBELLA AVE	2013-08-20	14:42	Back	21		0.054	<27	3.41, b	<8.7	<14	<5.6	<7.8	<4.3	<3.7	<5.7	<0.00023	<0.12	<14
M24517SVH	24517 MARBELLA AVE	2013-08-20	14:57	House	20		0.077	92	3.41, b	<9	<14	<5.8	9.6	<4.5	<3.8	<5.9	<0.00024	<0.12	<15
M24517SVF	24517 MARBELLA AVE	2013-08-20	15:02	Front	20		1	<27	1.51, b	<8.6	<13	<5.6	15	<4.3	<3.6	<5.6	<0.00023	<0.11	<14
M24518SVB	24518 NEPTUNE AVE	2010-07-28	10:05	Back	20		<0.024	40	<6.4	12	5.5	57	<8.2	<4.6	18	<6	<0.00024	<0.12	<3.8
M24518SVH	24518 NEPTUNE AVE	2010-07-28	11:06	House	20		0.6	82	<6.1	15	10	<5.6	<7.8	<4.3	5	<5.7	<0.00023	<0.12	<3.6
M24518SVG	24518 NEPTUNE AVE	2010-07-28	12:10	Garage	20		1.7	24	<6.2	<8.8	4.2	<5.7	<7.9	<4.4	4.4	<5.8	<0.00023	<0.12	<3.6
M24518SVH	24518 NEPTUNE AVE	2013-04-26	09:59	House	21		0.92	<26	1.1, b	<8.1	<13	<5.3	<7.3	<4.1	<3.4	<5.3	<0.00022	<0.11	<13
M24518SVG	24518 NEPTUNE AVE	2013-04-26	10:29	Garage	20		1.4	<27	1.21, b	<8.6	<13	<5.6	<7.7	<4.3	<3.6	<5.6	<0.00023	<0.11	<14
M24518SVB	24518 NEPTUNE AVE	2013-04-26	10:32	Back	20		0.94	<30	0.81, b	<9.4	<15	<5.9	<8.5	<4.7	<4	<6.2	<0.00025	<0.12	<16
M24518SVBD	24518 NEPTUNE AVE	2013-04-26	10:32	Back	20		0.96	35	0.91, b	<9.4	<15	9.0	<8.5	<4.7	<4	<6.2	<0.00025	<0.12	<16
M24518SVH	24518 NEPTUNE AVE	2013-07-16	14:56	Back	18		1.8	39	<0.83	<9.3	<14	9.30	9.3	<4.6	<3.9	<6.1	<0.00025	<0.12	<15
M24518SVBD	24518 NEPTUNE AVE	2013-07-16	14:56	Back	18		1.8	<30	<0.84	<9.4	<15	9.10	<8.5	<4.7	<4	<6.2	<0.00025	<0.12	<16
M24518SVH	24518 NEPTUNE AVE	2013-07-16	15:35	House	20		2	31	4.1, b	<9.7	<15	<6.3	<8.8	<4.9	<4.1	<6.4	<0.00026	<0.13	<16
M24518SVG	24518 NEPTUNE AVE	2013-07-16	15:35	House	20		2	40	2.41, b	<9	<14	<5.8	<8.1	5.2	<4.1	<6.4	<0.00026	<0.13	<16
M24518SVH	24518 NEPTUNE AVE	2013-07-16	15:38	Garage	20		1	120	<6.2	<8.6	11	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00024	<0.12	<15
R24518SVH2	24518 RAVENNA AVE	2010-04-26	14:09	House	20		0.47	12	<6.4	<9.1	<3.6	<5.9	<8.2	<4.6	<3.9	<5.8	<0.00024	<0.12	<3.6
R24518SVH1	24518 RAVENNA AVE	2010-04-26	15:09	House	20		1.3	12	<6.4	<9.1	<3.6	<5.9	<8.2	<4.6	<3.9	<5.8	<0.00024	<0.12	<3.6
R24518SVF	24518 RAVENNA AVE	2010-04-26	16:04	Front	20		0.78	13	<5.9	<8.4	<3.3	<5.4	37	<4.2	<3.6	<5.5	<0.00022	<0.11	<3.5
R24518SVF	24518 RAVENNA AVE	2012-07-12	14:58	Front	20		0.74	<17	<2.7	<5.4	<8.5	<3.5	<4.9	<2.7	<2.3	<3.6	<0.00014	<0.072	<9
R24518SVFD	24518 RAVENNA AVE	2012-07-12	14:58	Front	20		0.79	<17	<2.7	<5.4	<8.5	<3.5	<4.9	<2.7	<2.3	<3.6	<0.00014	<0.072	<9
R24518SVH1	24518 RAVENNA AVE	2012-07-12	15:08	House	19		1.4	<19	<3	<6	<9.3	<3.8	<5.4	<3	<2.5	<3.9	<0.00016	<0.079	<9.8
R24518SVH2	24518 RAVENNA AVE	2012-07-12	15:49	House	19		2.2	26	<3.1	8.2	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00017	<0.084	<10
N24519SVB	24519 NEPTUNE AVE	2010-08-10	09:01	Back	19		1.8	14	<6.2	<8.8	<3.5	<5.7	<8	<4.4	<3.8	<5.8	<0.00024	<0.12	<3.6
N24519SVH	24519 NEPTUNE AVE	2010-08-10	09:59	House	16		2.7	15	<6.2	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
N24519SVH	24519 NEPTUNE AVE	2010-08-10	09:59	House	16		2.7	15	<6.2	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
N24519SVF	24519 NEPTUNE AVE	2010-08-10	10:47	Front	18		0.8	39	<6.4	11	15	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8
N24519SVB	24519 NEPTUNE AVE	2012-06-29	14:47	Back	19		2	<20	<3.1	<6.3	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00017	<0.084	<10
N24519SVBD	24519 NEPTUNE AVE	2012-06-29	14:47	Back	19		2.1	<19	<3.1	<6.2	<9.7	<4	<5.6	<3.1	<2.6	<4	<0.00016	<0.082	<10
N24519SVH	24519 NEPTUNE AVE	2012-06-29	14:56	House	20		2.1	<18	<2.9	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00016	<0.078	<9.6
N24519SVF	24519 NEPTUNE AVE	2012-06-29	15:26	Front	19		1.7	23	<3.1	<6.3	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00017	<0.084	<10
P24519SVH	24519 PANAMA AVE	2010-10-18	00:00	House	18		0.29	14	<1.3	<8.8	<3.4	9.3	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
P24519SVF	24519 PANAMA AVE	2010-10-18	13:31	Front	20		<0.023	13	<1.3	<8.6	<3.4	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<3.6
P24519SVS	24519 PANAMA AVE	2010-10-18	13:31	Front	20		<0.15	16	0.51	<16	<16	<1.6	<1.6	1.9	<1.6	2.2	<0.15	<0.11	<16
P24519SVB	24519 PANAMA AVE	2010-10-18	14:14	Back	19		1	15	<1.3	<8.6	<3.4	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<16
P24519SVBS	24519 PANAMA AVE	2010-10-18	14:14	Back	19		1.26	<17	<1.3	<17	<17	<1.7	<1.7	<1.7	<1.7	2.1	<0.15	<0.11	<17
P24519SVB	24519 PANAMA AVE	2013-06-06	14:48	Back	20		1.7	28	<2.5	<8.6	<13	<5.5	<7.7	<4.3	<3.6	<5.6	<0.00023	<0.11	<14
P24519SVH	24519 PANAMA AVE	2013-06-06	14:48	House	19		1.7	<29	<2.7	<9.3	<15	<6	<8.4	18	<4	<6.1	<0.00025	<0.12	<15
P24519SVF	24519 PANAMA AVE	2013-06-06	15:10	Front	21		0.79	<29	<2.7	<9.2	<14	<6	<8.3	<4.6	<3.9	<6	<0.00024	<0.12	<15

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide M/L %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane M/L %	Helium M/L %	Carbon Disulfide UG/M3
					Oxygen M/L %	Oxygen/Argon M/L %													
M24522SVH	24522 MARBELLA AVE	2010-04-30	09:04	House	21		0.23	< 11	< 6.1	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
M24522SVB	24522 MARBELLA AVE	2010-04-30	09:57	Back	18		1.1	26	< 6.4	18	14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
M24522SVF	24522 MARBELLA AVE	2010-04-30	10:58	Front	21		0.042	47	< 6.3	11	< 3.5	< 5.8	< 8.1	< 4.5	13	< 5.9	< 0.00024	< 0.12	< 3.7
M24522SVFD	24522 MARBELLA AVE	2010-04-30	10:58	Front	21		0.04	45	< 6.3	< 8.9	3.7	< 5.8	< 8	< 4.5	4.2	< 5.9	< 0.00024	< 0.12	< 3.7
M24522SVG	24522 MARBELLA AVE	2010-10-13	09:08	Front	20		0.91	17	< 1.3	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
M24522SVH	24522 MARBELLA AVE	2010-10-13	10:04	House	20		0.8	10	< 1.2	8.1	< 3.2	< 5.2	< 7.3	< 4	< 3.4	< 5.3	< 0.00022	< 0.11	< 3.3
M24522SVB	24522 MARBELLA AVE	2010-10-13	11:35	Back	16		2	19	< 1.5	14	< 3.8	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	< 0.00026	< 0.13	< 4
M24522SVF	24522 MARBELLA AVE	2012-04-20	10:30	Front	21		0.53	< 24	1.2, 1, b	< 7.5	< 12	< 4.8	< 6.7	< 3.7	< 3.2	< 4.9	< 0.00015	< 0.076	< 12
M24522SVH	24522 MARBELLA AVE	2012-04-20	10:32	House	20		0.98	< 18	1.5, 1, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6
M24522SVB	24522 MARBELLA AVE	2012-04-20	11:11	Back	18		1.7	69.1	2.3, 1, b	< 6.4	< 10	< 4.2	< 5.8	< 3.2	< 2.7	< 4.2	< 0.00017	< 0.086	< 11
M24522SVBD	24522 MARBELLA AVE	2012-04-20	11:11	Back	18		1.7	< 20	1, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00017	< 0.084	< 10
M24522SVH	24522 NEPTUNE AVE	2010-06-15	14:13	House	19		1.7	11.1 b	< 2.2	15	4.2	< 5.5	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.5
M24522SVF	24522 NEPTUNE AVE	2010-06-15	14:59	Front	20		0.045	28.1 b	< 2.4	12	4.7	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	8.9
M24522SVH	24522 NEPTUNE AVE	2011-02-02	13:54	House	20		1.4	< 11	0.98, 1, b	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
M24522SVBA	24522 NEPTUNE AVE	2011-02-02	14:25	Back	22		< 0.022	58	1.4, 1, b	< 8.3	6.8	< 5.4	< 7.5	< 4.2	< 3.5	< 5.5	< 0.00022	< 0.11	< 3.4
M24522SVF	24522 NEPTUNE AVE	2011-02-02	14:57	Front	21		0.055	< 11	2.3, 1, b	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	11
M24522SVH	24522 NEPTUNE AVE	2012-04-05	09:57	House	20		1.2	< 20	1.6, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVF	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.042	20	1, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVFD	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.04	< 20	0.97, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVBA	24522 NEPTUNE AVE	2012-04-05	10:55	Back	21		< 0.027	< 20	1.1, 1, b	< 6.4	< 10	< 4.2	< 5.8	< 3.2	< 2.7	< 4.2	< 0.00027	< 0.14	< 11
M24522SVF	24522 NEPTUNE AVE	2011-02-02	14:57	Front	21		0.055	< 11	2.3, 1, b	< 9.4	< 15	< 6.1	< 8.4	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
M24522SVH	24522 NEPTUNE AVE	2012-04-05	09:57	House	20		1.2	< 20	1.6, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVF	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.042	20	1, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVFD	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.04	< 20	0.97, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVBA	24522 NEPTUNE AVE	2012-04-05	10:55	Back	21		< 0.027	< 20	1.1, 1, b	< 6.4	< 10	< 4.2	< 5.8	< 3.2	< 2.7	< 4.2	< 0.00027	< 0.14	< 11
M24522SVF	24522 NEPTUNE AVE	2011-02-02	14:57	Front	21		0.055	< 11	2.3, 1, b	< 9.4	< 15	< 6.1	< 8.4	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
M24522SVH	24522 NEPTUNE AVE	2012-04-05	09:57	House	20		1.2	< 20	1.6, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVF	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.042	20	1, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVFD	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.04	< 20	0.97, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVBA	24522 NEPTUNE AVE	2012-04-05	10:55	Back	21		< 0.027	< 20	1.1, 1, b	< 6.4	< 10	< 4.2	< 5.8	< 3.2	< 2.7	< 4.2	< 0.00027	< 0.14	< 11
M24522SVF	24522 NEPTUNE AVE	2011-02-02	14:57	Front	21		0.055	< 11	2.3, 1, b	< 9.4	< 15	< 6.1	< 8.4	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
M24522SVH	24522 NEPTUNE AVE	2012-04-05	09:57	House	20		1.2	< 20	1.6, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVF	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.042	20	1, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVFD	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.04	< 20	0.97, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVBA	24522 NEPTUNE AVE	2012-04-05	10:55	Back	21		< 0.027	< 20	1.1, 1, b	< 6.4	< 10	< 4.2	< 5.8	< 3.2	< 2.7	< 4.2	< 0.00027	< 0.14	< 11
M24522SVF	24522 NEPTUNE AVE	2011-02-02	14:57	Front	21		0.055	< 11	2.3, 1, b	< 9.4	< 15	< 6.1	< 8.4	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
M24522SVH	24522 NEPTUNE AVE	2012-04-05	09:57	House	20		1.2	< 20	1.6, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVF	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.042	20	1, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVFD	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.04	< 20	0.97, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVBA	24522 NEPTUNE AVE	2012-04-05	10:55	Back	21		< 0.027	< 20	1.1, 1, b	< 6.4	< 10	< 4.2	< 5.8	< 3.2	< 2.7	< 4.2	< 0.00027	< 0.14	< 11
M24522SVF	24522 NEPTUNE AVE	2011-02-02	14:57	Front	21		0.055	< 11	2.3, 1, b	< 9.4	< 15	< 6.1	< 8.4	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
M24522SVH	24522 NEPTUNE AVE	2012-04-05	09:57	House	20		1.2	< 20	1.6, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVF	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.042	20	1, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVFD	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.04	< 20	0.97, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVBA	24522 NEPTUNE AVE	2012-04-05	10:55	Back	21		< 0.027	< 20	1.1, 1, b	< 6.4	< 10	< 4.2	< 5.8	< 3.2	< 2.7	< 4.2	< 0.00027	< 0.14	< 11
M24522SVF	24522 NEPTUNE AVE	2011-02-02	14:57	Front	21		0.055	< 11	2.3, 1, b	< 9.4	< 15	< 6.1	< 8.4	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
M24522SVH	24522 NEPTUNE AVE	2012-04-05	09:57	House	20		1.2	< 20	1.6, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVF	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.042	20	1, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVFD	24522 NEPTUNE AVE	2012-04-05	09:59	Front	21		0.04	< 20	0.97, 1, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00026	< 0.13	< 10
M24522SVBA	24522 NEPTUNE AVE	2012-04-05	10:55	Back	21		< 0.027	< 20	1.1, 1, b	< 6.4	< 10	< 4.2	< 5.8	< 3.2	< 2.7	< 4.2	< 0.00027		

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide Mole %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane Mole %	Helium Mole %	Carbon Disulfide UG/M3
					Oxygen Mole %	Oxygen/Argon Mole %													
M245233VG	24523 MARBELLA AVE	2013-08-28	10:08	Garage	20		0.7	<28	0.86 J, b	<8.9 PF	<14	<5.8	<8	<4.5	<3.8	<5.9	<0.00024	<0.12	<15
N245233VH	24523 NEPTUNE AVE	2010-04-07	14:40	House	19		2.4	16	<2.3	14 J	<3.4	<5.6	<7.8	<4.3	<3.7	<5.7	<0.00023	<0.12	<3.6
N245233VF	24523 NEPTUNE AVE	2010-04-07	15:41	Front	20		0.3	46	<2.4	10 J	20	<5.9	<8.2	<4.5	<3.8	<6	<0.00024	<0.12	<3.8
N245233VB	24523 NEPTUNE AVE	2010-04-07	16:36	Back	21		0.12	11	<2.4	<9.1	<3.6	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8
N245233VH	24523 NEPTUNE AVE	2012-10-04	09:56	House	18		2.9	<28	<0.59	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15
N245233VF	24523 NEPTUNE AVE	2012-10-04	10:37	Front	17		4	<25	<0.52	<8	<12	<5.2	<7.2	<4	<3.4	<5.2	<0.00021	0.11	<13
N245233VB	24523 NEPTUNE AVE	2012-10-04	10:50	Back	21		0.2	27	1.7 J, b	<8.7	<14	<5.6	<7.8	<4.3	<3.7	<5.7	<0.00023	<0.12	<14
N245233VBS	24523 NEPTUNE AVE	2012-10-04	10:50	Back			0.191	<20 U	<0.85 U	<20 U	<20 U	<2 U	<2 U	<2 U	<2 U	2.3	<0.16 U	<0.12	<20 U
N245233VH	24523 NEPTUNE AVE	2013-02-22	10:20	House	18		2.2	<29	3.7 J, b	<9.1	<14	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<15
N245233VHS	24523 NEPTUNE AVE	2013-02-22	10:20	House			2.16	<20 U	<0.85 U	<20 U	<20 U	<2 U	<2 U	<2 U	<2 U	2.8	<0.16 U	<0.12	<20 U
N245233VB	24523 NEPTUNE AVE	2013-02-22	10:36	Back	20		0.069	28	1.8 J, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14
N245233VBS	24523 NEPTUNE AVE	2013-02-22	10:36	Back			<0.16 U	<20 U	<0.83 U	<20 U	<20 U	<2 U	<2 U	<2 U	<2 U	3.3	<0.16 U	<0.12	<20 U
N245233VF	24523 NEPTUNE AVE	2013-02-22	11:09	Front	20		0.66	<28	1.5 J, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14
N245233VFD	24523 NEPTUNE AVE	2013-02-22	11:09	Front	20		0.72	<28	1.1 J, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14
R245233VF	24523 RAVENNA AVE	2009-11-08	10:58	Front	21		0.036	42	8.9 J, b	<8.1	6.3	<5.3	<7.3	<4.1	<3.4	<5.3	0.00052	<0.12	<3.4
R245233VFS	24523 RAVENNA AVE	2009-11-08	10:58	Front			<0.11	22	1.2 J	13 J	4.4	3.9	<1.9	<1.9	0.8 J	2.4	<0.11	<0.12	<19
R245233VBA	24523 RAVENNA AVE	2009-12-03	16:11	Back	17		3.1	30	2.6 J, b	<8	6.6	7.6	<7.2	<4	26	<5.3	0.0018	<0.11	<3.3
R245233VH	24523 RAVENNA AVE	2010-08-24	09:54	House	19		0.83	44	2.2 J, b	16	20	<5.8	<8	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
R245233VF	24523 RAVENNA AVE	2010-08-24	10:58	Front	20		0.24	43	<1.3	<8.7	7.1	6.9	<7.8	<4.4	<3.7	<5.7	<0.00023	<0.12	<3.6
R245233VB	24523 RAVENNA AVE	2010-08-24	11:00	Back	17		2.3	20	<1.4	<9	4.9	6.80	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245233VH	24523 RAVENNA AVE	2011-03-25	09:23	House	20		1.1	<11	2.5 J, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14
M245265VH	24526 MARBELLA AVE	2010-10-13	13:28	House	20		0.35	28	<1.4	<8.9	<3.5	<5.8	<8	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
M245265VG	24526 MARBELLA AVE	2010-10-13	14:08	Garage	21		0.3	21	<1.2	<7.6	3.6	<4.9	<6.8	5.2	6.5	<5	<0.0002	<0.12	<3.1
M245265VB	24526 MARBELLA AVE	2010-10-13	14:51	Back	21		0.23	36	<1.3	<19	4.2	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
N245285VH	24528 NEPTUNE AVE	2010-11-03	09:42	House	19		1.8	24	<1.4	27	<3.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:25	House	21		0.23	<19	2.7 J, b	<6.1	<9.5	<3.9	<5.5	<3	<2.6	<4	<0.00022	<0.11	<10
M245265VH	24526 MARBELLA AVE	2012-04-19	10:00	House	21		0.26	<18	1.7 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
M245265VGD	24526 MARBELLA AVE	2012-04-19	10:36	Garage	21		0.26	<18	1.4 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
M245265VB	24526 MARBELLA AVE	2012-04-19	10:41	Back	21		0.23	<20	2.5 J, b	<6.3	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00022	<0.11	<10
N245285VH	24528 NEPTUNE AVE	2010-11-03	09:42	House	19		1.8	24	<1.4	<8.9	<3.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:25	House	21		2.8	35	<1.4	<8.9	4.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245285VH	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	17		0.23	<19	2.7 J, b	<6.1	<9.5	<3.9	<5.5	<3	<2.6	<4	<0.00022	<0.11	<10
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	21		0.26	<18	1.7 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
N245285VGD	24526 MARBELLA AVE	2012-04-19	10:36	Garage	21		0.26	<18	1.4 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
M245265VH	24526 MARBELLA AVE	2012-04-19	10:41	Back	21		0.23	<20	2.5 J, b	<6.3	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00022	<0.11	<10
N245285VH	24528 NEPTUNE AVE	2010-11-03	09:42	House	19		1.8	24	<1.4	<8.9	<3.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:25	House	21		2.8	35	<1.4	<8.9	4.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245285VH	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	17		0.23	<19	2.7 J, b	<6.1	<9.5	<3.9	<5.5	<3	<2.6	<4	<0.00022	<0.11	<10
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	21		0.26	<18	1.7 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
N245285VGD	24526 MARBELLA AVE	2012-04-19	10:36	Garage	21		0.26	<18	1.4 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
M245265VH	24526 MARBELLA AVE	2012-04-19	10:41	Back	21		0.23	<20	2.5 J, b	<6.3	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00022	<0.11	<10
N245285VH	24528 NEPTUNE AVE	2010-11-03	09:42	House	19		1.8	24	<1.4	<8.9	<3.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:25	House	21		2.8	35	<1.4	<8.9	4.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245285VH	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	17		0.23	<19	2.7 J, b	<6.1	<9.5	<3.9	<5.5	<3	<2.6	<4	<0.00022	<0.11	<10
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	21		0.26	<18	1.7 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
N245285VGD	24526 MARBELLA AVE	2012-04-19	10:36	Garage	21		0.26	<18	1.4 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
M245265VH	24526 MARBELLA AVE	2012-04-19	10:41	Back	21		0.23	<20	2.5 J, b	<6.3	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00022	<0.11	<10
N245285VH	24528 NEPTUNE AVE	2010-11-03	09:42	House	19		1.8	24	<1.4	<8.9	<3.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:25	House	21		2.8	35	<1.4	<8.9	4.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245285VH	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	17		0.23	<19	2.7 J, b	<6.1	<9.5	<3.9	<5.5	<3	<2.6	<4	<0.00022	<0.11	<10
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	21		0.26	<18	1.7 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
N245285VGD	24526 MARBELLA AVE	2012-04-19	10:36	Garage	21		0.26	<18	1.4 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
M245265VH	24526 MARBELLA AVE	2012-04-19	10:41	Back	21		0.23	<20	2.5 J, b	<6.3	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00022	<0.11	<10
N245285VH	24528 NEPTUNE AVE	2010-11-03	09:42	House	19		1.8	24	<1.4	<8.9	<3.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:25	House	21		2.8	35	<1.4	<8.9	4.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
N245285VH	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	17		0.23	<19	2.7 J, b	<6.1	<9.5	<3.9	<5.5	<3	<2.6	<4	<0.00022	<0.11	<10
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	21		0.26	<18	1.7 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
N245285VGD	24526 MARBELLA AVE	2012-04-19	10:36	Garage	21		0.26	<18	1.4 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00021	<0.1	<9.6
M245265VH	24526 MARBELLA AVE	2012-04-19	10:41	Back	21		0.23	<20	2.5 J, b	<6.3									

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide MQL %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane MQL %	Helium MQL %	Carbon Disulfide UG/M3
					Oxygen MQL %	Oxygen/Argon MQL %													
P24529SVF	24529 PANAMA AVE	2012-05-17	10:37	Front	21		0.65	< 20	0.77 j, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00022	< 0.11	< 10
P24529SVFS	24529 PANAMA AVE	2012-05-17	10:37	Front		21	0.742	< 20 U	< 0.83 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	2.2	< 0.00022	< 0.19 U	< 20 U
P24529SVHA	24529 PANAMA AVE	2012-05-31	08:20	House	20		0.34	< 19	1.5 j, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	0.075	< 9.8
R24529SVF	24529 RAVENNA AVE	2011-08-18	14:54	Front	20		0.055	< 11	2.5 j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24529SVFS	24529 RAVENNA AVE	2011-08-18	14:54	Front		21.5	< 0.157 U	19	< 1 U	< 17 U	< 17 U	< 1.7 U	3.6	< 1.7 U	< 1.7 U	2	< 0.157 U	< 0.12	< 17 U
R24529SVH	24529 RAVENNA AVE	2011-08-18	15:25	House	19		2.5	< 11	0.65 j, b	< 8.9	< 14	< 5.8	9.5	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24529SVHS	24529 RAVENNA AVE	2011-08-18	15:25	House		19.7	2.8	< 18 U	< 1 U	< 18 U	< 18 U	< 1.8 U	6.5	< 1.8 U	< 1.8 U	2.1	0.014	< 18 U	
R24529SVB	24529 RAVENNA AVE	2011-08-18	16:24	Back	17		3.8	< 11	1.8 j, b	< 9.1	< 14	1.7	< 8.2	< 4.6	< 3.9	< 6	< 0.014	< 0.12	< 15
R24529SVBS	24529 RAVENNA AVE	2011-08-18	16:24	Back		18.2	4.29	< 18 U	1.9	< 18 U	< 18 U	12	2.9	< 1.8 U	< 1.8 U	1.9	< 0.162 U	< 0.12	< 18 U
R24529SVH	24529 RAVENNA AVE	2013-08-02	14:48	House	19		1.3	< 27	2.9 j, b	< 8.6	< 13	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
R24529SVB	24529 RAVENNA AVE	2013-08-02	14:54	Back	17		4.5	50	4.2 j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 15
R24529SVF	24529 RAVENNA AVE	2013-08-02	15:18	Front	20		1.2	42	0.98 j, b	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
M24532SVB	24532 MARBELLA AVE	2009-10-09	10:05	Back	21		0.17	20	< 2.2	< 8.6	< 3.4	< 5.6	< 7.7	< 4.3	12	< 5.6	< 0.00023	< 0.12	< 3.6
M24532SVBS	24532 MARBELLA AVE	2009-10-09	10:05	Back		21.9	0.201	16.1	0.72 j	11.1	2.7	1.8 j	< 2.3	1.9 j	1.2 j	2.3	< 0.12	< 0.12	< 2.3
M24532SVF	24532 MARBELLA AVE	2009-10-09	11:40	Front	20		0.82	15	< 2.1	< 8.4	< 3.3	6.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00045	< 0.12	4.9
M24532SVFS	24532 MARBELLA AVE	2009-10-09	11:40	Front		20.7	0.863	15.1	0.57 j	3 j	3.7	5	3.5	< 2	0.53 j	2.3	< 0.00024	< 0.12	0.79 j
M24532SVH	24532 MARBELLA AVE	2011-09-23	08:33	House	19		0.11	13	0.92 j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
M24532SVF	24532 MARBELLA AVE	2011-09-23	09:04	Front	19		1.3	29	0.56 j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
M24532SVF-D	24532 MARBELLA AVE	2011-09-23	09:04	Front	19		1.3	20	< 0.47	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
M24532SVB	24532 MARBELLA AVE	2011-09-23	09:37	Back	21		0.24	15	< 0.46	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M24532SVH	24532 MARBELLA AVE	2012-04-05	15:17	House	20		1.4	< 19	0.92 j, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00025	< 0.12	< 9.8
M24532SVF	24532 MARBELLA AVE	2012-04-05	15:24	Front	20		0.68	< 18	0.81 j, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00027	< 0.14	< 9.6
M24532SVB	24532 MARBELLA AVE	2012-04-05	15:56	Back	21		0.12	< 18	0.77 j, b	< 5.6	< 8.8	< 3.6	< 5	< 2.8	< 2.4	< 3.7	< 0.00024	< 0.12	< 9.3
M24532SVBD	24532 MARBELLA AVE	2012-04-05	15:56	Back		21	0.12	< 18	0.78 j, b	16	< 8.8	< 3.6	< 5	< 2.8	< 2.4	< 2.4	< 0.00024	< 0.12	< 9.3
M24532SVH	24532 MARBELLA AVE	2013-08-23	13:48	House	18		2.5	< 27	0.98 j, b	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
M24532SVF	24532 MARBELLA AVE	2013-08-23	13:54	Front	18		1.9	160	1.2 j, b	< 9.7	< 15	< 6.3	< 8.7	< 4.8	< 4.1	< 6.4	< 0.00026	< 0.13	< 16
M24532SVB	24532 MARBELLA AVE	2013-08-23	14:18	Back	20		0.4	< 29	1.1 j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
N24532SVG	24532 NEPTUNE AVE	2010-05-19	14:06	Garage	21		< 0.027	56	< 7.2	26	< 4	< 6.7	< 9.2	110	28	< 6.8	< 0.00027	< 0.14	< 4.2
N24532SVH	24532 NEPTUNE AVE	2010-05-19	14:56	House	21		0.034	220	< 6.2	130	18	< 5.7	< 7.9	64	7.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	21		< 0.023	25	< 1.4	32	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
N24532SVB2D	24532 NEPTUNE AVE	2010-09-03	13:33	Back		21	< 0.023	23	< 1.4	< 8.6	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
N24532SVB2	24532 NEPTUNE AVE	2013-03-01	15:21	Back	21		0.056	< 28	4.6 j, b	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
N24532SVB2D	24532 NEPTUNE AVE	2013-03-01	15:21	Back		21	0.052	< 28	2.9 j, b	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
N24532SVG	24532 NEPTUNE AVE	2013-03-01	15:59	Garage	21		0.066	< 29	3.7 j, b	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
N24532SVHB	24532 NEPTUNE AVE	2013-06-19	10:01	House	21		< 0.024	79	4.1 j, b	29	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	0.17	< 15
N24532SVB2	24532 NEPTUNE AVE	2013-06-19	10:05	Back		21	0.075	< 27	< 0.77	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.0003	< 0.15	< 14
N24532SVB2D	24532 NEPTUNE AVE	2013-06-19	10:05	Back		22	0.068	< 28	< 0.8	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00032	< 0.16	< 15
N24532SVG	24532 NEPTUNE AVE	2013-06-19	10:53	Garage	21		0.095	< 28	< 0.8	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
P24532SVB	24532 PANAMA AVE	2012-05-10	09:54	Garage	19		0.11	< 19	0.76 j	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4	< 0.00016	< 0.082	< 10
P24532SVG5	24532 PANAMA AVE	2012-05-10	09:54	Garage		19.8	0.11 K	21	< 0.78 U	< 19 U	< 19 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	2.2	< 0.00017 U	< 0.082	< 10
P24532SVH	24532 PANAMA AVE	2012-05-10	09:54	House	20		0.52	< 19	< 0.31 Pf	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	0.2	< 9.8
P24532SVB	24532 PANAMA AVE	2012-05-10	10:23	Back	20		0.17	< 18	< 0.29 Pf	< 5.6	< 8.8	46	< 5	< 2.8	< 2.4	< 3.7	< 0.00015	< 0.074	< 9.3
P24532SVBS	24532 PANAMA AVE	2012-05-10	10:23	Back		20.7	0.193	< 17 U	< 0.73 U	< 17 U	< 17 U	45	< 1.7 U	< 1.7 U	< 1.7 U	2.2	< 0.00016 U	< 0.12	< 17 U
P24532SVB	24532 PANAMA AVE	2013-08-21	14:40	Back	18		1.9	< 28	5.7 j, b	< 9	< 14	61	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
P24532SVG	24532 PANAMA AVE	2013-08-21	15:11	Garage	18		3.1	< 28	2.3 j, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00024	< 0.12	< 14
P24532SVH	24532 PANAMA AVE	2013-08-21	15:51	House	19		0.86	58	1.6 j, b	11	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	0.14	< 15
R24532SVB	24532 RAVENNA AVE	2010-08-18	13:25	Back	20		< 0.023	66	< 1.3	11	7.3	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	4.3
R24532SVF	24532 RAVENNA AVE	2010-08-18	13:58	Front	19		0.59	< 12	< 1.4	< 9.4	< 3.7	< 6.1	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 3.9
R24532SVB	24532 RAVENNA AVE	2011-05-11	14:05	Back	21		0.2	< 11	1.4 j, b	< 8.9	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24532SVF	24532 RAVENNA AVE	2011-05-11	15:02	Front	21		0.53	< 13	2.6 j, b	< 10	< 16	< 6.7	< 9.4	< 5.2	< 4.4	8.4	< 0.00028	< 0.14	< 17
R24532SVFD	24532 RAVENNA AVE	2011-05-11	15:02	Front	21		0.52	< 13	< 0.39 Uj	< 10	< 16	< 6.7	< 9.2	< 5					



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide M/L %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane M/L %	Helium M/L %	Carbon Disulfide UG/M3
					Oxygen M/L %	Oxygen/Argon M/L %													
R24532SVHD	24532 RAVENNA AVE	2011-05-11	15:48	House	21		0.14	52	0.94 J, b	21	< 14	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	0.16	< 14
R24532SVB	24532 RAVENNA AVE	2012-11-16	14:54	Back	20		0.55	< 28	1.8 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
R24532SVF	24532 RAVENNA AVE	2012-11-16	15:37	Front	20		0.81	< 29	0.95 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24532SVB	24532 RAVENNA AVE	2013-07-31	14:41	Back	21		0.47	< 30	0.98 J, b	< 9.4	< 15	< 6.1	< 8.4	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
R24532SVF	24532 RAVENNA AVE	2013-07-31	15:31	Front	20		0.79	40	0.86 J, b	< 8.7	< 14	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
R24532SVH	24532 RAVENNA AVE	2013-07-31	15:48	House	20		0.44	< 27	< 0.78	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	0.2	< 14
N24533SVH	24533 NEPTUNE AVE	2010-07-12	13:52	House	19		0.083	76	< 2.3 Q, uj	< 8.8	18	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24533SVF	24533 NEPTUNE AVE	2010-07-12	14:26	Front	19		0.5	22	< 2.4 Q, uj	< 9	< 3.5	89	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N24533SVB	24533 NEPTUNE AVE	2010-07-12	15:01	Back	20		0.61	< 11	< 2.3 Q, uj	< 8.7	< 3.4	20	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
N24533SVB	24533 NEPTUNE AVE	2013-03-07	09:58	Back	21		0.52	< 28	1.2 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24533SVB	24533 NEPTUNE AVE	2013-03-07	09:58	Back	21		0.497	< 20 U	< 0.82 U	< 20 U	< 20 U	2.9	< 2 U	< 2 U	< 2 U	2.1	< 0.16 U	< 0.12	< 20 U
N24533SVB	24533 NEPTUNE AVE	2013-03-07	09:58	Back	20		1.3	< 28	0.79 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
N24533SVF	24533 NEPTUNE AVE	2013-03-07	10:00	House	20		1.2	< 28	1.4 J, b	< 8.7	< 14	12	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
N24533SVF	24533 NEPTUNE AVE	2013-03-07	10:33	Front	18		1.17	< 20 U	< 0.83 U	< 20 U	< 14	14	< 2 U	< 2 U	< 2 U	2.6	< 0.16 U	< 0.12	< 20 U
N24533SVB	24533 NEPTUNE AVE	2013-07-03	09:44	Back	21		0.49	40	< 0.79	< 8.8	< 14	30	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
N24533SVBD	24533 NEPTUNE AVE	2013-07-03	09:44	Back	21		0.5	< 28	< 0.8	< 9	< 14	31	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24533SVH	24533 NEPTUNE AVE	2013-07-03	10:00	House	19		1.7	< 29	< 0.81	< 9.1	< 14	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 15
N24533SVF	24533 NEPTUNE AVE	2013-07-03	10:10	Front	20		1.6	< 28	0.8 J, b	< 8.8	< 14	23	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
N24533SVH	24533 PANAMA AVE	2011-03-18	13:41	House	19		1.3	< 11	1.7 J, b	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
N24533SVBA	24533 PANAMA AVE	2011-03-18	14:10	Back	21		0.052	32	< 0.34	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
N24533SVFA	24533 PANAMA AVE	2011-03-18	14:44	Front	21		0.072	13	< 0.33	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
N24533SVFAD	24533 PANAMA AVE	2011-03-18	14:44	Front	21		0.072	18	< 0.33	< 8.7	< 14	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
N24533SVFA	24533 PANAMA AVE	2012-09-20	10:33	Front	20		1.1	< 29	2.9 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
N24533SVFAS	24533 PANAMA AVE	2012-09-20	10:33	Front	20		1.13	< 20 U	< 0.83 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 0.16 U	< 0.12	< 20 U
N24533SVH	24533 PANAMA AVE	2012-09-20	10:44	House	17		2.6	30	2 J, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
N24533SVBA	24533 PANAMA AVE	2012-09-20	11:28	Back	21		0.096	< 30	1.2 J, b	< 9.5	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16
N24533SVBA	24533 PANAMA AVE	2013-07-24	14:42	Back	21		0.077	33	1.4 J, b	< 9.5	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16
N24533SVH	24533 PANAMA AVE	2013-07-24	14:47	House	18		2.9	610	1.2 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24533SVFA	24533 PANAMA AVE	2013-07-24	15:05	Front	20		0.86	100	0.92 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
N24533SVG	24533 RAVENNA AVE	2010-09-07	09:26	Garage	20		< 0.027	14	< 1.6	< 10	< 4	< 6.6	< 9.1	< 5.1	< 4.3	17	< 0.00027	0.15	< 4.2
N24533SVH	24533 RAVENNA AVE	2010-09-07	10:05	House	20		0.15	20	< 1.5	< 9.3	< 3.6	< 6	< 8.4	< 4.6	< 3.9	74	< 0.00025	< 0.12	< 3.8
N24533SVB	24533 RAVENNA AVE	2010-09-07	11:04	Back	20		< 0.024	26	< 6.4	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	7	< 0.00024	< 0.12	< 3.8
R 24 533 SVH	24533 RAVENNA AVE	2012-09-27	10:16	House	21		0.2	< 28	< 0.59	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R 24 533 SVG	24533 RAVENNA AVE	2012-09-27	10:18	Garage	17		0.34	29	0.63 J, b	< 8.1	< 13	< 5.3	< 7.3	< 4.1	< 3.4	16	< 0.00022	< 0.11	< 13
R 24 533 SVB	24533 RAVENNA AVE	2012-09-27	11:05	Back	20		0.29	< 28	< 0.58	< 8.9	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00048	< 0.24	< 15
R24533SVHA	24533 RAVENNA AVE	2013-08-27	09:49	House	21		0.19	94	8.2 J, b	15 PF	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
R24533SVB	24533 RAVENNA AVE	2013-08-27	09:55	Back	20		0.45	30	1.4 J, b	< 8.4 PF	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
R24533SVBS	24533 RAVENNA AVE	2013-08-27	09:55	Back	20		0.484	51	< 0.69 U	< 19 U	< 19 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	2.2	< 0.15 U	< 0.12	< 19 U
R24533SVG	24533 RAVENNA AVE	2013-08-27	10:20	Garage	20		0.45	< 29	1.7 J, b	< 9.3 PF	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
M24602SVF	24602 MARBELLA AVE	2010-11-04	13:10	Front	21		0.76	15	< 1.3	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
M24602SVB	24602 MARBELLA AVE	2010-11-04	13:54	Back	20		0.31	30	< 1.4	< 9.5	4.1	14	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 3.9
M24602SVH	24602 MARBELLA AVE	2012-06-01	09:55	House	21		0.072	< 18	1.5 J, b	< 5.7	< 9	< 3.7	< 5.2	32	< 2.4	< 3.8	< 0.00015	< 0.076	< 9.5
M24602SVF	24602 MARBELLA AVE	2012-06-01	10:05	Front	20		0.79	< 18	1 J, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	3.4	< 3.8	< 0.00016	< 0.078	< 9.6
M24602SVFS	24602 MARBELLA AVE	2012-06-01	10:05	Front	20		0.796	21	< 0.7 U	< 17 U	< 17 U	2.8	< 1.7 U	< 1.7 U	3.6	2.2	< 0.15 U	< 0.12	< 17 U
M24602SVB	24602 MARBELLA AVE	2012-06-01	10:29	Back	21		0.25	< 19	0.75 J, b	< 6.1	< 9.6	< 4	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.081	< 10
M24602SVH	24602 MARBELLA AVE	2012-06-01	09:55	House	21		0.072	< 18	1.5 J, b	< 5.7	< 9	< 3.7	< 5.2	32	< 2.4	< 3.8	< 0.00015	< 0.076	< 9.5
M24602SVF	24602 MARBELLA AVE	2012-06-01	10:05	Front	20		0.79	< 18	1 J, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	3.4	< 3.8	< 0.00016	< 0.078	< 9.6
M24602SVB	24602 MARBELLA AVE	2013-08-27	14:57	Back	20		1	66	0.56 J, b	< 9.2 PF	< 14	8.4	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24602SVH	24602 MARBELLA AVE	2013-08-27	15:00	House	20		0.81	< 28	0.53 J, b	< 9 PF	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
M24602SVF	24602 MARBELLA AVE	2013-08-27	15:24	Front	20		0.66	35	1.1 J, b	< 9.5 PF	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00023	< 0.12	< 16
N24602SVH	24602 NEPTUNE AVE	2010-07-27	09:30	House	20		0.22	31 b	< 6	< 8.6	4.4 b	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
N24602SVB	24602 NEPTUNE AVE	2010-07-27	10:10	Back	20		< 0.023	64 b	< 6.2	< 8.8	9.5 b	< 5.7	< 7.9	< 4.4	9.2	< 5.8	< 0.00023	< 0.12	< 3.6
N24602SVF	24602 NEPTUNE AVE	2010-07-27	11:00	Front	20		< 0.023	59 b	< 6.2	< 8.8	5.3 b	< 5.7	< 7.9	< 4.4	8.4	< 5.8	< 0.00023	< 0.12	< 3.6

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
N24602SVB	24602 NEPTUNE AVE	2011-03-04	15:08	Back	21		0.17	29	0.95 J, b	< 8.6	< 13	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
N24602SVF	24602 NEPTUNE AVE	2011-03-04	15:22	Front	21	<0.024	20	1.6 J, b	10	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15	
N24602SVFD	24602 NEPTUNE AVE	2011-03-04	15:22	Front	21	<0.023	14	0.74 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14	
N24602SVH	24602 NEPTUNE AVE	2011-03-04	15:56	House	21	0.19	13	0.79 J, b	< 8.6	< 13	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14	
N24602SVB	24602 NEPTUNE AVE	2012-06-29	09:59	Back	23	0.21	< 20	< 3.1	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00022	< 0.11	< 10	
N24602SVB8	24602 NEPTUNE AVE	2012-06-29	09:59	Back		21.4	< 18 U	< 0.75 U	< 18 U	< 18 U	< 1.8 U	< 1.8 U	< 1.8 U	< 2.9	< 2.5	< 3.8	< 0.17 U	< 0.1	< 18 U
N24602SVH	24602 NEPTUNE AVE	2012-06-29	10:05	House	21	0.26	< 18	< 2.9	< 5.8	< 9.1	< 3.8	< 5.2	< 3.2	< 2.7	< 4.2	< 0.00022	< 0.11	< 10	
N24602SVF	24602 NEPTUNE AVE	2012-06-29	10:34	Front	22	0.042	< 20	< 3.1	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00022	< 0.11	< 10	
N24602SVF5	24602 NEPTUNE AVE	2012-06-29	10:34	Front		< 0.16 U	18	< 0.73 U	< 17 U	< 17 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	2.1	< 0.16 U	< 0.16 U	< 17 U	
R24602SVB	24602 RAVENNA AVE	2012-10-05	09:57	Back	21	0.28	41	1.8 J, b	13	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
R24602SVF	24602 RAVENNA AVE	2012-10-05	09:57	Front	20	0.68	< 31	5 J, b	< 9.9	< 16	< 6.4	< 9	< 5	< 4.2	< 6.5	< 0.00026	< 0.13	< 16	
R24602SVF5	24602 RAVENNA AVE	2012-10-05	09:57	Front		0.689	< 26 U	< 1.1 U	< 26 U	< 26 U	< 2.6 U	< 2.6 U	< 2.6 U	< 2.6 U	< 2.6 U	< 0.21 U	< 0.12	< 26 U	
R24602SVH	24602 RAVENNA AVE	2012-10-05	10:57	House	20	1.1	< 29	1 J, b	< 9.3	< 14	< 6	14	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15	
R24602SVB	24602 RAVENNA AVE	2013-04-10	10:04	Back	21	0.41	< 29	0.72 J, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15	
R24602SVH	24602 RAVENNA AVE	2013-04-10	10:09	House	21	0.92	< 28	0.69 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
R24602SVF	24602 RAVENNA AVE	2013-04-10	10:35	Front	21	0.45	< 27	0.67 J, b	< 8.4	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14	
M24603SVB	24603 MARBELLA AVE	2009-09-24	11:29	Back	20	0.43	270	13 J	< 30	64	65	< 27	700	4500	< 20	< 0.00024	< 0.12	< 12	
M24603SVF	24603 MARBELLA AVE	2009-09-24	12:22	Front	21	0.2	13	< 2.9	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
M24603SVH	24603 MARBELLA AVE	2010-01-15	11:00	House	20	0.61	< 11	< 2.2	< 8.4	< 3.3	< 5.5	11	< 4.2	< 3.6	< 5.5	< 0.00022	0.17	< 3.5	
M24603SVF	24603 MARBELLA AVE	2010-01-15	11:56	Front	21	0.2	< 10	< 2.1	< 8	< 3.1	11	< 7.2	< 4	< 3.4	< 5.3	< 0.00021	< 0.11	< 3.3	
M24603SVB	24603 MARBELLA AVE	2010-01-15	12:34	Back	19	0.92	30	< 2.4	9.7	13	24	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7	
M24603SVH	24603 MARBELLA AVE	2010-10-15	13:37	House	20	0.8	38	1.8 J, b	25	< 3.4	< 5.6	14	< 4.3	< 3.8	< 5.7	< 0.00023	< 0.12	< 3.6	
M24603SVF	24603 MARBELLA AVE	2010-10-15	13:37	House		0.888	23	< 1.4	< 18	< 18	< 1.8	13	< 1.8	< 1.8	2	< 0.16	< 0.16	< 18	
M24603SVF	24603 MARBELLA AVE	2010-10-15	13:45	Front	20	0.93	36	< 1.3	< 8.8	< 3.4	9.6	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
M24603SVB	24603 MARBELLA AVE	2010-10-15	14:17	Back	19	0.95	18	< 1.4	< 9.3	< 3.6	140	< 8.4	< 4.7	< 4	< 6.1	< 0.00025	< 0.12	< 3.9	
N24603SVH	24603 NEPTUNE AVE	2010-11-04	09:20	House	15	5.4	14	< 1.2	< 7.9	< 3.1	< 5.1	< 7.1	5.6	< 3.4	< 5.2	0.00024	< 0.1	< 3.3	
N24603SVG	24603 NEPTUNE AVE	2010-11-04	09:59	Garage	19	1.7	< 11	< 1.3	< 8.7	< 3.4	< 5.6	< 7.8	6.1	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6	
N24603SVB	24603 NEPTUNE AVE	2010-11-04	10:35	Back	17	4.4	< 11	< 1.3	< 8.8	< 3.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6	
N24603SVBD	24603 NEPTUNE AVE	2010-11-04	10:35	Back	17	4.5	< 11	< 1.3	< 8.8	< 3.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6	
N24603SVB	24603 NEPTUNE AVE	2010-11-04	14:51	Back	18	1.4	< 28	1.4 J, b	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14	
N24603SVH	24603 NEPTUNE AVE	2013-03-07	14:51	Back	15	5.4	< 28	1.5 J, b	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14	
N24603SVG	24603 NEPTUNE AVE	2013-03-07	14:51	Back	19	1.4	< 28	1.5 J, b	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14	
N24603SVBD	24603 NEPTUNE AVE	2013-03-07	14:54	House		14.54	< 28	2.2 J, b	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00023	< 0.12	< 15	
N24603SVH	24603 NEPTUNE AVE	2013-03-07	14:54	House	19	1.6	29	0.99 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14	
N24603SVG	24603 NEPTUNE AVE	2013-03-07	15:25	Garage	15	5.9	< 25	1.1 J, b	< 8	< 12	< 5.2	< 7.2	< 4	< 3.4	< 5.2	< 0.00021	< 0.11	< 13	
N24603SVH	24603 NEPTUNE AVE	2013-07-18	15:02	House	15	5.9	< 25	1.1 J, b	< 8	< 12	< 5.2	< 7.2	< 4	< 3.4	< 5.2	< 0.00021	< 0.11	< 13	
N24603SVB	24603 NEPTUNE AVE	2013-07-18	15:13	Back	20	0.92	65	< 0.82	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15	
N24603SVG	24603 NEPTUNE AVE	2013-07-18	15:26	Garage	17	3.4	360	< 0.79	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15	
P24603SVH	24603 PANAMA AVE	2011-02-10	08:56	House	20	<0.023	64	3.9 J, b	< 8.6	6.5	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	4.8	
P24603SVF	24603 PANAMA AVE	2011-02-10	09:30	Front	16	3.8	12	2.3 J, b	< 8.4	< 3.3	6.9	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5	
P24603SVG	24603 PANAMA AVE	2011-02-10	10:09	Garage	21	< 0.023	14	1.1 J, b	< 8.6	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6	
P24603SVG5	24603 PANAMA AVE	2011-02-10	10:09	Garage		< 0.17	18	< 1.4	< 18	< 18	< 1.8	< 1.8	< 1.8	< 1.8	2.4	< 0.17	< 0.17	< 18	
P24603SVH	24603 PANAMA AVE	2012-10-19	09:43	House	18	0.64	36	< 0.59 PF	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
P24603SVF	24603 PANAMA AVE	2012-10-19	10:08	Front	16	4.9	< 29	< 0.61 PF	< 9.3	< 14	17	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15	
P24603SVFD	24603 PANAMA AVE	2012-10-19	10:08	Front	16	4.8	< 29	< 0.6 PF	< 9.1	< 14	17	< 8.2	6.8	< 3.9	< 6	< 0.00024	< 0.12	< 15	
P24603SVG	24603 PANAMA AVE	2012-10-19	10:16	Garage	19	1.5	< 28	< 0.59 PF	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
R24603SVB	24603 RAVENNA AVE	2009-09-19	10:49	Back	20	2	11	< 3.8	< 8.5	< 3.3	< 5.5	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.5	
R24603SVF	24603 RAVENNA AVE	2009-09-19	11:36	Front	21	0.14	36	< 2.3	< 9.9	4.8	< 6.4	< 9	< 5	< 4.2	< 6.5	< 0.00026	< 0.14	< 4.1	
R24603SVH	24603 RAVENNA AVE	2011-02-24	09:28	House	21	0.13	210	4.8 J, b	12	40	< 5.4	< 7.5	87	< 3.5	< 5.5	< 0.00022	0.13	< 14	
R24603SVF	24603 RAVENNA AVE	2011-02-24	10:10	Front	21	0.53	18	0.58 J, b	< 8.8	< 14	< 5.7	< 8	17	< 3.8	< 5.8	< 0.00024	< 0.12	< 15	
R24603SVB	24603 RAVENNA AVE	2011-02-24	11:07	Back	20	1.6	< 11	< 0.33	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14	
R24603SVBS	24603 RAVENNA AVE	2011-02-24	11:07	Back		20.6	< 15	< 0.89	< 15	< 15	< 1.5	< 1.5	1.6	< 1.5	2	< 0.14	< 0.14	< 15	
R24603SVH	24603 RAVENNA AVE	2012-06-01	15:50	House	21	0.24	20	0.81 J, b	< 6	< 9.4	< 3.9	< 5.4	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10	
R24603SVB	24603 RAVENNA AVE	2012-06-01	15:51	Back	17	4.5	< 19	0.55 J, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10	

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																
					Oxygen Units	Oxygen/ Argon	Carbon Dioxide	Acetone	Naphthalene	Ethanol	2-Butanone (Methyl Ethyl Ketone)	Chloroform	Tetrachloro- ethene	Toluene	Benzene	Freon 12	Methane	Helium	Carbon Disulfide		
					MOL %	MOL %	MOL %	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	MOL %	MOL %	UG/M3
R24603SVBD	24603 RAVENNA AVE	2012-06-01	15:51	Back	17			4.7	< 19	0.53 j,b	< 6.1	< 9.6	< 4	< 5.5	< 3.1	< 2.6	< 4	< 0.00016	< 0.082	< 10	
R24603SVF	24603 RAVENNA AVE	2012-06-01	16:24	Front	20		1.4	1.4	28	0.94 j,b	< 5.9	< 9.2	< 3.8	< 5.3	4.3	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.7	
R24603SVD	24603 RAVENNA AVE	2012-06-01	16:24	Front	20		1.4	1.4	< 19	0.73 j,b	< 5.9	< 9.2	< 3.8	< 5.3	< 3	< 2.5	< 3.9	< 0.00016	< 0.078	< 9.8	
M24606SVB	24606 MARBELLA AVE	2010-04-20	14:37	Back	20		0.19	2.7	26	5.2 j,b	< 8.8	< 3.4	< 5.7	8.6	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
M24606SVF	24606 MARBELLA AVE	2010-04-20	15:41	Front	12		2.7	3.8	38	3.8 j,b	< 8.8	6.6	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	7	
M24606SVH	24606 MARBELLA AVE	2010-04-20	16:40	House	19		1.4	3.2	16	< 2.3	< 8.7	4	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	0.54	< 3.6	
M24606SVF	24606 MARBELLA AVE	2012-01-13	12:28	Front	18		3.2	3.36	15	0.76 j,b	< 17 U	< 9.1	< 3.8	< 5.2	14	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6	
M24606SVFS	24606 MARBELLA AVE	2012-01-13	12:28	Front	18		3.36	3.4	< 17 U	< 0.99 U	< 17 U	< 17 U	< 1.7 U	< 1.7 U	2.3	< 1.7 U	2.5	< 0.16 U	< 0.16 U	< 17 U	
M24606SVH	24606 MARBELLA AVE	2012-01-13	13:17	House	17		3.4	3.56	21	0.76 j,b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	0.00016	0.37	< 10	
M24606SVHS	24606 MARBELLA AVE	2012-01-13	13:17	House	17		3.56	1	< 18 U	< 1 U	< 18 U	< 18 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	2.4	< 0.17 U	< 0.17 U	< 18 U	
M24606SVB	24606 MARBELLA AVE	2012-01-13	13:54	Back	20		1	1.09	27	0.38 j,b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8	
M24606SVBS	24606 MARBELLA AVE	2012-01-13	13:54	Back	20		1.09	2.1	< 18 U	< 1 U	< 18 U	< 18 U	< 1.8 U	2.2	< 1.8 U	< 1.8 U	2.5	< 0.16 U	< 0.16 U	< 18 U	
M24608SVF	24608 NEPTUNE AVE	2010-04-29	15:18	Front	12		8.4	8.4	93	< 6.1	19 b	4.7	< 5.6	< 7.8	< 4.4	12	< 5.7	< 0.00023	< 0.12	< 3.6	
M24608SVB	24608 NEPTUNE AVE	2010-04-29	16:18	Back	19		1.6	1.6	190	< 6.2	170 b	5.8	< 5.2	< 7.9	31	53	< 5.8	< 0.00023	< 0.12	< 3.6	
M24608SVH	24608 NEPTUNE AVE	2010-07-09	13:17	House	20		0.4	0.58	21	< 2.3 Q, uj	< 8.8	8.6	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
M24608SVH	24608 NEPTUNE AVE	2010-09-08	13:44	House	20		0.58	1.1	16	1.7 j	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
M24608SVF	24608 NEPTUNE AVE	2010-09-08	14:15	Front	8.4		1.1	1.7	18	< 1.4	11	< 3.6	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8	
M24608SVB	24608 NEPTUNE AVE	2010-09-08	15:06	Back	19		1.7	1.7	11	< 1.3	< 8.8	< 3.4	48	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
M24608SVH	24608 NEPTUNE AVE	2012-05-18	14:50	House	21		0.56	0.56	< 18	0.77 j,b	< 5.9	< 9.2	< 3.8	< 5.3	< 2.9	< 2.5	< 3.8	< 0.00016	0.081	< 9.7	
M24608SVF	24608 NEPTUNE AVE	2012-05-18	15:04	Front	12		7.9	7.9	< 20	0.57 j,b	< 6.2	< 9.8	< 4	< 5.6	< 3.1	< 2.6	< 4.1	< 0.00017	< 0.083	< 10	
M24608VFD	24608 NEPTUNE AVE	2012-05-18	15:04	Front	12		7.7	7.7	< 20	0.64 j,b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00017	< 0.084	< 10	
M24608SVB	24608 NEPTUNE AVE	2012-05-18	15:22	Back	19		1.6	1.6	< 19	0.41 j,b	< 6.1	< 9.6	19	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.081	< 10	
M24608SVH	24608 NEPTUNE AVE	2013-08-30	15:18	House	20		0.82	2.6	98	3.6 j,b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
M24608SVB	24608 NEPTUNE AVE	2013-08-30	15:18	Back	19		2.6	2.6	200	1.8 j,b	< 9	< 14	36	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
M24608SVF	24608 NEPTUNE AVE	2013-08-30	15:41	Front	11		9.7	9.7	< 29	1.7 j,b	< 9.1	< 14	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 15	
P24608SVB	24608 PANAMA AVE	2010-08-12	14:47	Back	18		2.6	2.6	60 b	1.6 j	11 b	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
P24608SVF	24608 PANAMA AVE	2010-08-12	15:23	Front	15		3.6	3.6	32 b	< 6.3	9.8 b	6.5	42	< 8.1	< 4.5	9.6	< 5.9	< 0.00024	< 0.12	< 3.7	
P24608SVB	24608 PANAMA AVE	2012-04-06	15:43	Back	19		1.9	1.9	< 18	2.2 j,b	< 5.8	< 9.1	120	< 5.2	< 2.9	< 2.5	< 3.8	0.00079	< 0.12	< 9.6	
P24608SVD	24608 PANAMA AVE	2012-04-06	15:43	Back	19		1.9	1.9	< 18	4.2 j,b	< 5.8	< 9.1	110	< 5.2	3.7	< 2.5	< 3.8	0.0008	< 0.12	< 9.6	
P24608SVF	24608 PANAMA AVE	2012-04-06	16:26	Front	17		3.4	3.4	< 18	2.6 j,b	< 5.7	< 9.2	110	98	< 2.9	< 2.4	< 3.8	< 0.00024	< 0.12	< 9.5	
P24608SVHA	24608 PANAMA AVE	2012-04-27	11:38	House	19		1.1	1.1	< 19	1.1 j,b	< 5.9	< 9.2	1100	< 5.3	< 3	< 2.5	< 3.9	0.00031	0.4	< 9.8	
R24608SVB	24608 RAVENNA AVE	2010-04-08	11:15	Back	18		3.2	3.2	27	< 2.3	12 j	4.8	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6	
R24608SVF	24608 RAVENNA AVE	2010-04-08	12:14	Front	20		0.17	0.17	46	< 2.4	13 j	8.2	6.7	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	72	
R24608SVG	24608 RAVENNA AVE	2010-08-04	13:23	Garage	19		1.2	1.2	22	< 6.2	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	21	< 5.8	< 0.00023	< 0.12	< 3.6	
R24608SVG	24608 RAVENNA AVE	2012-05-17	15:13	Garage	21		0.81	0.81	< 20	< 0.33 PF	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	< 4.2	< 0.00023	< 0.11	< 10	
R24608SVD	24608 RAVENNA AVE	2012-05-17	15:13	Garage	20		0.8	0.8	< 20	0.46 j,b	< 6.2	< 9.7	< 4	< 5.6	3.3	< 2.6	< 4.1	< 0.00022	< 0.11	< 10	
R24608SVB	24608 RAVENNA AVE	2012-05-17	15:25	Back	19		2	2	< 19	< 0.31 PF	< 5.9	< 9.2	5.4	< 5.3	< 3	< 2.5	< 3.9	< 0.00035	< 0.11	< 9.8	
R24608SVF	24608 RAVENNA AVE	2012-05-17	16:01	Front	20		0.63	0.63	< 19	< 0.31 PF	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00021	< 0.11	< 9.8	
R24608SVG	24608 RAVENNA AVE	2013-08-22	10:02	Garage	20		1.6	1.6	36	2.1 j,b	< 8.7	< 14	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14	
R24608SVB	24608 RAVENNA AVE	2013-08-22	10:04	Back	18		3.4	3.4	< 29	1.4 j,b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15	
R24608SVF	24608 RAVENNA AVE	2013-08-22	10:33	Front	19		1.1	1.1	32	1.5 j,b	< 9.2	< 14	13	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15	
R24608SVFS	24608 RAVENNA AVE	2013-08-22	10:33	Front	19		1.09	1.09	31 M1	< 0.73 U	< 20 U	< 20 U	11	< 2 U	< 2 U	< 2 U	< 2 U	< 0.16 U	< 0.12	< 20 U	
N24609SVH	24609 NEPTUNE AVE	2010-04-28	14:09	House	17		4	4	< 11	< 2.4	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7	
N24609SVF	24609 NEPTUNE AVE	2010-04-28	15:06	Front	21		< 0.024	< 0.024	12	< 2.4	30	< 3.6	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 3.8	
N24609SVFS	24609 NEPTUNE AVE	2010-04-28	15:06	Front	21		21.9	< 0.16	24	0.71 j	77	< 17	< 1.7	< 1.7	< 1.7	< 1.7	2.2	< 0.00024	< 0.12	< 17	
N24609SVB	24609 NEPTUNE AVE	2010-04-28	15:48	Back	21		< 0.024	< 0.024	32	< 2.3	13	< 3.5	6.4	< 8	< 4.4	4.9	< 5.8	< 0.00024	< 0.12	< 3.6	
N24609SVF	24609 NEPTUNE AVE	2010-08-20	13:35	Front	20		0.71	0.71	17	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
N24609SVH	24609 NEPTUNE AVE	2010-08-20	14:03	House	14		5.6	5.6	26	< 1.4	< 9.3	5.1	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 3.8	
N24609SVB	24609 NEPTUNE AVE	2010-08-20	14:30	Back	21		0.35	0.35	38	< 1.3	< 8.6	4.9	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	6.7	
N24609SVH	24609 NEPTUNE AVE	2010-12-10	15:19	House	16		4.9	4.9	< 11	1.6 j,b	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	5.2	< 5.7	< 0.00023	< 0.12	< 3.6	
N24609SVB	24609 NEPTUNE AVE	2010-12-10	15:42	Back	21		0.23	0.23	< 10	1.4 j,b	< 8.3	< 3.2	< 5.4	< 7.5	< 4.2	< 3.5	< 5.5	< 0.00022	< 0.11	< 3.4	
N24609SVBD	24609 NEPTUNE AVE	2010-12-10	15:42	Back	21		0.23	0.23	< 10	0.97 j,b	< 8.3	< 3.2	< 5.4	< 7.5	< 4.2	< 3.5	< 5.5	< 0.00022	< 0.11	< 3.4	

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection															
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 15.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%	
N24609SVF	24609 NEPTUNE AVE	2010-12-10	15:52	Front	21		0.51	< 11	1.91, b	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5	
N24609SVH	24609 NEPTUNE AVE	2013-05-03	10:11	House	16		5.2	< 24	2.11, b	< 7.7	< 12	< 5	< 6.9	< 3.8	< 3.2	< 5	< 0.0002	< 0.1	< 13	
N24609SVB	24609 NEPTUNE AVE	2013-05-03	10:33	Back	21		0.7	< 28	< 0.58	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15	
N24609SVF	24609 NEPTUNE AVE	2013-05-03	10:55	Front	20		0.42	< 31	2.11, b	< 9.8	< 15	< 6.3	< 8.8	< 4.9	< 4.2	< 6.4	< 0.00026	0.14	< 16	
P24609SVH	24609 PANAMA AVE	2010-04-30	13:27	House	20		0.55	33	< 6.2	54	8.8	< 5.7	39	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
P24609SVF	24609 PANAMA AVE	2010-04-30	14:39	Front	21		0.045	36	6.41	32	4.9	29	< 7.9	10	< 3.7	< 5.8	< 0.00023	< 0.12	6	
P24609SVB	24609 PANAMA AVE	2010-04-30	15:33	Back	20		1.3	15	30	< 9.2	< 3.6	8.3	< 8.2	< 4.6	5.7	< 6	< 0.00024	< 0.12	< 3.8	
P24609SVH	24609 PANAMA AVE	2010-10-25	09:26	House	18		2.6	< 12	< 1.4	< 9.2	< 3.6	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8	
P24609SVF	24609 PANAMA AVE	2010-10-25	10:11	Front	21		0.48	12	< 1.1	19	< 2.9	< 4.8	< 6.7	6.1	< 3.2	< 4.9	< 0.0002	< 0.1	< 3.1	
P24609SVB	24609 PANAMA AVE	2010-10-25	10:56	Back	19		2.2	16	< 1.4	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7	
P24609SVS	24609 PANAMA AVE	2010-10-25	10:56	Back			2.41	21	< 1.6	< 20	< 20	2.3	< 2	< 2	< 2	< 2	< 0.19	< 0.12	< 20	
P24609SVF	24609 PANAMA AVE	2011-02-18	10:08	Front	20		0.22	< 11	3.21, b	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5	
P24609SVS	24609 PANAMA AVE	2011-02-18	10:08	Front			0.244	< 17	< 1.3	< 17	< 17	< 1.7	< 1.7	< 1.7	< 1.7	3.2	< 0.15	< 0.11	< 17	
P24609SVH	24609 PANAMA AVE	2011-02-18	10:31	House	21		1.3	< 11	< 0.32	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5	
P24609SVB	24609 PANAMA AVE	2011-02-18	11:28	Back	19		1.9	< 12	0.441, b	< 9.2	< 3.6	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8	
R24609SVH	24609 RAVENNA AVE	2010-11-09	09:25	House	20		0.2	18	1.21, b	< 8.8	< 3.5	< 5.7	< 9	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6	
R24609SVG	24609 RAVENNA AVE	2010-11-09	09:59	Garage	21		0.22	26	1.21, b	18	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
R24609SVB	24609 RAVENNA AVE	2010-11-09	10:31	Back	21		0.031	< 10	2.31, b	< 8.4	< 3.3	< 5.4	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	5.2	
R24609SVH	24609 RAVENNA AVE	2012-09-21	15:01	House	20		0.39	< 29	0.81, b	14	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00031	0.28	< 15	
R24609SVG	24609 RAVENNA AVE	2012-09-21	15:02	Garage	19		1.4	< 31	0.921, b	< 9.9	< 16	< 6.4	< 9	< 5	< 4.2	< 6.5	< 0.00026	< 0.13	< 16	
R24609SVB	24609 RAVENNA AVE	2012-09-21	15:34	Back	20		0.43	54	0.751, b	12	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14	
R24609SVH	24609 RAVENNA AVE	2013-04-30	14:54	House	20		0.38	28	1.51, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	0.36	< 15	
R24609SVB	24609 RAVENNA AVE	2013-04-30	15:08	Back	22		0.41	< 30	1.51, b	< 9.4	< 15	< 6.1	< 8.5	< 4.7	< 4	< 6.2	< 0.00032	< 0.16	< 16	
R24609SVG	24609 RAVENNA AVE	2013-04-30	15:22	Garage	20		0.94	< 29	0.991, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15	
M24612SVH	24612 MARBELLA AVE	2010-08-13	09:15	House	19		0.2	29	< 6	26	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6	
M24612SVB	24612 MARBELLA AVE	2010-08-13	10:03	Back	20		0.093	38	< 6.2	< 8.8	11	32	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
M24612SVG	24612 MARBELLA AVE	2010-08-13	10:48	Garage	18		1.3	21	< 6.3	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7	
M24612SVH	24612 MARBELLA AVE	2012-05-10	14:39	House	20		0.79	< 18	< 0.3 PF	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6	
M24612SVG	24612 MARBELLA AVE	2012-05-10	14:53	Garage	19		2.4	< 19	< 0.31 PF	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8	
M24612SVGD	24612 MARBELLA AVE	2012-05-10	14:53	Garage	19		2.3	< 19	< 0.31 PF	< 5.8	< 9.1	< 3.8	< 5.4	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6	
M24612SVB	24612 MARBELLA AVE	2012-05-10	15:17	Back	20		0.71	< 18	< 0.3 PF	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6	
N24612SVH	24612 NEPTUNE AVE	2010-11-11	09:14	House	18		2.6	24	11	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7	
N24612SVF	24612 NEPTUNE AVE	2010-11-11	09:44	Front	20		< 0.024	18	1.11	< 8.9	< 3.5	6.2	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7	
N24612SVFD	24612 NEPTUNE AVE	2010-11-11	09:44	Front	20		< 0.024	21	1.41	< 8.9	< 3.5	5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7	
N24612SVBA	24612 NEPTUNE AVE	2011-02-07	09:21	Back	21		0.62	< 10	< 0.31	< 8.1	< 3.2	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 0.00022	< 0.11	< 3.4	
N24612SVBAS	24612 NEPTUNE AVE	2011-02-07	09:21	Back			0.737	< 16	< 1.3	< 16	< 16	3.8	< 1.6	< 1.6	< 1.6	2.5	< 0.15	< 0.12	< 16	
N24612SVF	24612 NEPTUNE AVE	2011-03-11	14:50	Front	20		1.1	24	1.61, b	< 8.8	< 14	6.4	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14	
N24612SVH	24612 NEPTUNE AVE	2011-03-11	15:17	House	19		1.9	< 11	1.61, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15	
N24612SVBA	24612 NEPTUNE AVE	2011-03-11	15:27	Back	21		0.4	13	21, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15	
N24612SVH	24612 NEPTUNE AVE	2013-08-13	14:56	House	19		1.2	27	1.21, b	< 8.6	< 13	< 5.5	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14	
N24612SVF	24612 NEPTUNE AVE	2013-08-13	15:31	Front	20		0.31	50	< 0.82 PF	< 9.2	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15	
N24612SVBA	24612 NEPTUNE AVE	2013-08-13	15:48	Back	20		1.3	120	1.11, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
P24612SVB	24612 PANAMA AVE	2013-01-25	10:24	Back	21		0.51	< 27	21, b	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14	
P24612SVG	24612 PANAMA AVE	2013-01-25	10:58	Garage	21		0.11	< 26	0.691, b	< 8.1	< 13	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 0.00022	< 0.11	< 13	
P24612SVHA	24612 PANAMA AVE	2013-02-06	15:34	House	20		0.26	< 28	1.21, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	0.32	< 14	
P24612SVHA	24612 PANAMA AVE	2013-05-17	14:51	House	21		0.79	< 30	0.941, b	16	< 15	< 6.1	< 8.5	26	< 4	< 6.2	< 0.00025	0.16	< 16	
P24612SVB	24612 PANAMA AVE	2013-05-17	15:28	Back	21		0.8	36	0.781, b	< 9.2	< 14	9.5	< 8.3	7.21	< 3.9	< 6	< 0.00024	< 0.12	< 15	
P24612SVBD	24612 PANAMA AVE	2013-05-17	15:28	Back	21		0.86	35	1.11, b	< 9.3	< 15	10	< 8.4	501	< 4	< 6.1	< 0.00025	< 0.12	< 15	
P24612SVG	24612 PANAMA AVE	2013-05-17	15:34	Garage	21		0.14	76	0.751, b	12	22	< 5.7	< 8	260	< 3.8	< 5.8	< 0.00024	< 0.12	< 15	
R24612SVH	24612 RAVENNA AVE	2011-01-14	10:04	House	20		1.1	12	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	0.00061	< 0.12	< 3.6	
R24612SVG	24612 RAVENNA AVE	2011-01-14	10:51	Garage	21		< 0.023	27	< 1.3	< 8.6	4.9	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6	
R24612SVB	24612 RAVENNA AVE	2011-01-14	11:35	Back	20		0.19	39	< 1.4	< 9	< 3.5	8.6	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7	

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units		Oxygen/Argon		Carbon Dioxide		Acetone		Naphthalene		Ethanol		2-Butanone (Methyl Ethyl Ketone)		Chloroform		Tetrachloro-ethene		Toluene		Benzene		Freon 12		Methane	
					Oxygen MOL %	Argon MOL %	MOL %	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	MOL %	MOL %	UG/M3	UG/M3
R24612SVBB	24612 RAVENNA AVE	2012-11-01	14:46	Back	20			1.4	< 28	2.5, j, b	< 8.8	< 14	8.6	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14										
R24612SVBBD	24612 RAVENNA AVE	2012-11-01	14:46	Back	20		1.3	< 28	< 28	2.6, j, b	< 8.8	< 14	8.4	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15										
R24612SVH	24612 RAVENNA AVE	2012-11-01	14:49	House	18		1.8	< 27	< 27	3.7, j, b	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	0.00028	< 0.12	< 14										
R24612SVG	24612 RAVENNA AVE	2012-11-01	15:32	Garage	20		0.99	26	26	5.5, j, b	8.9	< 13	< 5.3	< 7.4	5.3	< 3.5	< 5.4	< 0.00022	< 0.11	< 14										
R24612SVBB	24612 RAVENNA AVE	2013-06-25	14:50	Back	20		1	< 29	< 29	0.99, j, b	< 9.3	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15										
R24612SVH	24612 RAVENNA AVE	2013-06-25	14:53	House	19		1.6	< 28	< 28	0.85, j, b	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14										
R24612SVG	24612 RAVENNA AVE	2013-06-25	15:18	Garage	20		1.1	< 27	36	< 0.79	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14										
M24613SVH	24613 RAVENNA AVE	2010-05-26	09:03	House	20		0.7	26	26	< 2.3	14	9.8	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	100										
M24613SVG	24613 RAVENNA AVE	2010-05-26	10:01	Garage	21		< 0.024	16	16	2.2, j	< 8.8	< 3.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6										
M24613SVB	24613 RAVENNA AVE	2010-05-26	10:49	Back	21		< 0.024	< 11	< 11	< 2.3	< 8.8	< 3.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6										
M24613SVG	24613 RAVENNA AVE	2012-10-11	11:01	Garage	21		0.42	< 29	< 29	3.3, j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15										
M24613SVGS	24613 RAVENNA AVE	2012-10-11	11:01	Garage	21		2.12	23	23	< 0.77 U	< 18 U	< 18 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	2.1	< 0.17 U	< 0.12	< 18 U										
M24613SVB	24613 RAVENNA AVE	2012-10-11	11:41	Back	24		0.17	40	40	1.5, j, b	8.7	< 13	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 0.00029	< 0.14	< 13										
M24613SVHA	24613 RAVENNA AVE	2012-10-24	12:14	House	18		1.8	41	41	2.3, j, b	28	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15										
M24613SVHA	24613 RAVENNA AVE	2013-04-19	10:01	House	20		2.3	37	37	2.4, j, b	< 8.4	< 13	< 5.4	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00024	< 0.11	< 14										
M24613SVB	24613 RAVENNA AVE	2013-04-19	10:10	Back	22		0.13	< 29	< 29	1.8, j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 15										
M24613SVBD	24613 RAVENNA AVE	2013-04-19	10:10	Back	22		0.13	< 29	< 29	0.71, j, b	< 9.3	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15										
M24613SVG	24613 RAVENNA AVE	2013-04-19	10:35	Garage	21		0.24	< 26	< 26	0.58, j, b	< 8.2	< 13	< 5.3	< 7.4	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 14										
M24613SVB	24613 RAVENNA AVE	2010-08-09	13:59	Back	20		< 0.024	47	47	< 6.4	< 9.1	11	11	< 8.2	< 4.6	< 3.9	< 6	0.007	< 0.12	27										
M24613SVF	24613 RAVENNA AVE	2010-08-09	14:44	Front	20		0.1	100	100	< 6.3	< 9	5.9	< 5.8	< 8.1	< 4.5	4.7	< 5.9	0.00034	< 0.12	150										
M24613SVH	24613 RAVENNA AVE	2012-05-11	09:55	House	19		1.1	< 18	< 18	< 2.8 PF	< 5.7	< 9	< 3.7	< 5.2	< 2.9	< 2.4	5.6	< 0.0002	< 0.098	< 9.5										
M24613SVF	24613 RAVENNA AVE	2012-05-11	10:04	Front	21		0.64	< 19	< 19	< 3.1 PF	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	4	< 0.0002	< 0.1	< 10										
M24613SVFS	24613 RAVENNA AVE	2012-05-11	10:04	Front	21		2.11	< 19 U	< 19 U	< 0.79 U	< 19 U	< 19 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	2.8	< 0.18 U	< 0.12	< 19 U										
M24613SVB	24613 RAVENNA AVE	2012-05-11	10:42	Back	20		0.1	< 19	< 19	< 3 PF	< 6	< 9.3	8.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00021	< 0.1	< 9.8										
M24613SVB5	24613 RAVENNA AVE	2012-05-11	10:42	Back	20		21.1	< 18 U	< 18 U	< 0.74 U	< 18 U	< 18 U	7.3	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 0.16 U	< 0.12	< 18 U										
M24613SVB	24613 RAVENNA AVE	2013-08-29	09:42	Back	20		0.29	< 31	< 31	0.95, j, b	< 9.8 PF	< 15	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	0.00034	< 0.13	< 16										
M24613SVBD	24613 RAVENNA AVE	2013-08-29	09:42	Back	20		0.29	33	33	1.3, j, b	< 9.8 PF	< 15	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	0.00034	< 0.13	< 16										
M24613SVH	24613 RAVENNA AVE	2013-08-29	09:47	House	18		2.4	< 31	< 31	1, j, b	< 9.7 PF	< 15	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	< 0.00026	< 0.13	< 16										
M24613SVF	24613 RAVENNA AVE	2010-06-25	14:07	Front	21		< 0.024	49	49	< 2.4 U	13	8.4	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 3.8										
M24613SVH	24613 RAVENNA AVE	2010-06-25	14:43	House	20		0.16	140	140	< 2.4 U	65	22	6.4	97	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	20										
M24613SVB	24613 RAVENNA AVE	2010-06-25	15:25	Back	20		0.096	48	48	< 2.3 U	13	4.4	< 5.7	120	< 4.4	6.6	< 5.8	< 0.00024	< 0.12	230										
M24613SVH	24613 RAVENNA AVE	2011-02-10	10:10	House	21		0.33	18	18	0.8, j, b	< 8.4	< 3.3	< 5.5	120	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5										
M24613SVF	24613 RAVENNA AVE	2011-02-10	10:48	Front	21		0.064	< 11	< 11	0.65, j, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6										
M24613SVB	24613 RAVENNA AVE	2011-02-10	10:59	Back	21		0.11	< 11	< 11	0.64, j, b	< 9	< 3.5	< 5.8	16	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7										
M24613SVB	24613 RAVENNA AVE	2012-09-13	14:58	Back	20		0.15	56	56	2.3, j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15										
M24613SVBD	24613 RAVENNA AVE	2012-09-13	14:58	Back	20		0.16	44	44	2.5, j, b	9	< 14	< 5.8	23, j	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15										
M24613SVF	24613 RAVENNA AVE	2012-09-13	15:05	Front	20		0.12	38	38	4.5, j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15										
M24613SVH	24613 RAVENNA AVE	2012-09-13	15:45	House	19		0.6	< 29	< 29	1.8, j, b	< 9.1	< 14	< 5.9	190	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15										
M24613SVH	24613 RAVENNA AVE	2009-12-31	13:46	House	21		0.96	51	51	< 2.4	16.1	4.5	< 5.9	< 8.2	< 4.6	4.2	< 6	< 0.00024	< 0.12	< 3.8										
M24613SVF	24613 RAVENNA AVE	2009-12-31	14:22	Front	21		0.3	31	31	< 2.4	24.1	10	< 6	45	35	< 3.9	< 6	< 0.00024	< 0.12	5.8										
M24613SVFS	24613 RAVENNA AVE	2009-12-31	14:22	Front	19		21.8	49	49	< 1.6	< 21	4.8, j	1.5, j	< 2.1	< 2.1	1.5, j	2.5	< 0.13	< 0.12	2.2, j										
M24613SVB	24613 RAVENNA AVE	2009-12-31	15:07	Back	19		< 0.024	35	35	< 2.4	12.1	< 3.6	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 3.8										
M24613SVH	24613 RAVENNA AVE	2011-05-20	10:20	House	20		0.64	< 11	< 11	1.2, j, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	0.00029	< 0.12	< 14										
M24613SVF	24613 RAVENNA AVE	2011-05-20	10:26	Front	21		1.1	< 22	< 22	2.8, j, b	< 17	< 27	< 11	< 15	17	< 7.2	< 11	< 0.00045	< 0.23	< 28										
M24613SVFS	24613 RAVENNA AVE	2011-05-20	10:26	Front	21		1.3	< 17 U	< 17 U	0.99, j, b	< 17 U	< 17 U	3.8	< 1.7 U	< 1.7 U	< 1.7 U	2.5	< 0.15 U	< 0.12	< 17 U										
M24613SVB	24613 RAVENNA AVE	2011-05-20	10:55	Back	21		0.47	< 11	< 11	0.99, j, b	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15										
M24613SVBS	24613 RAVENNA AVE	2011-05-20	10:55	Back	19		0.485	< 18 U	< 18 U	< 1 U	< 18 U	< 18 U	2	< 1.8 U	< 1.8 U	< 1.8 U	2.4	< 0.16 U	< 0.12	< 18 U										
M24616SVH	24616 MARBELLA AVE	2010-04-22	15:26	House	19		1.2	46	46	5.6, j, b	14	12	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	0.00062	0.15	< 3.6										
M24616SVB	24616 MARBELLA AVE	2010-04-22	16:44	Back	21		< 0.023	130	130	9.6, j, b	33	22	< 11	< 16	< 8.6	< 7.3	< 11	< 0.00023	< 0.11	< 7.1										
M24616SVF	24616 MARBELLA AVE	2010-04-23	11:55	Front	21		0.029	20	20	2.9, j, b	< 8.6	3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	4.2										
M24616SVFD	24616 MARBELLA AVE	2010-04-23	11:55	Front	21		0.026	16	16	< 2.3	< 8.6	4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6										
M24616SVH	24616 MARBELLA AVE	2010-08-25	09:07	House	18		1.8	23	23	1.7, j, b	11	4.3	< 13	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	0.12	< 3.6										



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide M/L %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane M/L %	Helium M/L %	Carbon Disulfide UG/M3
					Oxygen M/L %	Argon M/L %													
P24619SVH	24619 PANAMA AVE	2010-04-27	14:34	House	17		3.7	92	< 5.9	61	14	< 5.5	< 7.6	< 4.2	3.8	< 5.5	< 0.00041	< 0.21	< 3.5
P24619SVB	24619 PANAMA AVE	2010-04-27	15:08	Back	18		3.1	23	< 6.3	< 9	< 3.5	< 5.8	< 8.1	< 4.5	5.9	< 5.9	< 0.00048	< 0.24	< 3.7
P24619SVBD	24619 PANAMA AVE	2010-04-27	15:08	Back	18		3.1	45	< 6.3	< 9	18	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
P24619SVF	24619 PANAMA AVE	2010-04-27	15:58	Front	21		1.2	140	< 6.3	16	6.9	< 5.8	< 8.1	< 4.5	19	< 5.9	< 0.00048	< 0.24	< 3.7
P24619SVH	24619 PANAMA AVE	2010-05-25	13:59	House	18		3.6	14	6.8 J	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	0.38	< 3.8
P24619SVH	24619 PANAMA AVE	2010-10-11	14:30	House	16		4.2	14	< 1.4	< 9.3	< 3.6	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	0.13	< 3.8
P24619SVF	24619 PANAMA AVE	2010-10-11	15:09	Front	19		1.2	14	< 1.4	< 9	3.6	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
P24619SVB	24619 PANAMA AVE	2010-10-11	15:57	Back	15		4.4	17	< 1.4	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
P24619SVBS	24619 PANAMA AVE	2010-10-11	15:57	Back			4.72	18	< 1.3	< 17	< 1.7	< 1.7	< 1.7	1.8	< 1.7	2.2	< 0.16		< 17
P24619SVF	24619 PANAMA AVE	2011-02-11	14:43	Front	20		0.78	14	0.4 J, b	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
P24619SVB	24619 PANAMA AVE	2011-02-11	15:10	Back	18		2.7	27	2.4 J, b	16	3.5	< 5.8	< 8.1	9.7	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
P24619SVHA	24619 PANAMA AVE	2011-12-08	15:10	House	20		1.8	22	< 0.27	< 5.7	14	< 3.7	< 5.2	< 2.9	< 2.4	< 3.8	< 0.00015	< 0.076	< 9.5
P24619SVF	24619 PANAMA AVE	2011-12-08	15:39	Front	20		0.89	15	0.31 J, b	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4	< 0.00016	< 0.082	< 10
P24619SVB	24619 PANAMA AVE	2011-12-08	15:39	Front			0.986	< 18 U	< 1.1 U	< 18 U	< 18 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	2.1	< 0.17 U	< 0.082	< 18 U
P24619SVBS	24619 PANAMA AVE	2011-12-08	16:09	Back	18		3.8	14	0.46 J, b	< 5.8	< 9.1	< 3.8	< 5.2	3.4	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6
P24619SVBS	24619 PANAMA AVE	2011-12-08	16:09	Back			4.06	< 17 U	< 0.98 U	< 17 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	2	< 0.15 U		< 17 U
P24619SVF	24619 RAVENNA AVE	2010-08-30	13:40	Front	20		0.31	15	2.2 J	9.4	< 3.7	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 3.9
P24619SVB	24619 RAVENNA AVE	2010-08-30	14:24	Back	19		0.86	19	< 1.4	< 9.2	< 3.6	< 6	21	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
P24619SVBD	24619 RAVENNA AVE	2010-08-30	14:24	Back	19		0.85	20	< 1.8	< 12	< 4.7	< 7.8	20	< 6	< 5.1	< 7.9	< 0.00024	< 0.12	< 5
P24619SVF	24619 RAVENNA AVE	2013-03-01	09:58	Front	21		0.16	< 29	3.3 J, b	< 9.2	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24619SVFS	24619 RAVENNA AVE	2013-03-01	09:58	Front			< 0.18 U	< 17 U	< 0.7 U	< 17 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	2.7	< 0.18 U		< 17 U
P24619SVB	24619 RAVENNA AVE	2013-03-01	10:28	Back	20		0.66	< 28	1.7 J, b	< 8.8	< 14	< 5.7	10	5.1 J	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
P24619SVBS	24619 RAVENNA AVE	2013-03-01	10:28	Back			0.698	17	< 0.7 U	< 17 U	< 1.7 U	< 1.7 U	9.7	2.9 J	< 1.7 U	2.8	< 0.18 U		< 17 U
P24619SVHA	24619 RAVENNA AVE	2013-03-15	09:41	House	21		0.36	32	2.1 J, b	< 8.8	180	< 5.7	15	14	< 3.7	< 5.8	< 0.00024	0.16	< 14
P24619SVHA	24619 RAVENNA AVE	2013-07-19	14:47	House	20		0.76	< 26	1.1 J, b	< 8.1	< 13	< 5.3	19	< 4.1	< 3.4	< 5.3	< 0.00022	< 0.11	< 13
P24619SVB	24619 RAVENNA AVE	2013-07-19	14:49	Back	18		1.6	55	1.1 J, b	< 8.8	< 14	< 5.7	17	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
P24619SVF	24619 RAVENNA AVE	2013-07-19	15:24	Front	20		0.4	210	1.4 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24622SVH	24622 MARBELLA AVE	2010-05-28	13:48	House	20		0.6	76	< 4	< 8.7	15	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
M24622SVB	24622 MARBELLA AVE	2010-05-28	14:26	Back	21		< 0.022	23	< 3.9	< 8.4	3.7	12	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	12
M24622SVG	24622 MARBELLA AVE	2010-05-28	15:27	Garage	14		4.7	13	< 4	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
M24622SVH	24622 MARBELLA AVE	2012-11-16	09:57	House	16		3.3	< 27	< 0.55	< 8.4	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
M24622SVG	24622 MARBELLA AVE	2012-11-16	10:05	Garage	15		6.8	< 28	< 0.58	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M24622SVB	24622 MARBELLA AVE	2012-11-16	10:41	Back	21		0.63	< 27	< 0.55	< 8.4	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
M24622SVB	24622 MARBELLA AVE	2013-06-07	09:45	Back	21		0.47	< 28	< 2.6	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
M24622SVBS	24622 MARBELLA AVE	2013-06-07	09:45	Back			0.471	< 20 U	< 0.72 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	2	< 0.16 U		< 20 U
M24622SVH	24622 MARBELLA AVE	2013-06-07	09:47	House	19		2.7	< 27	< 2.5	< 8.7	< 14	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
M24622SVG	24622 MARBELLA AVE	2013-06-07	10:09	Garage	16		5.8	< 28	< 2.6	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
M24622SVGS	24622 MARBELLA AVE	2013-06-07	10:09	Garage			6.11	< 20 U	< 0.72 U	< 20 U	< 20 U	< 2 U	3.8	< 2 U	< 2 U	< 2 U	< 0.16 U		< 20 U
M24622SVB	24622 NEPTUNE AVE	2010-08-19	09:33	Back	9.8		7.1	26	5.2 J, b	< 8.7	< 3.4	11	< 7.8	< 4.3	< 3.7	< 5.7	0.00024	< 0.12	< 3.6
M24622SVH	24622 NEPTUNE AVE	2010-08-19	10:18	House	20		0.75	44	< 1.3	< 8.8	8.1	< 5.7	< 7.9	< 4.4	7	< 5.8	< 0.00023	< 0.12	< 3.6
M24622SVF	24622 NEPTUNE AVE	2010-08-19	11:03	Front	20		0.072	24	1.5 J, b	10	< 3.6	6.3	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	4
M24622SVF	24622 NEPTUNE AVE	2011-02-01	09:40	Front	21		0.14	< 11	0.53 J, b	< 8.7	< 3.4	12	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
M24622SVB	24622 NEPTUNE AVE	2011-02-01	10:25	Back	17		1.2	< 12	< 0.36	< 9.5	< 3.7	< 6.2	< 8.5	< 4.7	< 4	< 6.2	0.00056	< 0.13	< 3.9
M24622SVH	24622 NEPTUNE AVE	2011-02-01	11:06	House	20		0.5	43	0.99 J, b	16	5.4	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
M24622SVH	24622 NEPTUNE AVE	2012-03-30	10:57	House	20		0.56	20	3.1 J, b	< 5.9	< 9.2	< 3.8	< 5.3	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.7
M24622SVF	24622 NEPTUNE AVE	2013-08-21	10:21	Front	20		1	39	2 J, b	< 9.2	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24622SVFS	24622 NEPTUNE AVE	2013-08-21	10:21	Front			1.1	35 M1	< 0.76 U	< 21 U	< 21 U	4.3	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 0.17 U		< 21 U
M24622SVB	24622 NEPTUNE AVE	2013-08-21	10:40	Back	14		6.5	< 30	1.5 J, b	< 9.6	< 15	28	< 8.6	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 16
M24622SVHA	24622 NEPTUNE AVE	2013-08-23	12:34	House	20		0.081	59	2.9 J, b	13	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
M24623SVH	24623 MARBELLA AVE	2010-08-03	13:50	House	19		0.54	150 b	< 6.2	12	11	< 5.7	< 7.9	< 4.4	130	< 5.8	< 0.00023	< 0.12	< 3.6
M24623SVG	24623 MARBELLA AVE	2010-08-03	14:07	Garage	15		6.1	22 b	< 6.3	< 9	4.2	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24623SVGD	24623 MARBELLA AVE	2010-08-03	14:07	Garage	16		6.2	22 b	< 6.4	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 15.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
M246233SVB	24623 MARBELLA AVE	2010-08-03	14:37	Back	19		0.92	15 b	< 6.5	19	< 3.6	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	5
M246233SVG	24623 MARBELLA AVE	2011-01-28	15:15	Garage	18		2.1	13	0.94 J, b	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
M246233SVH	24623 MARBELLA AVE	2011-01-28	15:21	House	20		0.47	< 11	0.94 J, b	< 8.6	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
M246233SVB	24623 MARBELLA AVE	2011-01-28	15:53	Back	21		0.45	< 12	0.96 J, b	< 9.5	< 3.7	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 3.9
M246233SVH	24623 NEPTUNE AVE	2010-06-11	13:58	House	18		0.59	79	3.1 J, b	21	25	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M246233SVF	24623 NEPTUNE AVE	2010-06-11	14:50	Front	18		1.9	16	< 2.4	< 9	< 3.5	6.5	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M246233SVB	24623 NEPTUNE AVE	2011-02-16	09:43	Back	17		3	12	1.3 J, b	< 8.6	< 3.6	< 5.6	< 7.7	5	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.6
M246233SVF	24623 NEPTUNE AVE	2011-02-16	10:20	Front	20		1	< 11	0.85 J, b	< 9.1	< 3.4	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
M246233VHD	24623 NEPTUNE AVE	2011-02-16	10:20	Front	20		1	< 11	5.4 J, b	< 9.1	< 3.6	< 5.9	< 8.2	8.2	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
M246233VH	24623 NEPTUNE AVE	2011-02-16	11:08	House	20		1.6	< 11	0.86 J, b	14	< 3.5	< 5.8	< 8	110	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M246233SVF	24623 NEPTUNE AVE	2011-03-31	10:49	Front	20		0.4	< 11	0.55 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M246233SVF5	24623 NEPTUNE AVE	2011-03-31	10:49	Front	20		0.457	< 18	< 1	< 18	< 18	< 1.8	< 1.8	< 1.8	< 1.8	2.2	< 0.17	< 18	
M246233VH	24623 NEPTUNE AVE	2011-03-31	11:07	House	20		1.4	19	0.35 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M246233SVB	24623 NEPTUNE AVE	2011-03-31	11:39	Back	15		2.5	< 11	< 0.33 U	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
M246233SVB5	24623 NEPTUNE AVE	2011-03-31	11:39	Back			2.9	< 18	< 1.1	< 18	< 18	< 1.8	< 1.8	< 1.8	< 1.8	2.4	< 0.17	< 18	
M246275VH	24627 MARBELLA AVE	2010-07-19	13:48	House	20		1.2	24	7.2 J	< 8.8	4.1	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	0.00031	0.17	6.2
M246275VG	24627 MARBELLA AVE	2010-07-19	14:24	Garage	20		1.6	32	< 6.2	10	< 3.4	< 5.7	10	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M246275VB	24627 MARBELLA AVE	2010-07-19	15:05	Back	20		0.57	39	< 6.7	14	5.8	< 6.2	< 8.6	< 4.8	< 4	< 6.2	< 0.00025	< 0.13	9.7
M246275VH	24627 MARBELLA AVE	2012-05-11	14:43	House	20		1	< 18	< 2.9 PF	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	0.085	< 9.6
M246275VG	24627 MARBELLA AVE	2012-05-11	14:49	Garage	20		0.9	< 19	< 3.1 PF	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4	< 0.00016	0.084	< 10
M246275VGD	24627 MARBELLA AVE	2012-05-11	14:49	Garage	20		0.9	< 19	< 3.1 PF	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4	< 0.00016	0.099	< 10
M246275VB	24627 MARBELLA AVE	2012-05-11	15:21	Back	20		0.86	< 19	< 3.1 PF	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4	< 0.00016	< 0.082	< 10
M246285VFD	24628 MARBELLA AVE	2010-12-03	13:44	Front	17		1.4	32	1.6 J, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M246285VB	24628 MARBELLA AVE	2010-12-03	13:44	Front	17		1.4	24	0.54 J, b	< 9	4.1	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M246285VB5	24628 MARBELLA AVE	2011-06-23	11:24	Back	15		3.1	15	< 0.34	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M246285VH	24628 MARBELLA AVE	2011-06-23	10:40	House	11		8.1	< 11	1.2 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M246285VH5	24628 MARBELLA AVE	2011-06-23	10:40	House			8.78	< 18 U	< 1 U	< 18 U	< 18 U	< 1.8 U	1.9	< 1.8 U	< 1.8 U	1.8	< 0.16 U	< 18 U	
M246285VB	24628 MARBELLA AVE	2011-06-23	11:24	Back	13		9	< 11	< 0.34	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M246285VBS	24628 MARBELLA AVE	2011-06-23	11:24	Back			10.1	< 18 U	< 1 U	< 18 U	< 18 U	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6
M246285VFD	24628 MARBELLA AVE	2011-06-23	12:12	Front	19		1.9	< 11	< 0.34	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00047	< 0.24	< 14
M246285VH	24628 MARBELLA AVE	2011-06-23	12:12	Front	18		1.9	< 11	< 0.34	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M246285VH5	24628 MARBELLA AVE	2011-06-23	13:09	Front	18		2.3	11	0.47 J, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
M246285VFS	24628 MARBELLA AVE	2011-10-27	13:09	Front			2.48	< 18 U	< 1 U	< 18 U	< 18 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	2.1	< 0.16 U	< 18 U	
M246285VH	24628 MARBELLA AVE	2011-10-27	14:12	House	10		10	10	0.51 J, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
M246285VHS	24628 MARBELLA AVE	2011-10-27	14:12	House			11.2	< 18 U	< 1 U	< 18 U	< 18 U	< 1.8 U	< 1.8 U	5.4	< 1.8 U	2	< 0.17 U	< 18 U	
M246285VB	24628 MARBELLA AVE	2011-10-27	14:55	Back	15		5.1	8.4	0.49 J, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6
M246285VBS	24628 MARBELLA AVE	2011-10-27	14:55	Back			5.66	< 17 U	< 1 U	< 17 U	< 17 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	2.1	< 0.16 U	< 17 U	
M246285VH	24628 NEPTUNE AVE	2010-10-27	13:02	House	21		0.36	290	< 1.4	43	46	320	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M246285VH2	24628 NEPTUNE AVE	2010-10-27	13:35	Garage	21		< 0.023	30	< 1.3	32	3.4	940	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.5
M246285VH	24628 NEPTUNE AVE	2013-02-07	14:34	House	21		0.38	38	3.2 J, b	< 9.3	< 14	10	< 8.4	< 4.6	< 3.9	< 5.6	< 0.00025	0.13	< 15
M246285VBA	24628 NEPTUNE AVE	2013-02-07	14:35	Back	22		< 0.053	140	1.8 J, b	< 20	< 31	320	< 18	12	< 8.5	< 13	< 0.00053	< 0.26	< 33
M246285VBA2	24628 NEPTUNE AVE	2013-02-07	15:12	Garage	21		0.45	< 28	1.7 J, b	< 8.8	< 14	440	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M246285VBA	24628 NEPTUNE AVE	2013-06-19	15:03	Back	21		0.16	37	1.4 J, b	< 8.6	< 13	720	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
M246285VHAD	24628 NEPTUNE AVE	2013-06-19	15:03	Back	21		0.16	28	0.98 J, b	< 8.5	< 13	720	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
M246285VH	24628 NEPTUNE AVE	2013-06-19	15:05	House	20		0.53	73	1.4 J, b	< 8.4	< 13	94	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
M246285VH2	24628 NEPTUNE AVE	2013-06-19	15:38	Garage	20		0.58	32	1 J, b	< 8.7	< 14	1000	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00029	< 0.14	< 14
M246295VH	24629 NEPTUNE AVE	2010-07-09	13:57	House	15		5.3	96	< 2.4 Q	31	13	< 5.9	< 8.2	< 4.6	< 3.9	< 5.9	0.00031	< 0.12	< 3.8
M246295VH2	24629 NEPTUNE AVE	2010-07-09	15:14	Front	19		1.9	59	< 2.3 Q	12	8.7	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M246295VH	24629 NEPTUNE AVE	2010-07-09	15:32	Back	18		1.3	320	2.7 J, Q	11	27	< 5.7	< 7.9	< 4.4	230	< 5.8	< 0.00023	< 0.12	< 3.6
M246295VH2	24629 NEPTUNE AVE	2011-02-03	15:16	Back	20		1.6	11	< 1.7	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M246295VH	24629 NEPTUNE AVE	2011-02-03	15:24	House	16		5.1	21	< 1.8	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	0.00028	< 0.12	3.8
M246295VH2	24629 NEPTUNE AVE	2011-02-03	15:57	Front	21		0.97	< 11	< 1.8	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide M/L %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane M/L %	Helium M/L %	Carbon Disulfide UG/M3
					Oxygen M/L %	Argon M/L %													
N24632SVF	24632 NEPTUNE AVE	2009-10-02	13:16	Front	21		< 0.024	39	< 3	< 9	7.7	9.7	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	6.7
N24632SVB	24632 NEPTUNE AVE	2009-10-02	14:09	Back	20		0.58	87	< 3.2	12	11	52	< 8.6	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 4
N24632SVF	24632 NEPTUNE AVE	2010-07-20	10:44	Front	20		0.77	37b	< 6.2	11	< 3.4	< 5.7	< 7.9	< 4.4	4.3	< 5.8	< 0.00023	< 0.12	< 3.6
N24632SVG	24632 NEPTUNE AVE	2010-08-24	08:55	Garage	20		0.5	14	< 1.4	< 8.9	< 3.5	< 5.8	28	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N24632SVB	24632 NEPTUNE AVE	2010-08-24	09:39	Back	18		1.6	32	< 1.4	< 9.1	< 3.6	16	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
N24632SVF	24632 NEPTUNE AVE	2013-02-08	12:50	Front	20		0.42	< 27	2.1 j, b	< 8.4	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
N24632SVG	24632 NEPTUNE AVE	2013-02-08	13:28	Garage	21		0.22	< 26	1.2 j, b	< 8.3	< 13	< 5.4	< 7.5	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 14
N24632SVBA	24632 NEPTUNE AVE	2013-08-09	09:56	Back	9.5		< 0.026	250	1.1 j, b	11	77	< 6.2	< 8.6	20	6.3	< 6.3	0.58	< 0.13	26
N24632SVBAS	24632 NEPTUNE AVE	2013-08-09	09:56	Back			< 0.17 U	210	5.5	< 21 U	72	< 2.1 U	< 2.1 U	16	5.1	< 2.1 U	0.521	< 0.13	< 21 U
N24632SVF	24632 NEPTUNE AVE	2013-08-09	10:04	Front	20		1.4	< 30	2.2 j, b	< 9.5	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16
N24632SVG	24632 NEPTUNE AVE	2013-08-09	10:23	Garage	21		0.49	< 27	1.4 j, b	< 8.5	< 13	< 5.5	14	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
N24700SVH	24700 MARELLA AVE	2010-06-09	09:02	House	15		2.8	41	< 2.4	15	12b	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	0.21	< 3.7
N24700SVHS	24700 MARELLA AVE	2010-06-09	09:02	House			19.1	< 17	0.97 j	< 17	< 17	< 1.7	2.7	< 1.7	< 1.7	2	< 0.16	< 0.12	< 17
N24700SVF	24700 MARELLA AVE	2010-06-09	09:38	Front	16		2.5	34	< 2.4	< 9	10b	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N24700SVB	24700 MARELLA AVE	2010-06-09	10:24	Back	12		2.7	410	3.1 j	11	12b	< 5.7	< 8	< 4.4	18	< 5.8	< 0.00024	< 0.12	< 3.6
N24700SVB	24700 MARELLA AVE	2010-07-15	14:27	Back	11		8.3	210b	< 2.7	28b	25	11	< 9.2	< 5.1	26	< 6.7	< 6.7	< 0.14	6.5
N24700SVF	24700 MARELLA AVE	2010-07-15	15:22	Front	17		3.6	39b	< 2.3	88b	5	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	9.9
N24700SVH	24700 MARELLA AVE	2010-07-15	16:12	House	18		3	16b	< 2.3	< 8.6	< 3.4	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	0.00044	0.23	< 3.6
N24700SVF	24700 MARELLA AVE	2011-10-20	10:29	Front	13		5.9	8.9	0.66 j, b	< 6.7	< 10	< 4.3	< 6	< 3.4	< 2.8	< 4.4	< 0.00016	< 0.078	< 11
N24700SVB	24700 MARELLA AVE	2011-10-20	11:10	Back	18		2.4	11	0.92 j, b	< 7.6	< 12	< 4.9	< 6.8	< 3.8	< 3.2	< 5	< 0.00018	0.12	< 12
N24700SVH	24700 MARELLA AVE	2011-10-20	15:18	House	16		4.7	10	0.55 j, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00015	0.089	< 10
N24700SVHD	24700 MARELLA AVE	2011-10-20	15:18	House	16		4.7	9.8	5.9 j, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00015	0.087	< 10
N24700SVH	24700 MARELLA AVE	2013-03-15	14:45	House	12		6.8	32	1.2 j, b	< 8.5	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24700SVB	24700 MARELLA AVE	2013-03-15	14:47	Back	20		1.6	38	1.1 j, b	< 8.5	< 13	< 5.8	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
N24700SVBS	24700 MARELLA AVE	2013-03-15	14:47	Back			1.64	< 24 U	< 1 U	< 24 U	< 24 U	31	< 2.4 U	2.7	< 2.4 U	< 2.4 U	< 0.00023	< 0.11	< 14
N24700SVF	24700 MARELLA AVE	2013-03-15	15:23	Front	14		5.7	< 26	1 j, b	< 8.4	< 13	< 5.4	< 7.5	< 4.2	< 3.5	< 5.5	< 0.00022	< 0.11	< 14
N24700SVFD	24700 MARELLA AVE	2013-03-15	15:23	Front	14		5.8	< 27	0.88 j, b	< 8.5	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.6	< 0.00022	< 0.11	< 14
N24702SVH	24702 PANAMA AVE	2010-06-03	09:09	House	21		< 0.022	30	< 3.9	89	4.8	< 5.5	< 7.6	< 4.2	3.8	< 5.7	< 0.00022	< 0.11	< 3.5
N24702SVG	24702 PANAMA AVE	2010-06-03	09:56	Garage	21		0.16	12	< 3.9	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	50	< 0.00022	< 0.11	< 3.5
N24702SVGS	24702 PANAMA AVE	2010-06-03	09:56	Garage			0.184	34	< 1.3	< 17	< 17	< 1.7	< 1.7	< 1.7	< 1.7	2.3	< 0.00022	< 0.11	< 3.7
N24702SVB	24702 PANAMA AVE	2010-06-03	10:38	Back	20		< 0.023	38	< 4	< 8.8	4.9	< 5.7	< 7.9	< 4.4	< 3.7	24	< 0.00023	< 0.12	< 16
N24702SVG	24702 PANAMA AVE	2011-02-24	15:30	Garage	21		0.22	60	0.58 j, b	< 8.2	< 13	< 5.3	< 7.4	36	< 3.5	< 5.4	< 0.00022	< 0.11	< 14
N24702SVH	24702 PANAMA AVE	2011-02-24	15:34	House	21		0.039	38	0.71 j, b	< 8.9	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24702SVB	24702 PANAMA AVE	2011-02-24	16:20	Back	21		0.17	12	< 0.34	< 8.9	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24702SVB	24702 PANAMA AVE	2013-06-12	09:46	Back	20		1.3	< 27	< 2.5	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
N24702SVBS	24702 PANAMA AVE	2013-06-12	09:46	Back			1.25	< 20 U	< 0.73 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 0.00024	< 0.12	< 20 U
N24702SVH	24702 PANAMA AVE	2013-06-12	09:56	House	19		0.07	42	< 2.6	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
N24702SVG	24702 PANAMA AVE	2013-06-12	10:18	Garage	21		0.35	< 27	< 2.5	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
N24702SVGS	24702 PANAMA AVE	2013-06-12	10:18	Garage			0.342	< 20 U	< 0.72 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 0.00024	< 0.12	< 20 U
N24703SVF	24703 MARELLA AVE	2010-03-29	11:37	Front	21		< 0.024	60	4.3 j, b	24	25	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N24703SVH	24703 MARELLA AVE	2010-03-29	12:58	House	20		0.6	56	4.1 j, b	46	6.7	7.3	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24703SVB	24703 MARELLA AVE	2010-03-29	13:53	Back	21		0.16	12	5.3 j, b	< 8.9	< 3.5	15	< 8	7.8	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N24703SVH	24703 MARELLA AVE	2010-08-23	09:27	House	17		2.6	14	< 1.4	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N24703SVF	24703 MARELLA AVE	2010-08-23	10:15	Front	20		0.28	< 11	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24703SVB	24703 MARELLA AVE	2010-08-23	10:57	Back	19		0.82	14	< 1.4	17	< 3.6	16	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
N24703SVH	24703 MARELLA AVE	2012-04-20	14:49	House	18		2.5	26	1.2 j, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00022	< 0.11	< 9.8
N24703SVB	24703 MARELLA AVE	2012-04-20	15:21	Back	20		0.68	< 18	0.83 j, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00021	< 0.1	< 9.6
N24703SVBD	24703 MARELLA AVE	2012-04-20	15:21	Back	20		0.67	< 18	1.1 j, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00021	< 0.1	< 9.6
N24703SVF	24703 MARELLA AVE	2012-04-20	15:47	Front	23		0.24	20	4 j, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00021	< 0.1	< 9.6
N24703SVB	24703 MARELLA AVE	2013-07-11	09:37	Back	21		0.54	< 29	< 0.83	< 9.3	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
N24703SVBD	24703 MARELLA AVE	2013-07-11	09:37	Back	21		0.53	< 28	< 0.81	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24703SVF	24703 MARELLA AVE	2013-07-11	09:45	Front	2														

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide M/L %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane M/L %	Helium M/L %	Carbon Disulfide UG/M3
					Oxygen MOL %	Argon MOL %													
M24703SVH	24703 MARELLA AVE	2013-07-11	10:16	House	15		4.5	170	0.92, j	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
M24703SVB	24703 NEPTUNE AVE	2009-09-22	08:48	Back	16		3	< 13	< 3.4	< 10	< 4	< 6.6	< 9.2	< 5.1	7	< 6.7	< 0.00027	< 0.12	< 4.2
M24703SVF	24703 NEPTUNE AVE	2009-09-22	09:36	Front	18		2.8	17	< 3.1	< 9.3	< 3.6	< 6	< 8.4	< 4.7	< 4	< 6.1	< 0.00025	< 0.12	< 3.9
M24703SVD	24703 NEPTUNE AVE	2009-09-22	09:36	Front	18		2.8	19	9.9 j	< 9.2	4.5	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
M24703SVH	24703 NEPTUNE AVE	2010-11-03	14:04	House	18		2.5	15	< 1.3	< 8.8	< 3.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6
M24703SVF	24703 NEPTUNE AVE	2010-11-03	14:54	Front	17		3.8	22	< 1.4	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24703SVB	24703 NEPTUNE AVE	2010-11-03	15:45	Back	19		1.8	< 12	< 1.4	< 9.3	< 3.6	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 3.8
M24703SVS	24703 NEPTUNE AVE	2010-11-03	15:45	Back	19	20	2.08	< 18	0.65 j	< 18	< 18	< 1.8	< 1.8	< 1.8	< 1.8	2.1	< 0.16	< 0.12	< 18
M24703SVB	24703 NEPTUNE AVE	2013-04-26	14:43	Back	19		2.8	32	2.6 j, b	< 9.6	< 15	< 6.2	< 8.7	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 16
M24703SVH	24703 NEPTUNE AVE	2013-04-26	14:54	House	20		1.6	27	1.6 j, b	< 8.4	< 13	< 5.4	< 7.5	< 4.2	< 3.5	< 5.5	< 0.00022	< 0.11	< 14
M24703SVF	24703 NEPTUNE AVE	2013-04-26	15:16	Front	20		1.8	60	1.9 j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24703SVH	24703 RAVENNA AVE	2010-10-11	09:26	House	18		0.14	36	< 1.4	< 9	3.7	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24703SVG	24703 RAVENNA AVE	2010-10-11	10:14	Garage	18		0.12	28	< 1.3	17	4.2	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24703SVG	24703 RAVENNA AVE	2010-10-11	10:14	Garage	15	20.4	< 0.15	21	1.4 j	< 17	< 17	< 5.7	4.5	< 1.7	< 1.7	2.5	< 0.15	< 0.12	< 17
M24703SVB	24703 RAVENNA AVE	2010-10-11	11:03	Back	15		1.8	13	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 16
M24703SVH	24703 RAVENNA AVE	2013-03-08	09:42	House	20		1.6	< 28	4.1 j, b	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
M24703SVG	24703 RAVENNA AVE	2013-03-08	10:14	Garage	20		0.76	30	1.6 j, b	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
M24703SVD	24703 RAVENNA AVE	2013-03-08	10:14	Garage	20		0.77	28	0.95 j, b	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
M24703SVH	24703 RAVENNA AVE	2013-07-24	09:53	House	19		1.5	400	< 0.77	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
M24703SVB	24703 RAVENNA AVE	2013-07-24	10:06	Back	17		5	< 28	< 0.8	< 9	< 14	7.7	< 8.1	8 j	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
M24703SVD	24703 RAVENNA AVE	2013-07-24	10:06	Back	17		5	< 28	< 0.8	< 9	< 14	8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
M24703SVG	24703 RAVENNA AVE	2013-07-24	10:25	Garage	20		1.3	460	1.3 j, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M247065VB	24706 MARELLA AVE	2011-01-31	13:56	Back	11		4	12	2.4 j, b	< 8.7	< 3.4	10	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
M247065VG	24706 MARELLA AVE	2011-01-31	14:48	Garage	6.6		8.3	< 11	2.3 j, b	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M247065VH	24706 MARELLA AVE	2011-01-31	16:20	House	8.1		3.2	26	2.4 j, b	< 8.4	< 3.3	< 5.5	< 7.6	13	16	< 5.5	3.8	< 0.11	< 3.5
M247065VH	24706 MARELLA AVE	2011-09-15	14:30	House	8.7		4.5	< 11	0.65 j, b	< 9.1	< 14	16	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M247065VHD	24706 MARELLA AVE	2011-09-15	14:30	House	9.6		4.4	< 11	0.51 j, b	< 9.1	< 14	10	< 8.2	< 4.6	< 3.9	< 6	< 0.00049	< 0.24	< 15
M247065VB	24706 MARELLA AVE	2011-09-15	15:10	Back	20		1.3	< 11	1.8 j, b	< 9.1	< 14	180	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M247065VG	24706 MARELLA AVE	2011-09-15	16:01	Garage	8		14	< 11	< 0.45	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
M247065VH	24706 MARELLA AVE	2013-02-21	14:53	House	13		2.3	< 27	1.3 j, b	< 8.4	< 13	27	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	0.23	< 14
M247065VB	24706 MARELLA AVE	2013-02-21	15:09	Back	19		0.52	< 28	0.8 j, b	< 8.8	< 14	19	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M247065VBD	24706 MARELLA AVE	2013-02-21	15:09	Back	18		0.53	< 28	1.1 j, b	< 9	< 14	19	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00047	< 0.24	< 15
M247065VG	24706 MARELLA AVE	2013-02-21	15:27	Garage	16		4.6	< 28	1.1 j, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00046	< 0.23	< 14
M247065VB	24706 MARELLA AVE	2013-06-26	14:49	Back	19		1.3	< 27	< 0.76	< 8.4	< 13	14	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
M247065VH	24706 MARELLA AVE	2013-06-26	14:51	House	13		3.8	< 27	< 0.76	< 8.5	< 13	47	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
M247065VG	24706 MARELLA AVE	2013-06-26	15:17	Garage	14		6.8	< 29	< 0.81	< 9.1	< 14	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 15
M247065VB	24706 RAVENNA AVE	2010-08-23	00:00	Back	19		1.2	47	< 1.3	12	6.8	100	< 7.8	< 4.3	22	< 5.7	< 0.00023	< 0.12	< 15
M247065VH	24706 RAVENNA AVE	2010-08-23	13:28	Front	20		< 0.025	37	< 1.4	< 9.5	8.7	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 3.9
M247065VH	24706 RAVENNA AVE	2010-08-23	14:03	House	19		0.92	33	< 1.4	11	5.2	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M247065VB	24706 RAVENNA AVE	2013-04-25	14:57	Back	21		0.55	< 29	0.62 j, b	< 9.2	< 14	10	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M247065VH	24706 RAVENNA AVE	2013-04-25	14:59	House	20		1	110	3 j, b	13	15	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	0.16	18
R24706SVF	24706 RAVENNA AVE	2013-04-25	15:28	Front	23		0.21	44	0.76 j, b	< 9.3	< 15	< 6	< 8.4	< 4.7	< 4	< 6.1	< 0.00025	< 0.12	< 15
M24707SVH	24707 MARELLA AVE	2010-06-28	09:52	House	19		0.49	49	< 2.4	< 8.9	< 3.5	< 5.8	8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24707SVB	24707 MARELLA AVE	2010-06-28	11:30	Back	19		1.2	17	< 2.3	11	3.5	< 5.7	16	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	5.1
M24707SVH	24707 MARELLA AVE	2011-05-06	14:12	House	20		1.3	< 12	7.1 j, b	< 9.4	< 15	< 6.1	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
M24707SVB	24707 MARELLA AVE	2011-05-06	14:53	Back	21		0.61	< 11	3.4 j, b	< 9.1	< 14	< 5.9	9.6	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24707SVBS	24707 MARELLA AVE	2011-05-06	14:53	Back	21		0.667	< 18	< 1	< 18	< 18	< 1.8	7.6	< 1.8	< 1.8	3.1	< 0.17	< 0.12	< 18
M24707SVF	24707 MARELLA AVE	2011-05-06	15:24	Front	21		0.24	16	3.7 j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
M24707SVFS	24707 MARELLA AVE	2011-05-06	15:26	Front	21		0.265	< 20	< 1.2	< 20	< 20	< 2	< 2	< 2	< 2	2.2	< 0.19	< 0.12	< 20
M24707SVH	24707 MARELLA AVE	2012-09-07	10:34	House	12		8.6	< 29	1.1 j, b	< 9.1	< 14	< 5.9	11	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24707SVF	24707 MARELLA AVE	2012-09-07	11:01	Front	20		0.31	83 j	1.4 j, b	13	18	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	0.16	< 15
M24707SVFS	24707 MARELLA AVE	2012-09-07	11:01	Front	20		0.308	< 20 U	< 0.83 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 0.16 U	< 0.12	< 20 U

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
M24707SVB	24707 MARBELLA AVE	2012-09-07	11:14	Back	20		0.69	<27	1.41, b	<8.6	<14	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<14
M24707SVB	24707 MARBELLA AVE	2013-04-18	09:53	Back	22		0.33	69	2.11, b	11	22	<5.6	<7.8	<4.3	<3.7	<5.7	<0.00023	<0.12	<14
M24707SVH	24707 MARBELLA AVE	2013-04-18	10:06	House	16		5.2	32	3.11, b	9.9	<14	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<14
M24707SVF	24707 MARBELLA AVE	2013-04-19	11:34	Front	22		0.14	46	5.91, b	9.3	<14	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<15
P24708SVH	24708 PANAMA AVE	2010-06-17	09:11	House	20		0.47	<12	<2.5	<9.5	<3.7	<6.2	<8.6	<4.8	<4	<6.2	<0.00025	<0.13	<3.9
P24708SVG	24708 PANAMA AVE	2010-06-17	10:06	Garage	19		0.36	30	<2.4	<37	<3.6	<5.9	<8.2	<4.6	<3.9	<6	<0.00061	<0.3	<3.8
P24708VGS	24708 PANAMA AVE	2010-06-17	10:06	Garage	18		21.7	21	<1.4	<18	<18	<1.8	<1.8	<1.8	<1.8	<1.8	<0.00025	<0.12	<3.9
P24708SVB	24708 PANAMA AVE	2010-06-17	11:03	Back	18		4.1	15	<2.5	<9.3	<3.6	<6	<8.4	<4.7	<4	<6.1	<0.00025	<0.12	<3.8
P24708SVB	24708 PANAMA AVE	2010-06-17	11:03	Back	18		4	<12	<2.4	<9.3	<3.6	<6	<8.3	<4.6	<3.9	<6.1	<0.00025	<0.12	<3.8
P24708SVH	24708 PANAMA AVE	2012-08-16	10:23	House	19		1.1	<19	3.51, b	<6.2	<9.7	<4	<5.6	<3.1	<2.6	<4	<0.00016	<0.082	<10
P24708SVG	24708 PANAMA AVE	2012-08-16	10:58	Garage	20		0.61	<19	2.21, b	<6	<9.3	<3.8	<5.4	<3	<2.5	<3.9	<0.00016	<0.079	<9.8
P24708VGS	24708 PANAMA AVE	2012-08-16	10:58	Garage	15		0.651	20	<0.83 U	<20 U	<20 U	<2 U	2	<2 U	<2 U	2.3	<0.16 U	<20 U	<20 U
P24708SVB	24708 PANAMA AVE	2012-08-16	11:26	Back	15		6	<19	3.81, b	17	<9.7	7.2	<5.6	<3.1	<2.6	<4	<0.00016	<0.082	<10
P24708SVB	24708 PANAMA AVE	2012-08-16	11:26	Back	18		15.7	<27	<0.86 U	<20 U	<20 U	6.5	<2 U	<2 U	<2 U	2.2	<0.16 U	<20 U	<20 U
P24708SVB	24708 PANAMA AVE	2013-05-15	15:09	Back	18		5	<27	<0.56	<8.5	<13	<5.5	<7.6	<4.2	<3.6	<5.6	<0.00022	<0.11	<14
P24708SVH	24708 PANAMA AVE	2013-05-15	15:21	House	21		0.85	<29	3.1, b	<9.1	<14	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<15
P24708SVG	24708 PANAMA AVE	2013-05-15	15:38	Garage	21		0.68	<30	1.71, b	<9.6	<15	<6.2	<8.6	<4.8	<4	<6.3	<0.00025	<0.13	<16
P24708SVB	24708 PANAMA AVE	2010-07-01	09:18	House	17		1.9	30	160	56	<3.4	<5.7	<7.9	<4.4	6.2	<5.8	<0.00068	<0.34	<3.6
N24709SVB	24709 NEPTUNE AVE	2010-07-01	10:09	Back	20		0.22	110	<2.5	18	20	<6	<8.4	<4.6	15	<6.1	<0.00025	<0.12	<3.8
N24709SVG	24709 NEPTUNE AVE	2010-07-01	10:44	Garage	18		0.051	54	2.31	460	3.8	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
N24709SVG	24709 NEPTUNE AVE	2012-08-10	10:03	Garage	18		2.7	<19	<3	<6.1	<9.5	<3.9	<5.5	<3	<2.6	<4	<0.00016	<0.08	<10
N24709VGS	24709 NEPTUNE AVE	2012-08-10	10:03	Garage	18		2.82	<22 U	<0.91 U	<22 U	<22 U	<2.2 U	4.8	<2.2 U	<2.2 U	<2.2 U	<0.17 U	<22 U	<22 U
N24709SVH	24709 NEPTUNE AVE	2012-08-10	10:16	House	18		2.2	<19	<3	<6.1	<9.5	<3.9	<5.5	<3	<2.6	<4	<0.00016	<0.08	<10
N24709SVB	24709 NEPTUNE AVE	2012-08-10	10:43	Back	20		0.38	<21	<3.3	<6.6	<10	<4.3	<5.9	<3.3	<2.8	<4.3	<0.00018	<0.088	<11
N24709SVB	24709 NEPTUNE AVE	2012-08-10	10:43	Back	20		21.2	<23 U	<0.96 U	<23 U	<23 U	<2.3 U	<2.3 U	<2.3 U	<2.3 U	<2.3 U	<0.18 U	<23 U	<23 U
N24709SVB	24709 NEPTUNE AVE	2013-05-22	09:55	House	19		2	240	2.11, b	21	<14	<5.6	<7.8	<4.3	<3.7	<5.7	<0.00023	<0.12	<14
N24709SVB	24709 NEPTUNE AVE	2013-05-22	10:06	Back	21		0.51	51	1.31, b	16	<14	<5.7	<7.9	5.5 b	<3.7	<5.8	<0.00023	<0.12	<14
N24709SVB	24709 NEPTUNE AVE	2013-05-22	10:06	Back	22		0.52	<28	0.931, b	25	<14	<5.8	<8	<4.4	<3.8	<5.8	<0.00024	<0.12	<15
N24709SVG	24709 NEPTUNE AVE	2013-05-22	10:31	Garage	20		4	<28	0.81, b	9.4	<14	<5.7	<8	<4.4	<3.8	<5.8	<0.00024	<0.12	<15
P24709SVH	24709 PANAMA AVE	2009-10-03	11:28	House	18		1.4	<11	<2.9	67	<3.4	<5.6	<7.8	<4.3	<3.7	<5.7	<0.00023	<0.12	<3.6
P24709SVB	24709 PANAMA AVE	2009-10-03	12:20	Back	19		1.8	26	5.31	26	10	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	54
P24709SVF	24709 PANAMA AVE	2009-10-03	13:23	Front	17		0.059	19	161	<7.7	3.4	<5	<7	<3.9	<3.3	<5.1	<0.0002	<0.12	<3.2
P24709SVB	24709 PANAMA AVE	2011-02-11	09:03	Back	20		1.3	<11	0.961, b	<9	<3.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
P24709SVBS	24709 PANAMA AVE	2011-02-11	09:03	Back	20		1.46	<18	<1.4	<18	<18	<1.8	<1.8	<1.8	<1.8	2.6	<0.16	<18	<18
P24709SVH	24709 PANAMA AVE	2011-02-11	09:51	House	19		1.8	<10	0.861, b	<8	<3.1	<5.2	<7.2	9.7	<3.4	<5.3	<0.00043	<0.11	<3.3
P24709SVHS	24709 PANAMA AVE	2011-02-11	09:51	House	19		19.9	<18	<1.4	<18	<18	<1.8	2	<1.8	<1.8	2.5	<0.16	<18	<18
P24709SVF	24709 PANAMA AVE	2011-02-11	10:49	Front	20		0.85	<11	0.461, b	<9	<3.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
P24709SVH	24709 PANAMA AVE	2012-03-08	15:54	Front	21		0.66	<18	61, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00016	<0.078	<9.6
P24709SVH	24709 PANAMA AVE	2012-03-08	15:55	House	18		3.2	30	4.91, b	18	<9.7	<4	<5.6	<3.1	<2.6	<4	<0.00016	<0.082	<10
P24709SVHD	24709 PANAMA AVE	2012-03-08	15:55	House	18		3.2	<19	4.61, b	<6.2	<9.7	<4	<5.6	<3.1	<2.6	<4	<0.00016	<0.082	<10
P24709SVH	24709 PANAMA AVE	2013-06-27	10:24	House	15		6.5	38	<0.75	<8.4	<13	<5.4	<7.6	<4.2	<3.6	<5.5	<0.00022	<0.11	<14
P24709SVBA	24709 PANAMA AVE	2013-06-27	10:34	Back	18		3.9	110	<0.87	13	<15	28	<8.7	<4.8	<4.1	<6.4	<0.00026	<0.13	<16
P24709SVBAD	24709 PANAMA AVE	2013-06-27	10:34	Back	18		3.9	48	0.971, b	<9.3	<15	29	<8.4	<4.7	<4	<6.1	<0.00025	<0.12	<15
P24709SVF	24709 PANAMA AVE	2013-06-27	10:54	Front	21		0.82	<27	1.1, b	<8.6	<14	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<14
R24709SVB2	24709 RAVENNA AVE	2010-04-26	14:14	Back	20		0.11	120	171	<8.9	66	<5.8	<8	11	<3.8	<5.9	<0.00024	<0.12	5.9
R24709SVB	24709 RAVENNA AVE	2010-04-26	15:02	Back	20		0.025	15	<6.4	<9.1	<3.6	<5.9	<8.2	<4.5	<3.8	<6	<0.00024	<0.12	7.4
R24709SVF	24709 RAVENNA AVE	2010-04-26	15:54	Front	21		<0.023	28	<6.2	16	5.2	<5.7	<7.9	<4.4	7	<5.8	<0.00023	<0.12	<3.6
R24709SVH	24709 RAVENNA AVE	2010-08-16	09:18	House	18		2.8	18	<6.4	13	<3.6	6.7	<8.3	<4.6	<3.9	<6	<0.00024	<0.12	<3.8
R24709SVF	24709 RAVENNA AVE	2010-08-16	10:05	Front	21		0.096	<12	<6.7	<9.5	<3.7	<6.2	<8.5	<4.7	<4	<6.2	0.001	<0.13	<3.9
R24709SVB2	24709 RAVENNA AVE	2010-08-16	11:16	Back	20		1.1	12	<6.2	10	<3.5	<5.7	<8	<4.4	<3.8	<5.8	<0.00024	<0.12	<3.6
R24709SVB	24709 RAVENNA AVE	2010-08-16	12:33	Back	20		0.42	29	<6.1	<8.7	<3.4	<5.6	<7.8	<4.4	<3.7	<5.7	<0.00023	<0.12	<3.6
R24709SVF	24709 RAVENNA AVE	2013-03-21	10:06	Front	22		0.066	59	<0.57 PF	<8.7	22	<5.7	<7.9	<4.4	<3.7	<5.7	<0.00025	<0.12	<14

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																
					Oxygen Units	Oxygen/ Argon	Carbon Dioxide	Acetone	Naphthalene	Ethanol	2-Butanone (Methyl Ethyl Ketone)	Chloroform	Tetrachloro- ethene	Toluene	Benzene	Freon 12	Methane	Helium	Carbon Disulfide		
					MOL %	MOL %	MOL %	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	MOL %	MOL %	UG/M3	
R24709SVFS	24709 RAVENNA AVE	2013-03-21	10:06	Front	21	22	<0.16 U	<20 U	<0.84 U	<20 U	<20 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2 U	<2.2	<0.16 U	<0.11	<20 U
R24709SVB2	24709 RAVENNA AVE	2013-03-21	11:10	Back	21		0.54	<27	<0.56 PF	<8.5	<13	<5.5	<7.7	<4.2	<3.6	<5.6	<0.00023	<0.11	<14		
R24709SVH	24709 RAVENNA AVE	2013-03-22	16:33	House	19		1.9	30	0.79 J, b	<8.7	<14	<5.7	<7.9	<4.4	<3.7	<5.7	<0.00023	<0.12	<14		
R24709SVB	24709 RAVENNA AVE	2013-08-14	14:49	Back	21		0.22	<30	0.95 J, b	<9.5	<15	<6.2	<8.6	<4.8	<4	<6.2	<0.00025	<0.13	<16		
R24709SVH	24709 RAVENNA AVE	2013-08-14	14:52	House	19		2	<28	<0.8 PF	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15		
R24709SVF	24709 RAVENNA AVE	2013-08-14	15:20	Front	21		0.07	<28	<0.8 PF	<8.9	<14	<5.8	<8	<4.4	<3.8	<5.8	<0.00024	<0.12	<15		
R24709SVB2	24709 RAVENNA AVE	2013-08-14	15:28	Back	20		0.68	<26	<0.75 PF	<8.4	<13	<5.4	<7.6	<4.2	<3.6	<5.5	<0.00024	<0.11	<14		
M24710SVB	24710 MARBELLA AVE	2010-09-14	14:59	Back	13		9.2	<11	2.3 J, b	<9	<3.5	9.4	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	4.6		
M24710SVF	24710 MARBELLA AVE	2010-09-14	15:40	Front	20		0.45	<10	<1.2	<8.3	<3.2	<5.4	<7.5	<4.1	<3.5	<5.4	<0.00022	<0.11	<3.4		
M24710SVF	24710 MARBELLA AVE	2011-02-08	13:36	Front	20		0.31	39	<0.35	<9.1	<3.6	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8		
M24710SVH	24710 MARBELLA AVE	2011-02-08	14:11	House	16		2.2	31	<0.34	16	4.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6		
M24710SVB	24710 MARBELLA AVE	2011-02-08	15:14	Back	14		5.6	<11	0.62 J	<8.6	<3.4	36	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<3.6		
M24710SVF	24710 MARBELLA AVE	2012-05-03	15:19	Front	21		0.47	<18	1.2 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00016	<0.078	<9.6		
M24710SVHD	24710 MARBELLA AVE	2012-05-03	15:33	Front	22		0.49	<18	0.86 J, b	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.00016	<0.078	<9.6		
M24710SVH	24710 MARBELLA AVE	2012-05-03	15:38	House	18		4.3	<19	3.5 J, b	<6	<9.3	<3.8	<5.4	6	<2.5	<3.9	<0.00016	<0.079	<9.8		
M24710SVB	24710 MARBELLA AVE	2012-05-03	16:03	Back	10		8.5	60	2.3 J, b	<6.4	<10	9.4	<5.8	35	<2.7	<4.2	<0.00017	<0.086	<11		
N24712SVF	24712 NEPTUNE AVE	2010-04-21	14:48	Front	21		0.18	32	60 b	<9.1	7.3	<5.9	<8.2	6	23	<6	<0.00024	<0.12	<3.8		
N24712SVB	24712 NEPTUNE AVE	2010-04-21	15:45	Back	22		0.3	<11	<2.4	<9	<3.5	310	<8.1	<4.5	3.8	<5.9	<0.00024	<0.12	<3.7		
N24712SVH2	24712 NEPTUNE AVE	2010-08-11	08:58	House	15		6.4	31	<6	10	3.4	<5.6	<7.8	<4.3	20	<5.7	<0.00023	<0.11	<3.6		
N24712SVF	24712 NEPTUNE AVE	2011-02-07	09:16	Front	21		0.53	15	<0.32	<8.4	<3.3	<5.5	<7.6	<4.2	<3.6	<5.5	<0.00022	<0.11	<3.5		
N24712SVH2	24712 NEPTUNE AVE	2011-02-07	10:04	House	17		4.5	<11	2.6 J, b	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6		
N24712SVB	24712 NEPTUNE AVE	2011-02-07	10:59	Back	20		1.1	13	<0.34	<8.9	4.3	29	<8	<4.5	<3.8	<5.9	0.00045	<0.12	<3.7		
N24712SVB5	24712 NEPTUNE AVE	2011-02-07	10:59	Back			20.7	<17	<1.3	<17	<13	27	<1.7	<1.7	<1.7	2.5	<0.00023	<0.15	<14		
N24712SVH2	24712 NEPTUNE AVE	2013-01-18	14:55	House	17		5.1	<28	3.9 J, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14		
N24712SVB	24712 NEPTUNE AVE	2013-01-18	14:57	Back	20		1.1	<27	2.6 J, b	<8.7	<14	580	<7.8	<4.4	<3.7	<5.7	<0.00023	<0.12	<14		
N24712SVF	24712 NEPTUNE AVE	2013-01-18	15:26	Front	20		0.39	<30	2 J, b	<9.5	<15	<6.2	<8.5	<4.7	<4	<6.2	<0.00025	<0.13	<16		
N24712SVB	24712 NEPTUNE AVE	2013-06-12	14:48	Back	17		4.4	<28	<2.6	<8.8	<14	46	<8	<4.4	<3.8	<5.8	<0.00024	<0.12	<15		
N24712SVH2	24712 NEPTUNE AVE	2013-06-12	15:02	House	15		6.9	<27	<2.4	15	<13	<5.5	<7.6	20	<3.6	<5.5	<0.00022	<0.11	<14		
N24712SVF	24712 NEPTUNE AVE	2013-06-12	15:14	Front	21		0.92	<28	<2.6	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15		
P24712SVH	24712 PANAMA AVE	2010-08-12	14:06	House	20		0.11	12 b	<6.4	<9.1	<3.6	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8		
P24712SVB	24712 PANAMA AVE	2010-08-12	14:54	Back	20		0.11	14 b	<6.2	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6		
P24712SVF	24712 PANAMA AVE	2010-08-12	15:45	Front	20		0.3	26 b	<6.4	<9.1	3.6	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8		
P24712SVH	24712 PANAMA AVE	2011-02-25	15:09	House	21		0.09	22	0.73 J, b	<9.1	<14	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<15		
P24712SVB	24712 PANAMA AVE	2011-02-25	15:36	Back	22		0.11	12	0.44 J, b	<8.6	<13	<5.6	<7.7	<4.3	<3.6	<5.6	<0.00023	<0.11	<14		
P24712SVBD	24712 PANAMA AVE	2011-02-25	15:36	Back	22		0.12	<11	<0.33	<8.6	<13	<5.6	<7.7	<4.3	<3.6	<5.6	<0.00023	<0.11	<14		
P24712SVF	24712 PANAMA AVE	2011-02-25	16:00	Front	21		0.18	17	<0.34	<8.8	<14	<5.7	<8	<4.4	<3.8	<5.8	<0.00024	<0.12	<15		
R24712SVF	24712 RAVENNA AVE	2010-01-04	10:51	Front	21		0.41	26	<2.2	22	<3.5	<5.8	<8	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7		
R24712SVH	24712 RAVENNA AVE	2010-01-04	11:38	House	20		0.44	18	<2.4	21	<3.3	<5.5	<7.6	<4.2	<3.6	5.6	<0.00022	0.16	<3.5		
R24712SVB	24712 RAVENNA AVE	2010-01-04	12:30	Back	21		0.07	180	<2.4	<9	5.3	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	0.17	<3.7		
R24712SVB	24712 RAVENNA AVE	2011-06-10	11:35	Back	20		0.69	27	5 J, b	12	<14	<6	<8.4	<4.6	<3.9	<6.1	<0.00025	<0.12	<15		
R24712SVBS	24712 RAVENNA AVE	2011-06-10	11:35	Back	20		0.825	<18 U	<1.1 U	<18 U	<18 U	2	<18 U	<1.8 U	<1.8 U	<1.8 U	<0.17 U	<0.11	<18 U		
R24712SVF	24712 RAVENNA AVE	2011-06-10	12:17	Front	20		0.6	19	1.1 J, b	<8.6	<14	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<14		
R24712SVFS	24712 RAVENNA AVE	2011-06-10	12:17	Front	20		0.658	20	<1 U	<18 U	<18 U	4.1	<18 U	<1.8 U	<1.8 U	1.9	<0.00023	<0.11	<18 U		
R24712SVH	24712 RAVENNA AVE	2011-06-10	13:00	House	20		0.771	15	1 J, b	<8.6	<14	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<14		
R24712SVHS	24712 RAVENNA AVE	2011-06-10	13:00	House	20		0.777	<17 U	<1 U	<17 U	<17 U	<1.7 U	4.6	<1.7 U	<1.7 U	1.9	<0.00024	<0.12	<17 U		
R24713SVH	24713 MARBELLA AVE	2011-04-26	14:01	House	21		<0.024	16	0.85 J, b	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15		
M24713SVHD	24713 MARBELLA AVE	2011-04-26	14:01	House	20		<0.048	15	0.57 J, b	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00048	<0.24	<15		
M24713SVF	24713 MARBELLA AVE	2011-04-26	14:47	Front	21		<0.025	<12	<0.36	<9.5	<15	<6.2	<8.5	<4.7	<4	<6.2	<0.00025	<0.13	<16		
M24713SVFD	24713 MARBELLA AVE	2011-04-26	14:47	Front	22		<0.026	<12	0.83 J, b	<9.9	<16	<6.4	<9	<5	<4.2	<6.5	<0.00026	<0.13	<16		
M24713SVB	24713 MARBELLA AVE	2011-04-26	15:28	Back	22		<0.048	24	<0.34	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00048	<0.24	<15		
M24713SVH	24713 MARBELLA AVE	2013-03-08	14:39	House	21		0.024	34	1 J, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14		
M24713SVB	24713 MARBELLA AVE	2013-03-08	15:03	Back	21		0.13	34	0.63 J, b	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15		

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide M/L %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane M/L %	Helium M/L %	Carbon Disulfide UG/M3
					Oxygen M/L %	Oxygen/Argon M/L %													
M24713SVF	24713 MARBELLA AVE	2013-03-08	15:08	Front	21		0.44	< 26	0.74 J, b	< 8.4	< 13	< 5.4	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
M24713SVH	24713 MARBELLA AVE	2013-07-30	14:52	House	20		0.041	78	2 J, b	< 8.6	< 13	< 5.5	< 7.7	6.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
M24713SVB	24713 MARBELLA AVE	2013-07-30	15:06	Back	20		0.36	40	0.94 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
M24713SVF	24713 MARBELLA AVE	2013-07-30	15:23	Front	20		0.74	< 26	< 0.75	< 8.4	< 13	< 5.4	< 7.5	< 4.2	< 3.5	< 5.5	< 0.00022	< 0.11	< 14
P24713SVH	24713 PANAMA AVE	2011-05-10	09:26	House	13		6	< 11	2 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	0.024	< 0.12	< 15
P24713SVB	24713 PANAMA AVE	2011-05-10	10:08	Back	12		6.8	< 11	5.5 J, b	< 8.8	< 14	110	< 7.9	5.6	< 3.7	< 5.8	0.0026	< 0.12	< 14
P24713SVG	24713 PANAMA AVE	2011-05-10	10:59	Garage	20		3.5	< 11	1.4 J, b	< 8.7	< 14	< 5.6	200	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
P24713SVGS	24713 PANAMA AVE	2011-05-10	10:59	Garage		19.6	3.78	< 17	< 0.96	< 17	< 17	2	180	< 1.7	< 1.7	2.2	< 0.15	< 0.15	18
P24713SVH	24713 PANAMA AVE	2013-04-05	09:46	House	9.2		1.1	< 29	1.2 J	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24713SVB	24713 PANAMA AVE	2013-04-05	10:13	Back	15		7.1	< 55	1.6 J	< 17	< 27	< 11	< 16	< 8.7	< 7.4	< 11	< 0.00023	< 0.12	< 29
P24713SVBD	24713 PANAMA AVE	2013-04-05	10:13	Back	7.9 J		3.7 J	< 50	1.2 J	< 16	< 25	< 10	< 14	< 8	< 6.7	< 10	< 0.00023	< 0.11	< 26
P24713SVG	24713 PANAMA AVE	2013-04-05	10:16	Garage	20		3.2	< 28	2 J	< 9	< 14	< 5.8	160	< 4.5	3.9	< 5.9	< 0.00024	< 0.12	< 15
P24713SVGD	24713 PANAMA AVE	2013-04-05	10:16	Garage	19		3.2	< 28	1.8 J	< 9	< 14	< 5.8	160	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24713SVH	24713 RAVENNA AVE	2011-04-06	13:59	House	15		3.8	11	1.3 J, b	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00053	< 0.27	< 14
R24713SVG	24713 RAVENNA AVE	2011-04-06	14:43	Garage	18		0.23	< 13	1.3 J, b	< 10	< 16	< 6.7	< 9.4	< 5.2	< 4.4	< 6.8	< 0.00049	< 0.24	< 17
R24713SVGD	24713 RAVENNA AVE	2011-04-06	14:43	Garage	17		0.21	< 13	0.85 J, b	< 10	< 16	< 6.7	< 9.4	< 5.2	< 4.4	< 6.8	< 0.00028	< 0.14	< 17
R24713SVB	24713 RAVENNA AVE	2011-04-06	15:27	Back	19		0.94	39	0.7 J, b	17	< 14	370	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
R24713SVBD	24713 RAVENNA AVE	2011-04-06	15:27	Back	18		0.89	36	0.71 J, b	18	< 14	400	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
R24713SVH	24713 RAVENNA AVE	2013-08-01	14:52	House	8.3		9.6	< 28	< 0.78	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
R24713SVB	24713 RAVENNA AVE	2013-08-01	15:06	Back	19		1.4	< 28	< 0.8	< 8.9	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24713SVG	24713 RAVENNA AVE	2013-08-01	15:16	Garage	17		3.3	< 28	< 0.8	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24713SVB	24713 RAVENNA AVE	2010-04-26	09:40	Back	21		< 0.023	26	< 6.2	35	11	< 5.7	< 7.9	< 4.4	4.6	< 5.8	< 0.00023	< 0.12	< 3.6
N24713SVF	24715 NEPTUNE AVE	2010-04-26	10:30	Front	21		< 0.024	21	< 6.3	17	4.2	< 5.8	< 8	7.5	4.1	< 5.9	< 0.00024	< 0.12	< 3.7
N24713SVH	24715 NEPTUNE AVE	2010-04-26	11:38	House	19		2.3	68	< 6.2	21	36	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24713SVB	24715 NEPTUNE AVE	2011-02-18	15:05	Back	23		0.25	27	< 0.34	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N24713SVH	24715 NEPTUNE AVE	2011-02-18	15:48	House	19		2.3	< 13	< 0.4	< 10	< 4.1	< 6.7	< 9.4	< 5.2	< 4.4	< 4.4	< 0.00034	< 0.14	< 4.3
N24713SVF	24715 NEPTUNE AVE	2011-02-18	16:41	Front	22		0.24	< 11	< 0.34	< 8.8	< 3.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6
N24713SVH	24715 NEPTUNE AVE	2013-08-07	14:44	House	18		2.2	45	2.4 J, b	63	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00038	< 0.12	< 15
N24713SVB	24715 NEPTUNE AVE	2013-08-07	14:54	Back	19		2.1	< 30	1.4 J, b	< 9.6	< 15	< 6.2	< 8.6	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 16
N24713SVF	24715 NEPTUNE AVE	2013-08-07	15:30	Front	21		0.45	< 29	0.94 J, b	< 9.3	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
M24716SVG	24716 MARBELLA AVE	2010-07-02	14:50	Garage	13		4.3	47	< 2.4 Q	< 9.1	< 3.6	16	28	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
M24716SVH	24716 MARBELLA AVE	2010-07-02	16:23	House	20		0.2	35	< 2.3 Q	13	6	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	4
M24716SVH	24716 MARBELLA AVE	2011-04-19	14:21	House	21		0.99	< 11	< 0.33	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
M24716SVG	24716 MARBELLA AVE	2011-04-19	15:03	Garage	16		5.3	< 14	< 0.42	< 11	< 17	< 7.1	19	< 5.5	< 4.6	< 7.2	< 0.00029	< 0.14	< 18
M24716SVB	24716 MARBELLA AVE	2011-04-19	15:40	Back	20		1.2	< 12	2.4 J, b	< 9.2	< 14	150	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24716SVBD	24716 MARBELLA AVE	2011-04-19	15:40	Back	20		1.2	< 12	0.35	< 9.3	< 14	140	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
M24716SVB	24716 MARBELLA AVE	2012-05-24	09:56	Back	21		0.9	< 25	1.2 J, b	< 8.9	17	890	< 7.2	6.2 J	< 3.4	< 5.2	< 0.00015	< 0.078	< 13
M24716SVBD	24716 MARBELLA AVE	2012-05-24	09:56	Back	21		0.94	< 19	1.4 J, b	< 8.9	< 9.2	760	< 5.3	< 3	< 2.5	< 3.9	< 0.00016	< 0.078	< 9.8
M24716SVH	24716 MARBELLA AVE	2012-05-24	10:29	House	20		0.82	30	4.9 J, b	< 5.8	< 9	< 3.7	< 5.2	< 2.9	5.6	< 3.8	0.00022	< 0.076	< 9.5
M24716SVG	24716 MARBELLA AVE	2012-05-24	10:42	Garage	15		6.1	< 18	2.2 J, b	< 5.8	< 9.1	16	20	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6
M24716SVH	24716 MARBELLA AVE	2013-07-25	09:55	House	20		0.61	< 30	0.88 J, b	< 9.5	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16
M24716SVB	24716 MARBELLA AVE	2013-07-25	10:04	Back	18		1.7	< 28	< 0.78	< 8.8	< 14	310	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
M24716SVBD	24716 MARBELLA AVE	2013-07-25	10:04	Back	18		1.8	< 29	< 0.82	< 9.1	< 14	330	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24716SVG	24716 MARBELLA AVE	2013-07-25	10:25	Garage	13		8.3	< 27	< 0.77	< 8.6	< 14	30	17	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
R24716SVH	24716 RAVENNA AVE	2012-03-01	11:22	House	20		0.4	< 26	1.5 J, b	< 8.2	< 13	< 5.3	< 7.4	< 4.1	< 3.5	< 5.4	< 0.00016	< 0.078	< 14
R24716SVHD	24716 RAVENNA AVE	2012-03-01	11:22	House	20		0.4	< 25	0.45 J, b	< 8	< 12	< 5.2	< 7.2	< 4	< 3.4	< 5.2	< 0.00016	< 0.079	< 13
R24716SVG	24716 RAVENNA AVE	2012-03-01	11:32	Garage	18		3.2	< 23	0.51 J, b	< 7.4	< 12	< 4.8	< 6.6	< 3.7	< 3.1	< 4.8	< 0.00015	< 0.073	< 12
R24716SVB	24716 RAVENNA AVE	2012-03-01	12:01	Back	20		0.39	< 19	0.3 J, b	< 6.1	< 9.5	49	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
M24717SVH	24717 MARBELLA AVE	2010-07-02	14:52	House	20		0.15	130	2.4 J, Q	20	9.4	7	< 8	7.8	5.2	< 5.9	0.00069	< 0.27	< 3.7
M24717SVF	24717 MARBELLA AVE	2010-07-02	16:12	Front	21		< 0.024	52	< 2.3 Q	11	7.4	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6
M24717SVB	24717 MARBELLA AVE	2010-07-02	16:51	Back	15		7	32	3.9 J, Q	16	9.6	16	22	< 4.4	< 3.7	< 5.8	< 0.00045	< 0.22	91
M24717SVH	24717 MARBELLA AVE	2012-07-26	09:56	House	20		0.95	< 18	< 2.9	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection															
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%	
M24717SVB	24717 MARBELLA AVE	2012-07-26	10:08	Back	17		5.2	<19	<3	<6.1	<9.5	<3.9	9.6	<3	<2.6	<4	<0.00016	<0.08	<10	
M24717SVBD	24717 MARBELLA AVE	2012-07-26	10:08	Back	17		5.2	47	<3	<6	<9.4	<3.9	10	<3	<2.6	<4	<0.00016	<0.08	<10	
M24717SVF	24717 MARBELLA AVE	2012-07-26	10:27	Front	21		0.1	<30	<4.8	<9.7	<15	<6.3	<8.7	<4.8	<4.1	<6.4	<0.00015	<0.076	<16	
M24717SVH	24717 MARBELLA AVE	2013-05-23	14:49	House	20		1.1	<28	0.75 J, b	<8.9	<14	<5.8	<8	<4.5	<3.8	<5.9	<0.00032	<0.16	<15	
M24717SVB	24717 MARBELLA AVE	2013-05-23	15:08	Back	16		6	40	0.77 J, b	<9.3	<14	<6	17	<4.6	<3.9	<6.1	<0.00025	<0.12	<15	
M24717SVF	24717 MARBELLA AVE	2013-05-23	15:22	Front	22		0.094	64	0.74 J, b	<8.6	<14	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<14	
M24718SVG	24718 NEPTUNE AVE	2010-09-08	09:57	Garage	16		4.4	17	3.9 J, b	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6	
M24718SVB	24718 NEPTUNE AVE	2010-09-08	10:47	Back	19		2.7	59	2.6 J, b	9.1	<3.5	<5.8	<8	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7	
M24718SVHA	24718 NEPTUNE AVE	2011-02-04	09:36	House	21		0.53	29	1.7 J, b	<8.3	<3.2	<5.4	54	<4.1	<3.5	<5.4	0.00025	0.43	<3.4	
M24718SVHB	24718 NEPTUNE AVE	2012-02-24	10:34	Back	20		1.2	<18	0.91 J, b	24	<9	<3.7	12	<2.9	<2.4	<3.8	0.00031	0.19	<9.5	
M24718SVG	24718 NEPTUNE AVE	2012-02-24	10:58	Garage	20		2.5	<18	1.3 J, b	<5.7	<9	<3.7	<5.2	<2.9	<2.4	<3.8	<0.00015	<0.076	<9.5	
M24718SVB	24718 NEPTUNE AVE	2012-02-24	11:25	Back	20		2.1	<20	0.63 J, b	<6.3	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00017	<0.084	<10	
M24718SVBD	24718 NEPTUNE AVE	2012-02-24	11:25	Back	20		2.1	<20	0.64 J, b	<6.3	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00017	<0.084	<10	
M24718SVB2	24718 PANAMA AVE	2010-06-24	09:32	Back	20		0.12	13	<2.4	<8.9	<3.5	290	<8	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7	
M24718SVF	24718 PANAMA AVE	2010-06-24	10:19	Front	20		0.036	34	<2.4	11	8.2	<5.8	<8	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7	
M24718SVH	24718 PANAMA AVE	2010-06-24	11:18	House	20		0.25	85	<2.4	32	10	<5.9	250	<4.6	<3.9	<6	<0.00024	<0.12	<3.8	
M24718SVB2	24718 PANAMA AVE	2012-10-18	10:00	Back	20		1.2	<28	<0.58 PF	<8.8	<14	21	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14	
M24718SVB2D	24718 PANAMA AVE	2012-10-18	10:00	Back	20		1.2	32	0.67 J, b	<9	<14	21	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15	
M24718SVH	24718 PANAMA AVE	2012-10-18	10:03	House	20		0.56	<27	<0.55 PF	<8.4	<13	<5.5	200	<4.2	<3.6	<5.5	<0.00022	0.38	<14	
M24718SVF	24718 PANAMA AVE	2012-10-18	10:42	Front	20		0.76	<28	0.58 J, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00029	<0.14	<14	
M24718SVH	24718 PANAMA AVE	2013-05-16	10:09	House	21		0.43	<28	<2.6	<8.9	<14	<5.8	180	18	<3.8	<5.9	<0.00024	0.36	<15	
M24718SVG	24718 PANAMA AVE	2013-05-16	10:12	Garage	20		0.17	68	<2.6	<9.1	<14	<5.9	<8.2	26	<3.9	<6	<0.00026	<0.12	<15	
M24718SVB2	24718 PANAMA AVE	2013-05-16	10:51	Back	20		0.88	<28	<2.5	<8.7	<14	12	<7.9	7.2	<3.7	<5.7	<0.00023	<0.12	<14	
M24718SVF	24718 PANAMA AVE	2013-05-16	11:10	Front	21		0.48	<25	<2.3	<7.8	<12	<5.1	<7	<3.9	<3.3	<5.1	<0.00021	<0.1	<13	
M24719SVB	24719 NEPTUNE AVE	2010-07-16	14:03	Back	16		3.8	<26	<4	14	<13	<6	<7.3	<4	<3.4	<5.3	<0.00022	<0.11	<13	
M24719SVBD	24719 NEPTUNE AVE	2012-07-19	15:32	Back	16		5	<19	<3	<6.1	<9.5	830	<5.5	<3	<2.6	<4	<0.00016	<0.08	<10	
M24719SVH	24719 NEPTUNE AVE	2010-07-16	14:52	House	14		6.2	41	<6.2	<8.8	3.6	<5.7	<7.9	<4.4	14 J	<5.8	<0.00023	<0.12	<3.6	
M24719SVF	24719 NEPTUNE AVE	2010-07-16	15:43	Front	18		2.9	270	<6.3	16	16	<5.8	<8.1	<4.5	48 J	<5.9	<0.00024	0.28	<3.7	
M24719SVH	24719 NEPTUNE AVE	2012-07-19	15:00	House	16		5.7	22	<3 PF	<6	<9.3	<3.8	<5.4	<3	<2.5	<3.9	<0.00016	<0.079	<9.8	
M24719SVB	24719 NEPTUNE AVE	2012-07-19	15:32	Back	16		5	<26	<4	14	<13	590	<7.3	<4	<3.4	<5.3	<0.00022	<0.11	<13	
M24719SVBD	24719 NEPTUNE AVE	2012-07-19	15:32	Back	16		5.2	<19	<3	<6.1	<9.5	830	<5.5	<3	<2.6	<4	<0.00016	<0.08	<10	
M24719SVH	24719 PANAMA AVE	2010-06-28	09:23	House	20		0.14	210	2.5 J	14	21	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	5.6	
M24719SVF	24719 PANAMA AVE	2010-06-28	11:21	Front	18		1.7	12	<2.3	8.5 J	<3.4	19	<7.8	<4.4	<3.7	<5.7	<0.00023	<0.12	<3.6	
M24719SVBA	24719 PANAMA AVE	2011-03-04	08:51	Back	12		5.9	<11	0.46 J, b	<8.7	<14	<5.6	<7.8	<4.4	<3.7	<5.7	<0.00023	<0.12	<14	
M24719SVH	24719 PANAMA AVE	2011-03-04	09:38	House	21		0.26	<11	1 J, b	<8.7	<14	<5.6	<7.8	<4.4	<3.7	<5.7	<0.00023	<0.12	<14	
M24719SVHS	24719 PANAMA AVE	2011-03-04	09:38	House	21		0.279	<17	<1	19	<17	<1.7	<1.7	<1.7	<1.7	2.6	<0.16	<0.12	<17	
M24719SVF	24719 PANAMA AVE	2011-03-04	10:20	Front	21		0.5	28	0.67 J, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14	
M24719SVFS	24719 PANAMA AVE	2011-03-04	10:20	Front	21		0.555	23	<0.98	<17	<17	<1.7	<1.7	<1.7	<1.7	2.5	<0.15	<0.12	<17	
M24719SVF	24719 PANAMA AVE	2012-09-28	09:49	Front	18		3.1	39	1.6 J, b	29	<14	<5.7	<7.9	12	<3.7	<5.8	<0.00023	<0.12	<14	
M24719SVBA	24719 PANAMA AVE	2012-09-28	10:34	Back	12		8.8	37	0.87 J, b	9	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14	
M24719SVB	24719 RAVENNA AVE	2010-04-21	12:16	Back	16		5.9	28	<2.4	9.9	<3.5	<5.8	<8.1	4.6	<3.8	<5.9	<0.00024	<0.12	<3.7	
M24719SVF	24719 RAVENNA AVE	2010-04-21	12:43	Front	20		1.2	98	<2.3	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6	
M24719 SVB	24719 RAVENNA AVE	2012-11-29	10:07	Back	15		4.7	<27	1.8 J, b	<8.7	<14	<5.6	<7.8	<4.3	<3.7	<5.7	<0.00023	<0.12	<14	
M24719 SVBD	24719 RAVENNA AVE	2012-11-29	10:07	Back	15		4.6	<27	1.5 J, b	<8.7	<14	<5.6	<7.8	<4.3	<3.7	<5.7	<0.00023	<0.12	<14	
M24719 SVH	24719 RAVENNA AVE	2012-11-29	10:11	House	16		4.1	70 b	4.7 J, b	<8.5	<13	<5.5	<7.7	<4.2	<3.6	<5.6	<0.00023	<0.11	<14	
M24719 SVF	24719 RAVENNA AVE	2012-11-29	10:44	Front	20		0.95	<28	1.3 J, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14	
M24722SVH	24722 MARBELLA AVE	2010-11-29	09:19	House	21		0.72	27	0.77 J, b	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6	
M24722SVF	24722 MARBELLA AVE	2010-11-29	09:55	Front	21		<0.024	12	0.63 J, b	<9.1	<3.6	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8	
M24722SVFD	24722 MARBELLA AVE	2010-11-29	09:55	Front	21		<0.024	16	0.65 J, b	<9	<3.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7	
M24722SVB	24722 MARBELLA AVE	2010-11-29	11:03	Back	21		0.096	<12	0.74 J, b	<9.7	<3.8	<6.3	<8.8	<4.9	<4.1	<6.4	0.00027	<0.13	<4	
M24722SVH	24722 MARBELLA AVE	2012-06-07	10:06	House	20		1	<19	<0.31	<6	<9.3	<3.8	<5.4	<3	<2.5	<3.9	<0.0002	<0.1	<9.8	
M24722SVF	24722 MARBELLA AVE	2012-06-07	10:10	Front	21		0.16	21	<0.3	<5.8	<9.1	<3.8	<5.2	<2.9	<2.5	<3.8	<0.0002	<0.1	<9.6	
M24722SVFS	24722 MARBELLA AVE	2012-06-07	10:10	Front	21		0.185	<18 U	<0.74 U	<18 U	<18 U	<1.8 U	<1.8 U	<1.8 U	<1.8 U	2.1	<0.16 U	<0.1	<18 U	

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
M24722SVB	24722 MARBELLA AVE	2012-06-07	10:49	Back	20		0.28	30	0.74 J, b	< 6.5	< 10	< 4.2	< 5.8	4.8	< 2.7	< 4.2	< 0.00022	< 0.11	< 11
M24722SVB	24722 MARBELLA AVE	2013-04-11	14:37	Back	21		0.16	43	2.4 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24722SVBD	24722 MARBELLA AVE	2013-04-11	14:37	Back	21		0.16	< 29	1.3 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24722SVH	24722 MARBELLA AVE	2013-04-11	15:12	House	21		0.76	< 27	1 J, b	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
M24722SVF	24722 MARBELLA AVE	2013-04-11	15:15	Front	21		0.21	< 29	0.99 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
N24722SVH	24722 NEPTUNE AVE	2010-07-23	13:35	House	19		1	31	< 5.9	37	4.2	< 5.5	< 7.6	12	270	< 5.5	< 0.00022	< 0.11	< 3.5
N24722SVG	24722 NEPTUNE AVE	2010-07-23	14:07	Garage	19		0.49	22	< 5.8	< 8.3	< 3.2	< 5.4	< 7.5	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 3.4
N24722SVB	24722 NEPTUNE AVE	2010-07-23	14:42	Back	20		0.56	37	< 6	15	4.5	< 5.6	< 7.8	< 4.3	12	< 5.7	< 0.00023	< 0.11	< 3.6
N24722SVH	24722 NEPTUNE AVE	2012-04-13	15:06	House	20		0.93	22	1.8 J, b	< 6.1	< 9.6	< 4	< 5.5	< 3.1	< 2.6	< 4	0.00034	< 0.13	< 10
N24722SVG	24722 NEPTUNE AVE	2012-04-13	15:07	Garage	19		1.6	< 18	0.79 J, b	17	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00024	< 0.12	< 9.6
N24722SVG D	24722 NEPTUNE AVE	2012-04-13	15:07	Garage	19		1.7	< 18	0.84 J, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00024	< 0.12	< 9.6
N24722SVB	24722 NEPTUNE AVE	2012-04-13	15:49	Back	17		0.87	32	1.2 J, b	14	< 8	< 3.3	< 4.6	38	< 2.2	4.2	< 0.00021	< 0.1	< 8.4
P24722SVB	24722 PANAMA AVE	2010-04-26	10:23	Back	19		1.9	29	< 6.6	18	4.2	< 6	< 8.4	< 4.7	< 4	< 6.1	< 0.00025	< 0.12	6
P24722SVF	24722 PANAMA AVE	2010-04-26	11:28	Front	21		0.083	22	< 6.6	< 9.3	4.2	< 6	< 8.4	< 4.7	4.2	< 6.1	< 0.00025	< 0.12	< 3.9
P24722SVFD	24722 PANAMA AVE	2010-04-26	11:28	Front	20		0.08	47	< 6.5	< 9.3	15	< 6	< 8.3	< 4.6	9.7	< 6.1	< 0.00025	< 0.12	< 3.8
P24722SVH	24722 PANAMA AVE	2010-08-17	13:32	House	19		< 0.024	410	< 6.4	200	28	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	0.52	8.2
P24722SVF	24722 PANAMA AVE	2011-03-07	09:27	Front	21		0.2	< 11	0.42 J, b	< 8.7	< 14	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
P24722SVFD	24722 PANAMA AVE	2011-03-07	09:27	Front	21		0.2	< 11	< 0.33	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
P24722SVG	24722 PANAMA AVE	2011-03-07	10:06	Garage	21		0.23	18	0.52 J, b	< 8.6	< 13	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
P24722SVGD	24722 PANAMA AVE	2011-03-07	10:06	Garage	21		0.23	130	1.3 J, b	12	22	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
P24722SVB	24722 PANAMA AVE	2011-03-07	10:49	Back	18		1.2	< 11	0.48 J, b	< 8.7	< 14	42	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
P24722SVG	24722 PANAMA AVE	2012-04-26	10:06	Garage	20		0.71	< 19	7.5 J, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00021	< 0.1	< 9.8
P24722SVF	24722 PANAMA AVE	2012-04-26	10:23	Front	20		0.21	38	4.9 J, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00021	< 0.11	< 9.8
P24722SVFD	24722 PANAMA AVE	2012-04-26	10:23	Front	21		0.22	< 19	4.1 J, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
P24722SVB	24722 PANAMA AVE	2012-04-26	10:38	Back	18		2	< 19	2.1 J, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00024	< 0.12	< 15
R24722SVH	24722 RAVENNA AVE	2012-11-09	15:01	House	14		5.9	< 29	2.1 J, b	< 9.3	< 15	< 6	< 8.4	< 4.7	< 4	< 6.1	< 0.00025	< 0.12	< 15
R24722SVB	24722 RAVENNA AVE	2012-11-09	15:15	Back	17		3	< 28	0.98 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24722SVF	24722 RAVENNA AVE	2012-11-09	15:39	Front	20		1.7	< 29	0.86 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24722SVB	24722 RAVENNA AVE	2013-05-02	09:54	Back	21		1.1	< 28	2.3 J, b	< 8.8	< 14	5.8	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
R24722SVBD	24722 RAVENNA AVE	2013-05-02	09:54	Back	21		1.1	< 29	1.9 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24722SVH	24722 RAVENNA AVE	2013-05-02	10:05	House	18		4.6	36	1.3 J, b	< 8.9	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24722SVF	24722 RAVENNA AVE	2013-05-02	10:31	Front	20		2.1	< 27	1.1 J, b	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
M24723SVB	24723 MARBELLA AVE	2010-03-29	16:23	Back	20		0.069	23	4.1 J, b	48	< 3.8	< 6.2	22	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 4
M24723SVH	24723 MARBELLA AVE	2010-04-07	12:12	House	19		0.61	11	< 2.3	13 J	< 3.5	< 5.7	430	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6
M24723SVF	24723 MARBELLA AVE	2010-07-21	09:24	Front	20		< 0.023	40	< 6.2	9	4.6	< 5.7	< 7.9	69 J	3.8 J	< 5.8	< 0.00023	< 0.12	< 3.6
M24723SVFD	24723 MARBELLA AVE	2012-06-21	15:14	Front	21		0.38	26	0.57 J, b	< 6.1 PF	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
M24723SVH	24723 MARBELLA AVE	2012-06-21	15:14	Front	21		0.36	38	< 0.32	< 6.1 PF	< 9.5	< 3.9	< 5.5	3.4	< 2.6	< 4	< 0.00016	< 0.08	< 10
M24723SVH	24723 MARBELLA AVE	2012-06-21	15:21	House	13		6.2	< 19	0.33 J, b	< 6.1 PF	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
M24723SVB	24723 MARBELLA AVE	2012-06-21	15:47	Back	21		0.49	< 19	0.45 J, b	< 6.1 PF	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
R24723SVB	24723 RAVENNA AVE	2010-11-02	13:51	Back	18		2.4	12	< 1.4	< 9.5	< 3.7	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 3.9
R24723SVH	24723 RAVENNA AVE	2010-11-02	13:54	House	18		2.9	84	< 1.4	13	13	< 5.8	< 8.1	5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
R24723SVF	24723 RAVENNA AVE	2010-11-02	14:27	Front	17		3.1	17	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
R24723SVF	24723 RAVENNA AVE	2012-11-08	10:04	Front	16		3.9	< 29	1.1 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24723SVFD	24723 RAVENNA AVE	2012-11-08	10:04	Front	16		3.9	< 28	0.77 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24723SVH	24723 RAVENNA AVE	2012-11-08	10:23	House	18		3.1	< 28	< 0.59	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	0.21	< 15
R24723SVB	24723 RAVENNA AVE	2012-11-08	10:40	Back	18		3	< 28	< 0.59	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24723SVH	24723 RAVENNA AVE	2013-04-23	10:15	House	19		2.3	32	< 0.56 PF	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	0.24	< 14
R24723SVB	24723 RAVENNA AVE	2013-04-23	10:16	Back	19		1.8	< 27	< 0.56 PF	< 8.6	< 14	65	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
R24723SVF	24723 RAVENNA AVE	2013-04-23	10:58	Front	18		4.2	36	< 0.62 PF	11	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 15.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
N247255VB	24725 NEPTUNE AVE	2009-10-02	09:53	Back	20		0.81	17	< 3	24	3.6	8.2	< 8.2	< 4.6	< 3.9	< 6	< 0.00024		< 3.8
N247255VF	24725 NEPTUNE AVE	2009-10-02	10:54	Front	21		0.26	< 12	< 3.1	12	< 3.6	27	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025		< 3.8
N247255VH	24725 NEPTUNE AVE	2010-06-16	09:14	House	18		1.7	14	< 2.4	< 9.2	< 3.6	< 6	< 8.3	< 4.6	4.3	< 6	< 0.00024		< 3.8
N247255VB	24725 NEPTUNE AVE	2010-06-16	10:30	Back	21		0.68	13	6.1	14	< 3.4	< 5.7	< 7.9	8.6	< 3.7	< 5.8	< 0.00023		< 3.6
N247255VF	24725 NEPTUNE AVE	2010-06-16	11:18	Front	21		0.11	< 11	< 2.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023		< 3.6
N247255VH	24725 NEPTUNE AVE	2012-06-22	14:51	House	16		3.4	< 19	0.83 J, b	< 6.1 PF	< 9.6	< 4	< 5.5	< 3.1	< 2.6	< 4	< 0.00016	0.087	< 10
N247255VB	24725 NEPTUNE AVE	2012-06-22	15:21	Back	19		2.7	< 19	0.56 J, b	< 5.9 PF	< 9.2	130	< 5.3	< 3	< 2.5	< 3.9	< 0.00016	< 0.078	< 9.8
N247255VBD	24725 NEPTUNE AVE	2012-06-22	15:21	Back	19		2.7	< 19	0.43 J, b	< 5.9 PF	< 9.2	130	< 5.3	< 3	< 2.5	< 3.9	< 0.00016	< 0.078	< 9.8
N247255VF	24725 NEPTUNE AVE	2012-06-22	15:27	Front	21		0.46	< 18	0.47 J, b	< 5.9 PF	< 9.2	10	< 5.3	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.7
M247265VH	24726 MARBELLA AVE	2010-06-07	09:03	House	17		0.26	58	< 2.3	< 8.8	4.4	64	16	< 4.4	4.4	< 5.8	< 0.00023	< 0.12	< 3.6
M247265VB	24726 MARBELLA AVE	2010-06-07	10:06	Back	17		0.047	36	< 2.3	< 8.7	3.4 J	6	< 7.8	< 4.3	5.2	< 5.7	< 0.00023	< 0.12	< 3.6
M247265VF	24726 MARBELLA AVE	2010-08-19	08:52	Front	20		0.83	36	< 1.3	< 8.6	4	34	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	0.14	< 3.6
M247265VHA	24726 MARBELLA AVE	2012-12-14	15:04	House	20		< 0.022	< 27	3.1, b	< 8.4	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
M247265VG	24726 MARBELLA AVE	2012-12-19	11:07	Garage	22		< 0.045	< 54	< 1.1	< 17	< 27	< 11	< 15	< 8.5	< 7.2	< 11	< 0.00045	< 0.23	< 28
R247265VBA	24726 RAVENNA AVE	2011-03-14	10:13	Back	15		5.3	< 11	< 1.4	< 9	< 14	10	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R247265VBAD	24726 RAVENNA AVE	2011-03-14	10:13	Back	15		5.3	< 11	< 1.4	< 9	< 14	10	< 8.1	< 4.4	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R247265VH	24726 RAVENNA AVE	2011-03-14	11:00	House	20		0.55	13	< 1.3	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
R247265VH	24726 RAVENNA AVE	2012-12-20	14:58	House	19		2.1	< 27	1.3 J, b	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
R247265VG	24726 RAVENNA AVE	2012-12-20	15:01	Garage	20		1.6	53	2.2 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
R247265VBA	24726 RAVENNA AVE	2012-12-20	15:33	Back	17		4.5	< 28	1.4 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
N247285VG	24728 NEPTUNE AVE	2010-05-14	14:56	Garage	20		1	13	< 6.3	< 9	< 3.5	< 5.8	210	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N247285VH2	24728 NEPTUNE AVE	2010-05-14	15:49	House	17		1.3	390	< 6.2	43	15	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 3.8
N247285VH	24728 NEPTUNE AVE	2010-05-14	16:37	House	21		0.3	190	< 6.2	120	13	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6
N247285VH2	24728 NEPTUNE AVE	2010-09-21	09:25	House	13		4.6	15	3.4 J, b	< 8.1	3.6	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 0.00022	0.34	< 3.9
N247285VH	24728 NEPTUNE AVE	2010-09-21	10:07	House	19		0.62	18	3.1, b	13	5.3	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N247285VG	24728 NEPTUNE AVE	2010-09-21	10:46	Garage	17		2	14	1.1, b	< 8.4	3.4	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
N247285VGD	24728 NEPTUNE AVE	2010-09-21	10:46	Garage	17		2	11	0.55 J, b	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
N247285VG	24728 NEPTUNE AVE	2013-05-31	09:54	Garage	19		2.6	51	< 2.7	< 9.3	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
N247285VGS	24728 NEPTUNE AVE	2013-05-31	09:54	Garage	21		2.61	< 20 U	< 0.73 U	< 10	< 16	< 2 U	< 1.7	< 5.1	< 4.3	< 6.6	< 0.00027	< 0.13	< 17
P247285VGD	24728 PANAMA AVE	2012-11-02	10:05	Garage	21		0.85	620	< 2.6	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00026	< 0.12	< 17
P247285VH	24728 PANAMA AVE	2013-05-31	10:23	House	20		0.13	15	3.1, b	51.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00027	< 0.12	< 14
P247285VH	24728 PANAMA AVE	2010-11-08	09:17	House	20		0.83	15	3.1, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00027	< 0.12	< 14
P247285VB	24728 PANAMA AVE	2010-11-08	10:09	Back	17		2.8	< 11	0.87 J, b	< 8.9 UJ	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
P247285VG	24728 PANAMA AVE	2010-11-08	11:20	Garage	21		0.1	< 11	1.4 J, b	< 9.1 UJ	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
P247285VGS	24728 PANAMA AVE	2010-11-08	11:20	Garage	21		< 0.22	23	0.69 J	< 17	< 17	< 1.7	< 1.7	< 1.7	< 1.7	2	< 0.22	< 0.12	< 17
P247285VG	24728 PANAMA AVE	2012-11-02	10:05	Garage	21		0.61	< 32	2.1 J, b	< 10	< 16	< 6.6	< 9.1	< 5.1	< 4.3	< 6.6	< 0.00027	< 0.13	< 17
P247285VGD	24728 PANAMA AVE	2012-11-02	10:05	Garage	20		0.6	< 31	1.6 J, b	< 9.7	< 15	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	< 0.00026	< 0.13	< 16
P247285VB	24728 PANAMA AVE	2012-11-02	10:20	Back	16		4.1	< 29	0.9 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
P247285VH2	24728 PANAMA AVE	2013-06-18	15:32	Back	17		4.5	< 27	0.78 J, b	< 8.4	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
P247285VH2	24728 PANAMA AVE	2013-06-18	15:32	House	20		0.74	< 28	3.4 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
P247285VG	24728 PANAMA AVE	2013-06-18	16:07	Garage	21		0.56	< 32	< 0.9	< 10	< 16	< 6.5	< 9.1	< 5	< 4.3	< 6.6	< 0.00027	< 0.13	< 17
N247295VB	24729 NEPTUNE AVE	2009-09-18	09:13	Back	16		3.6	100	7.6 J	< 9	8.3	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.13	< 3.7
N247295VF	24729 NEPTUNE AVE	2009-09-18	10:38	Front	20		0.069	100	8.6 J	< 9.9	9	72	< 9	< 5	< 4.2	< 6.5	< 0.00026	< 0.13	38
N247295VH	24729 NEPTUNE AVE	2010-07-08	09:11	House	19		1.3	29	< 2.3 Q	< 8.6	6	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
N247295VF	24729 NEPTUNE AVE	2010-07-08	09:54	Front	20		1.3	< 9.7	< 2 Q	< 7.7	< 3	8.5	< 7	< 3.9	< 3.3	< 5.1	< 0.0002	< 0.1	< 3.2
N247295VHD	24729 NEPTUNE AVE	2010-07-08	09:54	Front	20		1.3	43	< 2.1 Q	< 7.9	6.3	8.3	< 7.1	< 3.9	< 3.3	< 5.2	< 0.00021	< 0.1	3.9
N247295VB	24729 NEPTUNE AVE	2010-07-08	10:54	Back	18		3.9	34	< 2.4 Q	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N247295VF	24729 NEPTUNE AVE	2010-08-24	13:35	Front	18		2.6	33	2.6 J, b	22	4	15	< 8.3	< 4.6	5.9	< 6	< 0.00024	< 0.12	< 3.8
N247295VH	24729 NEPTUNE AVE	2012-10-19	14:30	Front	20		1.6	< 24	1.1 J, b	< 7.7	< 12	9	< 7	< 3.9	< 3.3	< 5.1	< 0.0002	< 0.1	< 13
N247295VB	24729 NEPTUNE AVE	2012-10-19	14:56	Back	17		4.3	< 28	< 0.58 PF	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
N247295VH	24729 NEPTUNE AVE	2012-10-19	15:20	House	18		2.5	30	3.4 J, b	< 9.5	< 15	< 6.2	< 8.5	< 4.7	4	< 6.2	< 0.00025	< 0.13	< 16
R247295VB	24729 RAVENNA AVE	2010-07-14	13:57	Back	17		0.91	41	< 2.5	40	4.2	7.4	< 8.6	< 4.8	7.2	< 6.2	< 0.00025	< 0.13	< 3.9
R247295VH	24729 RAVENNA AVE	2010-07-14	14:44	House	17		2.9	87	< 2.4	20	4	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	11



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide Mole %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane Mole %	Helium Mole %	Carbon Disulfide UG/M3
					Oxygen Mole %	Argon Mole %													
R24729SVF	24729 RAVENNA AVE	2010-07-14	15:25	Front	18		2	25	<2.4	<9	<3.5	7.2	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7
R24729SVH	24729 RAVENNA AVE	2012-08-24	14:48	House	17		3.4	30	0.84 J, b	14	<14	<5.6	<7.8	<4.4	<3.7	<5.7	<0.00023	<0.12	<14
R24729SVF	24729 RAVENNA AVE	2012-08-24	14:49	Front	18		3.6	<27	1.1 J, b	<8.7	<14	<5.6	<7.8	<4.3	<3.7	<5.7	<0.00023	<0.12	<14
R24729SVB	24729 RAVENNA AVE	2012-08-24	15:18	Back	18		3.1	35	1.2 J, b	<9.5	<15	<6.2	<8.5	<4.7	<4	<6.2	<0.00025	<0.13	<16
R24729SVB	24729 RAVENNA AVE	2013-06-20	15:29	Back	17		3.8	32	<0.87	<9.7	<15	<6.3	<8.7	<4.8	<4.1	<6.4	<0.00026	<0.13	<16
R24729SVH	24729 RAVENNA AVE	2013-06-20	15:31	House	17		3.4	30	<0.79	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00022	<0.11	<14
R24729SVF	24729 RAVENNA AVE	2013-06-20	16:01	Front	18		4.5	<29	<0.84	<9.3	<15	<6	<8.4	<4.7	<4	<6.1	<0.00025	<0.12	<15
M24732SVF	24732 MARBELLA AVE	2010-07-01	09:40	Front	19		0.43	30	<2.4	10	9	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8
M24732SVB	24732 MARBELLA AVE	2010-07-01	10:19	Back	18		0.69	25	<2.4	10	3.6	11	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8
M24732SVH	24732 MARBELLA AVE	2013-01-11	09:47	House	19		1.4	<28	1 J, b	<8.8	<14	<5.7	<8	14 b	<3.8	<5.8	<0.00024	<0.12	<15
M24732SVB	24732 MARBELLA AVE	2013-01-11	10:12	Back	20		0.84	<29	2.2 J, b	38 J	<14	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<15
M24732SVBD	24732 MARBELLA AVE	2013-01-11	10:12	Back	20		0.84	<29	3.7 J, b	9.2 J	<14	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<15
M24732SVF	24732 MARBELLA AVE	2013-01-11	10:16	Front	21		0.71	<27	1.3 J, b	<8.6	<13	<5.6	<7.7	<4.3	<3.6	<5.6	<0.00023	<0.11	<14
M24732SVH	24732 MARBELLA AVE	2013-05-23	10:13	House	19		1.5	<28	2.1 J, b	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15
M24732SVB	24732 MARBELLA AVE	2013-05-23	10:14	Back	19		1.9	170 J	1.2 J, b	<8.9	<14	<5.8	<8	6.5	<3.8	<5.9	<0.00023	<0.12	<15
M24732SVBD	24732 MARBELLA AVE	2013-05-23	10:14	Back	19		1.9	43 J	0.9 J, b	<8.7	<14	<5.7	<7.9	<4.4	<3.7	<5.7	<0.00023	<0.12	<14
M24732SVF	24732 MARBELLA AVE	2013-05-23	10:36	Front	19		2	32	0.96 J, b	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15
M24732SVH	24732 NEPTUNE AVE	2010-09-20	14:13	House	20		0.58	84	1.7 J, b	<8.2	13	<5.3	<7.4	7.7	<3.5	<5.4	0.026	1.3	<3.4
M24732SVHD	24732 NEPTUNE AVE	2010-09-20	14:13	House	20		0.58	72	1.3 J, b	<8.2	11	<5.3	<7.4	6.7	<3.5	<5.4	0.028	1.3	<3.4
M24732SVB	24732 NEPTUNE AVE	2010-09-20	15:13	Back	12		7.9	12	0.99 J, b	<8.4	<3.3	20	<7.6	<4.2	<3.6	<5.5	<0.00022	<0.11	<3.5
M24732SVF	24732 NEPTUNE AVE	2010-09-20	16:00	Front	20		0.25	<31	3.4 J, b	<24	<9.6	<16	<22	<12	<10	<16	<0.00024	<0.12	<10
M24732SVH	24732 NEPTUNE AVE	2011-02-18	09:09	House	20		0.59	<11	<0.35	<9.1	<3.6	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8
M24732SVF	24732 NEPTUNE AVE	2011-02-18	09:52	Front	21		0.26	54	<0.34	10	15	<5.8	<8.1	6.8	<3.8	<5.9	<0.00024	<0.12	4.4
M24732SVF5	24732 NEPTUNE AVE	2011-02-18	09:52	Front			0.266	<17	<1.3	<17	<17	<1.7	<1.7	<1.7	<1.7	2.4	<0.16	<0.12	<17
M24732SVB	24732 NEPTUNE AVE	2011-02-18	10:42	Back	13		4.7	13	<0.34	23	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	0.00092	<0.12	<3.6
M24732SVB5	24732 NEPTUNE AVE	2011-02-18	10:42	Back			5.39	<17	<1.3	<17	<17	2.9	<1.7	<1.7	<1.7	1.9	<0.16	<0.12	<17
M24732SVF	24732 NEPTUNE AVE	2011-03-10	09:56	Front	21		0.21	14	<0.33 UJ	<8.6	<14	<5.6	<7.8	15	<3.6	<5.7	<0.00023	<0.11	<14
M24732SVF5	24732 NEPTUNE AVE	2011-03-10	09:56	Front			0.215	<18	<1.1	<18	<18	<1.8	<1.8	<1.8	<1.8	2.5	<0.17	<0.12	<18
M24732SVHA	24732 NEPTUNE AVE	2011-03-10	10:38	House	20		1	14	0.67 J, b	<7.7	<12	<5	<7	<3.9	<3.3	<5.1	<0.0002	<0.1	<13
M24732SVB	24732 NEPTUNE AVE	2011-03-10	11:13	Back	16		3.4	18	<0.34 UJ	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	0.014	<0.12	<15
M24732SVF	24732 PANAMA AVE	2010-04-22	15:11	Front	21		0.16	60	<2.3	9.4	24	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
M24732SVB	24732 PANAMA AVE	2010-04-22	17:02	Back	21		0.16	14	<2.3	12	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	4
M24732SVH	24732 PANAMA AVE	2010-04-23	10:34	House	20		0.31	66	3.9 J, b	11	5.2	<5.5	<7.6	<4.2	14	<5.5	<0.00022	<0.11	<3.5
M24732SVH	24732 PANAMA AVE	2010-08-31	13:58	House	20		0.46	17	<1.3	14	4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
M24732SVB	24732 PANAMA AVE	2010-08-31	14:36	Back	20		0.36	26	<1.4	<9.1	<3.6	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	4.1
M24732SVBD	24732 PANAMA AVE	2010-08-31	14:36	Back	20		0.36	21	1.7 J, b	<9.1	<3.6	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8
M24732SVF	24732 PANAMA AVE	2010-08-31	15:16	Front	21		0.19	47	<1.4	20	6.6	<6.1	<8.5	<4.7	<4	<6.2	<0.00025	<0.12	<3.9
M24732SVH	24732 PANAMA AVE	2012-06-14	14:49	House	20		0.34	<19	0.35 J, b	<6	<9.3	<3.8	<5.4	<3	<2.5	<3.9	<0.00016	<0.079	<9.8
M24732SVF	24732 PANAMA AVE	2012-06-14	15:01	Front	21		0.086	<18	1.5 J, b	<5.7	<9	<3.7	<5.2	<2.9	<2.4	<3.8	<0.00015	0.1	<9.5
M24732SVFD	24732 PANAMA AVE	2012-06-14	15:01	Front	21		0.081	<18	0.46 J, b	<5.7	<9	<3.7	<5.2	<2.9	<2.4	<3.8	<0.00015	0.1	<9.5
M24732SVB	24732 PANAMA AVE	2012-06-14	15:27	Back	21		0.22	<18	0.45 J, b	<5.8	<9.1	<3.8	<5.2	23	<2.5	<3.8	<0.00016	<0.078	<9.6
M24732SVH	24732 RAVENNA AVE	2010-10-11	09:20	House	18		1.2	15	<1.3	<8.6	<3.4	<5.6	<7.8	<4.3	<3.6	<5.7	<0.00023	<0.11	<3.6
M24732SVG	24732 RAVENNA AVE	2010-10-11	10:23	Garage	9.7		4.8	18	<1.3	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
M24732SVG5	24732 RAVENNA AVE	2010-10-11	10:23	Garage			6.17	21	<1.3	<17	<17	1.8	<1.7	<1.7	<1.7	2	<0.16	<0.12	<17
M24732SVB	24732 RAVENNA AVE	2010-10-11	11:09	Back	18		0.15	38	<1.3	<8.8	5.1	180	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6
M24732SVG	24732 RAVENNA AVE	2012-06-22	10:00	Garage	12		7.2	<19	<0.32	<6.1 PF	<9.5	<3.9	<5.5	<3	<2.6	<4	<0.00016	<0.08	<10
M24732SVB	24732 RAVENNA AVE	2012-06-22	10:11	Back	20		1.1	<20	<0.33	<6.3 PF	<9.9	<4.1	<5.7	<3.2	<2.7	<4.2	<0.00017	<0.084	<10
M24732SVS	24732 RAVENNA AVE	2012-06-22	10:11	Back			1.13	<18 U	<0.75 U	<18 U	<18 U	<1.8 U	<1.8 U	<1.8 U	<1.8 U	2	<0.17 U	<0.084	<10
M24732SVH	24732 RAVENNA AVE	2012-06-22	10:33	House	20		1.3	20	<0.31	<5.9 PF	<9.2	<3.8	<5.3	<3	<2.5	<3.9	<0.00016	0.13	<9.8
M24733SVH	24733 MARBELLA AVE	2010-08-06	09:12	House	20		0.3	100	<6.4	28	15	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	0.27	<3.8
M24733SVG	24733 MARBELLA AVE	2010-08-06	09:53	Garage	21		0.21	30	<6.3	<9	4.5	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	20
M24733SVGD	24733 MARBELLA AVE	2010-08-06	09:53	Garage	20		0.21	18	<6.3	<9	3.6	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide M/L %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane M/L %	Helium M/L %	Carbon Disulfide UG/M3
					Oxygen MOL %	Oxygen/Argon MOL %													
M24733SVB	24733 MARBELLA AVE	2010-08-06	10:38	Back	20		0.21	36	< 6.2	9.9	7.8	< 5.7	38	< 4.4	18	< 5.8	< 0.00023	< 0.12	< 3.6
M24733SVG	24733 MARBELLA AVE	2012-06-08	14:36	Garage	22		0.11	< 19	0.51 j, b	< 6	< 9.3	< 3.8	< 5.4	11 j	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
M24733VGD	24733 MARBELLA AVE	2012-06-08	14:36	Garage	22		0.12	< 19	0.55 j, b	< 6	< 9.3	< 3.8	< 5.4	3 j	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
M24733SVB	24733 MARBELLA AVE	2012-06-08	15:08	Back	22		0.4	< 19	0.4 j, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
M24733SVB	24733 MARBELLA AVE	2013-04-04	14:39	Back	21		0.4	< 25	0.89 j, b	< 8.1	< 13	< 5.2	17	< 4	< 3.4	< 5.3	< 0.00021	< 0.11	< 13
M24733SVHA	24733 MARBELLA AVE	2013-04-04	14:47	House	17		0.23	< 21	0.48 j, b	< 6.6	< 10	< 4.3	< 5.9	< 3.3	< 2.8	< 4.3	< 0.00018	< 0.088	< 11
M24733SVG	24733 MARBELLA AVE	2013-04-04	15:08	Garage	20		0.086	< 22	0.6 j, b	< 7	< 11	< 4.5	< 6.3	< 3.5	3.6	< 4.6	< 0.00018	< 0.092	< 12
M24733SVH	24733 PANAMA AVE	2011-01-27	09:40	House	19		1.5	< 11	2.6 j, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
P24733SVF	24733 PANAMA AVE	2011-01-27	10:20	Front	21		< 0.022	240	2.5 j, b	< 8.4	6.4	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
P24733SVF5	24733 PANAMA AVE	2011-01-27	10:20	Front	21		< 0.16	300	< 1.4	< 17	< 17	< 1.7	< 1.7	< 1.7	< 1.7	2.7	< 0.16	< 0.16	< 17
P24733SVB	24733 PANAMA AVE	2011-01-27	11:04	Back	21		0.098	98	1.8 j, b	< 9.2	< 3.6	300	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
P24733SVB	24733 PANAMA AVE	2013-02-21	09:54	Back	20		0.14	< 27	1.5 j, b	< 8.6	< 14	< 5.6	< 7.8	5 j	18 j	< 5.7	< 0.00023	< 0.11	< 14
P24733SVB5	24733 PANAMA AVE	2013-02-21	09:54	Back	20		0.135 K	< 19 U	< 0.79 U	< 19 U	< 19 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 0.15 U	< 0.12	< 19 U
P24733SVH	24733 PANAMA AVE	2013-02-21	10:06	House	18		2	< 29	2.3 j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.0003	< 0.12	< 15
P24733SVF	24733 PANAMA AVE	2013-02-21	10:36	Front	19		0.63	< 29	1.7 j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24733SVH	24733 PANAMA AVE	2013-07-23	09:48	House	18		2.7	70	2.8 j, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24733SVB	24733 PANAMA AVE	2013-07-23	09:51	Back	21		0.56	< 28	1.6 j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
P24733SVBD	24733 PANAMA AVE	2013-07-23	09:51	Back	20		0.54	28	0.86 j, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
P24733SVF	24733 PANAMA AVE	2013-07-23	10:10	Front	19		1.8	62	1 j, b	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
R24733SVH	24733 RAVENNA AVE	2010-04-08	13:49	House	19		2.1	20	< 2.3	< 8.6	3.8	< 5.6	15	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
R24733SVF	24733 RAVENNA AVE	2010-04-08	14:57	Front	20		0.19	19	< 2.3	< 8.6	4.6	8.9	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
R24733SVB	24733 RAVENNA AVE	2010-04-08	15:49	Back	19		0.59	24	< 2.3	< 8.8	5.4	< 5.7	23	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
R24733SVH	24733 RAVENNA AVE	2012-07-27	10:03	House	19		1.9	41	< 3	< 6.1	< 9.3	< 3.8	6.1	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
R24733SVB	24733 RAVENNA AVE	2012-07-27	10:42	Back	20		1.2	< 19	< 3	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
R24733SVBD	24733 RAVENNA AVE	2012-07-27	10:42	Back	20		1.2	< 19	< 3	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
R24733SVF	24733 RAVENNA AVE	2012-07-27	10:46	Front	20		0.54	22	< 2.9	< 5.8	< 9.1	25	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6
N24735SVH	24735 NEPTUNE AVE	2010-11-17	09:23	House	19		1.1	120	1.8 j, b	250	11	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
N24735SVF	24735 NEPTUNE AVE	2010-11-17	10:19	Front	21		0.12	< 11	0.44 j, b	< 8.6	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
N24735SVB	24735 NEPTUNE AVE	2010-11-17	11:03	Back	21		0.14	51	0.44 j, b	< 8.8	6.5	7.9	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24735SVBD	24735 NEPTUNE AVE	2010-11-17	11:03	Back	21		0.13	51	0.41 j, b	< 8.7	7.4	8.2	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24735SVB	24735 NEPTUNE AVE	2012-11-15	10:03	Back	21		0.59	< 27	< 0.57	< 8.7	< 14	8.8	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
N24735SVB	24735 NEPTUNE AVE	2012-11-15	10:03	Back	21		0.58	< 27	< 0.57	< 8.7	< 14	9.1	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
N24735SVF	24735 NEPTUNE AVE	2012-11-15	10:45	Front	21		0.47	< 28	< 0.59	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24735SVH	24735 NEPTUNE AVE	2012-11-20	13:43	House	19		1.2	54	1.7 j, b	55	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
N24735SVB	24735 NEPTUNE AVE	2013-06-11	14:49	Back	20		1.2	47	< 2.6	< 9	< 14	9.9	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24735SVH	24735 NEPTUNE AVE	2013-06-11	15:00	House	19		1	53	< 2.5	70	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	0.3	< 14
N24735SVF	24735 NEPTUNE AVE	2013-06-11	15:23	Front	21		0.65	< 28	< 2.6	< 9	< 14	11	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24736SVH	24736 RAVENNA AVE	2010-04-28	14:11	House	19		1.4	16	< 2.4	26	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
R24736SVF	24736 RAVENNA AVE	2010-04-28	15:04	Front	20		0.14	17	< 2.4	14	< 3.6	< 5.9	< 8.2	< 4.6	4.7	< 6	< 0.00024	< 0.12	26
R24736SVF5	24736 RAVENNA AVE	2010-04-28	15:04	Front	20		< 0.16	36	0.56 j	24	< 18	1.8	< 1.8	< 1.8	2.8	2.3	< 0.16	< 0.16	< 18
R24736SVB	24736 RAVENNA AVE	2010-04-28	15:50	Back	21		0.26	20	< 2.3	13	< 3.4	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	5.1
R24736SVB	24736 RAVENNA AVE	2013-06-04	14:50	Back	20		0.59	< 28	< 2.6	< 8.9	< 14	6.4	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24736SVH	24736 RAVENNA AVE	2013-06-04	14:59	House	18		2.1	43	< 2.5	< 8.7	< 14	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
R24736SVF	24736 RAVENNA AVE	2013-06-04	15:18	Front	21		0.58	31	< 2.8	< 9.5	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16
M24737SVB	24737 MARBELLA AVE	2010-04-30	09:18	Back	21		0.3	32	< 6.3	38	18	< 5.8	30	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24737SVF	24737 MARBELLA AVE	2010-04-30	10:04	Front	20		0.51	36	< 6.3	38	9.4	< 5.8	46	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
M24737SVH	24737 MARBELLA AVE	2010-04-30	11:03	House	20		1.1	49	< 6.2	16	3.7	< 5.7	45	< 4.4	9.1	< 5.8	0.00028	< 0.12	4.1
M24737SVH	24737 MARBELLA AVE	2010-09-03	09:56	House	19		1.2	55	< 1.4	14	3.4	< 5.6	51	< 4.3	< 3.6	< 5.7	0.0004	< 0.11	4.4
M24737SVHS	24737 MARBELLA AVE	2010-09-03	09:56	House	19		20.4	18	< 1.3	< 17	< 17	< 1.7	45	< 1.7	< 1.7	2.1	< 0.15	< 17	< 17
M24737SVF	24737 MARBELLA AVE	2010-09-03	10:37	Front	19		1.6	20	< 1.4	< 8.8	< 3.4	< 5.7	44	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24737SVB	24737 MARBELLA AVE	2010-09-03	12:02	Back	20		0.69	25	< 2.9	24	< 7.1	< 12	41	< 9.1	< 7.7	< 12	< 0.00024	< 0.12	< 7.5
M24737SVB	24737 MARBELLA AVE	2012-12-07	15:05	Back	19		1.6	29	1.2 j, b	< 9.1	< 14	< 5.9	33	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
M24737SVH	24737 MARBELLA AVE	2012-12-07	15:12	House	19		1.2	< 28	1.1, b	< 9	< 14	< 5.8	26	4.6	< 3.8	< 5.9	0.00076	< 0.12	< 15
M24737SVF	24737 MARBELLA AVE	2012-12-07	15:42	Front	18	1.4	< 28	0.63 j, b	< 8.8	< 14	< 5.7	18	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14	
M24737SVB	24737 MARBELLA AVE	2013-05-24	09:56	Back	21	0.61	32 j	< 2.5	< 8.6 PF	< 14	< 5.6	21	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14	
M24737SVBD	24737 MARBELLA AVE	2013-05-24	09:56	Back	21	0.6	120 j	< 2.5	< 8.7 PF	< 14	< 5.6	21	17 j	< 3.7	< 5.7	< 0.00023	< 0.12	< 14	
M24737SVH	24737 MARBELLA AVE	2013-05-24	09:56	House	20	1.5	< 28	2.9 j, b	< 8.7 PF	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	0.00043	< 0.12	< 14	
M24737SVF	24737 MARBELLA AVE	2013-05-24	10:24	Front	21	1.2	< 28	< 2.5	< 8.8 PF	< 14	< 5.7	20	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14	
M24738SVB	24738 NEPTUNE AVE	2009-09-23	09:00	Back	19	1.6	< 11	20 j	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14	
M24738SVF	24738 NEPTUNE AVE	2009-09-23	09:45	Front	17	3	14	3.3 j	< 8.8	< 3.5	15	< 8	< 4.4	5.8	< 5.8	< 0.00024	< 0.12	< 3.6	
N24738SVH	24738 NEPTUNE AVE	2012-02-23	10:03	House	21	0.61	32	1.3 j, b	< 7.9	< 12	< 5.1	7.5	< 4	3.4	< 5.2	0.0004	< 0.074	< 13	
N24738SVF	24738 NEPTUNE AVE	2012-02-23	10:33	Front	20	0.72	66	2 j, b	19	< 13	< 5.4	< 7.6	10	< 3.6	< 5.5	0.00024	< 0.078	< 14	
N24738SVF	24738 NEPTUNE AVE	2012-02-23	10:33	Front	20	0.68	21	0.95 j, b	14	< 13	< 5.3	< 7.4	9.4	< 3.5	< 5.4	0.00025	< 0.078	< 14	
N24738SVF	24738 NEPTUNE AVE	2013-08-28	15:10	Front	19	2.8	< 30	0.76 j, b	< 9.5 PF	< 15	34	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16	
N24738SVF	24738 NEPTUNE AVE	2013-08-28	15:10	Front	19	2.8	< 30	0.64 j, b	< 9.4 PF	< 15	34	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16	
N24738SVB	24738 NEPTUNE AVE	2013-08-28	15:44	Back	18	3.3	< 29	0.6 j, b	< 9.1 PF	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 16	
N24738SVH	24738 PANAMA AVE	2010-09-07	13:44	House	12	6.4	42	< 1.4	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
P24738SVHD	24738 PANAMA AVE	2010-09-07	13:44	House	12	6.4	21	< 1.4	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
P24738SVB	24738 PANAMA AVE	2010-09-07	14:25	Back	19	0.21	32	< 1.4	< 8.6	< 3.4	7.5	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6	
P24738SVF	24738 PANAMA AVE	2010-09-07	15:03	Front	19	0.35	24	< 1.4	11	< 3.5	< 5.8	< 8.1	4.4 j	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7	
P24738SVH	24738 PANAMA AVE	2012-09-07	14:53	House	11	7.6	120	1.4 j, b	14	< 14	< 5.6	< 7.8	< 4.3	12	< 5.7	0.006	< 0.11	< 14	
P24738SVF	24738 PANAMA AVE	2012-09-07	15:37	Front	20	0.73	68	0.56 j, b	11	17	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 0.00022	< 0.11	< 13	
P24738SVB	24738 PANAMA AVE	2012-09-07	15:55	Back	19	2.4	38	< 0.6	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15	
P24738SVH	24738 PANAMA AVE	2013-06-11	09:41	House	14	6	< 28	3.9 j, b	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 15	
P24738SVB	24738 PANAMA AVE	2013-06-11	09:46	Back	19	2	36	3.6 j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
P24738SVBS	24738 PANAMA AVE	2013-06-11	09:46	Back	19	2.04	48	< 1.1 U	< 30 U	< 30 U	< 3 U	< 3 U	< 3 U	< 3 U	< 3 U	< 0.17 U	< 0.12	< 30 U	
P24738SVF	24738 PANAMA AVE	2013-06-11	10:19	Front	21	0.54	< 28	< 2.6	< 9	< 14	< 5.8	< 8.1	5 j	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
P24738SVFS	24738 PANAMA AVE	2013-06-11	10:19	Front	21	0.542	< 21 U	< 0.75 U	< 21 U	< 21 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 0.17 U	< 21 U	
N24739SVH	24739 NEPTUNE AVE	2010-10-12	09:45	House	19	0.9	25	< 1.2	< 7.6	< 3	< 4.9	< 6.8	< 3.8	< 3.2	< 5	< 0.0002	< 0.1	< 3.1	
N24739SVF	24739 NEPTUNE AVE	2010-10-12	11:48	Front	19	0.94	17	< 1.3	< 8.8	< 3.4	7.8	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
N24739SVG	24739 NEPTUNE AVE	2011-11-11	12:08	Garage	10	5.9	< 7.2	0.39 j	< 5.7	< 9	< 3.7	< 5.2	< 2.9	< 2.4	< 3.8	< 0.00015	< 0.076	< 9.5	
N24739SVH	24739 NEPTUNE AVE	2011-11-11	12:45	House	20	0.93	19	0.31 j	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6	
N24739SVF	24739 NEPTUNE AVE	2011-11-11	13:30	Front	21	0.74	< 7.4	< 0.28	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6	
N24739SVFD	24739 NEPTUNE AVE	2011-11-11	13:30	Front	21	0.74	8.2	4.7 j	< 5.8	< 9.1	< 3.8	< 5.2	13 j	3.9	< 3.8	< 0.00016	< 0.078	< 9.6	
N24739SVH	24739 NEPTUNE AVE	2012-09-21	10:05	House	18	0.87	< 28	1.1 j, b	< 9	< 14	9.6	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00025	< 0.13	< 15	
N24739SVG	24739 NEPTUNE AVE	2012-09-21	10:10	Garage	7.9	7.9	< 28	1.2 j, b	17	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
N24739SVGS	24739 NEPTUNE AVE	2012-09-21	10:10	Garage	7.9	7.96	< 19 U	< 0.78 U	< 19 U	< 19 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	3	< 0.15 U	< 0.12	< 19 U	
N24739SVG	24739 NEPTUNE AVE	2013-04-30	10:10	Garage	13	5.3	< 28	3.8 j, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14	
N24739SVGD	24739 NEPTUNE AVE	2013-04-30	10:10	Garage	13	5.4	< 28	2.7 j, b	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14	
N24739SVH	24739 NEPTUNE AVE	2013-04-30	10:51	House	20	0.73	30	2.5 j, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
P24739SVH	24739 PANAMA AVE	2011-02-07	13:57	House	21	0.046	< 11	< 0.34	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
P24739SVHS	24739 PANAMA AVE	2011-02-07	13:57	House	21	0.046	< 11	< 0.34	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
P24739SVB	24739 PANAMA AVE	2011-02-07	14:43	Back	17	2.8	< 17	< 1.4	< 17	< 17	< 1.7	< 1.7	< 1.7	< 1.7	2.4	< 0.16	< 0.13	< 17	
P24739SVF	24739 PANAMA AVE	2011-02-07	14:43	Front	21	0.08	18	< 0.34	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
P24739SVB	24739 PANAMA AVE	2011-02-07	15:15	Back	21	0.08	18	< 0.34	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6	
P24739SVB	24739 PANAMA AVE	2012-10-26	10:02	Back	16	3.2	< 12	0.71 j, b	< 9.5	< 3.7	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00023	< 0.12	7	
P24739SVB	24739 PANAMA AVE	2012-10-26	10:02	Back	16	3.2	< 12	0.71 j, b	< 9.5	< 3.7	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00023	< 0.12	7	
P24739SVBD	24739 PANAMA AVE	2012-10-26	10:02	Back	16	3	< 27	0.91 j, b	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00022	< 0.11	< 14	
P24739SVH	24739 PANAMA AVE	2012-10-26	10:30	House	20	0.42	< 26	< 0.54	< 8.3	< 13	< 5.4	< 7.5	8.5 j	< 3.5	< 5.5	< 0.00022	< 0.11	< 14	
P24739SVH	24739 PANAMA AVE	2012-10-26	10:30	House	20	0.42	< 26	< 0.54	< 8.3	< 13	< 5.4	< 7.5	26	< 3.5	< 5.5	< 0.00022	< 0.11	< 14	
P24739SVF	24739 PANAMA AVE	2012-10-26	10:33	Front	20	0.088	< 28	< 0.59	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15	
P24739SVF	24739 PANAMA AVE	2013-06-13	14:50	Front	22	0.088	< 29	< 2.6	< 9.1	< 14	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 15	
P24739SVH	24739 PANAMA AVE	2013-06-13	14:59	House	21	0.41	< 30	< 2.8	< 9.5	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16	
P24739SVB	24739 PANAMA AVE	2013-06-13	15:21	Back	16	5.6	< 29	< 2.7	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15	
R24739SVH	24739 RAVENNA AVE	2010-10-13	09:06	House	17	2	20	< 1.3	< 8.8	< 3.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6	
R24739SVB	24739 RAVENNA AVE	2010-10-13	09:42	Back	21	0.2	< 11	< 1.4	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7	

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide Mole %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane Mole %	Helium Mole %	Carbon Disulfide UG/M3
					Oxygen Mole %	Oxygen/Argon Mole %													
R24739SVF	24739 RAVENNA AVE	2010-10-13	10:14	Front	18		1.2	25	< 1.3	< 8.8	3.4	6.5	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
R24739SVD	24739 RAVENNA AVE	2010-10-13	10:14	Front	18		1.2	35	2.2 J	< 8.8	4.7	6.4	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
R24739SVF	24739 RAVENNA AVE	2011-03-03	09:57	Front	20		0.8	< 11	5.2 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24739SVH	24739 RAVENNA AVE	2011-03-03	10:35	House	20		1.6	< 11	4.3 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
R24739SVB	24739 RAVENNA AVE	2011-03-03	11:10	Back	22		0.14	64	5 J, b	< 8.8	20	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
R24739SVB D	24739 RAVENNA AVE	2011-03-03	11:10	Back	21		0.13	24	2.2 J, b	< 8.8	6.3 J	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	3.7 J
R24739SVB	24739 RAVENNA AVE	2013-07-03	14:39	House	22		0.49	< 28	0.85 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24739SVH	24739 RAVENNA AVE	2013-07-03	14:54	House	18		2.6	< 30	< 0.84	< 9.4	< 15	< 6.1	< 8.5	< 4.7	< 4	< 7.3	< 0.00025	< 0.12	< 16
R24739SVF	24739 RAVENNA AVE	2013-07-03	15:09	Front	16		5	29	< 0.83	< 9.2	< 14	6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
M24741SVH	24741 MARBELLA AVE	2010-05-28	09:20	House	19		0.93	620	< 4	24	7.7	< 5.7	950	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
M24741SVB	24741 MARBELLA AVE	2010-05-28	10:01	Back	20		0.38	26	< 4.2	< 9.1	3.8	< 5.9	52	< 4.5	< 3.8	< 6	< 0.00024	< 0.12	< 3.8
M24741SVF	24741 MARBELLA AVE	2010-05-28	10:37	Front	18		1.8	36	< 4.2	< 9.1	6	< 5.9	< 8.2	< 4.6	6.9	< 6	< 0.00024	< 0.12	< 3.8
M24741SVF	24741 MARBELLA AVE	2012-06-15	09:59	Front	18		3.8	< 18	0.35 J, b	< 5.7	< 8.9	< 3.7	6.6 PE, j	< 2.8	< 2.4	< 3.7	< 0.00015	< 0.076	< 9.4
M24741SVFS	24741 MARBELLA AVE	2012-06-15	09:59	Front	18		3.86	< 17 U	< 0.7 U	< 17 U	< 17 U	2.3	2.6	< 1.7 U	< 1.7 U	2.1	< 0.15 U	< 0.076	< 17 U
M24741SVB	24741 MARBELLA AVE	2012-06-15	10:08	Back	20		1.2	< 18	0.36 J, b	< 5.8	< 9.1	38	65 PE, j	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6
M24741SVBS	24741 MARBELLA AVE	2012-06-15	10:08	Back	20		1.24	< 17 U	< 0.72 U	< 17 U	< 17 U	33	42	< 1.7 U	< 1.7 U	2.1	< 0.16 U	< 0.078	< 17 U
M24741SVHA	24741 MARBELLA AVE	2012-06-22	12:08	House	19		0.96	< 18	< 0.3	< 5.7 PF	< 9	< 3.7	760	< 2.9	< 2.4	< 3.8	< 0.00015	0.095	< 9.5
R24743SVH	24743 RAVENNA AVE	2010-10-25	13:41	House	15		4.5	< 11	< 1.4	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
R24743SVG	24743 RAVENNA AVE	2010-10-25	14:14	Garage	17		3.8	11	< 1.3	< 8.5	< 3.3	< 5.5	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.5
R24743SVB	24743 RAVENNA AVE	2010-10-25	14:51	Back	20		0.4	16	< 1.3	13	< 3.4	13	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
R24743SVB	24743 RAVENNA AVE	2013-02-14	15:08	Back	22		0.23	< 28	2.2 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00045	< 0.23	< 14
R24743SVH	24743 RAVENNA AVE	2013-02-14	15:09	House	20		2.1	< 29	2.5 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24743SVG	24743 RAVENNA AVE	2013-02-14	15:40	Garage	21		0.73	< 28	1.2 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
R24743SVB	24743 RAVENNA AVE	2013-07-10	14:40	Back	21		0.92	29	2.2 J, b	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
R24743SVG	24743 RAVENNA AVE	2013-07-10	14:50	Garage	20		2.1	< 29	5.1 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24743SVH	24743 RAVENNA AVE	2013-07-10	15:32	House	19		2.4	36	1.4 J, b	< 9.4	< 15	< 6.1	< 8.4	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
M24744SVF	24744 MARBELLA AVE	2010-04-23	15:07	Front	21		0.21	23	40 b	< 8.6	4.7	< 5.6	59	< 4.3	< 3.6	< 5.7	< 0.00023	0.27	4.5
M24744SVB	24744 MARBELLA AVE	2010-04-23	16:04	Back	20		0.18	20	< 2.4	11	3.9	< 5.9	36	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
M24744SVH	24744 MARBELLA AVE	2010-04-23	17:13	House	20		1.1	75	5.1 J, b	94	8.8	< 5.6	77	< 4.3	5.7	< 5.7	< 0.00023	< 0.11	< 3.6
M24744SVH	24744 MARBELLA AVE	2010-08-02	09:39	House	19		1.4	32	< 6.2	15	5	< 5.7	74	< 4.4	< 3.7	< 5.8	< 0.00029	< 0.12	< 3.6
M24744SVG	24744 MARBELLA AVE	2010-08-17	08:50	Garage	14		5.1	43	< 6.2	10	< 3.4	< 5.7	36	< 4.4	17	< 5.8	< 0.00023	< 0.12	< 3.6
M24744SVH	24744 MARBELLA AVE	2011-02-09	09:26	House	20		1.2	< 11	2.7 J, b	< 9	< 3.5	< 5.8	82	< 4.5	< 3.8	< 5.9	< 0.00028	< 0.12	< 3.7
M24744 SVG	24744 MARBELLA AVE	2011-02-09	10:02	Garage	17		4	32	1.4 J, b	< 8.5	3.5	< 5.5	18	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.5
M24744 SVB	24744 MARBELLA AVE	2011-02-09	10:52	Back	21		0.3	< 11	1.2 J, b	< 8.6	< 3.4	< 5.6	39	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.6
M24744 SVB D	24744 MARBELLA AVE	2011-02-09	10:52	Back	21		0.3	16	2 J, b	< 8.6	< 3.4	< 5.6	36	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.6
M24744 SVH	24744 MARBELLA AVE	2012-03-15	15:26	House	21		1.2	< 45	0.88 J, b	48	< 2.2	< 9.2	58	< 7.1	< 6	< 6	< 0.00021	< 0.1	< 23
M24744 SVG	24744 MARBELLA AVE	2012-03-15	15:30	Garage	16		4.9	20	0.58 J, b	< 6.3	< 9.3	< 3.8	19	< 3	< 2.5	< 3.9	< 0.00016	< 0.084	< 9.8
M24744 SVB	24744 MARBELLA AVE	2012-03-15	16:11	Back	20		0.9	< 20	< 0.33	< 6.3	< 9.9	< 4.1	46	< 3.2	< 2.7	< 4.2	< 0.00017	< 0.084	< 10
M24744 SVBD	24744 MARBELLA AVE	2012-03-15	16:11	Back	20		0.88	22	0.47 J, b	< 6.3	< 9.9	< 4.1	41	< 3.2	< 3.8	< 4.2	< 0.00017	< 0.084	< 10
R24748SVH	24748 RAVENNA AVE	2010-07-15	09:41	House	18		0.59	170	< 2.4 Q	21	26	70	< 8.2	< 4.5	22	< 6	< 0.00024	< 0.12	< 3.8
R24748SVF	24748 RAVENNA AVE	2010-07-15	10:32	Front	20		< 0.024	56	< 2.3 Q	< 8.8	8.5	210	< 8	< 4.4	4.6	< 5.8	< 0.00024	< 0.12	< 3.6
R24748SVB	24748 RAVENNA AVE	2010-07-15	11:13	Back	18		2.5	35	< 2.4 Q	10	< 3.6	58	< 8.2	< 4.6	12	< 6	< 0.00024	< 0.12	< 3.8
R24748SVF	24748 RAVENNA AVE	2012-09-14	10:13	Front	20		1.2	< 29	2.3 J, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
R24748SVFS	24748 RAVENNA AVE	2012-09-14	10:13	Front	20		1.27	< 29	0.88 U	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
R24748SVB	24748 RAVENNA AVE	2012-09-14	10:33	Back	17		3.3	< 33	< 0.88 U	14	< 16	< 6.7	< 9.4	< 5.2	< 4.4	< 6.8	< 0.00024	< 0.14	< 17
R24748SVH	24748 RAVENNA AVE	2012-09-14	11:03	House	17		2.4	< 29	3.6 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24748SVH	24748 RAVENNA AVE	2013-04-16	09:50	House	21		1	< 27	0.93 J, b	9.5	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
R24748SVF	24748 RAVENNA AVE	2013-04-16	10:02	Front	21		0.61	< 29	0.83 J, b	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
R24748SVF D	24748 RAVENNA AVE	2013-04-16	10:02	Front	21		0.6	82	0.88 J, b	< 9	32	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24748SVB	24748 RAVENNA AVE	2013-04-16	10:22	Back	20		1.8	< 25	0.84 J, b	8.2	< 12	< 5.2	< 7.2	< 4	< 3.4	< 5.2	< 0.00034	< 0.11	< 13
R24749SVH	24749 RAVENNA AVE	2010-09-10	09:09	House	6		12	75	6.6 J, b	23	11	< 5.6	< 7.8	9.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
R24749SVB	24749 RAVENNA AVE	2010-09-10	09:45	Back															

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
R24749SVB	24749 RAVENNA AVE	2010-09-10	09:45	Back	11		9.2	37	1.8 J, b	< 9	4	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
R24749SVG	24749 RAVENNA AVE	2010-09-10	10:25	Garage	2		14	< 280	< 64	< 220	< 88	< 140	< 200	< 110	1000	< 150	0.12	< 0.12	< 93
R24749SVH	24749 RAVENNA AVE	2010-12-17	12:14	House	7.2		11	17	2.5 J, b	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	8.2	< 5.5	< 0.00022	< 0.11	< 3.5
R24749SVHS	24749 RAVENNA AVE	2010-12-17	12:14	House		8.04	11.8	< 16	< 1.3	< 16	< 16	< 1.6	< 1.6	< 1.6	< 1.6	2.3	< 0.15	< 0.15	< 16
R24749SVG	24749 RAVENNA AVE	2010-12-17	12:37	Garage	2.4		12	< 56	< 6.7	< 44	< 17	< 29	< 40	26	420	< 29	0.063	< 0.12	< 18
R24749SVB	24749 RAVENNA AVE	2010-12-17	13:05	Back	12		7.8	< 11	2.4 J, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
R24749SVB	24749 RAVENNA AVE	2013-08-06	10:00	Back	13		6.7	30	0.94 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24749SVBD	24749 RAVENNA AVE	2013-08-06	10:00	Back	14		7.1	< 28	1 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24749SVH	24749 RAVENNA AVE	2013-08-06	10:02	House	7.4		12	< 28	1.2 J, b	< 9	< 14	58	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
R24749SVG	24749 RAVENNA AVE	2013-08-06	10:29	Garage	2.4		17	100	1.1 J, b	< 8.4	< 13	< 5.5	< 7.6	< 4.2	31	< 5.5	0.075	< 0.11	< 14
R24752SVF	24752 RAVENNA AVE	2010-04-09	11:14	Front	13		6	12	< 2.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
R24752SVB	24752 RAVENNA AVE	2010-04-09	12:34	Back	20		0.38	22	< 2.4	16.1	< 3.5	7	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
R24752SVH2	24752 RAVENNA AVE	2010-05-21	13:38	House	19		1.7	56	< 4.1	< 15	19	< 10	< 14	< 7.7	< 6.5	< 10	< 0.00023	< 0.12	< 6.4
R24752SVH2	24752 RAVENNA AVE	2012-07-20	15:01	House	17		3	35	< 3 PF	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
R24752SVF	24752 RAVENNA AVE	2012-07-20	15:08	Front	10		9.7	24	< 2.9 PF	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6
R24752SVB	24752 RAVENNA AVE	2012-07-20	15:45	Back	19		2	34	< 3 PF	< 6	< 9.3	7.7	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
N24803SVG	24803 NEPTUNE AVE	2010-09-07	14:58	Garage	18		2	21	< 1.4	12	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24803SVB	24803 NEPTUNE AVE	2010-09-07	15:46	Back	20		< 0.025	12	< 1.5	< 9.3	< 3.6	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 3.8
N24803SVBD	24803 NEPTUNE AVE	2010-09-07	15:46	Back	20		< 0.024	13	< 1.5	10	5.4	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
N24803SVHA	24803 NEPTUNE AVE	2011-03-31	14:15	House	20		0.27	< 12	0.43 J, b	< 9.9	< 16	< 6.4	< 9	< 5	< 4.2	< 6.5	< 0.00026	0.35	< 16
N24803SVG	24803 NEPTUNE AVE	2011-03-31	14:59	Garage	18		1.5	< 11	< 25 UJ	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
N24803SVB	24803 NEPTUNE AVE	2011-03-31	15:33	Back	20		0.097	18	< 27 UJ	< 9.7	< 15	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	< 0.00026	< 0.13	< 16
N24803SVBD	24803 NEPTUNE AVE	2011-03-31	15:33	Back	20		0.092	20	1 J, b	< 9.7	< 15	< 6.3	< 8.8	6.2	< 4.1	< 6.4	< 0.00026	< 0.13	< 16
N24803SVHB	24803 NEPTUNE AVE	2013-02-01	14:38	House	21		0.52	66	1.9 J, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
N24803SVB	24803 NEPTUNE AVE	2013-02-01	14:47	Back	22		0.093	< 31	2.2 J, b	< 9.7	< 15	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	< 0.00026	< 0.13	< 16
N24803SVG	24803 NEPTUNE AVE	2013-02-01	15:18	Garage	20		1.6	< 26	1.3 J, b	< 8.3	< 13	< 5.4	< 7.5	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 14
N24803SVB	24803 NEPTUNE AVE	2013-07-12	14:58	Back	21		0.19	270	1 J, b	27	< 12	< 5	< 7	68	< 3.3	< 5.1	< 0.00021	< 0.1	< 13
N24803SVG	24803 NEPTUNE AVE	2013-07-12	15:20	Garage	18		2.6	210	3.5 J, b	< 9.2	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
N24803SVHB	24803 NEPTUNE AVE	2013-07-15	11:15	House	20		0.71	63	< 0.82	< 9.2	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	0.16	< 15
P24803SVH	24803 PANAMA AVE	2010-08-09	14:02	House	20		0.3	24	< 6.3	< 9	< 3.5	< 5.8	< 8.1	< 4.5	31	< 5.9	< 0.00024	< 0.12	< 3.7
P24803SVB	24803 PANAMA AVE	2010-08-09	15:14	Back	21		0.076	60	< 6.4	< 9.1	6.5	13	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
P24803SVF	24803 PANAMA AVE	2010-08-09	15:45	Front	20		0.069	33	< 6.2	< 8.8	6.6	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	0.25	< 3.6
P24803SVH	24803 PANAMA AVE	2011-02-18	14:16	House	21		0.59	< 11	0.97 J, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
P24803SVB	24803 PANAMA AVE	2011-02-18	14:28	Back	21		0.16	17	0.8 J, b	< 8.8	< 3.4	23	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
P24803SVG	24803 PANAMA AVE	2011-02-18	15:05	Garage	20		0.41	16	1.3 J, b	< 9.3	< 3.6	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 3.8
P24803SVG	24803 PANAMA AVE	2013-01-31	14:39	Garage	20		1.2	< 28	1.8 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
P24803SVH	24803 PANAMA AVE	2013-01-31	14:40	House	20		0.66	< 32	1.6 J, b	< 10	< 16	< 6.6	< 9.1	< 5.1	< 4.3	< 6.6	< 0.00027	< 0.13	< 14
P24803SVB	24803 PANAMA AVE	2013-01-31	15:12	Back	21		0.2	< 28	3 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
P24803SVH	24803 PANAMA AVE	2013-08-08	14:45	House	20		0.8	< 28	< 0.81	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
P24803SVB	24803 PANAMA AVE	2013-08-08	14:48	Back	20		0.38	< 31	< 0.87	< 9.8	< 15	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	< 0.00026	< 0.13	< 16
P24803SVG	24803 PANAMA AVE	2013-08-08	15:15	Garage	19		2.4	55	< 0.8	< 8.9	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24809SVB	24809 NEPTUNE AVE	2010-10-15	08:57	Back	21		< 0.022	62	< 1.3	< 8.4	4.5	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	16
N24809 SVFS	24809 NEPTUNE AVE	2010-10-15	09:35	Front		20.5	0.786	17	< 1.2	< 16	< 16	< 1.6	< 1.6	< 1.6	< 1.6	2.1	< 0.14	< 16	
N24809SVF	24809 NEPTUNE AVE	2010-10-15	09:35	Front	20		0.74	34	< 1.2	12	< 3.2	< 5.4	< 7.5	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 3.4
N24809SVH	24809 NEPTUNE AVE	2010-10-15	10:42	House	20		1.1	96	< 1.3	18	22	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24809SVB	24809 NEPTUNE AVE	2012-07-20	10:05	Back	20		0.25	< 19	< 3 PF	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
N24809SVH	24809 NEPTUNE AVE	2012-07-20	10:15	House	19		1.3	89	< 3 PF	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
N24809SVF	24809 NEPTUNE AVE	2012-07-20	10:52	Front	18		3.1	< 19	< 3 PF	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
P24809SVF	24809 PANAMA AVE	2009-10-15	13:49	Front	21		0.089	80	< 2.4	9.2	7.3	< 5.8	< 8.1	< 4.5	6.4	< 5.9	< 0.00024	< 0.12	< 3.7
P24809SVH	24809 PANAMA AVE	2009-10-15	15:07	House	21		0.63	19	2.6 J	< 9	5	< 5.8	< 8.1	< 4.5	< 3.8	8.2	< 0.00024	< 0.12	< 3.7
P24809SVHS	24809 PANAMA AVE	2009-10-15	15:07	House		21.1	0.623	18.1	2.5	14.1	4.1	< 2.1	7	< 2.1	0.6 J	4	< 0.12		0.69 J
P24809SVB	24809 PANAMA AVE	2009-10-15	16:08	Back	21		0.14	130	< 2.5	< 9.1	< 3.6	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00024		< 3.8

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
P24809SVBD	24809 PANAMA AVE	2009-10-15	16:08	Back	20		0.14	170	< 2.4	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024		
P24809SVB	24809 PANAMA AVE	2010-07-28	10:19	Back	20		0.66	26	< 6.2	13	< 3.4	< 5.7	< 7.9	< 4.4	7.8	< 5.8	< 0.00023		
P24809SVF	24809 PANAMA AVE	2010-07-28	11:02	Front	20		0.33	46	< 6.6	11	< 3.6	< 6	< 8.4	< 4.7	17	< 6.1	< 0.00025		
P24809SVH	24809 PANAMA AVE	2011-02-08	09:21	House	20		0.32	14	< 0.35	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024		
P24809SVHA	24809 PANAMA AVE	2012-03-23	10:28	House	21		0.063	20	1.4 J, b	< 6	< 9.3	6.3	< 5.4	< 3	< 2.5	4.4	< 0.00016	0.14	< 9.8
P24809SVF	24809 PANAMA AVE	2012-03-23	11:04	Front	21		0.22	< 19	2.9 J, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
P24809SVB	24809 PANAMA AVE	2012-03-23	11:12	Back	21		0.4	< 18	0.85 J, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	0.14	< 9.6
P24809SVBS	24809 PANAMA AVE	2012-03-23	11:12	Back	21		0.407	< 17 U	< 0.98 U	< 17 U	< 17 U	2.5	< 1.7 U	< 1.7 U	< 1.7 U	1.9	< 0.15 U	< 0.15 U	< 17 U
P24812SVH	24812 PANAMA AVE	2010-05-05	08:54	House	20		0.91	57	< 6.4	< 9.1	8	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
P24812SVB	24812 PANAMA AVE	2010-05-05	10:21	Back	20		0.34	26	< 6.3	< 8.9	4.2	7.6	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
P24812SVBD	24812 PANAMA AVE	2010-05-05	10:21	Back	20		0.34	46	< 6.3	13	< 3.5	8.3	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
P24812SVF	24812 PANAMA AVE	2010-05-05	11:08	Front	21		< 0.023	42	< 6.2	< 8.8	13	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
P24812SVH	24812 PANAMA AVE	2012-12-06	15:07	House	20		1	< 28	1.9 J, b	12	< 14	< 5.8	< 8.1	30	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
P24812SVB	24812 PANAMA AVE	2012-12-06	15:08	Back	19		2	32	1.1 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24812SVF	24812 PANAMA AVE	2012-12-06	15:39	Front	21		0.37	61	1.1 J, b	< 9.5	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16
P24812SVB	24812 PANAMA AVE	2013-05-01	14:58	Back	21		1.2	< 28	1 J, b	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
P24812SVH	24812 PANAMA AVE	2013-05-01	15:14	House	21		0.82	32	0.83 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
P24812SVF	24812 PANAMA AVE	2013-05-01	15:34	Front	21		0.24	31	0.91 J, b	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24813SVH	24813 PANAMA AVE	2010-10-26	09:15	House	20		1.1	26	< 1.3	< 8.6	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	4
P24813SVB	24813 PANAMA AVE	2010-10-26	10:54	Back	21		0.16	< 11	< 1.4	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
P24813SVFA	24813 PANAMA AVE	2010-11-23	10:00	Front	20		0.27	19	4.6 J, b	< 8.8	< 3.4	200	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
P24813SVFAS	24813 PANAMA AVE	2010-11-23	10:00	Front	18		0.3	18	3.8	< 17	< 17	240	1.9	< 1.7	< 1.7	3	< 0.15	< 0.15	< 17
P24813SVH	24813 PANAMA AVE	2012-08-23	10:00	House	18		2.4	31	0.76 J, b	13	< 14	170	< 8.4	< 4.6	< 3.9	< 6.1	0.0049	< 0.12	< 15
P24813SVFA	24813 PANAMA AVE	2012-08-23	10:06	Front	16		3.4	33	1 J, b	< 9.1	< 14	140	< 8.2	< 4.6	< 3.9	< 6	0.00028	< 0.12	< 15
P24813SVFAD	24813 PANAMA AVE	2012-08-23	10:06	Front	16		3.4	< 29	1.3 J, b	< 9.1	< 14	140	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24813SVB	24813 PANAMA AVE	2012-08-23	10:28	Back	21		0.17	< 28	0.73 J, b	< 8.8	< 14	18	< 7.9	< 4.4	< 3.7	< 5.8	0.0014	< 0.12	< 14
P24813SVH	24813 PANAMA AVE	2013-06-04	10:00	Back	19		1.6	80 J	< 2.5	< 8.7	< 14	1000	< 7.8	< 4.4	< 3.7	< 5.7	< 0.0003	< 0.15	< 14
P24813SVBS	24813 PANAMA AVE	2013-06-04	10:00	Back	14		1.57	< 20 U	< 0.72 U	< 20 U	< 20 U	760 D	< 2 U	< 2 U	< 2 U	< 2 U	< 0.16 U	< 0.16 U	< 20 U
P24813SVH	24813 PANAMA AVE	2013-06-04	10:08	House	14		4.5	38	< 2.4	8.8	< 13	36	< 7.4	< 4.1	< 3.5	< 5.4	0.0021	< 0.11	< 14
P24813SVFA	24813 PANAMA AVE	2013-06-04	10:32	Front	18		2.1	33	< 2.5	< 8.6	< 13	560	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
P24813SVFAS	24813 PANAMA AVE	2013-06-04	10:32	Front	18		17.9	< 19 U	< 0.7 U	< 19 U	< 19 U	390	< 3.3	< 1.9 U	< 1.9 U	< 1.9 U	< 0.16 U	< 0.16 U	< 19 U
N24815SVB	24815 NEPTUNE AVE	2009-09-17	14:43	Back	8.4		0.95	110	< 1.7	< 5.2	4.6	< 3.4	< 4.7	16	2.9	< 3.4	< 0.00014	< 0.11	< 2.2
N24815SVF	24815 NEPTUNE AVE	2009-09-17	15:57	Front	14		5.8	< 12	< 3.1	< 9.3	< 3.6	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.11	< 3.8
N24815SVH	24815 NEPTUNE AVE	2010-08-13	10:09	House	15		4.7	23	< 6	< 8.6	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	3.8
N24815SVF	24815 NEPTUNE AVE	2010-08-13	10:54	Front	14		5.2	28	< 6.2	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	6.2	< 5.8	< 0.00023	< 0.12	< 3.6
N24815SVB	24815 NEPTUNE AVE	2010-08-13	11:59	Back	13		7.8	30	< 6.2	< 8.8	3.5	10	< 7.9	< 4.4	5.3	< 5.8	< 0.00023	< 0.12	< 3.6
N24815SVH	24815 NEPTUNE AVE	2012-03-29	09:58	House	18		2.7	< 19	0.97 J, b	< 5.9	< 9.2	< 3.8	< 5.3	< 3	< 2.5	< 3.9	< 0.00016	< 0.078	< 9.8
N24815SVHS	24815 NEPTUNE AVE	2012-03-29	09:58	House	19		2.94	< 17 U	< 1 U	< 17 U	< 17 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	2.2	< 0.16 U	< 0.16 U	< 17 U
N24815SVB	24815 NEPTUNE AVE	2012-03-29	10:25	Back	19		2.6	< 18	< 0.3	< 5.7	< 9	< 3.7	< 5.2	< 2.9	< 2.4	< 3.8	< 0.00015	< 0.076	< 9.5
N24815SVF	24815 NEPTUNE AVE	2012-03-29	10:37	Front	18		3.8	< 19	0.48 J, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
N24815SVH	24815 NEPTUNE AVE	2010-11-12	10:21	House	18		2.1	31	0.5 J, b	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
P24818SVHS	24818 PANAMA AVE	2010-11-12	10:21	House	18		19.3	< 17	< 1.3	< 17	< 17	2.8	< 1.7	4	< 1.7	2.2	< 0.15	< 0.15	< 17
P24818SVF	24818 PANAMA AVE	2010-11-12	11:06	Front	21		< 0.024	24	0.82 J, b	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
P24818SVFD	24818 PANAMA AVE	2010-11-12	11:06	Front	21		< 0.024	17	1 J, b	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
P24818SVF	24818 PANAMA AVE	2012-06-08	10:25	Front	22		0.37	21	2.9 J, b	< 6.2	< 9.7	4.3	< 5.6	7.3 J	< 2.6	< 4	< 0.00016	0.14	< 10
P24818SVFS	24818 PANAMA AVE	2012-06-08	10:25	Front	22		0.374	< 17 U	< 0.73 U	< 17 U	< 17 U	3.7	< 1.7 U	< 1.7 U	< 1.7 U	2.1	< 0.16 U	< 0.16 U	< 17 U
P24818SVH	24818 PANAMA AVE	2012-06-08	10:30	House	12		5.5	< 19	1.5 J, b	< 6.1	< 9.5	30	< 5.5	< 3	< 2.6	< 4	0.16	< 0.08	< 10
P24818SVBA	24818 PANAMA AVE	2012-06-08	11:02	Back	21		1.6	22	0.62 J, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 0.00016	< 0.079	< 9.8
P24818SVBAS	24818 PANAMA AVE	2012-06-08	11:02	Back	20		1.58	25	< 0.73 U	< 17 U	< 17 U	3	< 1.7 U	< 1.7 U	< 1.7 U	1.9	< 0.16 U	< 0.16 U	< 17 U
P24818SVBA	24818 PANAMA AVE	2013-03-29	15:42	Back	20		1.3	< 27	1.9 J, b	< 8.6	< 13	21	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
P24818SVFA	24818 PANAMA AVE	2013-04-02	15:37	Front	23		0.17	29	1.7 J, b	< 8.6	< 13	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
P24818SVHA	24818 PANAMA AVE	2013-04-02	15:40	House	21		1.5	< 28	4.1 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide M/L %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane M/L %	Helium M/L %	Carbon Disulfide UG/M3
					Oxygen M/L %	Argon M/L %													
P24819SVH	24819 PANAMA AVE	2010-06-10	09:16	House	21		0.22	120	3.4 J	37	9.4	< 5.7	< 7.9	< 4.4	4.9	< 5.8	< 0.00023	< 0.12	< 3.6
P24819SVB	24819 PANAMA AVE	2010-06-10	11:10	Back	21		0.14	46	< 2.2	10	16	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
P24819SVF	24819 PANAMA AVE	2010-06-10	11:17	Front	20		< 0.023	77	12 J	< 8.5	15	< 5.5	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.5
P24819SVF	24819 PANAMA AVE	2011-04-21	11:16	Front	22		0.15	< 11	0.78 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
P24819SVFS	24819 PANAMA AVE	2011-04-21	11:16	Front			< 0.19	< 20	< 1.2	< 20	< 20	< 2	< 2	< 2	< 2	< 2.3	< 0.19	< 0.12	< 20
P24819SVH	24819 PANAMA AVE	2011-04-21	12:22	House	21		0.33	< 11	0.7 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	0.00025	< 0.12	< 14
P24819SVHS	24819 PANAMA AVE	2011-04-21	12:22	House			0.33	< 14	< 0.84	< 14	< 14	2.6	< 1.4	< 1.4	< 1.4	1.9	< 0.13	< 0.12	< 14
P24819SVB	24819 PANAMA AVE	2011-04-21	12:31	Back	21		0.33	11	< 0.34	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
P24819SVBS	24819 PANAMA AVE	2011-04-21	12:31	Back			21.8	< 17	< 1	< 17	< 17	< 1.7	< 1.7	< 1.7	< 1.7	2.2	< 0.16	< 0.12	< 17
P24819SVB	24819 PANAMA AVE	2013-08-22	14:46	Back	20		0.64	< 29	4.9 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24819SVH	24819 PANAMA AVE	2013-08-22	15:07	House	20		0.6	< 29	4.2 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24819SVF	24819 PANAMA AVE	2013-08-22	15:22	Front	20		0.49	31	2.4 J, b	< 8.9	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
P24822SVH	24822 PANAMA AVE	2010-06-23	09:06	House	18		1.5	14	3.6 J	11	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	29
P24822SVB	24822 PANAMA AVE	2010-06-23	09:51	Back	20		0.76	21	< 2.4	< 8.3	5.7	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
P24822SVF	24822 PANAMA AVE	2010-06-23	10:32	Front	20		0.35	31	< 2.2	< 9.3	12	< 5.4	< 7.5	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 3.4
P24822SVH	24822 PANAMA AVE	2013-06-20	10:29	House	19		2.6	43	1.1 J, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
P24822SVF	24822 PANAMA AVE	2013-06-20	10:35	Front	21		0.26	< 28	< 0.78	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	0.15	< 14
P24822SVFD	24822 PANAMA AVE	2013-06-20	10:35	Front	21		0.26	< 28	0.87 J, b	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	0.14	< 15
P24822SVB	24822 PANAMA AVE	2013-06-21	08:41	Back	21		0.82	< 30	< 0.85	< 9.4	< 15	< 6.1	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.12	< 16
P24828SVH	24828 PANAMA AVE	2011-10-27	08:46	House	10		6.3	< 7.4	1.6 J, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6
P24828SVB	24828 PANAMA AVE	2011-10-27	09:21	Back	21		0.24	8.3	1.1 J, b	< 5.5	< 8.6	< 3.6	< 5	< 2.8	< 2.3	< 3.6	< 0.00015	< 0.073	< 9.1
P24828SVBS	24828 PANAMA AVE	2011-10-27	09:21	Back			21.3	< 16 U	< 0.95 U	< 16 U	< 16 U	< 1.6 U	< 1.6 U	< 1.6 U	< 1.6 U	2.1	< 0.15 U	< 0.079	< 16 U
P24828SVF	24828 PANAMA AVE	2011-10-27	10:03	Front	20		0.72	< 7.5	0.46 J, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	0.00022	< 0.12	< 9.8
P24828SVB	24828 PANAMA AVE	2012-09-13	10:20	Back	19		1.3	34	1.9 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
P24828SVBS	24828 PANAMA AVE	2012-09-13	10:20	Back			19.9	< 20 U	< 0.82 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 0.16 U	< 20 U
P24828SVH	24828 PANAMA AVE	2012-09-13	10:24	House	15		4.7	28	1.4 J, b	< 8.1	< 13	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 0.00022	< 0.11	< 13
P24828SVF	24828 PANAMA AVE	2012-09-13	10:51	Front	20		0.92	27	5.2 J, b	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
P24828SVB	24828 PANAMA AVE	2013-04-16	14:53	Back	20		1.4	< 27	1.4 J, b	< 8.7	< 14	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
P24828SVH	24828 PANAMA AVE	2013-04-16	15:01	House	16		5.6	< 30	1.1 J, b	18	< 15	< 6.2	< 8.7	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 16
P24828SVF	24828 PANAMA AVE	2013-04-16	15:21	Front	21		0.99	< 30	0.96 J, b	< 9.6	< 15	< 6.2	< 8.6	< 4.8	< 4	< 6.3	< 0.00025	< 0.13	< 16
P24829SVH	24829 PANAMA AVE	2010-05-21	09:17	House	20		0.34	42	< 2.3	15	6.4	< 5.6	< 7.8	< 4.3	6.6 b	< 5.7	< 0.00023	< 0.11	< 3.6
P24829SVP	24829 PANAMA AVE	2010-05-21	10:31	Back Patio	21		< 0.022	130	< 2.2	33	16	5.7	< 7.6	18	28 b	< 5.5	< 0.00022	< 0.11	< 3.5
P24829SVFS	24829 PANAMA AVE	2010-05-21	10:31	Back Patio			21.9	81	0.95 J	< 17	< 17	5.4	< 1.7	< 1.7	< 1.7	2.3	< 0.15	< 0.12	< 17
P24829SVF	24829 PANAMA AVE	2010-05-21	11:21	Front	20		0.17	44	< 2.4	17	9.7	< 5.9	< 8.2	< 4.6	7.1 b	< 6	< 0.00024	< 0.12	4.4
P24829SVH	24829 PANAMA AVE	2010-09-13	08:53	House	20		0.48	16	< 1.3	16	3.9	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
P24829SVF	24829 PANAMA AVE	2010-09-13	09:52	Front	20		0.41	16	< 1.4	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
P24829SVFS	24829 PANAMA AVE	2010-09-13	09:52	Front			0.484	< 17	< 1.4	< 17	< 17	< 1.7	< 1.7	< 1.7	< 1.7	2.3	< 0.16	< 0.12	< 17
P24829SVB	24829 PANAMA AVE	2010-09-13	10:42	Back Patio	20		0.11	180	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	0.15	< 3.6
P24829SVBS	24829 PANAMA AVE	2010-09-13	10:42	Back Patio			21.8	28	< 1.3	< 17	< 17	2.9	< 1.7	< 1.7	< 1.7	2.4	< 0.15	< 0.12	24
P24829SVH	24829 PANAMA AVE	2013-05-09	10:16	House	21		0.55	< 28	2.1 J, b	< 8.9	< 14	20	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
P24829SVF	24829 PANAMA AVE	2013-05-09	10:26	Front	21		0.34	< 30	1.7 J, b	< 9.6	< 15	150	< 8.6	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 16
P24829SVFD	24829 PANAMA AVE	2013-05-09	10:26	Front	21		0.34	< 30	1.6 J, b	< 9.6	< 15	160	< 8.6	< 4.8	4	< 6.3	< 0.00025	< 0.13	< 16
P24832SVG	24832 PANAMA AVE	2010-10-06	09:38	Garage	15		1.5	32	< 1.3	< 8.8	5.9	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
P24832SVB	24832 PANAMA AVE	2010-10-06	10:13	Back	18		2.2	17	< 1.3	< 8.7	< 3.4	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
P24832SVH	24832 PANAMA AVE	2010-10-06	10:56	House	19		0.23	25	2.8 J	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	26
P24832SVB	24832 PANAMA AVE	2012-09-28	15:01	Back	18		2.6	< 29	1.3 J, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
P24832SVG	24832 PANAMA AVE	2012-09-28	15:21	Garage	14		5.2	33	0.68 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
P24832SVH	24832 PANAMA AVE	2012-09-28	16:10	House	19		1.5	36	0.58 J, b	13	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
P24832SVH	24832 PANAMA AVE	2013-05-16	14:55	House	20		1.2	< 29	1.2 J, b	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24832SVB	24832 PANAMA AVE	2013-05-16	15:04	Back	19		2.6	< 29	0.98 J, b	< 9.1	< 14	< 5.9	< 8.2	25 J	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24832SVBD	24832 PANAMA AVE	2013-05-16	15:04	Back	19		2.5	34	0.67 J, b	< 9.2	< 14	< 5.9	< 8.2	130 J	< 3.9	< 6	< 0.00024	< 0.12	< 15
P24832SVG	24832 PANAMA AVE	2013-05-16	15:28	Garage	18		3.5	35	< 0.56	< 8.6	< 13	< 5.5	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
P24833SVH	24833 PANAMA AVE	2010-10-14	09:36	House	18		0.3	270	1.4 J	100	66	< 5.1	< 7.1	< 3.9	< 3.3	< 5.2	0.00058	< 0.1	< 3.2
P24833SVF	24833 PANAMA AVE	2010-10-14	10:20	Front	18		0.072	48	< 1.4	11	12	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00023	< 0.11	8
P24833SVB	24833 PANAMA AVE	2010-10-14	11:06	Back	16		0.086	31	1.6 J	< 8.8	< 3.4	16	< 7.9	< 4.4	< 3.7	< 5.8	0.0027	< 0.12	< 3.6
P24833SVB	24833 PANAMA AVE	2012-11-29	14:47	Back	21		0.24	< 27	0.94 J, b	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
P24833SVH	24833 PANAMA AVE	2012-11-29	14:49	House	18		2.3	48 b	1.1 J, b	9.6 b	< 13	< 5.4	< 7.5	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 14
P24833 SVF	24833 PANAMA AVE	2012-11-29	15:19	Front	21		0.21	< 30	0.95 J, b	< 9.5	< 15	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16
P24833SVH	24833 PANAMA AVE	2013-05-09	14:46	House	19		1.9	32	1.2 J, b	15	< 14	< 5.6	< 7.8	49	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
P24833SVB	24833 PANAMA AVE	2013-05-09	14:51	Back	21		0.35	< 28	0.78 J, b	< 8.9	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
P24833SVF	24833 PANAMA AVE	2013-05-09	15:15	Front	22		0.19	< 170	2.6 J, b	< 54	< 84	< 35	< 48	< 27	< 23	< 35	< 0.00059	< 0.3	< 88
P24833SVB2	24838 PANAMA AVE	2009-09-22	14:17	Back	20		1.2	< 12	< 3.2	< 9.7	< 3.8	24	< 8.7	< 4.8	7.9	< 6.4	< 0.00026	< 0.3	4.1
P24838SVF	24838 PANAMA AVE	2009-09-22	14:54	Front	16		3.1	18	11 J	< 9.6	< 3.8	< 6.2	< 8.7	74	< 4.1	< 6.3	< 0.00026	< 0.12	< 4
P24838SVH	24838 PANAMA AVE	2010-06-01	09:00	House	18		2.7	59	< 4.1	< 8.8	7	< 5.7	< 8	< 4.4	< 3.8	< 5.8	0.00035	< 0.12	< 3.6
P24838SVF	24838 PANAMA AVE	2010-06-01	10:36	Front	20		1.4	21	< 4	< 8.6	< 3.4	< 5.6	28	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.6
P24838SVB3	24838 PANAMA AVE	2010-09-08	08:55	Back	21		0.16	18	< 1.3	< 8.4	< 3.3	8.4	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
P24838SVB3	24838 PANAMA AVE	2013-05-08	10:40	Back	22		0.9	< 31	7.7 J, b	< 10	< 16	< 6.5	< 9	< 5	< 4.2	< 6.6	< 0.00026	< 0.13	< 16
P24838SVH	24838 PANAMA AVE	2013-05-08	10:45	House	19		3	< 29	1.1 J, b	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	0.24	< 15
P24838SVF	24838 PANAMA AVE	2013-05-08	11:08	Front	21		1.2	< 28	0.85 J, b	< 9	< 14	< 5.8	32	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
P24838SVFD	24838 PANAMA AVE	2013-05-08	11:08	Front	21		1.2	74	< 7	< 8.8	< 14	< 5.7	33	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
N24904SVH	24904 NEPTUNE AVE	2010-07-16	13:01	House	20		0.79	26	< 7	20	4.1	< 6.4	< 9	< 5	< 4.2	< 6.5	< 0.00026	< 0.13	< 4.1
N24904SVG	24904 NEPTUNE AVE	2010-07-16	13:35	Garage	20		< 0.026	70	< 6.8	26	12	< 6.3	< 8.8	< 4.9	11 J	< 6.4	< 0.00026	< 0.13	< 4
N24904SVB	24904 NEPTUNE AVE	2010-07-16	14:11	Back	20		< 0.023	64	< 6.2	28	9	< 5.7	< 7.9	< 4.4	3.7 J	< 5.8	< 0.00023	< 0.12	< 3.6
N24904SVG	24904 NEPTUNE AVE	2012-09-14	16:04	Garage	20		0.65	44	4.3 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
N24904SVGD	24904 NEPTUNE AVE	2012-09-14	16:04	Garage	20		0.63	63	3.4 J, b	12	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24904SVH	24904 NEPTUNE AVE	2012-09-14	16:15	House	20		1.1	81	2.6 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24904SVB	24904 NEPTUNE AVE	2012-09-14	16:39	Back	20		1.3	46	3.2 J, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
N24904SVB	24904 NEPTUNE AVE	2013-06-18	09:52	Back	21		0.6	< 29	1.1 J, b	< 9.2	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
N24904SVB5	24904 NEPTUNE AVE	2013-06-18	09:52	Back	20		0.598	25	< 0.76 U	< 21 U	< 21 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 0.17 U	< 0.17 U	< 21 U
N24904SVH	24904 NEPTUNE AVE	2013-06-18	10:06	House	20		0.96	< 26	1.3 J, b	< 8.4	< 13	< 5.4	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14
N24904SVG	24904 NEPTUNE AVE	2013-06-18	10:33	Garage	21		0.5	34	0.92 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
N24904SVGS	24904 NEPTUNE AVE	2013-06-18	10:33	Garage	21	21.6	0.483	25	< 0.73 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 0.16 U	< 0.16 U	< 20 U
N24912SVB	24912 NEPTUNE AVE	2009-09-30	13:15	Back	21		0.11	41 b	6.3 J	< 9.2	5.2 b	< 6	< 8.3	< 4.6	12	< 6	< 0.00024	< 0.12	< 3.8
N24912SVF	24912 NEPTUNE AVE	2009-09-30	13:55	Front	17		4.7	12 b	5.3 J	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
N24912SVH	24912 NEPTUNE AVE	2010-06-14	09:58	House	18		1.9	7.6 b	< 2.3	13	8 b	11	< 8	< 4.4	4.8	< 5.8	< 0.00024	< 0.12	< 3.6
N24912SVB	24912 NEPTUNE AVE	2010-06-14	10:48	Back	20		0.19	31 b	7.2 J	< 9.7	7.7 b	< 6.3	< 8.7	5	22	< 6.4	< 0.00026	< 0.13	130
N24912SVF	24912 NEPTUNE AVE	2010-06-14	11:36	Front	17		5.3	41 b	< 2.4	16	6.7 b	< 6	< 8.3	< 4.6	4.1	< 6	< 0.00024	< 0.12	5.1
N24912SVH	24912 NEPTUNE AVE	2012-03-16	15:11	House	16		4.4	25	3.1 J, b	< 7.4	< 12	< 4.8	10	< 3.7	< 3.1	< 4.8	< 0.0002	< 0.098	< 12
N24912SVF	24912 NEPTUNE AVE	2012-03-16	15:32	Front	18		4	< 19	1.8 J, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10
N24912SVFD	24912 NEPTUNE AVE	2012-03-16	15:32	Front	18		4	< 19	9.4 J, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3.3	< 2.6	< 4	< 0.00016	< 0.08	< 10
N24912SVB	24912 NEPTUNE AVE	2012-03-16	16:13	Back	21		0.1	< 19	1.2 J, b	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4	< 0.00016	< 0.082	< 10
N24301SVH	301 244TH ST	2010-10-18	09:35	House	21		0.2	18	< 1.3	< 8.8	< 3.4	< 5.7	150	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	16
N24301SVF	301 244TH ST	2010-10-18	10:08	Front	21		0.04	19	< 1.3	9.6	3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24301SVB	301 244TH ST	2010-10-18	10:51	Back	21		< 0.022	33	< 1.3	19	< 3.3	< 5.5	31	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
N24301SVH	301 244TH ST	2013-01-31	09:50	House	21		0.16	< 28	2.3 J, b	< 8.8	< 14	< 5.7	16	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
N24301SVB	301 244TH ST	2013-01-31	10:06	Back	22		0.071	< 28	2 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24301SVF	301 244TH ST	2013-01-31	10:19	Front	21		0.062	< 28	1.8 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24301SVFD	301 244TH ST	2013-01-31	10:19	Front	21		0.066	< 28	1.5 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
N24301SVH	301 244TH ST	2013-06-26	10:17	House	21		0.23	< 27	< 0.77	< 8.6	< 13	< 5.6	21	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
N24301SVF	301 244TH ST	2013-06-26	10:40	Front	22		0.085	< 27	< 0.77	< 8.6	< 13	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
N24301SVB	301 244TH ST	2013-06-26	10:44	Back	22		0.13	< 31	< 0.88	< 9.8	< 15	< 6.4	10	< 4.9	< 4.2	< 6.4	< 0.00026	< 0.13	< 16
N24301SVBD	301 244TH ST	2013-06-26	10:44	Back	21		0.12	39	< 0.85	< 9.5	< 15	< 6.2	9.7	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16
N24305SVH	305 244TH ST	2010-07-01	14:36	House	20		0.097	27	5.5 J	12	4.1	8.2	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
N24305SVG	305 244TH ST	2010-07-01	15:23	Garage	18		< 0.024	160	< 2.4	9.9	22	< 5.8	< 8.1	< 4.5	4.6	< 5.9	< 0.00024	< 0.12	4.4



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Oxygen MOL % 100.00%	Oxygen/ Argon MOL % 100.00%	Carbon Dioxide MOL % 92.56%	Acetone UG/M3 52.63%	Naphthalene UG/M3 49.98%	Ethanol UG/M3 18.72%	2-Butanone (Methyl Ethyl) Ketone UG/M3 17.61%	Chloroform UG/M3 16.54%	Tetrachloro- ethene UG/M3 8.00%	Toluene UG/M3 7.84%	Benzene UG/M3 7.80%	Freon 12 UG/M3 6.94%	Methane MOL % 6.17%	Helium MOL % 5.34%	Carbon Disulfide UG/M3 4.80%
244305SVB	305 244TH ST	2010-07-01	16:06	Back	19		< 0.025	140	< 2.5	< 9.5	7.9	< 6.2	< 8.6	< 4.8	4	< 6.2	< 0.00025	< 0.13	< 3.9
244305SVH	305 244TH ST	2012-10-18	14:50	House	20		0.66	< 28	< 0.59 PF	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
244305SVG	305 244TH ST	2012-10-18	15:00	Garage	20		1.7	31	< 0.58 PF	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00031	< 0.16	< 14
244305SVB	305 244TH ST	2012-10-22	12:54	Back	20		0.86	33	< 0.59 PF	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
244305SVG	305 244TH ST	2013-04-24	15:14	Garage	20		1.2	< 28	< 0.58 PF	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
244305SVH	305 244TH ST	2013-04-24	15:14	House	21		0.48	< 30	< 0.63 PF	< 9.6	< 15	< 6.2	< 8.7	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 16
244305SVHD	305 244TH ST	2013-04-24	15:14	House	21		0.46	< 30	< 0.63 PF	< 9.6	< 15	< 6.2	< 8.7	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 16
244305SVB	305 244TH ST	2013-04-24	15:58	Back	21		0.61	< 27	< 0.56 PF	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14
244317SVH	317 244TH ST	2011-01-24	09:07	House	21		< 0.023	26	1.4 J, b	< 8.6	< 3.4	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	0.00024	< 0.11	< 3.6
244317SVG	317 244TH ST	2011-01-24	09:51	Garage	21		< 0.023	22	1.3 J, b	< 8.5	< 3.3	< 5.5	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.5
244317SVB	317 244TH ST	2011-01-24	10:27	Back	21		< 0.023	< 44	< 5.3	< 35	< 14	8400	< 32	< 18	< 15	< 23	0.0003	< 0.12	< 14
244317SVB	317 244TH ST	2011-03-24	15:44	Back	21		0.04	23	1.4 J, b	10	< 14	380	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
244317SVB	317 244TH ST	2011-03-24	15:44	Back	21		< 0.16	< 18	< 1	< 18	< 18	390 D	< 1.8	< 1.8	< 1.8	2.8	< 0.16	< 0.11	< 18
244317SVG	317 244TH ST	2011-03-24	16:33	Garage	21		0.24	< 11	< 1.3 UJ	< 8.4	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	0.00024	< 0.11	< 14
244317SVH	317 244TH ST	2011-03-24	16:33	House	21		0.83	170	< 1.3 UJ	20	36	< 5.7	16	< 4.4	< 3.7	< 5.8	0.00025	< 0.12	< 14
244321SVH	321 244TH ST	2010-11-18	08:54	House	21		0.46	< 11	7 J, b	< 8.8	< 3.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 3.6
244321SVB	321 244TH ST	2010-11-18	09:36	Back	21		< 0.022	26	1.1 J, b	12	< 3.2	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 0.00022	< 0.11	< 3.4
244321SVBD	321 244TH ST	2010-11-18	09:36	Back	22		< 0.021	20	1 J, b	< 8	< 3.1	< 5.2	< 7.2	< 4	< 3.4	< 5.3	< 0.00021	< 0.11	< 3.3
244321SVF	321 244TH ST	2010-11-18	10:13	Front	21		0.84	12	1.8 J, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
244321SVB	321 244TH ST	2013-03-22	09:59	Back	21		0.35	< 27	1.6 J, b	< 8.6	< 13	< 5.5	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
244321SVBS	321 244TH ST	2013-03-22	09:59	Back	20		0.355	< 19 U	< 0.79 U	< 19 U	< 19 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	2	< 0.15 U	< 0.12	< 19 U
244321SVH	321 244TH ST	2013-03-22	09:59	House	20		0.42	49	3 J, b	< 9.2	15	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
244321SVF	321 244TH ST	2013-03-22	10:33	Front	21		0.18	< 29	1.3 J, b	< 9.2	< 14	< 6	< 8.3	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
244321SVFS	321 244TH ST	2013-03-22	10:33	Front	21		0.183	< 20 U	< 0.85 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 0.16 U	< 0.12	< 20 U
244321SVH	321 244TH ST	2013-08-02	09:31	House	20		0.56	< 25	< 0.71	< 8	< 12	< 5.2	< 7.2	< 4	< 3.4	< 5.2	< 0.00021	< 0.11	< 13
244321SVB	321 244TH ST	2013-08-02	09:47	Back	21		0.12	40	< 0.78	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
244321SVBS	321 244TH ST	2013-08-02	09:47	Back	21		< 0.16 U	< 21 U	< 0.74 U	< 21 U	< 21 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	2.1	< 0.16 U	< 0.12	< 21 U
244321SVF	321 244TH ST	2013-08-02	09:58	Front	20		0.15	37	< 0.79	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
244321SVH	321 244TH ST	2010-05-05	13:40	House	20		0.092	18	< 6.3	14	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
244321SVG	321 244TH ST	2010-05-05	15:51	Garage	20		1.3	19	< 6.4	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8
244321SVB	321 244TH ST	2010-05-05	16:39	Back	21		< 0.023	26	< 6.2	< 8.8	< 3.4	26	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	0.2	< 3.6
244321SVB	321 244TH ST	2013-02-14	10:05	Back	22		0.059	< 28	1.1 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	0.12	< 15
244321SVBD	321 244TH ST	2013-02-14	10:05	Back	23		0.049	< 29	0.86 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
244321SVH	321 244TH ST	2013-02-14	10:12	House	21		1	< 28	0.89 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
244321SVG	321 244TH ST	2013-02-14	10:39	Garage	21		1.2	< 29	0.77 J, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
244321SVB	321 244TH ST	2013-07-31	09:53	Back	22		0.058	< 27	< 0.76	< 8.6	< 13	9.8	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
244321SVBD	321 244TH ST	2013-07-31	09:53	Back	21		0.058	54	< 0.76	< 8.5	< 13	9.1	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 14
244321SVH	321 244TH ST	2013-07-31	10:02	House	20		1.3	< 29	< 0.81	< 9.1	< 14	< 5.9	< 8.2	< 4.5	< 3.8	< 6	< 0.00025	< 0.12	< 15
244321SVG	321 244TH ST	2013-07-31	10:24	Garage	20		1.4	< 28	< 0.8	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
244331SVH	331 244TH ST	2010-08-04	13:23	House	20		0.49	15	< 6.3	16	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
244331SVG	331 244TH ST	2010-08-04	14:04	Garage	18		0.19	38	< 6.2	14	3.5	< 5.7	16	< 4.4	13	< 5.8	< 0.00024	< 0.12	< 3.6
244331SVB	331 244TH ST	2010-08-04	14:40	Back	20		0.09	17	< 6.3	11	< 3.5	< 5.8	< 8	< 4.5	6.6	< 5.9	< 0.00024	< 0.12	< 3.7
244331SVH	331 244TH ST	2012-08-30	15:14	House	20		0.99	37	3.4 J, b	12	< 13	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 0.00022	< 0.11	< 13
244331SVG	331 244TH ST	2012-08-30	15:50	Garage	18		2.5	34	2.7 J, b	11	< 15	< 6.3	18	< 4.9	< 4.1	< 6.4	< 0.00026	< 0.13	< 16
244331SVB	331 244TH ST	2012-08-30	16:39	Back	19		0.44	< 29	1.9 J, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
244331SVBD	331 244TH ST	2012-08-30	16:39	Back	21		0.48	43	1.7 J, b	12	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15
244331SVH	331 244TH ST	2013-05-01	10:25	House	21		0.56	36	4 J, b	< 8.9	< 14	< 5.8	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15
244331SVG	331 244TH ST	2013-05-01	10:52	Garage	20		1.7	38	2.9 J, b	< 8.7	< 14	< 5.6	13	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
244331SVB	331 244TH ST	2013-05-01	11:14	Back	21		0.36	< 27	2.4 J, b	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 14
244331SVBD	331 244TH ST	2013-05-01	11:14	Back	22		0.36	32	1.9 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14
244337SVH	337 244TH ST	2010-08-16	14:11	House	20		0.27	17	< 6	21	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 3.6
244337SVF	337 244TH ST	2010-08-16	14:49	Front	19		0.9	13	< 6.2	11	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																											
					Analyte Units		Oxygen/Argon		Carbon Dioxide		Acetone		Naphthalene		Ethanol		2-Butanone (Methyl Ethyl Ketone)		Chloroform		Tetrachloro-ethene		Toluene		Benzene		Freon 12		Methane		Helium	
					Oxygen MOL %	Argon MOL %	CO2 MOL %	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	MOL %	MOL %	MOL %	UG/M3	UG/M3		
244337SVB	337 244TH ST	2010-08-16	15:32	Back	20			0.079	37	< 6	< 8.6	< 3.4	6	< 7.8	< 4.3	< 3.6	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.11	< 3.6								
244337SVH	337 244TH ST	2010-11-11	15:05	House	21			0.97	12	0.351	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6								
244337SVF	337 244TH ST	2010-11-11	15:44	Front	20			1	13	0.351	< 8.8	3.5	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6								
244337SVB	337 244TH ST	2010-11-11	16:06	Back	21			0.2	< 11	< 0.34	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6								
244341SVH	341 244TH ST	2010-06-30	14:18	House	20			0.22	27	< 2.4	16	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8								
244341SVB	341 244TH ST	2010-06-30	15:03	Back	21			< 0.024	180	< 2.3	16	8.5	< 5.7	< 8	< 4.4	4.4	< 5.8	< 8	< 4.4	4.4	< 5.8	< 0.00024	< 0.12	4.5								
244341SVG	341 244TH ST	2010-06-30	15:37	Garage	21			0.062	43	< 2.4	9.2	6.9	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	40								
244341SVB	341 244TH ST	2012-08-02	09:47	Back	21			0.22	< 18	< 2.9	6.2	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6								
244341SVB5	341 244TH ST	2012-08-02	09:47	Back				21.4	< 20 U	< 0.83 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	2.3	< 0.15 U	< 20 U									
244341SVH	341 244TH ST	2012-08-02	10:09	House	21			0.29	19b	< 2.9	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00016	< 0.078	< 9.6								
244341SVG	341 244TH ST	2012-08-02	10:20	Garage	21			0.34	< 19	< 3.1	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4	< 5.6	< 3.1	< 2.6	< 4	< 0.00016	< 0.082	< 10								
244341SVG5	341 244TH ST	2012-08-02	10:20	Garage				21.3	< 21 U	< 0.86 U	< 21 U	< 21 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	2.1	< 0.16 U	< 21 U								
244341SVB	341 244TH ST	2013-06-05	10:04	Back	22			0.17	43	2.81, b	< 8.6	< 13	< 5.5	< 7.7	< 4.3	< 3.6	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 14								
244341SVB5	341 244TH ST	2013-06-05	10:04	Back				21.9	< 19 U	< 0.69 U	< 19 U	< 19 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	2.1	< 0.15 U	< 19 U								
244341SVH	341 244TH ST	2013-06-05	10:05	House	22			0.25	< 28	4.81, b	< 8.6	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15								
244341SVG	341 244TH ST	2013-06-05	10:15	Garage	22			0.42	< 27	< 2.5	< 8.6	< 14	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14								
249344SVG	344 249TH ST	2010-09-01	08:50	Garage	17			0.27	36	1.81	< 9.1	4.3	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8								
249344SVF2	344 249TH ST	2010-09-01	09:32	Front	18			0.27	57	< 1.3	< 8.8	10	37	< 7.9	< 4.4	< 3.7	< 5.8	< 7.9	< 4.4	< 3.7	< 5.8	0.0005	< 0.12	< 3.6								
249344SVB2	344 249TH ST	2010-09-01	10:12	Back	14			2.1	22	1.61	< 9.5	< 3.7	310	< 8.5	< 4.7	< 4	< 6.2	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 3.9								
249344SVH2	344 249TH ST	2010-09-01	10:52	House	19			0.29	32	< 1.3	< 8.8	7	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	0.35	3.9								
249344SVH2	344 249TH ST	2013-01-24	10:05	House	21			0.93	< 26	2.11, b	< 8.1	< 13	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 0.00022	< 0.11	< 13								
249344SVB2	344 249TH ST	2013-01-24	10:09	Back	15			6.8	< 32	1.11, b	< 10	< 16	< 6.6	< 9.1	< 5.1	< 4.3	< 6.6	< 9.1	< 5.1	< 4.3	< 6.6	< 0.00027	< 0.13	< 17								
249344SVB2D	344 249TH ST	2013-01-24	10:09	Back	14			6.7	< 31	1.31, b	< 9.9	< 16	< 6.4	< 9.9	< 5	< 4.2	< 6.4	< 9.9	< 5	< 4.2	< 6.4	< 0.00026	< 0.12	< 16								
249344SVG	344 249TH ST	2013-01-24	10:35	Garage	20			2.1	< 28	1.61, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14								
249344SVB2	344 249TH ST	2013-05-14	09:44	Back	14			9.5	< 30	1.41, b	< 9.6	< 15	8.8	< 8.6	< 4.8	< 4.1	< 6.3	< 8.6	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 16								
249344SVB2D	344 249TH ST	2013-05-14	09:44	Back	13			9.4	< 29	1.21, b	< 9.3	< 14	9	< 8.4	< 4.6	< 3.9	< 6.4	< 8.4	< 4.6	< 3.9	< 6.4	< 0.00025	< 0.12	< 15								
249344SVH2	344 249TH ST	2013-05-14	09:44	House	21			1.2	< 31	2.11, b	< 9.8	< 15	< 6.4	< 8.8	< 4.9	< 4.2	< 6.4	< 8.8	< 4.9	< 4.2	< 6.4	< 0.00026	< 0.13	< 16								
249344SVG	344 249TH ST	2013-05-14	10:13	Garage	19			3.3	< 28	0.821, b	< 8.8	< 14	< 5.7	< 8	< 4.4	< 3.8	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	< 0.12	< 15								
249344SVF2	344 249TH ST	2013-05-14	10:22	Front	21			0.84	< 27	1.11, b	< 8.5	< 13	17	< 7.6	< 4.2	< 3.6	< 5.6	< 7.6	< 4.2	< 3.6	< 5.6	< 0.00022	< 0.11	< 14								
249344SVB2	344 249TH ST	2009-09-28	09:31	Back	13			6.5	11	< 2.9	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.13	< 3.6								
249344SVF	345 249TH ST	2009-09-28	10:14	Front	15			5.8	32	141	< 9.3	6.7	< 6	< 8.4	< 4.7	< 4	< 6	< 8.4	< 4.7	< 4	< 6	< 0.00025	< 0.12	< 3.9								
249344SVF2	345 249TH ST	2009-09-28	10:14	Front	15			5.7	53	141	13	13	< 6.2	< 8.6	< 4.8	< 4	< 6.2	< 8.6	< 4.8	< 4	< 6.2	< 0.00025	< 0.12	100								
249344SVH	345 249TH ST	2010-11-10	09:08	House	17			1.8	19	0.421, b	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 7.8	< 4.3	< 3.7	< 5.7	< 0.015	< 0.12	< 3.6								
249344SVF	345 249TH ST	2010-11-10	09:37	Front	16			4.9	< 12	< 0.35	< 9.3	< 3.6	< 6	< 8.3	< 4.6	< 3.9	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00029	< 0.12	< 3.8								
249344SVB	345 249TH ST	2010-11-10	10:13	Back	16			4.2	< 11	< 0.33	< 8.6	< 3.4	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023	< 0.11	< 3.6								
249344SVH4	345 249TH ST	2012-11-02	14:38	House	17			1.2	36	0.991, b	< 9.8	< 15	< 6.3	< 8.8	< 4.9	< 4.1	< 6.3	< 8.8	< 4.9	< 4.1	< 6.4	< 0.00026	< 0.13	< 16								
249344SVF	345 249TH ST	2012-11-02	15:07	Front	15			6.5	< 31	1.61, b	< 9.9	< 16	< 6.4	< 9	< 5	< 4.2	< 6.4	< 9	< 5	< 4.2	< 6.5	< 0.00026	< 0.13	< 16								
249344SVB	345 249TH ST	2012-11-02	15:08	Back	16			4.5	< 28	1.51, b	< 8.9	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15								
249344SVH4	345 249TH ST	2013-04-23	14:16	House	19			2.8	32	< 0.59 PF	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15								
249344SVF	345 249TH ST	2013-04-23	14:39	Front	18			4.4	< 30	< 0.63 PF	< 9.7	< 15	< 6.3	< 8.7	< 4.8	< 4.1	< 6.3	< 8.7	< 4.8	< 4.1	< 6.4	< 0.00026	< 0.13	< 16								
249344SVFD	345 249TH ST																															

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Carbon Dioxide Mole %	Acetone UG/M3	Naphthalene UG/M3	Ethanol UG/M3	2-Butanone (Methyl Ethyl Ketone) UG/M3	Chloroform UG/M3	Tetrachloro-ethene UG/M3	Toluene UG/M3	Benzene UG/M3	Freon 12 UG/M3	Methane Mole %	Helium Mole %	Carbon Disulfide UG/M3
					Oxygen Mole %	Argon Mole %													
248348SVH	348 248TH ST	2010-05-04	14:12	House	21		0.4	73	< 6.8	70	11	< 6.3	< 8.8	12	4.2	< 6.4	< 0.00026	< 0.13	4
248348SVF	348 248TH ST	2010-05-04	15:18	Front	18		2	34	< 6.6	32	4.5	22	< 8.5	6.4	< 4	< 6.2	< 0.00025	< 0.12	< 3.9
248348SVB	348 248TH ST	2010-05-04	15:58	Back	4.6		17	95	< 6.9	24	22	8.9	< 8.8	< 4.9	21	< 6.4	0.012	< 0.13	6.9
248 348 SVH	348 248TH ST	2010-08-26	10:38	House	17		2.3	37	2.1 J, b	14	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	0.59	< 3.8
248 348 SVF	348 248TH ST	2010-08-26	11:48	Front	16		5.4	24	1.5 J, b	< 9.5	< 3.7	< 6.2	< 8.5	< 4.7	24	< 6.2	< 0.00025	< 0.13	< 3.9
248 348 SVB	348 248TH ST	2010-08-26	11:48	Front	16		5.3	18	< 1.4	< 9.6	< 3.8	< 6.2	< 8.6	< 4.8	7	< 6.3	< 0.00026	< 0.13	< 4
248348 SVF	348 248TH ST	2010-08-26	12:32	Back	2.9		21	13	< 1.5	< 9.8	< 3.8	< 6.3	< 8.8	< 4.9	5.6	< 6.4	0.11	< 0.13	< 4
248348 SVS	348 248TH ST	2011-01-13	11:15	Front		21.2	0.841	< 18	< 1.4	< 18	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8	2.6	< 0.16	< 0.16	< 18
248348SVF	348 248TH ST	2011-01-13	11:15	Front	20		0.76	< 11	< 1.3 J	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	0.12	< 3.6
248 348 SVB	348 248TH ST	2011-04-25	09:42	Back	11		9.9	< 11	0.86 J, b	< 9	< 1.4	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	0.00077	< 0.12	< 15
248 348 SVF	348 248TH ST	2011-04-25	10:39	Front	19		1.8	< 11	1.3 J, b	< 9	< 1.4	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
248 348 SVFD	348 248TH ST	2011-04-25	10:39	Front	19		1.7	< 11	0.38 J, b	< 9	< 1.4	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
249348SVF	348 249TH ST	2010-06-21	10:05	Front	21		< 0.023	42	< 2.3	10	6.1	< 5.6	< 7.8	37	7.1	< 5.7	< 0.00023	< 0.12	< 3.6
249348SVB	348 249TH ST	2010-06-21	11:12	Back	19		3.1	37	< 2.3	10	12	< 5.6	< 7.8	< 4.4	5.8	< 5.7	< 0.00023	< 0.12	< 3.6
249 348 SVH	348 249TH ST	2011-01-28	09:34	House	19		2.2	12	1.4 J, b	8.9	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	0.17	< 3.6
249 348 SVF	348 249TH ST	2011-01-28	10:08	Front	21		0.065	< 11	1.3 J, b	< 8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
249348SVS	348 249TH ST	2011-01-28	10:08	Front		22.2	< 0.16	48	< 1.3	< 17	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	2.5	< 0.16	< 0.11	< 17
249348SVH	348 249TH ST	2012-08-17	10:28	House	12		2.2	< 28	2.5 J, b	< 9	< 1.4	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00016	0.18	< 15
249348SVF	348 249TH ST	2012-08-17	10:56	Front	14		0.055	< 29	2.1 J, b	< 9.1	< 1.4	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00016	< 0.08	< 15
249348SVS	348 249TH ST	2012-08-17	10:56	Front		21.5	< 0.16 U	< 20 U	< 0.84 U	< 20 U	< 20 U	< 2 U	< 2 U	< 2 U	< 2 U	2.2	< 0.16 U	< 0.16 U	< 20 U
249348SVB	348 249TH ST	2012-08-17	11:31	Back	9.8		4.4	< 28	4.9 J, b	< 9	< 1.4	41	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00016	< 0.079	< 15
244-351SVB	351 244TH ST	2009-09-16	15:34	Back	20		0.93	14	< 3.1	< 9.3	< 3.6	< 6	< 8.4	< 4.7	21	< 6.1	< 0.00025	< 0.13	< 3.9
244-351SVF	351 244TH ST	2009-09-16	16:05	Back	20		0.92	< 13	< 3.3	< 10	< 3.9	< 6.5	< 9	< 5	18	< 6.6	< 0.00027	< 0.12	< 4.1
244351SVF	351 244TH ST	2010-06-18	10:31	Front	21		0.11	< 12	4.9 J	< 9.3	< 3.6	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.13	8.3
244351SVH	351 244TH ST	2010-06-18	11:03	Back	20		0.68	75	7.8 J	< 9.9	4.1	< 6.4	< 9	< 5	30	< 6.5	< 0.00026	< 0.13	< 4.1
244351SVB	351 244TH ST	2010-06-18	11:03	Back	20		0.66	11	< 2.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6
244351SVH	351 244TH ST	2010-06-18	11:48	House	20		0.81	26	< 2.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	3.7
244351SVF	351 244TH ST	2010-10-22	09:00	Front	21		0.17	40	< 1.3	13	5.1	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
244351SVB	351 244TH ST	2010-10-22	10:50	Back	20		0.71	18	< 1.4	< 9.6	< 3.8	< 6.2	< 8.6	< 4.8	< 4.1	< 6.3	< 0.00026	< 0.13	< 4
244351SVH	351 244TH ST	2010-10-22	11:24	House	19		1.4	12	< 1.2	< 8.2	< 3.2	< 5.3	< 7.4	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 3.4
244351SVHD	351 244TH ST	2010-10-22	11:24	House	19		1.4	18	< 1.2	< 8.2	< 3.2	< 5.3	< 7.4	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 3.4
244351 SVF	351 244TH ST	2010-10-28	09:04	Front	21		0.21	< 10	< 1.2	< 8.1	< 3.2	< 5.2	< 7.3	< 4	< 3.4	< 5.3	< 0.00022	< 0.11	< 3.3
244351 SVB	351 244TH ST	2010-10-28	09:43	Back	21		0.56	48	< 1.2	< 8.1	< 3.2	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 0.00022	< 0.11	< 3.4
244351 SVH	351 244TH ST	2010-10-28	10:27	House	19		1.5	14	< 1.4	< 9	< 3.5	< 5.8	< 8.1	28	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
244351SVH	351 244TH ST	2013-04-12	10:23	House	20		1.8	< 29	0.76 J, b	< 9.1	< 1.4	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
244351SVF	351 244TH ST	2013-04-12	10:55	Front	21		0.51	< 29	< 0.6	< 9.1	< 1.4	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
244351SVFD	351 244TH ST	2013-04-12	10:55	Front	21		0.49	< 29	0.75 J, b	< 9.1	< 1.4	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15
244351SVB	351 244TH ST	2013-04-12	11:05	Back	21		0.86	< 28	< 0.59	< 9	< 1.4	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15
249-352SVB	352 249TH ST	2009-10-03	09:19	Back	17		3.8	28	2.9 J	75	12	< 5.6	< 7.8	< 4.3	11	< 5.7	< 0.00023	< 0.12	18
249-352SVF	352 249TH ST	2009-10-03	10:11	Front	16		4.9	28	< 2.2	43	10	59	790	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
249352SVH	352 249TH ST	2011-01-20	09:55	House	19		2.2	< 11	< 1.3	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
249352SVF	352 249TH ST	2011-01-20	10:24	Front	18		3.6	23	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	190	20	< 5.8	< 0.00023	< 0.12	< 3.6
249352SVS	352 249TH ST	2011-01-20	10:24	Front		18.7	3.94	< 17	< 1.3	< 17	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	2.1	< 0.16	< 0.12	< 17
249352SVB	352 249TH ST	2011-01-20	11:09	Back	20		2.1	19	< 1.4	16	< 3.5	< 5.8	< 8	6.2	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7
249352SVBS	352 249TH ST	2011-01-20	11:09	Back		20.8	1.97	27	< 1.4	21	< 1.7	< 1.7	< 1.7	5.4	< 1.7	2.3	< 0.00022	< 0.11	< 17
249352SVF	352 249TH ST	2011-02-10	15:05	Front	18		3.4	< 11	1 J, b	8.4	< 3.3	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5
249352SVH	352 249TH ST	2011-02-10	15:16	House	18		2.2	14	0.9 J, b	< 8.3	< 3.2	< 5.4	< 7.5	< 4.1	< 3.5	< 5.4	< 0.00022	< 0.11	< 3.4
249352SVB	352 249TH ST	2011-02-10	16:03	Back	18		3.3	21	0.89 J, b	< 9.3	< 3.6	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 3.8
249353SVH	353 249TH ST	2010-06-08	10:30	House	14		3	17	< 2.3	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6
249353SVB	353 249TH ST	2010-06-08	11:12	Back	18		0.52	36	< 2.4	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	6.2
249353SVBS	353 249TH ST	2010-06-08	11:12	Back		21.4	0.5	35	< 1.3	< 17	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	2.3	< 0.16	< 0.12	< 17
249353SVF	353 249TH ST	2010-06-08	12:28	Front	18		0.045	32	< 2.3	< 8.7	5.8	< 5.6	< 7.8	< 4.4	4	< 5.7	< 0.00023	< 0.12	< 3.6

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																							
					Analyte Units		Oxygen/Argon		Carbon Dioxide		Acetone		Naphthalene		Ethanol		2-Butanone (Methyl Ethyl Ketone)		Tetrachloro-ethene		Toluene		Benzene		Freon 12		Methane	
					Oxygen MOL %	Argon MOL %	MOL %	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	MOL %	MOL %	UG/M3	UG/M3
249353SVB	353 249TH ST	2011-02-04	11:56	Back	20			0.66	<11	0.43 J, b	<8.4	<3.3	<5.5	<7.6	6.1	<3.6	<5.5	<0.00022	<0.11	<3.5								
249353SVF	353 249TH ST	2011-02-04	13:12	Front	21		0.13	0.13	12	<0.34	<8.8	<3.4	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6								
249353SVB	353 249TH ST	2013-07-10	09:49	Back	21		0.78	0.78	<30	1.3 J, b	<9.4	<15	<6.1	<8.5	<4.7	<4	<6.2	<0.00025	<0.12	<16								
249353SVBD	353 249TH ST	2013-07-10	09:49	Back	21		0.77	0.77	<30	<0.84	<9.4	<15	<6.1	<8.4	<4.7	<4	<6.2	<0.00025	<0.12	<16								
249353SVH	353 249TH ST	2013-07-10	10:02	House	18		3.1	3.1	32	<0.82	<9.2	<14	<6	<8.3	<4.6	<3.9	<6	<0.00024	<0.12	<15								
249353SVF	353 249TH ST	2013-07-10	10:23	Front	21		0.3	0.3	110	<0.8	<8.9	44	<5.8	<8	32	<3.8	<5.8	<0.00024	<0.12	<15								
248354SVH	354 248TH ST	2010-09-16	09:16	House	13		2.7	2.7	51	<1.3	20	5.1	<5.6	<7.8	<4.3	<3.6	<5.7	0.00025	<0.11	<3.6								
248354SVG	354 248TH ST	2010-09-16	09:57	Garage	9.5		6.6	6.6	32	<1.3	<8.8	6.2	<5.7	<7.9	<4.4	<3.7	<5.8	0.0084	<0.12	<3.6								
248354SVB	354 248TH ST	2010-09-16	10:34	Back	11		3.6	3.6	19	3 J, b	<9	<3.5	9.8	<8.1	5.5	<3.8	<5.9	<0.00024	<0.12	<3.7								
248354SVBD	354 248TH ST	2010-09-16	10:34	Back	11		3.6	3.6	26	1.4 J, b	<9.1	<3.6	9.6	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<3.8								
248354SVHA	354 248TH ST	2012-06-14	09:59	House	12		6.2	6.2	<19	1.2 J, b	<6	<9.3	<3.8	<5.4	<3	<2.5	<3.9	0.00021	<0.079	<9.8								
248354SVBA	354 248TH ST	2012-06-15	13:05	Back	22		<0.015	<0.015	110	0.99 J, b	<5.7	17	10	<5.1	18	6.4	<3.7	0.00016	<0.076	<9.4								
244357SVH	357 244TH ST	2010-06-07	09:36	House	17		0.45	0.45	45	<5.9	<22	<8.8	<14	<20	<11	<9.5	<15	<0.00024	<0.12	<9.2								
244357SVF	357 244TH ST	2010-06-07	10:30	Front	18		<0.023	<0.023	36	<2.3	30	8	<5.7	<7.9	7.6	<3.7	<5.8	<0.00023	<0.12	<3.6								
244357SVB2	357 244TH ST	2010-09-02	13:14	Back	21		<0.023	<0.023	24	4 J, b	<8.6	3.6	<5.6	<7.7	<4.3	<3.6	<5.6	<0.00023	<0.11	8.4 J								
244357SVB2D	357 244TH ST	2010-09-02	13:14	Back	21		<0.03	<0.03	21	3.4 J, b	<8.6	4.9	<5.6	<7.7	<4.3	5.2	<5.6	<0.0003	<0.15	<3.6								
244357SVH	357 244TH ST	2012-11-30	10:10	House	20		1.5	1.5	<29	5.6 J, b	<9.1	<14	<5.9	<8.2	<4.6	<3.9	<6	<0.00024	<0.12	<15								
244357SVF	357 244TH ST	2012-11-30	10:46	Front	21		0.14	0.14	<28	2.8 J, b	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15								
244357SVB2	357 244TH ST	2012-11-30	11:07	Back	20		2.8	2.8	46	2.8 J, b	<9	15 b	<5.8	<8.1	<4.5	<3.8	<5.9	<0.0004	<0.2	<15								
244357SVB2	357 244TH ST	2013-06-21	15:28	Back	20		1.6	1.6	<29	<0.83	<9.3	<14	<6	<8.4	<4.6	<3.9	<6.1	<0.00025	<0.12	<15								
244357SVH	357 244TH ST	2013-06-21	15:28	House	19		1.4	1.4	36	<0.79	<8.8	<14	<5.7	<8	<4.4	<3.8	<5.8	<0.00024	<0.12	<15								
244357SVF	357 244TH ST	2013-06-21	15:46	Front	21		0.17	0.17	42	<0.82	<9.1	<14	<5.9	<8.2	<4.6	<3.9	<6	0.032	<0.12	<15								
249357SVH	357 249TH ST	2010-05-28	13:21	House	19		1.3	1.3	20	<3.9	<8.4	<3.3	<5.5	<7.6	<4.2	<3.6	<5.5	<0.00022	<0.11	<3.5								
249357SVF	357 249TH ST	2010-05-28	13:59	Front	19		2	2	46	<4.2	<9.1	<3.6	9.7	<8.2	<4.6	37	<6	<0.00024	<0.12	<3.8								
249357SVBD	357 249TH ST	2010-05-28	13:59	Front	19		2	2	18	<4.2	<9.1	<3.6	9.9	<8.2	<4.6	20	<6	<0.00024	<0.12	<3.8								
249 357 SVB	357 249TH ST	2010-09-03	09:09	Back	20		0.21	0.21	36	<1.4	<9	3.9	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7								
249 357 SVF	357 249TH ST	2010-09-03	09:56	Front	19		2	2	17	<1.4	13	<3.4	25	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<3.6								
249 357 SVFD	357 249TH ST	2010-09-03	09:56	Front	19		1.9	1.9	22	<1.4	20	4.5	26	<8.1	9.2	<3.8	<5.9	<0.00024	<0.12	25								
249357SVH	357 249TH ST	2012-08-03	14:40	House	18		2.1	2.1	32	<3	<6.1	<9.5	<3.9	<5.5	3.5	<2.6	<4	<0.00016	<0.08	<10								
249357SVF	357 249TH ST	2012-08-03	15:15	Front	18		3.4	3.4	<18	<2.9	<5.8	<9.1	47	<5.2	<2.9	<2.5	<3.8	<0.00016	<0.078	<9.6								
249357SVH	357 249TH ST	2013-06-14	18:44	House	19		1	1	<28	<2.5	<8.7 PF	<14	<5.7	<7.9	<4.4	<3.7	<5.7	<0.00023	<0.12	<14								
249357SVB3	357 249TH ST	2013-06-14	18:53	Back	21		<0.03	<0.03	110	<2.6	<8.8 PF	<14	<5.7	<8	<4.4	<3.8	<5.8	<0.0003	<0.15	<15								
249357SVF	357 249TH ST	2013-06-14	19:13	Front	20		1.6	1.6	<27	<2.5	<8.7 PF	<14	9.6	<7.8	<4.4	<3.7	<5.7	<0.00023	<0.12	<14								
249357SVB2	357 249TH ST	2013-06-14	19:27	Back	17		2.3	2.3	37	<2.4	<8.2 PF	<13	<5.3	<7.4	<4.1	<3.5	<5.4	0.00029	<0.11	<14								
249 358 SVH	358 249TH ST	2011-09-16	08:41	House	10		10	10	15 b	1.6 J, b	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15								
249 358 SVG	358 249TH ST	2011-09-16	09:12	Garage	4.3		19	19	14 b	1.1 J, b	<8.8	<14	<5.7	<8	<4.4	<3.8	<5.8	<0.00024	<0.12	<15								
249 358 SVGD	358 249TH ST	2011-09-16	09:12	Garage	4.1		20	20	18 b	1 J, b	<8.8	<14	<5.7	<8	<4.4	<3.8	<5.8	<0.00048	<0.24	<15								
249 358 SVB	358 249TH ST	2011-09-16	09:47	Back	17		4.7	4.7	34 b	0.62 J, b	<8.8	<14	<5.7	<7.9	<4.4	<3.7	<5.8	<0.00023	<0.12	<14								
249357SVB2	357 249TH ST	2013-06-14	19:27	Back	17		2.3	2.3	37	<2.4	<8.2 PF	<13	<5.3	<7.4	<4.1	<3.5	<5.4	0.00029	<0.11	<14								
249357SVH	357 249TH ST	2012-03-09	10:42	House	14		6.4	6.4	<19	3.7 J, b	<6	<9.3	<3.8	<5.4	5	<2.5	<3.9	<0.0002	<0.1	<9.8								
249357SVB	358 249TH ST	2012-03-09	11:25	Back	19		2.8	2.8	<19	2.2 J, b	<6	<9.3	<3.8	<5.4	<3	<2.5	<3.9	<0.00021	<0.11	<9.8								
249357SVBD	358 249TH ST	2012-03-09	11:25	Back	19		2.8	2.8	<19	1.9 J, b	<6	<9.3	<3.8	<5.4	<3	<2.5	<3.9	<0.00021	<0.1	<9.8								
249357SVH	358 249TH ST	2013-08-29	14:55	House	14		7.2	7.2	<29	1 J, b	<9.1	<14	<5.9	<8.2	<4.5	<3.8	<6	<0.00024	<0.12	<15								
249357SVB	358 249TH ST	2013-08-29	14:56	Back	19		2.1	2.1	42	1 J, b	<9	<14	<5.8	<8.1	<4.5	<3.8	<5.9	<0.00024	<0.12	<15								
249357SVG	358 249TH ST	2013-08-29	15:24	Garage	4.5		16	16	<29	<0.81	<9.1	<14	<5.9	<8.2	<4.5	<3.8	<6	<0.00024	<0.12	<15								
248360SVH	360 248TH ST	2011-01-13	09:31	House	18		2.2	2.2	<11	<1.3 J	<8.4	<3.3	<5.5	<7.6	<4.2	37	<5.5	0.16	<0.11	<3.5								
248360 SVBS	360 248TH ST	2011-01-13	11:21	Back			0.195	0.195	72	<1.4	<18	<18	3	<1.8	<1.8	<1.8	2.6	<0.16	<0.11	<18								
248360SVB	360 248TH ST	2011-01-13	11:21	Back	20		0.19	0.19	66	<1.4 J	<8.9	9.8	<5.8	<8	<4.5	<3.8	<5.9	<0.00024	<0.12	<3.7								
248360SVG	360 248TH ST	2012-07-06	14:44	Garage	20		2	2	<19	<3	<6.1	<9.5	<3.9	<5.5	<3	<2.6	<4	0.024	<0.08	<10								
248360SVGD	360 248TH ST	2012-07-06	14:44	Garage	20		2	2	<19	<3	<6.1	<9.5	<3.9	<5.5	<3	<2.6	<4	0.024	<0.08	<10								
248360SVH	360 248TH ST	2012-07-06	15:08	House	19		2.4	2.4	<22	<3.6	<7.2	<11	<4.6	<6.4	<3.6	<3	<4.7	0.0022	<0.078	<12								
248360SVBA	360 248TH ST	2012-07-13	13:01	Back	17		0.27	0.27	110	<3	1100 E	16	<3.9	<5.5	<3	<2.6	<4	<0.00016	<0.08	<10								

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																										
					Analyte Units		Oxygen/Argon		Carbon Dioxide		Acetone		Naphthalene		Ethanol		2-Butanone (Methyl Ethyl Ketone)		Chloroform		Tetrachloro-ethene		Toluene		Benzene		Freon 12		Methane		Helium
					Oxygen MOL %	Argon MOL %	CO2 MOL %	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	MOL %	MOL %	UG/M3	UG/M3		
244-361SVF	361 244TH ST	2009-09-22	12:12	Front	20			0.69	< 11	< 2.9	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	0.00067													4.4
244-361SVH	361 244TH ST	2010-07-02	09:16	House	21		0.22	0.22	52	< 2.3 Q	< 8.8	6.1	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00062												< 3.6	
244-361SVG	361 244TH ST	2010-07-02	10:04	Front	20		0.81	0.81	42	< 2.3 Q	< 8.8	4.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00046											< 3.6		
244-361SVBA	361 244TH ST	2010-07-02	12:10	Back	4.9		8.5	8.5	< 110	< 5.3	< 88	< 35	< 5.7	< 80	< 4.4	< 38	< 5.8	16											< 36		
244361SVB2	361 244TH ST	2010-08-06	13:01	Back	2.3		8.4	8.4	< 11000	< 620	< 8800	< 3400	< 5700	< 7900	< 4400	< 3700	< 5800	23											< 3600		
244361SVH	361 244TH ST	2010-11-12	15:18	House	19		1.6	1.6	11	1.8 J, b	< 8.6	< 3.4	< 5.6	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023											< 3.6		
244361SVB2	361 244TH ST	2010-11-12	15:39	Back	19		2.2	2.2	12	< 0.33	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023											< 3.6		
244361SVF	361 244TH ST	2010-11-12	15:49	Front	20		0.77	0.77	< 11	< 0.34	< 8.9	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 0.00024											8		
244361SVBA	361 244TH ST	2013-08-14	09:55	Back	18		2.8	2.8	< 28	1.3 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024											< 15		
244361SVBAS	361 244TH ST	2013-08-14	09:55	Back			18.8	2.91	< 21 U	< 0.74 U	< 21 U	< 21 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	2.5	< 0.16 U											< 21 U		
244361SVH	361 244TH ST	2013-08-14	10:00	House	18		1.9	1.9	38	2 J, b	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 0.00023											< 14		
249362SVH	362 249TH ST	2010-05-17	09:52	House	15		5.4	5.4	35	< 6.4	< 9.1	6.5	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024											< 3.8		
249362SVG	362 249TH ST	2010-05-17	10:47	Garage	11		3.2	3.2	25	< 5.6	< 8	< 3.1	< 5.2	130	< 4	3.7	< 5.2	< 0.00021										< 3.3			
249362SVB	362 249TH ST	2010-05-17	11:48	Back	21		0.74	0.74	23	< 5.4	< 8.5	4.4	< 5	< 6.9	< 3.8	6.6	< 5	< 0.0002										< 3.2			
249362SVBD	362 249TH ST	2010-05-17	11:48	Back	21		0.22	0.22	11	< 5.3	< 7.6	< 3	< 4.9	< 6.8	< 3.8	3.9	< 5	< 0.0002										< 3.1			
249362SVB	362 249TH ST	2010-08-25	09:41	Back	18		2.7	2.7	16	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023										< 3.6			
249362SVB	362 249TH ST	2013-02-28	10:11	Back	20		1.4	1.4	< 29	1.9 J, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025										< 15			
249362SVBS	362 249TH ST	2013-02-28	10:11	Back			20.5	1.41	72	< 0.88 U	< 21 U	< 21 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 0.17 U										< 21 U			
249362SVH	362 249TH ST	2013-02-28	10:30	House	19		2.2	2.2	< 27	1.3 J, b	< 8.4	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022										< 14			
249362SVG	362 249TH ST	2013-02-28	10:42	Garage	5.7		6	6	< 29	1.3 J, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	0.069										< 15			
249362SVGS	362 249TH ST	2013-02-28	10:42	Garage			6.07	6.2	27	< 0.89 U	< 21 U	< 21 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 0.17 U										< 21 U			
249363SVB	363 249TH ST	2010-10-26	13:45	Back	21		< 0.023	< 0.023	16	< 1.3	< 8.6	< 3.4	6.7	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023										< 3.6			
249363SVF	363 249TH ST	2010-10-26	14:31	Front	16		3.4	3.4	11	< 1.4	< 9.1	< 3.6	18	< 8.2	< 4.6	< 3.9	< 6	0.00073										< 3.8			
249363SVH	363 249TH ST	2010-10-26	15:02	House	18		2	2	14	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023										< 3.6			
249363SVHA	363 249TH ST	2013-07-26	09:46	House	18		1.6	1.6	180	< 0.73	380	< 13	< 5.3	< 7.3	23	< 3.4	< 5.3	< 0.00022										< 13			
249363SVB	363 249TH ST	2013-07-26	09:56	Back	21		0.24	0.24	< 28	< 0.8	< 9	< 14	39	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024										< 15			
249363SVF	363 249TH ST	2013-07-26	10:16	Front	18		2.6	2.6	< 28	< 0.8	< 9	< 14	18	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024										< 15			
248364SVH	364 248TH ST	2010-09-16	09:12	House	14		2	2	87	< 1.4	15	14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024										< 3.7			
248364SVG	364 248TH ST	2010-09-16	09:53	Garage	16		0.09	0.09	22	< 1.3	9	< 3.4	< 5.6	< 7.8	4.3	< 3.6	< 5.7	0.00045										< 3.6			
248364 SVBS	364 248TH ST	2010-09-16	10:28	Back			21.5	< 0.16	41	< 1.3	< 17	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	2.5	< 0.16										< 17			
248364SVB	364 248TH ST	2010-09-16	10:28	Back	18		0.071	0.071	27	2.8 J, b	< 8.6	< 3.4	< 5.6	< 7.8	< 4.3	< 3.6	< 5.7	0.0003										< 3.6			
248364SVH	364 248TH ST	2013-04-04	09:56	House	19		2.5	2.5	< 27	0.73 J, b	< 8.6	< 13	< 5.5	< 7.7	< 4.3	32	< 5.6	0.00078										< 14			
248364SVG	364 248TH ST	2013-04-04	10:22	Garage	20		1.4	1.4	< 26	< 0.54 Pf	< 8.2	< 13	< 5.3	< 7.4	< 4.1	< 3.5	< 5.4	< 0.00022										< 14			
248364SVGD	364 248TH ST	2013-04-04	10:22	Garage	20		1.4	1.4	35	< 0.54 Pf	8.8	< 13	< 5.4	< 7.5	< 4.2	< 3.5	< 5.5	< 0.00022										< 14			
248364SVB	364 248TH ST	2013-04-04	10:38	Back	22		0.078	0.078	< 27	0.57 J, b	< 8.6	< 13	< 5.5	< 7.7	< 4.3	< 3.6	< 5.6	< 0.00023										< 14			
249367SVH	367 249TH ST	2010-06-15	09:39	House	19		0.72	0.72	< 11	< 2.3	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023										< 3.6			
249367SVB	367 249TH ST	2010-06-15	11:27	Back	20		0.48	0.48	< 12	< 2.5	< 9.3	< 3.6	< 6	< 8.4	< 4.7	< 4	< 6.1	< 0.00025										< 3.9			
249367SVF	367 249TH ST	2010-06-15	11:38	Front	19		0.73	0.73	58 b	< 2.4	19	18	16	< 8.2	< 4.6	4.6	< 6	< 0.00024										< 3.8			
249 367 SVH	367 249TH ST	2010-07-29	13:29	House	19		0.76	0.76	21	< 6.4	< 9.1	5.1	< 5.9	< 8.2	4.7	< 3.9	< 6	< 0.00024										< 3.8			
249 367 SVB	367 249TH ST	2010-07-29	14:52	Back	21		0.25	0.25	28	< 6.2	9.6	4.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023										< 3.6			
249 367 SVF	367 249TH ST	2010-07-29	15:31	Front	19		1.2	1.2	< 11	< 6.3	9.2	< 3.5	13	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024										< 3.7			
249367SVH	367 249TH ST	2012-10-25	15:23	House	18		0.69	0.69	< 28	6.4 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00032										< 15			
249367SVF	367 249TH ST	2012-10-25	15:27	Front	18		1.2	1.2	49	2.6 J, b	< 9.3	< 14	37	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025										< 15			
249367SVB	367 249TH ST	2012-10-25	16:13	Back	26		0.19	0.19	< 25	1.8 J, b	14	< 12	< 5.1	< 7.1	6.2	< 3.3	< 5.2	< 0.00029										< 13			
249367SVB	367 249TH ST	2013-05-02	14:54	Back	21		0.27	0.27	< 26	6.9 J, b	< 8.4	< 13	< 5.4	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022										< 14			
249367SVH	367 249TH ST	2013-05-02	14:57	House	20		0.73	0.73	78	1.3 J, b	12	25	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023										< 14			
249367SVF	367 249TH ST	2013-05-02	15:28	Front	20		1.5	1.5	32	1 J, b	< 9.3	< 14	17	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025										< 15			
249368SVH	366 249TH ST	2010-12-01	09:39	House	17		4.6	4.6	13	1.4 J, b	< 8.8	< 3.5	< 5.7	< 8	< 4.4	< 3.8	< 5.8	< 0.00024	</												

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																
					Analyte Units	Oxygen/Argon	Carbon Dioxide	Acetone	Naphthalene	Ethanol	2-Butanone (Methyl Ethyl Ketone)	Chloroform	Tetrachloro-ethene	Toluene	Benzene	Freon 12	Methane	Helium	Carbon Disulfide		
					MOL %	MOL %	MOL %	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	MOL %	MOL %	UG/M3
249368SVHA	368 249TH ST	2012-08-09	15:07	House	19		0.44	58	< 3	27	< 9.5	< 3.9	< 5.5	5	< 2.6	< 4	< 0.00016	< 0.08	< 10		
249368SVGA	368 249TH ST	2012-08-09	15:26	Garage	16		1.8	74	< 3	6.5	< 9.5	< 3.9	45	< 3	< 2.6	< 4	< 0.00016	< 0.08	< 10		
249368SVGA	368 249TH ST	2013-05-21	14:51	Garage	16		5.6	35	4.2 J, b	< 9.3	< 15	10	41	< 4.7	< 4	< 0.00025	< 0.12	< 15			
249368SVHA	368 249TH ST	2013-05-21	15:06	House	20		2.1	< 29	< 2.6	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15		
249373SVH	373 249TH ST	2010-10-26	09:47	House	20		1.5	12	< 1.3	10	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6		
249373SVB	373 249TH ST	2010-10-26	10:28	Back	15		5.4	33	< 1.2	< 8.1	< 3.2	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	0.0028	< 0.11	< 3.4		
249373SVF	373 249TH ST	2010-10-26	11:03	Front	20		0.072	16	1.6 J, b	< 8.1	< 3.2	< 5.3	< 7.3	< 4.1	< 3.4	< 5.3	< 0.00022	< 0.11	< 3.4		
249373SVH	373 249TH ST	2012-04-12	10:02	House	20		1	< 18	0.8 J, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	0.00035	< 0.12	< 9.6		
249373SVB	373 249TH ST	2012-04-12	10:17	Back	19		1.4	< 18	0.66 J, b	< 5.6	< 8.8	< 3.6	< 5	< 2.8	< 2.4	< 3.7	0.0003	< 0.12	< 9.3		
249373SVBD	373 249TH ST	2012-04-12	10:17	Back	19		1.4	< 18	0.66 J, b	15	< 8.8	< 3.6	< 5	< 2.8	< 2.4	< 3.7	0.00024	< 0.12	< 9.3		
249373SVF	373 249TH ST	2012-04-12	10:46	Front	20		1.1	23	0.54 J, b	< 5.7	< 9	< 3.7	< 5.2	4.4	< 2.4	< 3.8	0.00029	< 0.12	< 9.5		
248374SVH	374 248TH ST	2010-11-05	13:34	House	16		2.4	27	3.1 J, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6		
248374SVHD	374 248TH ST	2010-11-05	13:34	House	16		2.5	19	2 J, b	< 8.8	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6		
248374SVB	374 248TH ST	2010-11-05	14:14	Back	13		4.1	12	2.1 J, b	< 9.1	< 3.6	51	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8		
248 374 SVF	374 248TH ST	2011-02-03	09:18	Front	21		< 0.023	41	3.4 J, b	< 8.7	4.1	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 0.00023	< 0.12	< 3.6		
248374SVH	374 248TH ST	2011-09-14	10:00	House	14		4.4	13	1.8 J, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14		
248374SVF	374 248TH ST	2011-09-14	10:34	Front	20		0.96	45	1.3 J, b	10	< 14	< 5.6	< 7.8	< 4.3	4.7	< 5.7	< 0.00023	< 0.11	< 14		
248374SVB	374 248TH ST	2011-09-14	11:04	Back	12		7	13	1.6 J, b	< 9	< 14	35	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15		
248374SVB	374 248TH ST	2012-10-05	14:46	Back	15		4.6	< 27	4 J, b	< 8.6	< 14	54	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14		
248374SVBD	374 248TH ST	2012-10-05	14:46	Back	15		4.6	29	3.4 J, b	< 8.6	< 14	55	< 7.8	< 4.3	< 3.6	< 5.7	< 0.00023	< 0.11	< 14		
248374SVH	374 248TH ST	2012-10-05	14:52	House	14		4.3	< 28	0.63 J, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15		
248374SVF	374 248TH ST	2012-10-05	15:25	Front	20		0.78	42	< 0.61	10	< 14	< 6	< 8.4	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 15		
248374SVB	374 248TH ST	2013-04-09	10:09	Back	17		4.2	< 28	< 0.59	< 9	< 14	22	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15		
248374SVBD	374 248TH ST	2013-04-09	10:09	Back	17		4.2	< 29	< 0.6	< 9.2	< 14	21	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15		
248374SVH	374 248TH ST	2013-04-09	10:10	House	18		3.1	< 27	< 0.57	< 8.7	< 14	< 5.6	< 7.8	< 4.4	< 3.7	< 5.7	< 0.00023	< 0.12	< 14		
248374SVF	374 248TH ST	2013-04-09	10:59	Front	22		0.37	< 26	1.2 J, b	< 8.4	< 13	< 5.4	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 14		
244377SVH	377 244TH ST	2010-08-11	13:13	House	18		1.8	29	< 6.3	10	4.2	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7		
244377SVF	377 244TH ST	2010-08-11	14:14	Front	20		0.17	38	< 6.2	21	7.4	< 5.7	< 7.9	< 4.4	9.9	< 5.8	< 0.00023	< 0.12	4.9		
244377SVB	377 244TH ST	2010-08-11	14:58	Back	19		0.031	27	< 6.2	< 8.8	3.5	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 3.6		
244377SVF	377 244TH ST	2012-06-28	15:30	Front	18		0.63	< 22	< 3.5	< 7	< 11	< 4.5	< 6.3	< 3.5	< 3	< 4.6	< 0.00016	< 0.082	< 10		
244377SVBD	377 244TH ST	2012-06-28	15:30	Front	21		0.73	< 20	< 3.1	< 6.2	< 9.7	< 4	< 5.6	< 3.1	< 2.6	< 4.1	< 0.00016	< 0.082	< 10		
244377SVH	377 244TH ST	2012-06-28	15:52	House	18		2.9	< 18	< 2.9	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 0.00019	< 0.097	< 9.6		
244377SVB	377 244TH ST	2012-06-28	16:04	Back	20		1.2	< 19	< 2.9	< 5.9	< 9.2	< 3.8	< 5.3	< 3	< 2.5	< 3.9	< 0.00016	< 0.078	< 9.8		
249377SVH	377 249TH ST	2010-10-19	09:29	House	19		0.13	39	12 J, b	< 9.3	7.2	< 6	< 8.3	< 4.6	< 3.9	< 6.1	< 0.00025	< 0.12	< 3.8		
249377SVF	377 249TH ST	2010-10-19	10:02	Front	20		0.041	110	< 1.3	< 8.4	16	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 0.00022	< 0.11	< 3.5		
249377SVB	377 249TH ST	2010-10-19	10:51	Back	19		0.26	19	< 1.4	< 9	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 3.7		
249377SVH	377 249TH ST	2012-08-24	10:03	House	20		0.37	< 29	0.73 J, b	< 9.1	< 14	39	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15		
249377SVF	377 249TH ST	2012-08-24	10:04	Front	20		0.22	30	< 0.5	< 9.5	< 15	38	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16		
249377SVBD	377 249TH ST	2012-08-24	10:04	Front	20		0.23	< 30	< 0.5	< 9.5	< 15	41	< 8.5	< 4.7	< 4	< 6.2	< 0.00025	< 0.13	< 16		
249377SVB	377 249TH ST	2012-08-24	10:41	Back	20		1.4	< 28	0.59 J, b	11	< 14	130	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14		
249377SVH	377 249TH ST	2013-05-15	09:51	House	21		0.33	< 29	0.81 J, b	< 9.2	< 14	150	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 15		
249377SVF	377 249TH ST	2013-05-15	09:55	Front	22		0.087	68	< 0.58	< 8.8	< 14	9.7	< 7.9	< 4.4	< 3.7	< 5.8	< 0.00023	< 0.12	< 14		
249377SVBD	377 249TH ST	2013-05-15	09:55	Front	22		0.082	< 30	< 0.63	< 9.6	< 15	9.5	< 8.6	< 4.8	< 4	< 6.3	< 0.00025	< 0.13	< 16		
249377SVB	377 249TH ST	2013-05-15	10:24	Back	21		0.62	< 28	< 0.59	< 9	< 14	90	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15		
249378SVBA	378 249TH ST	2011-01-17	09:28	Back	16		3.7	21	< 1.4	< 9.1	< 3.6	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 0.00024	< 0.12	< 3.8		
249378SVGC	378 249TH ST	2011-01-17	10:15	Garage	1.2		12	< 230	< 1.8	< 180	< 71	< 120	< 160	< 91	910	< 120	< 120	17	< 7.5		
249378SVGCD	378 249TH ST	2011-01-17	10:15	Garage	1.4		12	< 230	< 2.8	< 180	< 71	< 120	< 160	< 91	920	< 120	< 120	17	< 7.5		
249378SVH	378 249TH ST	2011-01-17	11:07	House	18		2.9	20	< 1.3	< 8.8	< 3.4	< 5.7	< 7.9	20	8.2	< 5.8	0.0023	< 0.12	< 3.6		
249378SVBA	378 249TH ST	2011-05-12	15:30	Back	17		5.2	13	< 0.32 UJ	< 8.5	< 13	< 5.5	< 7.7	< 4.2	< 3.6	< 5.6	< 0.00023	< 0.11	< 14		
249378SVBAS	378 249TH ST	2011-05-12	15:30	Back			5.83	< 17	< 0.96	< 17	< 17	4	< 1.7	< 1.7	< 1.7	2.1	< 0.15	< 17			
249378SVH	378 249TH ST	2011-05-12	15:42	House	18		3.4	12	< 0.34 UJ	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 0.00024	< 0.12	< 15		
249378SVGC	378 249TH ST	2011-05-12	16:47	Garage	1.3		17	< 220	< 6.8	< 180	< 280	< 120	< 160	< 89	1200	< 120	16	< 0.12	< 300		

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection														
					Oxygen	Argon	Carbon Dioxide	Acetone	Naphthalene	Ethanol	2-Butanone (Methyl Ethyl Ketone)	Chloroform	Tetrachloro-ethene	Toluene	Benzene	Freon 12	Methane	Helium	Carbon Disulfide		
					MOL %	MOL %	MOL %	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	UG/M3	MOL %	MOL %	UG/M3
249378SVGCS	378 249TH ST	2011-05-12	16:47	Garage	1.3	0.877	18.5	< 1700	< 96	< 1700	< 1700	< 170	< 170	< 170	< 170	< 170	< 170	< 170	17.8	< 0.074	< 1700
249 378SVGC	378 249TH ST	2012-02-24	14:54	Garage	1.3		15	< 350	< 5.4	< 110	< 180	< 73	< 100	< 170	< 56	800	< 74	16	< 0.0015	< 0.073	< 180
249378SVH	378 249TH ST	2012-02-24	15:04	House	17		4.1	< 17	4.61	< 5.5	< 8.6	< 3.6	< 5	< 2.8	< 2.3	< 3.6	< 3.6	< 0.00015	< 0.073	< 9.1	
249378SVBA	378 249TH ST	2012-02-24	16:32	Back	18		4.2	< 530	9.81	< 170	< 260	< 110	< 150	150	< 72	< 110	< 110	0.0025	< 0.079	< 280	
249378SVBAD	378 249TH ST	2012-02-24	16:32	Back	17		4.2	< 940	15.1	< 300	< 460	< 190	< 270	< 150	< 130	< 200	< 200	0.0024	< 0.079	< 490	
249378SVBA	378 249TH ST	2012-03-23	09:10	Back	17		3.7	< 390	8.7, b	< 120	< 190	< 80	< 110	< 61	< 52	< 81	< 81	0.0036	< 0.13	< 200	
249378SVBAS	378 249TH ST	2012-03-23	09:10	Back	18	17.4	3.75	< 460 U	< 27 U	< 460 U	< 460 U	< 46 U	< 46 U	< 46 U	< 46 U	< 46 U	< 46 U	< 0.16 U	< 0.12	< 460 U	
249378SVH	378 249TH ST	2013-03-29	13:31	House	18		3.6	27	2.1, b	< 8.7	< 14	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 5.7	< 0.00023	< 0.12	< 14	
249378SVBA	378 249TH ST	2013-03-29	13:53	Back	19		3.3	< 31	2.1, b	< 9.8	< 15	< 6.3	< 8.8	15	< 4.1	< 6.4	< 6.4	< 0.00026	< 0.13	< 16	
249378SVBAD	378 249TH ST	2013-03-29	13:53	Back	19		3.3	< 29	1.1, b	< 9.3	< 14	< 6	< 8.4	14	< 3.9	< 6.1	< 6.1	0.00027	< 0.12	< 15	
249378SVGC	378 249TH ST	2013-03-29	14:10	Garage	1.3		15	< 8100	< 170	< 2600	< 4000	< 1700	< 2300	1800	62000	< 1700	< 1700	15	< 0.11	< 4300	
249378SVGC	378 249TH ST	2013-06-21	11:39	Garage	1.2		18	< 2900	260, b	< 910	< 1400	< 590	< 820	< 450	1000	< 600	< 600	14	< 0.12	< 1500	
249378SVH	378 249TH ST	2013-06-21	11:48	House	17		3.9	39	1.2, b	< 11	< 18	< 7.3	< 10	< 5.7	< 4.8	< 7.4	< 7.4	< 0.0003	< 0.15	< 19	
249378SVBA	378 249TH ST	2013-06-21	12:08	Back	19		3.1	< 28	< 0.8	< 8.8	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 5.9	< 0.00024	< 0.12	< 15	
249383SVB	383 249TH ST	2010-05-21	10:04	Back	20		0.052	51	81	< 8.8	< 9	< 5.7	< 7.9	< 4.4	5.4	< 5.8	< 5.8	< 0.00023	< 0.12	< 3.6	
249383SVG	383 249TH ST	2010-05-21	11:18	Garage	20		< 0.023	46	< 5.3	< 20	< 7.8	< 13	57	< 10	< 8.5	< 13	< 13	< 0.00023	< 0.12	< 8.3	
249383SVH2	383 249TH ST	2010-09-02	09:18	House	20		0.81	< 11	2.1	< 8.7	< 3.4	< 5.6	< 7.8	< 4.3	< 3.7	< 5.7	< 5.7	< 0.00023	< 0.12	< 3.6	
249383SVB	383 249TH ST	2012-06-07	15:08	Back	20		0.77	< 19	0.48, b	< 5.9	< 9.2	10	< 5.3	< 3	< 2.5	< 3.9	< 3.9	< 0.00021	< 0.1	< 9.8	
249383SVBD	383 249TH ST	2012-06-07	15:08	Back	20		0.76	< 19	0.49, b	< 5.9	< 9.2	11	< 5.3	5.61	< 2.5	< 3.9	< 3.9	< 0.00021	< 0.1	< 9.8	
249383SVH2	383 249TH ST	2012-06-07	15:08	House	20		0.85	< 18	0.37, b	< 5.7	< 9	< 3.7	< 5.2	< 2.9	< 2.4	< 3.8	< 3.8	< 0.0002	< 0.1	< 9.5	
249383SVG	383 249TH ST	2012-06-07	15:45	Garage	20		1.2	< 19	0.56, b	< 6.1	< 9.5	< 3.9	< 5.5	< 3	< 2.6	< 4	< 4	< 0.00021	< 0.11	< 10	
249383SVH2	383 249TH ST	2013-04-18	14:58	House	22		0.66	< 27	1.6, b	12	< 14	< 5.6	< 7.8	15	< 3.7	< 5.7	< 5.7	< 0.00023	< 0.12	< 14	
249383SVG	383 249TH ST	2013-04-18	15:25	Garage	21		0.9	< 28	0.95, b	< 9	< 14	24	< 8.1	< 4.5	< 3.8	< 5.9	< 5.9	< 0.00024	< 0.12	< 15	
249383SVGD	383 249TH ST	2013-04-18	15:25	Garage	22		0.93	< 29	1.3, b	< 9.3	< 15	25	< 8.4	< 4.7	< 4	< 6.1	< 6.1	< 0.00025	< 0.12	< 15	
249402SVH	402 249TH ST	2010-09-20	13:42	House	19		0.62	15	3.3, b	46	< 3.5	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 5.9	< 0.00024	< 0.12	< 3.7	
249402SVB	402 249TH ST	2010-09-20	14:24	Back	20		0.28	18	2.6, b	28	< 3.5	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 5.9	< 0.00024	< 0.12	< 3.7	
249402SVF	402 249TH ST	2010-09-20	14:59	Front	19		1.7	11	1.2, b	17	< 3.4	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 5.8	< 0.00023	< 0.12	< 3.6	
249 402 SVH	402 249TH ST	2012-03-22	10:14	House	21		1.2	20	0.95, b	< 6	< 9.3	< 3.8	< 5.4	< 3	< 2.5	< 3.9	< 3.9	< 0.00016	< 0.079	< 9.8	
249 402 SVF	402 249TH ST	2012-03-22	10:25	Front	21		1	< 20	1.2, b	< 6.3	< 9.9	< 4.1	< 5.7	< 3.2	< 2.7	4.2	4.2	< 0.00017	< 0.084	< 10	
249402SVFS	402 249TH ST	2012-03-22	10:25	Front		20.7	1.08	< 22 U	< 1.3 U	< 22 U	< 22 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	< 0.21 U	< 0.078	< 22 U	
249 402 SVB	402 249TH ST	2012-03-22	10:51	Back	20		0.51	20	0.72, b	< 5.8	< 9.1	< 3.8	< 5.2	< 2.9	< 2.5	< 3.8	< 3.8	< 0.00016	< 0.12	< 9.6	
249402SVH	402 249TH ST	2013-07-02	09:46	House	12		5.6	< 28	1.2, b	< 8.7	< 14	62	< 7.9	< 4.4	< 3.7	< 5.7	< 5.7	0.0018	< 0.12	< 14	
249402SVB	402 249TH ST	2013-07-02	09:55	Back	21		0.77	< 28	< 0.78	< 8.7	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.7	< 5.7	< 0.00023	< 0.12	< 14	
249402SVBD	402 249TH ST	2013-07-02	09:55	Back	21		0.76	< 28	0.98, b	< 8.8	< 14	< 5.7	< 7.9	< 4.4	< 3.7	< 5.8	< 5.8	< 0.00023	< 0.12	< 14	
249402SVF	402 249TH ST	2013-07-02	10:13	Front	20		1.8	32	2.5, b	< 8.4	< 13	< 5.5	< 7.6	< 4.2	< 3.6	< 5.5	< 5.5	< 0.00022	< 0.11	< 14	
249-412SVF	412 249TH ST	2009-10-05	14:42	Front	18		3.1	130	< 3.1	< 9.2	< 3.6	< 6	30	< 4.6	< 3.9	< 6	< 6	< 0.00024	< 0.12	< 3.8	
249412 SVH	412 249TH ST	2011-09-13	09:24	House	20		0.65	< 12	6.5, b	< 9.3	< 14	< 6	< 8.4	< 4.6	< 3.9	9.2	9.2	< 0.00025	< 0.12	< 15	
249412 SVF	412 249TH ST	2011-09-13	10:30	Front	19		2.5	16	0.92, b	< 8.8	< 14	< 5.7	25	< 4.4	< 3.7	< 5.8	< 5.8	< 0.00023	< 0.12	< 14	
249412 SVBA	412 249TH ST	2011-09-26	13:38	Back	19		2.6	< 11	1.5, b	< 9	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 5.9	< 0.00024	< 0.12	< 15	
249 412 SVH	412 249TH ST	2012-09-27	15:10	House	20		0.73	34	9.1, b	9.5	< 14	< 5.9	< 8.2	12	< 3.9	< 6	< 6	< 0.00024	< 0.12	< 15	
249 412 SVB A	412 249TH ST	2012-09-27	15:20	Back	16		5.6	< 29	1.1, b	< 9.1	< 14	< 5.9	< 8.2	< 4.6	< 3.9	< 6	< 6	< 0.00024	< 0.12	< 15	
249 412 SVF	412 249TH ST	2012-09-27	15:55	Front	19		2	< 29	1.4, b	< 9.3	< 14	< 6	18	< 4.6	< 3.9	< 6.1	< 6.1	< 0.00025	< 0.12	< 15	
249412SVH	412 249TH ST	2013-05-22	14:58	House	20		0.79	29	4.7, b	< 8.9 PF	< 14	< 5.8	< 8	< 4.5	< 3.8	< 5.9	< 5.9	< 0.00024	< 0.12	< 15	
249412SVBA	412 249TH ST	2013-05-22	15:06	Back	18		4.3	39	2.6, b	< 9 PF	< 14	< 5.8	< 8.1	< 4.5	< 3.8	< 5.9	< 5.9	< 0.00024	< 0.12	< 15	
249412SVF	412 249TH ST	2013-05-22	15:29	Front	19		1.9	< 26	< 2.4	< 8.3 PF	< 13	< 5.4	16	< 4.2	< 3.5	< 5.5	< 5.5	< 0.00022	< 0.11	< 14	

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection																						
					Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4- Trimethyl- benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl- benzene UG/M3	1.97%	Cumene (isopropyl- benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
M24401SVH	24401 MARBELLA AVE	2010-07-29	09:17	House	< 11	< 4	< 5	< 93 N/J	< 5.6	< 4.7	< 130 N/J	< 160 N/J	< 74 N/J	< 4.9	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
M24401SVG	24401 MARBELLA AVE	2010-07-29	10:15	Garage	< 11	< 4.1	< 5	< 95 N/J	< 5.7	< 4.8	< 140 N/J	< 160 N/J	< 75 N/J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24401SVB	24401 MARBELLA AVE	2010-07-29	10:52	Back	< 13	< 4.8	< 5.9	< 110 N/J	< 6.7	< 5.6	< 160 N/J	< 190 N/J	< 88 N/J	< 5.9	< 6.7	< 4.7	< 7.7	< 4.7	< 6.7										
M24401SVH	24401 MARBELLA AVE	2012-03-29	14:46	House	< 8	< 2.9	< 3.5	< 67	< 4	< 3.3	< 95	< 110	< 53	< 3.5	< 4	< 4.6	< 4.6	< 2.8	< 4										
M24401SVB	24401 MARBELLA AVE	2012-03-29	15:03	Back	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7										
M24401SVG	24401 MARBELLA AVE	2012-03-29	15:14	Garage	< 8.1	< 2.9	< 3.6	< 68	< 4	< 3.4	< 96	< 110	< 53	< 3.6	< 4	< 4.6	< 4.6	< 2.8	< 4										
M24401SVGD	24401 MARBELLA AVE	2012-03-29	15:14	Garage	< 8.1	< 2.9	< 3.6	< 68	< 4	< 3.4	< 96	< 110	< 53	< 3.6	< 4	< 4.6	< 4.6	< 2.8	< 4										
M24402SVH	24402 NEPTUNE AVE	2010-07-01	14:03	House	< 11	< 4.1	< 5	< 95 N/J	< 5.7	< 4.8	< 140 N/J	< 160 N/J	< 75 N/J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24402SVB	24402 NEPTUNE AVE	2010-07-01	14:47	Back	< 11	< 3.9	< 3.9	< 92 N/J	< 19	< 4.6	< 130 N/J	< 160 N/J	< 72 N/J	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 3.9										
M24402SVG	24402 NEPTUNE AVE	2010-07-01	15:31	Garage	< 11	< 4	< 5	< 94 N/J	< 5.6	< 4.7	< 130 N/J	< 160 N/J	< 74 N/J	< 5	< 5.6	< 6.4	< 6.4	< 4	< 5.6										
M24402SVB	24402 NEPTUNE AVE	2012-10-04	15:08	Back	< 14	< 5	< 6.1	< 120	< 6.9	< 5.8	< 160	< 200	< 91	< 6.1	< 6.9	< 4.8	< 7.9	< 4.8	< 6.9										
M24402SVH	24402 NEPTUNE AVE	2012-10-04	15:13	House	< 12	< 4.3	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
M24402SVG	24402 NEPTUNE AVE	2012-10-04	16:03	Garage	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.2	< 6.1										
M24402SVGD	24402 NEPTUNE AVE	2012-10-04	16:03	Garage	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.2	< 6.1										
M24402SVHA	24402 NEPTUNE AVE	2013-04-25	10:07	House	< 10	< 3.7	< 4.5	< 86	< 5.1	< 4.3	< 120	< 140	< 68	< 4.5	< 5.1	< 3.6	< 5.9	< 3.6	< 5.1										
M24402SVB	24402 NEPTUNE AVE	2013-04-25	10:09	Back	< 11	< 3.9	< 4.8	< 91	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 6.2	< 6.2	< 3.8	< 5.4										
M24402SVBD	24402 NEPTUNE AVE	2013-04-25	10:09	Back	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 71	< 4.8	< 5.4	< 6.2	< 6.2	< 3.8	< 5.4										
M24402SVG	24402 NEPTUNE AVE	2013-04-25	10:35	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
M24402SVB	24402 PANAMA AVE	2010-11-16	09:03	Back	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
M24402SVG	24402 PANAMA AVE	2010-11-16	09:36	Garage	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
M24402SVH	24402 PANAMA AVE	2010-11-16	10:18	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 80	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
M24402SVH	24402 PANAMA AVE	2012-12-21	09:47	House	< 12	< 4.2	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.2	< 6.1										
M24402SVG	24402 PANAMA AVE	2012-12-21	10:08	Garage	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
M24402SVB	24402 PANAMA AVE	2012-12-21	10:14	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
M24402SVH	24402 PANAMA AVE	2013-05-14	14:48	House	< 13	< 4.8	< 5.9	< 110	< 6.7	< 5.6	< 160	< 190	< 88 PF	< 5.9	< 6.7	< 4.7	< 7.7	< 4.7	< 6.7										
M24402SVB	24402 PANAMA AVE	2013-05-14	14:52	Back	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 120 PF	< 5.5	< 6.2	< 7.1	< 7.1	< 4.4	< 6.2										
M24402SVG	24402 PANAMA AVE	2013-05-14	15:24	Garage	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 460 PF	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
M24402SVB	24402 RAVENNA AVE	2009-10-02	15:36	Back	< 11	< 4	< 5	< 94 N/J	< 5.6	< 4.7	< 130 N/J	< 160 N/J	< 74 N/J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6										
M24402SVF	24402 RAVENNA AVE	2009-10-02	16:44	Front	1700 E	< 4.2	< 5.2	< 98 N/J	< 5.9	< 4.9	< 140 N/J	< 170 N/J	< 77 N/J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
M24402SVB	24402 RAVENNA AVE	2010-12-09	11:14	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
M24402SVF	24402 RAVENNA AVE	2010-12-09	11:54	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24402SVS	24402 RAVENNA AVE	2010-12-09	11:54	Front	< 3.4	2	< 3.4	< 95	< 1.7	< 1.7	< 160	< 160	< 75	< 1.7	< 1.7	< 3.4	2.6	< 1.7	< 1.7										
M24402SVH	24402 RAVENNA AVE	2010-12-13	13:44	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
M24402SVB	24402 RAVENNA AVE	2012-05-25	09:55	Back	10	< 2.9	< 3.6	< 68	< 4.1	< 3.4	< 97	< 120	< 54	< 3.6	< 4.1	< 2.8	< 4.7	< 2.9	< 4.1										
M24402SVBD	24402 RAVENNA AVE	2012-05-25	09:55	Back	< 8.2	< 2.9	< 3.6	< 68	< 4.1	< 3.4	< 97	< 120	< 54	< 3.6	< 4.1	< 2.8	< 4.7	< 2.9	< 4.1										
M24402SVF	24402 RAVENNA AVE	2012-05-25	10:28	Front	< 7.4	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.2	< 2.6	< 3.7										
M24402SVH	24402 RAVENNA AVE	2012-05-25	10:54	House	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4										
M24403SVF	24403 NEPTUNE AVE	2010-06-25	10:04	House	< 11	< 4.1	< 5	< 95 N/J	< 5.7	< 4.8	< 140 N/J	< 160 N/J	< 75 N/J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24403SVH	24403 NEPTUNE AVE	2010-06-25	11:12	Back	< 11	< 4	< 4.9	< 93 N/J	< 5.6	< 4.6	< 130 N/J	< 160 N/J	< 73 N/J	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 5.6										
M24403SVB	24403 NEPTUNE AVE	2012-11-09	09:48	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24403SVB	24403 NEPTUNE AVE	2012-11-09	10:18	Back	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
M24403SVBD	24403 NEPTUNE AVE	2012-11-09	10:18	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24403SVF	24403 NEPTUNE AVE	2012-11-09	10:31	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24403SVB	24403 NEPTUNE AVE	2013-04-24	10:19	Back	< 11	< 3.9	< 4.8	< 91	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4										
M24403SVH	24403 NEPTUNE AVE	2013-04-24	10:29	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
M24403SVF	24403 NEPTUNE AVE	2013-04-24	10:49	Front	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
M24403SVH	24403 RAVENNA AVE	2010-06-14	14:21	House	< 13	< 4.6	< 5.7	< 110 N/J	< 6.4	< 5.3	< 150 N/J	< 180 N/J	< 84 N/J	< 5.7	< 6.4	< 4.5	< 7.3	< 4.5	< 6.4										
M24403SVF	24403 RAVENNA AVE	2010-06-14	14:26	Front	< 12	< 4.4	< 5.4	< 100 N/J	< 6.1	< 5.1	< 140 N/J	< 170 N/J	< 80 N/J	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1										
M24403SVB	24403 RAVENNA AVE	2010-06-14	15:03	Back	< 12	< 4.1	< 5.1	< 96 N/J	< 5.8	< 4.8	< 140 N/J	< 160 N/J	< 76 N/J	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
M24403SVB	24403 RAVENNA AVE	2013-03-28	09:55	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 160	< 81	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1										
M24403SVBS	24403 RAVENNA AVE	2013-03-28	09:55	Back	< 4 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U	< 140	< 170	< 81	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U										



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
R24403SVF	24403 RAVENNA AVE	2013-03-28	10:26	Front	< 12	< 4.2	< 5.2	< 99	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9											
R24403SVS	24403 RAVENNA AVE	2013-03-28	10:26	Front	< 4 U	< 2 U	< 4 U	< 100	< 2 U	< 2 U	< 140	< 170	< 80	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U											
M24405SVF	24405 MARBELLA AVE	2010-11-10	12:36	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6											
M24405SVH	24405 MARBELLA AVE	2010-11-10	14:10	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8											
M24405 SVF	24405 MARBELLA AVE	2012-03-22	15:21	Front	11	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1											
M24405 SVH	24405 MARBELLA AVE	2012-03-22	15:27	House	< 7.2	< 2.6	< 3.2	< 60	< 3.6	< 3	< 85	< 100	< 47	< 3.2	< 3.6	< 2.5	< 4.1	< 2.5	< 3.6											
M24406SVB	24406 MARBELLA AVE	2010-09-17	08:58	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
M24406SVG	24406 MARBELLA AVE	2010-09-17	09:39	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	190	< 75	< 5	8.5	< 4	< 6.5	< 4	< 5.7											
M24406SVGD	24406 MARBELLA AVE	2010-09-17	09:39	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	8.8	< 4	< 6.5	< 4	< 5.7											
M24406SVH	24406 MARBELLA AVE	2010-09-17	10:22	House	< 11	< 4.1	12	< 2900	< 5.7	7 b	1600	< 160	< 75	< 5	14	< 5.7	< 6.5	< 4	< 5.7											
M24406SVG	24406 MARBELLA AVE	2012-03-09	15:13	Garage	< 7.9	4.6	< 3.5	1300	< 4	3.6	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4											
M24406SVH	24406 MARBELLA AVE	2012-03-09	15:40	House	< 8.1	< 2.9	< 3.6	< 67	< 4	< 3.4	< 95	< 110	< 53	< 3.6	< 4	< 2.8	9.6	< 2.8	< 4											
M24406SVB	24406 MARBELLA AVE	2012-03-09	16:07	Back	29	4.7	< 3.2	< 61	< 3.7	< 3	< 87	< 100	58	< 3.2	< 3.7	< 2.6	14	< 2.6	< 3.7											
M24406SVBD	24406 MARBELLA AVE	2012-03-09	16:07	Back	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	14	< 2.7	< 3.9											
M24406SVH	24406 MARBELLA AVE	2013-08-15	13:41	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1											
M24406SVB	24406 MARBELLA AVE	2013-08-15	13:53	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
M24406SVG	24406 MARBELLA AVE	2013-08-15	14:22	Garage	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9											
M24406SVH	24406 NEPTUNE AVE	2010-04-29	13:45	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
N24406SVF	24406 NEPTUNE AVE	2010-04-29	14:31	Front	< 12	< 4.2	< 5.2	< 99 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9											
N24406SVFD	24406 NEPTUNE AVE	2010-04-29	14:31	Front	200	< 4.2	13	1600 N.J	9.1	< 4.9	580 N.J	< 170 N.J	< 78 N.J	6.5	< 5.9	< 4.1	< 6.8	< 4.2	6.1											
N24406SVB	24406 NEPTUNE AVE	2010-04-29	15:22	Back	< 12	< 4.3	< 5.2	< 99 N.J	6.6	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
N24406SVH	24406 NEPTUNE AVE	2010-11-12	11:08	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6											
N24406SVB	24406 NEPTUNE AVE	2010-11-12	12:22	Back	< 14	< 5.1	< 6.3	< 120	< 7.1	< 5.9	< 170	< 200	< 94	< 6.3	< 7.1	< 5	< 8.1	< 5	< 7.1											
N24406SVBS	24406 NEPTUNE AVE	2010-11-12	12:22	Back	< 4.2	< 2.1	< 4.2	< 66	< 4	< 3.3	< 94	< 110	< 52	< 2.1	< 2.1	< 4.2	< 2.1	< 2.1	< 2.1											
N24406SVH	24406 NEPTUNE AVE	2012-01-26	11:02	House	< 7.9	< 2.8	< 3.5	< 85	< 5.1	< 4.3	< 120	< 140	< 67	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4											
N24406SVG	24406 NEPTUNE AVE	2012-01-26	11:44	Garage	< 10	< 3.7	< 4.5	< 85	< 5.1	< 4.3	< 120	< 140	< 67	< 4.5	< 5.1	< 3.6	< 5.8	7.3	< 5.1											
N24406SVB	24406 NEPTUNE AVE	2012-01-26	11:59	Back	< 8.1	< 2.9	< 3.6	< 67	< 4	< 3.4	120	< 110	< 53	< 3.6	< 4	< 2.8	< 4.6	< 2.8	< 4											
N24406SVBS	24406 NEPTUNE AVE	2012-01-26	11:59	Back	< 3.6 U	< 1.8 U	< 3.6 U	< 100 N.J	< 1.8 U	< 1.8 U	< 150 N.J	< 180 N.J,U	< 83 N.J	< 1.8 U	< 1.8 U	< 3.6 U	< 1.8 U	< 1.8 U	< 1.8 U											
P24406SVB	24406 PANAMA AVE	2009-09-17	11:47	Back	< 13	< 4.5	< 5.6	< 100 N.J	< 6.3	< 5.3	< 150 N.J	< 180 N.J,U	< 85 N.J	< 5.6	7.7	< 4.4	< 7.2	< 4.5	< 6.3											
P24406SVB-D	24406 PANAMA AVE	2009-09-17	11:47	Back	< 13	< 4.6	< 5.7	< 110 N.J	< 6.5	< 5.4	< 150 N.J	< 180 N.J,U	< 85 N.J	< 5.7	8.7	< 4.5	< 7.4	< 4.6	< 6.5											
P24406SVF	24406 PANAMA AVE	2009-09-17	13:22	Front	20	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J,U	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6											
P24406SVB	24406 PANAMA AVE	2010-07-21	09:22	Back	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6											
P24406SVH	24406 PANAMA AVE	2010-07-21	10:50	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24406SVB	24406 PANAMA AVE	2011-02-14	10:31	Back	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	8.2	< 3.9	< 5.6											
P24406SVH	24406 PANAMA AVE	2011-02-14	11:14	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
P24406SVH	24406 PANAMA AVE	2012-08-16	15:05	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9											
P24406SVF2	24406 PANAMA AVE	2012-08-16	15:24	Front	24	4.1	< 3.8	< 72	< 4.3	< 3.6	< 100	< 120	< 57	< 3.8	< 4.3	< 3	< 4.9	< 30	< 4.3											
P24406SVB	24406 PANAMA AVE	2012-08-16	15:48	Back	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	11	< 2.7	< 3.9											
P24406SVB D	24406 PANAMA AVE	2012-08-16	15:48	Back	< 7.8	3	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	10	< 2.7	< 3.9											
P24406SVH	24406 PANAMA AVE	2013-06-07	14:42	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1											
P24406SVF2	24406 PANAMA AVE	2013-06-07	14:46	Front	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8											
P24406SVB	24406 PANAMA AVE	2013-06-07	15:14	Back	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	8.7	< 3.9	< 5.6											
N24409SVG	24409 NEPTUNE AVE	2010-07-16	09:09	Garage	< 11	< 4	< 5	< 220 N.J	< 5.6	< 4.7	< 320 N.J	< 380 N.J	< 180 N.J	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6											
N24409SVB	24409 NEPTUNE AVE	2010-07-16	10:03	Back	< 12	< 4.3	< 5.2	< 230 N.J	< 5.9	< 5	< 330 N.J	< 400 N.J	< 180 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
N24409SVBD	24409 NEPTUNE AVE	2010-07-16	10:03	Back	< 12	< 4.3	< 5.2	< 240 N.J	< 5.9	< 5	< 330 N.J	< 400 N.J	< 180 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
N24409SVH	24409 NEPTUNE AVE	2012-05-04	09:58	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	140	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9											
N24409SVG	24409 NEPTUNE AVE	2012-05-04	10:05	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8											
N24409SVGS	24409 NEPTUNE AVE	2012-05-04	10:05	Garage	< 3.5 U	< 1.7 U	< 3.5 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U											
N24409SVB	24409 NEPTUNE AVE	2012-05-04	10:39	Back	< 7.3	< 2.6	< 3.2	< 61	< 3.7	< 3	< 87	< 100	< 48	< 3.2	< 3.7	< 2.6	< 4.2	< 2.6	< 3.7											
N24409SVBS	24409 NEPTUNE AVE	2012-05-04	10:39	Back	< 3.3 U	< 1.6 U	< 3.3 U	< 1.6 U	< 1.6 U	< 1.6 U	< 1.50	< 180	< 82	< 1.6 U	< 1.6 U	< 3.3 U	< 1.6 U	< 1.6 U	< 1.6 U											
N24409SVB	24409 NEPTUNE AVE	2013-07-11	15:40	Back	< 12	< 4.5	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.4	< 7.1	< 4.4	< 6.2											
N24409SVH	24409 NEPTUNE AVE	2013-07-11	15:43	House	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.9	< 4.2	< 6											

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
R24409SVG	24409 NEPTUNE AVE	2013-07-11	16:02	Garage	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8											
R24409SVH	24409 RAVENNA AVE	2010-08-04	09:03	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.7	< 130 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
R24409SVB	24409 RAVENNA AVE	2010-08-04	09:44	Back	< 12	< 4.3	< 5.3	< 100 N.J	< 6	< 5	< 140 N.J	< 170 N.J	< 79 N.J	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6											
R24409SVG	24409 RAVENNA AVE	2010-08-04	10:21	Garage	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.7	< 130 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
R24409SVH	24409 RAVENNA AVE	2013-03-21	14:41	House	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6											
R24409SVG	24409 RAVENNA AVE	2013-03-21	14:53	Garage	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8											
R24409SVGD	24409 RAVENNA AVE	2013-03-21	14:53	Garage	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 170	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8											
R24409SVB	24409 RAVENNA AVE	2013-03-21	15:04	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6											
R24409SVH	24409 RAVENNA AVE	2013-08-09	14:35	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
R24409SVB	24409 RAVENNA AVE	2013-08-09	15:04	Back	< 12	< 4.5	< 5.5	< 100	< 6.3	< 5.2	< 150	< 180	< 82	< 5.5	< 6.3	< 4.4	< 7.2	< 4.4	< 6.3											
R24409SVG	24409 RAVENNA AVE	2013-08-09	15:08	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
R24410SVH	24410 PANAMA AVE	2010-07-30	14:06	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
R24410SVB	24410 PANAMA AVE	2010-07-30	14:58	Back	< 12	< 4.3	< 5	< 99 N.J	< 5.7	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.2											
R24410SVG	24410 PANAMA AVE	2010-07-30	15:02	Garage	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24410SVGS	24410 PANAMA AVE	2010-07-30	15:02	Garage	< 3.5	< 1.7	< 3.5	< 67	< 4.7	< 3.3	< 95	< 110	< 53	< 1.7	< 4	< 3.5	< 1.7	< 1.7	< 1.7											
P24410SVH	24410 PANAMA AVE	2012-07-19	09:52	House	< 8	< 2.9	< 3.5	< 67	< 4.1 PF	< 3.3	< 95	< 110	< 53	< 3.5	< 4	< 4.6	< 2.8	< 4	< 4											
P24410SVG	24410 PANAMA AVE	2012-07-19	09:53	Garage	< 8.2	< 2.9	< 3.6	< 68	< 4.1 PF	< 3.4	< 97	< 120	< 54	< 3.6	< 4.1	< 2.8	< 4.7	< 2.9	< 4.1											
P24410SVGD	24410 PANAMA AVE	2012-07-19	09:53	Garage	< 8.2	< 2.9	< 3.6	< 68	< 4.1 PF	< 3.4	< 97	< 120	< 54	< 3.6	< 4.1	< 2.8	< 4.7	< 2.9	< 4.1											
P24410SVB	24410 PANAMA AVE	2012-07-19	10:25	Back	< 7.4	< 2.6	< 3.2	< 61	< 3.7 PF	< 3.1	< 87	< 100	< 48	< 3.2	< 3.7	< 2.6	< 4.2	< 2.6	< 3.7											
M24411SVH	24411 MARBELLA AVE	2010-09-13	13:36	House	27	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 8.2											
M24411SVF	24411 MARBELLA AVE	2010-09-13	14:19	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2											
M24411SVB2	24411 MARBELLA AVE	2011-02-03	13:41	Back	< 12	6.1	27	< 97	15	< 4.8	< 140	< 160	< 77	7.5	< 5.8	< 4.1	< 6.6	< 4.1	13											
M24411SVFD	24411 MARBELLA AVE	2012-04-27	13:58	Front	< 7.7	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8											
M24411SVB	24411 MARBELLA AVE	2012-04-27	14:24	Back	< 7.2	< 2.6	< 3.2	< 60	< 3.6	< 3	< 85	< 100	< 47	< 3.2	< 3.4	< 2.5	< 4.1	< 2.5	< 3.6											
P24411SVH	24411 PANAMA AVE	2010-07-06	09:31	House	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6											
P24411SVG	24411 PANAMA AVE	2010-07-06	10:24	Garage	< 11	< 4.1	190	< 95 N.J	32	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	22	< 5.7	< 4	< 6.5	< 4	29											
P24411SVB	24411 PANAMA AVE	2010-07-06	11:08	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24411SVH	24411 PANAMA AVE	2012-12-14	10:07	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5											
P24411SVB	24411 PANAMA AVE	2012-12-14	10:13	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1											
P24411SVGD	24411 PANAMA AVE	2012-12-14	10:13	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
P24411SVG	24411 PANAMA AVE	2012-12-14	10:50	Garage	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 5.6											
P24411SVB	24411 PANAMA AVE	2013-05-07	10:15	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24411SVHA	24411 PANAMA AVE	2013-05-07	10:35	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
P24411SVB	24411 PANAMA AVE	2013-05-07	10:55	Back	< 11	< 4	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 73	< 4.9	< 5.5	< 3.9	< 6.3	< 3.9	< 5.5											
P24411SVBD	24411 PANAMA AVE	2013-05-07	10:55	Back	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5											
N24413SVH	24413 NEPTUNE AVE	2010-11-01	09:20	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
N24413SVHD	24413 NEPTUNE AVE	2010-11-01	09:20	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
N24413SVF	24413 NEPTUNE AVE	2010-11-01	10:01	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
N24413SVB	24413 NEPTUNE AVE	2010-11-01	10:34	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
N24413SVB	24413 NEPTUNE AVE	2012-10-11	14:59	Back	< 12	< 4.4	< 5.4	1300	< 6.1	< 5.1	1900	< 170	< 80	18	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1											
N24413SVH	24413 NEPTUNE AVE	2012-10-11	15:15	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
N24413SVHD	24413 NEPTUNE AVE	2012-10-11	15:15	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
N24413SVF	24413 NEPTUNE AVE	2012-10-11	15:34	Front	< 13	32	8.7	2200 EZ	< 6.3	38	9900 EZ	59000 EZ	340	31	< 6.3	< 4.4	< 7.2	< 4.5	< 6.3											
N24413SVH	24413 NEPTUNE AVE	2013-05-31	14:46	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
N24413SVHS	24413 NEPTUNE AVE	2013-05-31	14:46	House	< 20 U	2.4	< 4 U	< 2 U	< 5.8	< 2 U	< 140	< 170	< 77	< 2 U	< 5.8	< 4 U	< 2 U	< 2 U	< 2 U											
N24413 SVB	24413 NEPTUNE AVE	2013-05-31	15:09	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
N24413 SVF	24413 NEPTUNE AVE	2013-05-31	15:22	Front	< 12	< 4.5	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.4	< 7.1	< 4.4	< 6.2											
R24413SVH	24413 RAVENNA AVE	2010-07-12	09:12	House	< 12	< 4.2	< 5.2	< 99 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9											
R24413SVG	24413 RAVENNA AVE	2010-07-12	09:55	Garage	< 12	< 4.2	< 5.2	< 99 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9											
R24413SVB	24413 RAVENNA AVE	2010-07-12	10:38	Back	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 4	8.9	< 4	< 5.6											
R24413SVG	24413 RAVENNA AVE	2012-09-20	14:50	Garage	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1											

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units														
					Isopropanol UG/M3	Hexane UG/M3	p/m-Xylene UG/M3	C6-C8 Aliphatics UG/M3	1,2,4- Trimethyl- benzene UG/M3	Heptane UG/M3	C8-C10 Aliphatics UG/M3	C10-C12 Aliphatics UG/M3	C5-C6 Aliphatics UG/M3	Ethyl- benzene UG/M3	Cumene (isopropyl- benzene) UG/M3	Cyclohexane UG/M3	Freon 11 UG/M3	Methylene Chloride UG/M3	4-Ethyltoluene UG/M3
R24413SVGD	24413 RAVENNA AVE	2012-09-20	14:50	Garage	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 43	< 6.1
R24413SVH	24413 RAVENNA AVE	2012-09-20	15:06	House	< 11	4.2	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7
R24413SVB	24413 RAVENNA AVE	2012-09-20	15:31	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 40	< 5.6
R24413SVG	24413 RAVENNA AVE	2013-05-10	14:45	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75 PF	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7
R24413SVH	24413 RAVENNA AVE	2013-05-10	14:45	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76 PF	< 5.1	< 5.8	< 4	< 6.6	< 41	< 5.8
R24413SVB	24413 RAVENNA AVE	2013-05-10	15:14	Back	< 13	< 4.6	< 5.7	< 110	< 6.4	< 5.3	< 150	< 180	< 84 PF	< 5.7	< 6.4	< 4.5	8.8	< 45	< 6.4
N24416SVBA	24416 NEPTUNE AVE	2011-01-21	09:15	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
N24416SVF	24416 NEPTUNE AVE	2011-01-21	10:01	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 6.4	< 4	< 5.6	< 5.6
N24416SVH	24416 NEPTUNE AVE	2011-01-21	10:01	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 6.4	< 4	< 5.6	< 5.6
N24416SVH	24416 NEPTUNE AVE	2011-01-21	11:00	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 4.7	< 140	< 170	< 78	< 5	< 5.6	< 6.4	< 6.4	< 4	< 5.6
N24416SVH	24416 NEPTUNE AVE	2012-07-13	15:12	House	< 8.4	< 3	< 3.7	< 70	< 4.2	< 3.5	< 100	< 120	< 55	< 3.7	< 4.2	< 2.9	< 4.8	< 30	< 4.2
N24416SVF	24416 NEPTUNE AVE	2012-07-13	15:37	Front	12	< 2.9	< 3.6	< 67	< 4	< 3.4	< 95	< 110	< 53	< 3.6	< 2.8	< 4.6	< 4.6	< 2.8	< 4
P24416SVH	24416 PANAMA AVE	2010-09-13	08:57	House	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 71	< 4.8	< 3.8	< 6.2	< 6.2	< 3.8	< 5.4
P24416SVF	24416 PANAMA AVE	2010-09-13	09:32	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 6.4	< 6.4	< 4	< 5.6
P24416SVS	24416 PANAMA AVE	2010-09-13	09:32	Front	5.1	< 1.7	< 3.4	< 94	< 1.7	< 1.7	< 130	< 160	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
P24416SVB	24416 PANAMA AVE	2010-09-13	10:13	Back	< 12	4.2 J	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9
P24416SVF	24416 PANAMA AVE	2012-05-18	09:55	Front	< 8.2	< 2.9	< 3.6	< 68	< 4.1	< 3.4	< 97	< 120	< 54	< 3.6	< 4.1	< 2.8	< 4.7	< 2.9	< 4.1
P24416SVFD	24416 PANAMA AVE	2012-05-18	09:55	Front	< 8.1	< 2.9	< 3.6	< 68	< 4	< 3.4	< 96	< 110	< 53	< 3.6	< 4	< 2.8	< 4.6	< 2.9	< 4
P24416SVH	24416 PANAMA AVE	2012-05-18	10:15	House	< 7.5	< 2.7	< 3.3	< 63	< 3.8	< 3.1	< 89	< 110	< 50	< 3.3	< 3.8	< 2.6	< 4.3	< 2.6	< 3.8
P24416SVB	24416 PANAMA AVE	2012-05-18	10:44	Back	< 7.7	< 2.8	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 51	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8
R24416SVF	24416 RAVENNA AVE	2009-09-19	14:20	Front	9.8	< 3.3	5	< 76 N.J	< 4.6	< 3.8	< 110 N.J	< 130 N.J,UJ	< 60 N.J	< 4	< 4.6	< 3.2	< 5.2	< 3.2	< 4.6
R24416SVB	24416 RAVENNA AVE	2009-09-19	15:16	Back	< 11	< 4	< 4.9	< 93 N.J	< 5.6	< 4.6	< 130 N.J	< 160 N.J,UJ	< 73 N.J	< 4.9	< 5.6	< 3.9	8.6	< 3.9	< 5.6
R24416SVH	24416 RAVENNA AVE	2010-07-26	10:00	House	19	< 4.1	9	< 95 N.J	6.4 PE	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	6.9	< 5.7
R24416SVF	24416 RAVENNA AVE	2010-07-26	10:40	Front	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6
R24416SVF	24416 RAVENNA AVE	2010-10-29	10:10	Front	< 9.9	< 3.6	< 4.4	< 83 N.J	7.3 PE	< 4.1	< 120 N.J	< 140 N.J	< 65 N.J	< 4.4	< 5.6	< 3.5	< 5.7	< 3.5	< 5
R24416SVH	24416 RAVENNA AVE	2010-10-29	10:10	Front	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8
R24416SVH	24416 RAVENNA AVE	2013-02-01	09:44	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7
R24416SVB	24416 RAVENNA AVE	2013-02-01	09:54	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	19	< 4.2	< 5.9
R24416SVBD	24416 RAVENNA AVE	2013-02-01	09:54	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	17	< 4.1	< 5.8
R24416SVF2	24416 RAVENNA AVE	2013-02-01	10:17	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8
R24416SVH	24416 RAVENNA AVE	2013-07-19	09:41	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8
R24416SVF2	24416 RAVENNA AVE	2013-07-19	09:45	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2
R24416SVF2D	24416 RAVENNA AVE	2013-07-19	09:45	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2
R24416SVB	24416 RAVENNA AVE	2013-07-19	10:23	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7
N24419SVH	24419 NEPTUNE AVE	2010-06-16	09:13	House	< 12	< 4.2	< 5.1	< 97 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8
N24419SVF	24419 NEPTUNE AVE	2010-06-16	10:13	Front	< 12	< 4.2	< 5.1	< 97 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8
N24419SVB	24419 NEPTUNE AVE	2010-06-16	11:03	Back	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9
N24419SVH	24419 NEPTUNE AVE	2012-08-03	09:46	House	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4
N24419SVF	24419 NEPTUNE AVE	2012-08-03	10:11	Front	< 11	< 3.8	< 4.7	< 89	< 5.4	< 4.5	< 130	< 150	< 70	< 4.7	< 5.4	< 3.8	< 6.1	< 3.8	< 5.4
N24419SVFS	24419 NEPTUNE AVE	2012-08-03	10:11	Front	< 21 U	< 2.1 U	< 4.2 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 150	< 70	< 2.1 U	< 5.4	< 3.8	< 6.1	< 3.8	< 5.4
N24419SVB	24419 NEPTUNE AVE	2012-08-03	10:31	Back	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 2.1 U	< 2.7	< 4.4	< 2.7	< 3.9
N24419SVBS	24419 NEPTUNE AVE	2012-08-03	10:31	Back	< 21 U	< 2.1 U	< 4.1 U	< 63	< 2.1 U	< 2.1 U	< 90	< 110	< 50	< 2.1 U	< 2.1 U	< 4.1 U	< 2.1 U	< 2.1 U	< 2.1 U
N24419SVH	24419 NEPTUNE AVE	2013-05-29	14:50	House	< 7.6	< 2.7	< 3.3	< 63	< 3.8	< 3.2	< 90	< 110	< 50	< 3.3	< 3.8	< 2.6	< 4.3	< 2.7	< 3.8
N24419SVB	24419 NEPTUNE AVE	2013-05-29	14:52	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4.0	< 5.6
N24419SVBS	24419 NEPTUNE AVE	2013-05-29	14:52	Back	< 20 U	< 2 U	< 4 U	< 94	< 2 U	< 2 U	< 140	< 170	< 78	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U
N24419SVF	24419 NEPTUNE AVE	2013-05-29	15:14	Front	< 12	< 4.2	< 5.2	< 99	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9
R24419SVB	24419 RAVENNA AVE	2009-09-21	15:24	Back	< 7.6	< 2.7	< 3.4	< 64 N.J	< 3.8	< 3.2	< 90 N.J	< 110 N.J	< 50 N.J	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8
R24419SVF	24419 RAVENNA AVE	2009-09-21	16:49	Front	< 9.4	< 3.4	< 4.1	< 78 N.J	< 4.7	< 3.9	< 110 N.J	< 130 J,N,UJ	< 62 N.J	< 4.1	< 4.7	< 3.3	< 5.4	< 3.3	< 4.7
R24419SVF	24419 RAVENNA AVE	2010-07-12	14:47	Front	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9
R24419SVB	24419 RAVENNA AVE	2010-07-12	15:27	Back	< 12	< 4.2	< 5.2	< 99 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9
R24419 SVHA	24419 RAVENNA AVE	2011-02-09	14:06	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9
R24419 SVF	24419 RAVENNA AVE	2011-02-09	14:38	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7





Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Isopropanol UG/M3	Hexane UG/M3	p/m-Xylene UG/M3	C6-C8 Aliphatics UG/M3	1,2,4-Trimethyl-benzene UG/M3	Heptane UG/M3	C8-C10 Aliphatics UG/M3	C10-C12 Aliphatics UG/M3	C5-C6 Aliphatics UG/M3	Ethyl-benzene UG/M3	Cumene (isopropyl-benzene) UG/M3	Cyclohexane UG/M3	Freon 11 UG/M3	Methylene Chloride UG/M3	4-Ethyltoluene UG/M3
					Frequency of Detection	UG/M3															
M244265VF	24426 MARBELLA AVE	2011-10-06	14:23	Front	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1		
M244265VB	24426 MARBELLA AVE	2011-10-06	14:53	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M244265VH	24426 MARBELLA AVE	2012-02-23	14:59	House	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1		
M244265VF	24426 MARBELLA AVE	2012-02-23	15:36	Front	< 7.8	< 2.8	< 3.4	< 65	5.7	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9		
M244265VFD	24426 MARBELLA AVE	2012-02-23	15:36	Front	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9		
M244265VB	24426 MARBELLA AVE	2012-02-23	16:17	Back	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7		
M244265VB	24426 NEPTUNE AVE	2009-09-17	09:22	Back	< 11	< 4	< 4.9	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J,UJ	< 74 N.J	< 5	6.5	< 4	< 6.5	< 4	< 5.6		
M244265VF	24426 NEPTUNE AVE	2009-09-17	10:19	Front	< 11	< 3.9	< 4.9	< 92 N.J	< 5.5	< 4.6	< 130 N.J	< 160 N.J,UJ	< 72 N.J	< 4.9	11	< 3.8	< 6.3	< 3.9	< 5.5		
M244265VB	24426 NEPTUNE AVE	2010-06-25	15:03	Back	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6		
M244265VH	24426 NEPTUNE AVE	2010-06-25	16:13	House	< 12	< 4.2	< 5.1	< 97 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
M244265VF	24426 NEPTUNE AVE	2010-07-07	10:03	Front	19	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M244265VF	24426 NEPTUNE AVE	2010-09-15	09:27	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9		
M244265VH	24426 NEPTUNE AVE	2010-10-29	14:46	House	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 5.6		
M244265VB	24426 NEPTUNE AVE	2010-10-29	15:02	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M244265VBD	24426 NEPTUNE AVE	2010-10-29	15:31	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	5	< 5.7		
M244265VF	24426 NEPTUNE AVE	2010-10-29	15:31	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M244265VH	24426 NEPTUNE AVE	2013-04-19	14:46	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78 PF	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
M244265VG	24426 NEPTUNE AVE	2013-04-19	15:14	Garage	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79 PF	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6		
M244265VH	24426 PANAMA AVE	2010-08-05	09:15	House	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	6.8	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9		
M244265VG	24426 PANAMA AVE	2010-08-05	10:08	House	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 5.6		
M244265VB	24426 PANAMA AVE	2010-08-05	10:47	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M244265VH	24426 PANAMA AVE	2010-08-05	09:54	House	< 12	12	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9		
M244265VG	24426 PANAMA AVE	2012-12-06	10:23	Garage	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9		
M244265VGD	24426 PANAMA AVE	2012-12-06	10:23	Garage	< 12	5.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9		
M244265VB	24426 PANAMA AVE	2012-12-10	13:45	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6		
M244265VH	24426 PANAMA AVE	2013-06-14	19:29	House	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 5.9		
M244265VB	24426 PANAMA AVE	2013-06-14	19:31	Back	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6		
M244265VG	24426 PANAMA AVE	2013-06-14	20:05	Garage	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 5.6		
M244265VH	24426 RAVENNA AVE	2010-06-22	09:13	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M244265VF	24426 RAVENNA AVE	2010-06-22	09:55	Front	< 12	< 4.4	< 5.4	< 100 N.J	< 6.1	< 5.1	< 140 N.J	< 170 N.J	< 80 N.J	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1		
M244265VB	24426 RAVENNA AVE	2010-06-22	10:45	Back	< 11	< 4.1	19	< 95 N.J	22	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	5.6	< 5.7	< 4	< 6.5	< 4	< 5.7		
M244265VB	24426 RAVENNA AVE	2013-02-28	14:51	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6		
M244265VBD	24426 RAVENNA AVE	2013-02-28	14:51	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7		
M244265VH	24426 RAVENNA AVE	2013-02-28	14:57	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7		
M244265VF	24426 RAVENNA AVE	2013-02-28	15:36	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2		
M244265VH	24426 RAVENNA AVE	2013-07-17	14:50	House	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 5.6		
M244265VB	24426 RAVENNA AVE	2013-07-17	14:55	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6		
M244265VBD	24426 RAVENNA AVE	2013-07-17	14:55	Back	< 12	< 4.3	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.4	< 7.1	< 4.4	< 6.2		
M244265VF	24426 RAVENNA AVE	2013-07-17	15:22	Front	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
M244275VH	24427 MARBELLA AVE	2010-05-26	10:10	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M244275VB	24427 MARBELLA AVE	2010-05-26	11:01	Back	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9		
M244275VG	24427 MARBELLA AVE	2010-05-26	11:42	Garage	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M244275VG	24427 MARBELLA AVE	2012-04-06	10:19	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
M244275VH	24427 MARBELLA AVE	2012-04-06	10:21	House	< 7.3	< 2.6	< 3.2	< 61	< 3.7	< 3	< 87	< 100	< 48	< 3.2	< 3.7	< 2.6	< 4.2	< 2.6	< 3.7		
M244275VB	24427 MARBELLA AVE	2012-04-06	10:57	Back	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7		
M244275VBD	24427 MARBELLA AVE	2012-04-06	10:57	Back	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7		
M244275VB	24427 PANAMA AVE	2010-06-04	09:06	Back	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 5.6		
M244275VF	24427 PANAMA AVE	2010-06-04	09:40	Front	< 11	< 3.9	< 4.9	< 92 N.J	< 5.5	< 4.6	< 130 N.J	< 160 N.J	< 72 N.J	< 4.9	< 5.5	< 3.8	< 6.3	< 3.8	< 5.5		
M244275VH	24427 PANAMA AVE	2010-06-04	10:12	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M244275VH	24427 PANAMA AVE	2013-05-24	15:00	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
M244275VB	24427 PANAMA AVE	2013-05-24	15:07	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.9	< 4.2	< 5.9		
M244275VF	24427 PANAMA AVE	2013-05-24	15:21	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection																						
					Isopropanol UG/M3	4.47%		Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4- Trimethyl- benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl- benzene UG/M3	1.97%	Cumene (isopropyl- benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%
N24429SVB	24429 NEPTUNE AVE	2010-04-30	00:00	Back	< 12	< 4.2	< 5.1	< 97 N.J	6.2	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8								
N24429SVH	24429 NEPTUNE AVE	2010-04-30	13:27	House	< 12	< 4.1	< 5.1	< 96 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 76 N.J	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8								
N24429SVF	24429 NEPTUNE AVE	2010-04-30	14:40	Front	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 6.7	< 4.2	< 5.9								
N24429SVB	24429 NEPTUNE AVE	2011-01-14	15:08	Back	35	< 3.5	4.5	< 82	< 4.9	< 4.1	< 120	< 140	99	< 4.3	< 4.9	< 3.4	< 5.6	< 3.4	< 5.6	4.6	< 4.9								
N24429SVF	24429 NEPTUNE AVE	2011-01-14	15:34	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6								
N24429SVH	24429 NEPTUNE AVE	2011-01-14	16:00	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7								
N24429SVH	24429 NEPTUNE AVE	2013-08-07	09:47	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.2	< 6.6	< 4.2	< 6.6	< 4.1	< 5.8								
N24429SVF	24429 NEPTUNE AVE	2013-08-07	10:09	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 6								
N24429SVF5	24429 NEPTUNE AVE	2013-08-07	10:09	Front	< 20 U	< 2 U	< 4.1 U	< 100	< 2 U	< 2 U	< 140	< 160	< 72	< 2 U	< 2 U	< 4.1 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U								
N24429SVB	24429 NEPTUNE AVE	2013-08-07	10:26	Back	< 11	< 3.9	< 4.8	< 91	< 5.5	< 4.6	< 130	< 160	< 72	< 4.8	< 5.5	< 3.8	< 6.3	< 3.8	< 6.3	< 3.9	< 5.5								
R24429SVG	24429 RAVENNA AVE	2010-09-17	13:46	Garage	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6								
R24429SVH	24429 RAVENNA AVE	2010-10-14	10:17	House	< 13	< 4.7	< 5.8	< 110	< 6.5	< 5.4	< 150	< 180	< 86	< 5.8	< 6.5	< 4.6	< 7.5	< 4.6	< 7.5	< 4.6	< 6.5								
R24429SVB	24429 RAVENNA AVE	2010-10-14	11:26	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9								
R24429SVB	24429 RAVENNA AVE	2013-07-30	10:04	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9								
R24429SVBD	24429 RAVENNA AVE	2013-07-30	10:04	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.2	< 6.9	< 4.3	< 6.1								
R24429SVH	24429 RAVENNA AVE	2013-07-30	10:09	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4.0	< 5.7								
R24429SVG	24429 RAVENNA AVE	2013-07-30	10:36	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4.0	< 5.7								
P24430SVB	24430 PANAMA AVE	2009-10-01	09:28	Back	< 14	< 5.1	< 6.3	< 120 N.J	< 7.2	< 6	< 170 N.J	260 N.J	< 94 N.J	< 6.3	< 7.2	< 5	< 8.2	< 5	< 8.2	< 5	< 7.2								
P24430SVBD	24430 PANAMA AVE	2009-10-01	09:28	Back	< 14	< 5	19	< 120 N.J	< 7	< 5.9	< 170 N.J	< 200 N.J	< 92 N.J	< 6.2	< 7	< 4.9	< 8	< 4.9	< 8	< 5	< 7								
P24430SVF	24430 PANAMA AVE	2009-10-01	10:54	Front	< 11	< 4	< 5	< 93 N.J	< 5.6	< 4.7	150 N.J	760 N.J	< 74 N.J	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6								
P24430SVH	24430 PANAMA AVE	2010-06-14	09:42	House	18	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9								
P24430SVB	24430 PANAMA AVE	2010-06-14	10:48	Back	< 12	< 4.1	< 5.1	< 96 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 76 N.J	< 5.1	< 5.8	< 4	< 6.6	< 4	< 6.6	< 4.1	< 5.8								
P24430SVF	24430 PANAMA AVE	2010-06-14	11:46	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7								
P24430SVH	24430 PANAMA AVE	2012-11-30	15:16	Front	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.8	< 6.3	< 3.9	< 5.5								
P24430SVHA	24430 PANAMA AVE	2013-05-07	15:25	House	< 12	< 4.4	< 5.4	< 100	< 6.2	< 5.1	< 150	< 170	< 81	< 5.4	< 6.2	< 4.3	< 7	< 4.3	< 7	< 4.4	< 6.2								
P24430SVB	24430 PANAMA AVE	2013-05-07	15:31	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 7	< 4.3	< 6.1								
P24430SVF	24430 PANAMA AVE	2013-05-07	15:56	Front	< 12	< 4.2	< 5.2	< 99	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.8	< 4.1	< 6.8	< 4.2	< 5.9								
P24431SVF	24431 PANAMA AVE	2010-09-20	09:59	Front	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 84	< 5.6	< 6.3	< 4.4	< 7.2	< 4.4	< 7.2	< 4.5	< 6.3								
P24431SVFD	24431 PANAMA AVE	2010-09-20	09:59	Front	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 84	< 5.6	< 6.3	< 4.4	< 7.2	< 4.4	< 7.2	< 4.5	< 6.3								
P24431SVB	24431 PANAMA AVE	2010-09-20	11:22	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7								
P24431SVH2	24431 PANAMA AVE	2010-10-13	14:31	House	< 12	< 4.1	21	< 96	6.1	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4	< 6.6	< 4.1	< 5.8								
P24431SVB	24431 PANAMA AVE	2013-01-17	10:12	Back	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4.0	< 5.6								
P24431SVH2	24431 PANAMA AVE	2013-01-17	10:12	House	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 6.2	< 3.8	< 5.4								
P24431SVF	24431 PANAMA AVE	2013-01-17	10:43	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.2	< 6.9	< 4.3	< 6								
P24431SVB	24431 PANAMA AVE	2013-05-29	09:47	Back	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 3.9	< 5.6								
P24431SVBD	24431 PANAMA AVE	2013-05-29	09:47	Back	< 11	< 3.8	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 71	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 6.2	< 3.8	< 5.4								
P24431SVH2	24431 PANAMA AVE	2013-05-29	09:48	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8								
P24431SVF	24431 PANAMA AVE	2013-05-29	10:21	Front	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8								
P24432SVH	24432 MARBELLA AVE	2010-11-01	09:18	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8								
M24432SVF	24432 MARBELLA AVE	2010-11-01	09:53	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9								
M24432SVB	24432 MARBELLA AVE	2010-11-01	10:38	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7								
M24432SVH	24432 MARBELLA AVE	2011-01-27	14:09	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7								
M24432SVB	24432 MARBELLA AVE	2011-01-27	14:55	Back	< 11	< 3.9	< 4.8	< 91	< 5.5	< 4.6	< 130	< 160	< 72	< 4.8	< 5.5	< 3.8	< 6.3	< 3.8	< 6.3	< 3.9	< 5.5								
M24432SVF	24432 MARBELLA AVE	2011-01-27	15:34	Front	< 11	< 3.9	19	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.8	< 6.3	< 3.9	< 5.5								
M24432SVH	24432 MARBELLA AVE	2012-03-16	10:24	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 4.4	< 2.7	< 3.9								
M24432SVF	24432 MARBELLA AVE	2012-03-16	11:04	Front	< 7.1	< 2.5	< 3.1	< 59	< 3.5	< 3	< 84	< 100	< 47	< 3.1	< 3.5	< 2.5	< 4	< 2.5	< 4	< 2.5	< 3.5								
M24432SVB	24432 MARBELLA AVE	2012-03-16	11:28	Back	12	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 4.3	< 2.6	< 3.7								
M24432SVBD	24432 MARBELLA AVE	2012-03-16	11:28	Back	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 4.3	< 2.6	< 3.7								
M24433SVB	24433 MARBELLA AVE	2009-																											

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units														
					Isopropanol UG/M3	Hexane UG/M3	p/m-Xylene UG/M3	C6-C8 Aliphatics UG/M3	1,2,4- Trimethyl- benzene UG/M3	Heptane UG/M3	C8-C10 Aliphatics UG/M3	C10-C12 Aliphatics UG/M3	C5-C6 Aliphatics UG/M3	Ethyl- benzene UG/M3	Cumene (isopropyl- benzene) UG/M3	Cyclohexane UG/M3	Freon 11 UG/M3	Methylene Chloride UG/M3	4-Ethyltoluene UG/M3
M244333SVB2	24433 MARBELLA AVE	2011-02-14	14:11	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6
M244333SVB	24433 MARBELLA AVE	2011-02-14	14:29	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9
M244333SVBD	24433 MARBELLA AVE	2011-02-14	14:29	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9
M244333SVF	24433 MARBELLA AVE	2011-02-14	14:57	Front	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8
M244333SVF	24433 MARBELLA AVE	2012-03-02	15:00	Front	< 8.1	< 2.9	< 3.6	< 68	< 4	< 3.4	< 96	< 110	< 53	< 3.6	< 4	< 2.8	< 4.6	< 2.9	< 4
M244333SVFD	24433 MARBELLA AVE	2012-03-02	15:00	Front	< 8.2	< 2.9	< 3.6	< 68	< 4.1	< 3.4	< 97	< 120	< 54	< 3.6	< 4.1	< 2.8	< 4.7	< 2.9	< 4.1
M244333SVH	24433 MARBELLA AVE	2012-03-02	15:13	House	9.3	< 3.2	< 3.9	< 73	< 4.4	< 3.7	< 100	< 120	< 58	< 3.9	< 4.4	< 3.1	< 5	< 3.1	< 4.4
M244333SVB	24433 MARBELLA AVE	2012-03-02	15:46	Back	< 8.4	< 3	< 3.7	< 70	< 4.2	< 3.5	< 99	< 120	< 55	< 3.7	< 4.2	< 2.9	< 4.8	< 3.0	< 4.2
M244333SVB2	24433 MARBELLA AVE	2012-03-02	15:48	Back	< 8.7	< 3.1	< 3.8	< 72	< 4.4	< 3.6	< 100	< 120	< 57	< 3.8	< 4.4	< 3	< 5	< 3.1	< 4.4
P24436SVH	24436 PANAMA AVE	2010-06-24	09:51	House	< 12	< 4.2	< 5.1	< 97 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8
P24436SVF	24436 PANAMA AVE	2010-06-24	11:55	Front	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6
P24436SVHA	24436 PANAMA AVE	2012-06-28	09:55	House	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4
P24436SVF	24436 PANAMA AVE	2012-06-28	10:03	Front	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4
P24436SVF5	24436 PANAMA AVE	2012-06-28	10:03	Front	< 18 U	< 1.8 U	< 3.5 U	< 66	< 4	< 3.3	< 100	< 120	< 57	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4
P24436SVBA	24436 PANAMA AVE	2012-06-28	10:39	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 1.8 U	< 98	< 120	< 54	< 1.8 U	< 4.1	< 2.9	< 4.7	< 1.8 U	< 4.1
P24436SVBAS	24436 PANAMA AVE	2012-06-28	10:39	Back	< 19 U	< 1.9 U	< 3.9 U	< 69	< 1.9 U	< 3.4	< 98	< 120	< 54	< 1.9 U	< 4.1	< 2.9	< 4.7	< 1.9 U	< 4.1
M24502SVH	24502 MARBELLA AVE	2010-09-20	09:49	House	< 10	< 3.7	< 4.5	< 86	< 5.1	< 4.3	< 120	< 140	< 68	< 4.5	< 5.1	< 3.6	< 5.9	< 3.6	< 5.1
M24502SVG	24502 MARBELLA AVE	2010-09-20	10:39	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
M24502SVB	24502 MARBELLA AVE	2010-09-20	11:20	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8
M24502SVG	24502 MARBELLA AVE	2012-05-04	14:34	Garage	< 8.6	< 3.1	< 3.8	< 72	< 4.3	< 3.6	< 100	< 120	< 57	< 3.8	< 4.3	< 3	< 4.9	< 3.0	< 4.3
M24502SVGD	24502 MARBELLA AVE	2012-05-04	14:34	Garage	< 8.6	< 3.1	< 3.8	< 72	< 4.3	< 3.6	< 100	< 120	< 57	< 3.8	< 4.3	< 3	< 4.9	< 3.0	< 4.3
M24502SVH	24502 MARBELLA AVE	2012-05-04	14:56	House	< 7.6	< 2.6	< 3.2	< 61	< 3.7	< 3	< 87	< 100	< 48	< 3.2	< 3.7	< 2.6	< 4.2	< 2.6	< 3.7
M24502SVB	24502 MARBELLA AVE	2012-05-04	15:13	Back	< 7.3	< 2.7	< 3.2	< 64	< 3.8	< 3.6	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8
M24502SVH	24502 MARBELLA AVE	2013-08-16	09:53	House	< 11	< 4	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 73	< 4.9	< 5.5	< 3.9	< 6.3	< 3.9	< 5.5
M24502SVB	24502 MARBELLA AVE	2013-08-16	10:17	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1
M24502SVB	24502 MARBELLA AVE	2013-08-16	10:17	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1
M24502SVBS	24502 MARBELLA AVE	2013-08-16	10:17	Back	< 21 U	< 2.1 U	< 4.2 U	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 2.1 U	< 5.8	< 4.1	< 6.6	< 2.1 U	< 5.8
M24502SVG	24502 MARBELLA AVE	2013-08-16	10:25	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8
N24502SVB	24502 NEPTUNE AVE	2009-09-23	12:48	Back	< 12	< 4.4	< 5.4	< 100 N.J	< 6.1	< 5.1	< 140 N.J	< 170 N.J	< 80 N.J	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1
N24502SVF	24502 NEPTUNE AVE	2009-09-23	13:59	Front	< 12	< 4.1	12	< 96 N.J	10	< 4.8	< 140 N.J	< 160 N.J	< 74 N.J	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.6
N24502SVH	24502 NEPTUNE AVE	2011-02-17	09:25	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6
N24502SVF	24502 NEPTUNE AVE	2011-02-17	09:25	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6
N24502SVH	24502 NEPTUNE AVE	2011-02-17	10:12	Front	< 12	< 4.1	< 5.1	< 96	< 5.8	5.9	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8
N24502SVFD	24502 NEPTUNE AVE	2011-02-17	10:12	Front	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8
N24502SVB	24502 NEPTUNE AVE	2011-02-17	10:59	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6
N24502SVH	24502 NEPTUNE AVE	2013-01-25	14:55	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7
N24502SVF	24502 NEPTUNE AVE	2013-01-25	15:00	Front	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1
N24502SVFD	24502 NEPTUNE AVE	2013-01-25	15:00	Front	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1
N24502SVB	24502 NEPTUNE AVE	2013-07-12	09:39	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1
N24502SVBD	24502 NEPTUNE AVE	2013-07-12	09:39	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1
N24502SVH	24502 NEPTUNE AVE	2013-07-12	09:41	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9
N24502SVH	24502 NEPTUNE AVE	2013-07-12	09:41	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 140	< 170	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6
N24502SVF	24502 NEPTUNE AVE	2013-07-12	10:08	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6
P24502SVB	24502 PANAMA AVE	2009-09-25	09:24	Back	< 12	< 4.1	26	< 96 N.J	17	< 4.8	< 140 N.J	< 160 N.J	< 76 N.J	< 5.1	< 5.8	< 4	< 6.6	< 4.1	6.9
P24502SVF	24502 PANAMA AVE	2009-09-25	10:26	Front	< 11	< 4.1	< 5	< 95 N.J	7.3	< 4.7	< 130 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
P24502SVF	24502 PANAMA AVE	2010-06-01	10:06	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.7	< 130 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
P24502SVB	24502 PANAMA AVE	2010-06-01	11:14	Back	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9
P24502SVBD	24502 PANAMA AVE	2010-06-01	11:14	Back	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9
P24502SVH2	24502 PANAMA AVE	2010-09-02	08:52	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8
P24502SVH2	24502 PANAMA AVE	2013-01-18	10:09	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5
P24502SVF	24502 PANAMA AVE	2013-01-18	10:19	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8
P24502SVFD	24502 PANAMA AVE	2013-01-18	10:19	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8
P24502SVB	24502 PANAMA AVE	2013-01-18	10:45	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7
P24502SVB	24502 RAVENNA AVE	2010-04-22	10:39	Back	< 11	< 4.1	< 5												



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
R24502SVH	24502 RAVENNA AVE	2010-04-22	13:38	House	< 11	< 4	< 5	< 94 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 160 N.J.	< 74 N.J.	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
R24502SVH	24502 RAVENNA AVE	2010-10-07	11:07	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
R24502SVB	24502 RAVENNA AVE	2010-10-07	11:58	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
R24502SVF	24502 RAVENNA AVE	2010-10-07	12:58	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
R24502SVH	24502 RAVENNA AVE	2010-10-11	14:40	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
R24502SVB	24502 RAVENNA AVE	2010-10-11	15:17	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
R24502SVF	24502 RAVENNA AVE	2010-10-11	16:14	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
R24502SVH	24502 RAVENNA AVE	2012-07-26	15:07	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9										
R24502SVB	24502 RAVENNA AVE	2012-07-26	15:20	Back	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4										
R24502SVF	24502 RAVENNA AVE	2012-07-26	15:51	Front	< 8.1	< 2.9	< 3.6	< 67	< 4	< 3.4	< 95	< 110	< 110	< 53	< 3.6	< 4	< 2.8	< 4.6	< 2.8	< 4										
M24503SVF	24503 MARBELLA AVE	2010-05-28	08:58	Front	< 12	< 4.2	< 5.1	< 97 N.J.	< 5.8	< 4.8	< 140 N.J.	250 N.J.	< 77 N.J.	< 51	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
M24503SVB	24503 MARBELLA AVE	2010-05-28	09:40	Back	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5	< 4	< 6.5	< 4	< 5.7											
M24503SVH	24503 MARBELLA AVE	2010-05-28	10:22	House	< 13	< 4.5	< 5.6	< 100 N.J.	< 6.3	< 5.3	< 150 N.J.	< 180 N.J.	< 83 N.J.	< 5.6	< 6.3	< 4.4	< 7.2	< 4.5	< 6.3											
M24503SVH	24503 MARBELLA AVE	2012-03-30	14:54	House	< 7.8	< 2.8	< 3.4	< 65	5.6	< 3.2	< 92	< 110	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9										
M24503SVF	24503 MARBELLA AVE	2012-03-30	15:12	Front	< 7.7	< 2.8	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 110	< 51	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24503VFD	24503 MARBELLA AVE	2012-03-30	15:12	Front	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9										
M24503SVB	24503 MARBELLA AVE	2012-03-30	15:40	Back	< 7.7	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24503SVF	24503 NEPTUNE AVE	2010-06-18	09:48	Front	< 12	< 4.2	< 5.2	< 98 N.J.	< 5.8	< 4.9	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.2	< 5.2	< 4.1	< 6.7	< 4.1	< 5.8											
M24503SVB	24503 NEPTUNE AVE	2010-06-18	10:30	Back	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5	< 4	< 6.5	< 4	< 5.7											
M24503VHA	24503 NEPTUNE AVE	2011-02-02	09:46	House	21	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4											
M24503VHA	24503 NEPTUNE AVE	2012-04-13	10:30	House	< 8.1	< 2.9	< 3.6	< 67	< 4	< 3.4	< 95	< 110	< 110	< 53	< 3.6	< 4	< 2.8	< 4.6	< 2.8	< 4										
M24503VFD	24503 NEPTUNE AVE	2012-04-13	10:46	Front	20	< 2.8	20 J	< 65	< 3.9	< 3.2	< 92	< 110	< 110	< 51	6.2 J	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9										
M24503SVH	24503 NEPTUNE AVE	2012-04-13	14:37	House	< 7.8	< 4.1	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9										
M24503SVB	24503 NEPTUNE AVE	2013-06-27	14:46	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 75	< 79	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24503SVF	24503 NEPTUNE AVE	2013-06-27	15:10	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.4	< 7.1	< 6.8	< 4.4	< 6										
P24503SVB	24503 PANAMA AVE	2011-04-04	14:05	Back	< 13	< 4.6	< 5.7	< 110	< 6.4	< 5.3	< 150	< 180	< 84	< 5.7	< 6.4	< 4.5	< 7.3	< 4.5	< 6.4											
P24503SVH	24503 PANAMA AVE	2011-04-04	14:55	House	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2											
P24503SVG	24503 PANAMA AVE	2011-04-04	15:31	Garage	< 13	< 4.6	< 5.7	< 110	< 6.4	< 5.3	< 150	< 180	< 84	< 5.7	< 6.4	< 4.5	< 7.3	< 4.5	< 6.4											
P24503SVH	24503 PANAMA AVE	2012-08-10	14:54	House	< 8.2	< 2.9	< 3.6	< 68	< 4.1	< 3.4	< 97	< 120	< 54	< 84	< 3.6	< 4.4	< 2.8	< 4.7	< 4.1	< 4.1										
P24503SVB	24503 PANAMA AVE	2012-08-10	15:31	Back	< 11	< 3.9	< 4.8	< 68	< 5.4	< 4.5	< 97	< 120	< 54	< 84	< 3.6	< 4.4	< 3.8	< 6.2	< 3.8	< 5.4										
P24503SVBD	24503 PANAMA AVE	2012-08-10	15:31	Back	< 17	< 6	< 7.4	< 140	< 8.4	< 7	< 200	< 240	< 110	< 110	< 7.4	< 8.4	< 5.8	< 9.6	< 5.9	< 8.4										
P24503SVG	24503 PANAMA AVE	2012-08-10	15:34	Garage	< 8	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 110	< 52	< 3.5	< 4	< 2.8	< 4.6	< 2.8	< 4										
R24503SVH	24503 RAVENNA AVE	2010-08-09	09:13	House	< 12	< 4.3	< 5.2	< 99 N.J.	< 5.9	< 5	< 140 N.J.	< 170 N.J.	< 78 N.J.	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
R24503SVG	24503 RAVENNA AVE	2010-08-09	10:01	Garage	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5	< 4	< 6.5	< 4	< 5.7											
R24503SVB	24503 RAVENNA AVE	2010-08-09	11:01	Back	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5	< 4	< 6.5	< 4	< 5.7											
R24503SVG	24503 RAVENNA AVE	2012-11-08	14:58	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5	< 4	< 6.5	< 4	< 5.7											
R24503SVH	24503 RAVENNA AVE	2012-11-08	15:09	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5	< 4	< 6.5	< 4	< 5.7											
R24503SVB	24503 RAVENNA AVE	2012-11-08	15:33	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
M24506SVH	24506 MARBELLA AVE	2010-04-21	09:55	House	< 11	13	530	< 95 N.J.	85	11	< 140 N.J.	< 160 N.J.	< 75 N.J.	98	< 5.2	< 5.9	4.8	< 6.5	< 4	100										
M24506SVF	24506 MARBELLA AVE	2010-04-21	10:11	Front	< 12	< 4.2	< 5.1	< 97 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
M24506SVB2	24506 MARBELLA AVE	2010-08-10	09:00	Back	< 11	< 4.1	< 5	< 95 N.J.	9.2	< 4.7	< 130 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5	< 4	11	5.7	< 5.7											
M24506SVH	24506 MARBELLA AVE	2011-01-26	10:01	House	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 4	< 5.6											
M24506SVF	24506 MARBELLA AVE	2011-01-26	10:45	Front	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
M24506VFD	24506 MARBELLA AVE	2011-01-26	10:45	Front	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
M24506SVB2	24506 MARBELLA AVE	2011-01-26	11:36	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	4.1	< 6.5	< 4	< 5.7											
M24506 SVF	24506 MARBELLA AVE	2012-03-15	10:29	Front	< 14	< 4.9	< 6	< 110	< 6.8	< 5.7	< 160	< 190	< 90	< 6	< 6.8	< 4.8	< 7.8	< 4.8	< 6.8											
M24506SVFS	24506 MARBELLA AVE	2012-03-15	10:29	Front	< 3.6 U	< 1.8 U	< 3.6 U	< 1.8 U	< 1.8 U	< 3.3	< 94	< 110	< 52	< 1.8 U	< 1.8 U	< 3.6 U	< 1.8 U	< 1.8 U	< 1.8 U											
M24506 SVH	24506 MARBELLA AVE	2012-03-15	10:29	House	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4											
M24506 SVB2	24506 MARBELLA AVE	2012-03-15	11:23	Back	< 13	< 4.8	< 5.9	< 110	< 6.7	< 5.6	< 160	< 190	< 88	< 5.9	< 6.7	< 4.7	< 7.6	< 4.7	< 6.7											
M24506SVB2	24506 MARBELLA AVE	2013-07-02	14:47	Back	< 12	< 4.4	< 5.4	< 100	< 6.2	< 5.1	< 150	< 170	< 81	< 5.4	< 6.2	< 4.3	< 7	< 4.4	< 6.2											
M24506SVB2D	24506 MARBELLA AVE	2013-07-02	14:47	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.9	< 4.2	< 6											

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection														
					Isopropanol UG/M3	Hexane UG/M3		p/m-Xylene UG/M3	C6-C8 Aliphatics UG/M3	1,2,4- Trimethyl- benzene UG/M3	Heptane UG/M3	C8-C10 Aliphatics UG/M3	C10-C12 Aliphatics UG/M3	C5-C6 Aliphatics UG/M3	Ethyl- benzene UG/M3	Cumene (isopropyl- benzene) UG/M3	Cyclohexane UG/M3	Freon 11 UG/M3	Methylene Chloride UG/M3	4-Ethyltoluene UG/M3	
M24506SVH	24506 MARELLA AVE	2013-07-02	14:55	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
M24506SVF	24506 MARELLA AVE	2013-07-02	15:12	Front	< 12	< 4.5	< 5.6	< 100	< 6.3	< 5.2	< 150	< 180	< 83	< 5.6	< 6.3	< 4.4	< 7.2	< 4.4	< 6.3		
N24508SVH	24508 NEPTUNE AVE	2010-06-11	09:06	House	< 11	< 3.9	< 4.9	< 92 N.J	< 5.5	< 4.6	< 130 N.J	< 160 N.J	< 72 N.J	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5		
N24508SVB	24508 NEPTUNE AVE	2010-06-11	10:01	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
N24508SVF	24508 NEPTUNE AVE	2010-06-11	10:45	Front	< 12	< 4.4	< 5.4	< 100 N.J	< 6.1	< 5.1	< 140 N.J	< 170 N.J	< 80 N.J	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1		
N24508SVH	24508 NEPTUNE AVE	2011-01-28	10:23	Front	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5		
N24508SVB	24508 NEPTUNE AVE	2011-01-28	11:03	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5		
N24508SVF	24508 NEPTUNE AVE	2011-01-28	11:35	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
N24508SVB	24508 NEPTUNE AVE	2011-01-28	11:35	Back	< 3.6	< 1.8	< 3.6	< 65	< 1.8	< 1.8	< 140 N.J	< 160 N.J	< 75 N.J	< 1.8	< 1.8	< 3.6	2.5	< 1.8	< 1.8		
P24508SVF	24508 PANAMA AVE	2010-05-19	09:43	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
P24508SVH	24508 PANAMA AVE	2010-05-19	10:26	House	21	< 4.2	7.9	< 97 N.J	1200	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	10	< 4.1	< 6.6	< 4.1	240		
P24508SVB	24508 PANAMA AVE	2010-05-19	11:06	Back	< 12	< 4.2	< 5.1	< 97 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
P24508SVH	24508 PANAMA AVE	2012-04-26	15:00	House	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 4.5	< 4		
P24508SVF	24508 PANAMA AVE	2012-04-26	15:07	Front	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 4.5	< 4		
P24508SVB	24508 PANAMA AVE	2012-04-26	15:07	Front	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	140	< 52	< 3.5	< 4	< 2.8	< 4.5	< 4.5	< 4		
P24508SVH	24508 PANAMA AVE	2012-04-26	15:34	Back	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 4.4	< 3.9		
R24508SVHA	24508 RAVENNA AVE	2011-01-31	09:42	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5		
R24508SVF	24508 RAVENNA AVE	2011-01-31	10:21	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
R24508SVB	24508 RAVENNA AVE	2011-01-31	11:00	Back	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5		
R24508SVHA	24508 RAVENNA AVE	2013-03-29	10:00	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
R24508SVB	24508 RAVENNA AVE	2013-03-29	10:14	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7		
R24508SVF	24508 RAVENNA AVE	2013-03-29	10:14	Back	< 4.4 U	< 2.2 U	< 4.4 U	< 98	< 5.7	< 2.2 U	< 140	< 160	< 77	< 2.2 U	< 2.2 U	< 4.4 U	< 2.2 U	< 2.2 U	< 2.2 U		
R24508SVB	24508 RAVENNA AVE	2013-03-29	10:49	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8		
R24508SVH	24508 RAVENNA AVE	2013-03-29	10:49	Front	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.5	< 4.1	< 5.8		
N24509SVH	24509 NEPTUNE AVE	2010-05-04	13:45	House	< 12	< 4.2	< 5.2	< 99 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9		
N24509SVF	24509 NEPTUNE AVE	2010-05-04	15:44	Front	< 12	< 4.4	< 5.4	< 100 N.J	< 6.1	< 5.1	< 140 N.J	< 170 N.J	< 81 N.J	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1		
N24509SVB	24509 NEPTUNE AVE	2010-07-30	09:30	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
N24509SVH	24509 NEPTUNE AVE	2010-07-30	09:30	Back	< 3.4	< 1.7	< 3.4	< 62	< 1.7	< 1.7	< 88	< 100	< 49	< 1.7	2.8	< 3.4	< 1.7	< 1.7	< 1.7		
N24509SVF	24509 NEPTUNE AVE	2012-07-06	10:10	House	< 7.5	< 2.7	< 3.3	< 62	< 3.7 PF	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7		
N24509SVB	24509 NEPTUNE AVE	2012-07-06	10:12	Back	< 7.1	< 2.6	< 3.1	< 59	< 3.6 PF	< 3	< 84	< 100	< 47	< 3.1	< 3.6	< 2.5	< 4.1	< 2.5	< 3.6		
N24509SVH	24509 NEPTUNE AVE	2012-07-06	11:02	Front	< 7.5	< 2.7	< 3.3	< 63	< 3.8 PF	< 3.1	< 89	< 110	< 50	< 3.3	< 3.8	< 2.6	< 4.3	< 2.6	< 3.8		
N24509SVF	24509 NEPTUNE AVE	2012-07-06	11:02	Front	< 17 U	< 1.7 U	< 3.4 U	< 94	< 1.7 U	< 1.7 U	< 130	< 160	< 74	< 1.7 U	< 1.7 U	< 3.4 U	< 1.7 U	< 1.7 U	< 1.7 U		
N24509SVB	24509 NEPTUNE AVE	2013-03-14	14:44	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4.0	< 5.6		
N24509SVH	24509 NEPTUNE AVE	2013-03-14	14:44	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7		
N24509SVF	24509 NEPTUNE AVE	2013-03-14	14:52	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7		
N24509SVH	24509 NEPTUNE AVE	2013-03-14	15:14	Front	< 12	< 4.2	< 5.2	< 99	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9		
P24509SVH	24509 PANAMA AVE	2010-11-12	13:31	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
P24509SVF	24509 PANAMA AVE	2010-11-12	14:13	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8		
P24509SVB	24509 PANAMA AVE	2010-11-12	14:43	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9		
P24509SVH	24509 PANAMA AVE	2013-02-07	09:44	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9		
P24509SVF	24509 PANAMA AVE	2013-02-07	09:50	Back	< 25	< 9	< 11	< 210	< 12	< 10	< 300	< 350	< 160	< 11	< 12	< 8.7	< 14	< 8.8	< 12		
P24509SVB	24509 PANAMA AVE	2013-02-07	09:50	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9		
P24509SVH	24509 PANAMA AVE	2013-06-28	10:31	House	< 12	< 4.4	< 5.4	< 100	< 6.2	< 5.1	< 150	< 170	< 81	< 5.4	< 6.2	< 4.3	< 7	< 4.4	< 6.2		
P24509SVB	24509 PANAMA AVE	2013-06-28	10:34	Back	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
P24509SVF	24509 PANAMA AVE	2013-06-28	10:34	Back	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
P24509SVH	24509 PANAMA AVE	2013-06-28	10:54	Front	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8		
R24509SVH	24509 RAVENNA AVE	2010-06-21	10:03	House	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
R24509SVB	24509 RAVENNA AVE	2010-06-21	10:50	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
R24509SVG	24509 RAVENNA AVE	2010-10-15	12:12	Garage	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
R24509SVF	24509 RAVENNA AVE	2012-04-12	15:49	Garage	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9		
R24509SVB	24509 RAVENNA AVE	2013-08-15	10:06	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7		
R24509SVS	24509 RAVENNA AVE	2013-08-15	10:06	Back	< 19 U	< 1.9 U	< 3.9 U	< 95	< 1.9 U	< 1.9 U	< 140	< 160	< 75	< 1.9 U	< 1.9 U	< 3.9 U	< 1.9 U	< 1.9 U	< 1.9 U		

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection																						
					Isopropanol UG/M3	4.47%		Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%
R24509SVHA	24509 RAVENNA AVE	2013-08-15	10:13	House	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.9	< 42	< 6										
R24509SVG	24509 RAVENNA AVE	2013-08-15	10:34	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 41	< 5.8										
M24512SVB	24512 MARBELLA AVE	2011-04-28	08:53	Back	< 13	< 4.6	< 5.7	< 110	< 6.5	< 5.4	< 150	< 180	< 85	< 5.7	< 6.5	< 4.5	< 7.4	< 4.6	< 6.5										
M24512SVBS	24512 MARBELLA AVE	2011-04-28	08:53	Back	< 3.7	< 1.9	< 3.7	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 1.9	< 3.7	4	< 1.9	< 1.9										
M24512SVH	24512 MARBELLA AVE	2011-04-28	09:34	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	6.2	< 5.9										
M24512SVF	24512 MARBELLA AVE	2011-04-28	10:12	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	7.7	< 4	< 5.6										
M24512SVFS	24512 MARBELLA AVE	2011-04-28	10:12	Front	< 4	< 2	< 4	< 62	< 2	< 2	< 88	< 100	< 49	< 2	< 2	< 4	7.9	< 2	< 2										
M24512SVH	24512 MARBELLA AVE	2012-01-20	09:53	House	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7										
M24512SVF	24512 MARBELLA AVE	2012-01-20	11:36	Front	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7										
M24512SVFS	24512 MARBELLA AVE	2012-01-20	11:36	Front	< 3.4 U	< 1.7 U	< 3.4 U	< 66	< 4	< 3.3	< 94	< 110	< 52	< 1.7 U	< 1.7 U	< 3.4 U	< 1.7 U	< 1.7 U	< 1.7 U										
M24512SVB	24512 MARBELLA AVE	2012-01-20	12:28	Back	< 7.9	< 2.8	< 3.5	< 66	< 4	< 4.8	< 140	< 160	< 75	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4										
M24512SVH	24512 NEPTUNE AVE	2013-07-26	14:42	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7										
M24512SVB	24512 NEPTUNE AVE	2013-07-26	14:49	Back	12	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 40	< 5.6										
M24512SVF	24512 NEPTUNE AVE	2013-07-26	15:09	Front	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 43	< 6.1										
M24512SVH	24512 PANAMA AVE	2010-11-08	09:27	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
M24512SVF	24512 PANAMA AVE	2010-11-08	10:01	Front	< 12	< 4.1	< 5.1	1800	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
P24512SVFS	24512 PANAMA AVE	2010-11-08	10:01	Front	8.1	< 2.7	< 5.4	< 100	< 2.7	< 2.7	< 140	< 170	< 80	< 2.7	< 2.7	< 5.4	< 2.7	< 2.7	< 2.7										
P24512SVB	24512 PANAMA AVE	2010-11-08	10:43	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6										
P24512SVH	24512 PANAMA AVE	2012-11-15	15:43	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7										
P24512SVF	24512 PANAMA AVE	2012-11-15	15:46	Front	< 11	< 3.9	6.6	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 39	< 5.5										
P24512SVB	24512 PANAMA AVE	2012-11-15	16:26	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 40	< 5.6										
P24512SVH	24512 PANAMA AVE	2013-06-13	09:49	House	< 11	< 3.8	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 71	< 4.8	< 5.4	< 3.8	< 6.2	< 38	< 5.4										
P24512SVF	24512 PANAMA AVE	2013-06-13	10:01	Front	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.3	< 7	< 43	< 6.1										
P24512SVS	24512 PANAMA AVE	2013-06-13	10:01	Front	< 20 U	< 2 U	< 4.1 U	< 100	< 2 U	< 2 U	< 140	< 170	< 81	< 2 U	< 2 U	< 4.1 U	< 2 U	< 2 U	< 2 U										
P24512SVB	24512 PANAMA AVE	2013-06-13	10:25	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	< 43	< 6.1										
N24513SVH	24513 NEPTUNE AVE	2010-08-05	09:03	House	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
N24513SVB	24513 NEPTUNE AVE	2010-08-05	09:41	Back	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
N24513SVBD	24513 NEPTUNE AVE	2010-08-05	09:41	Back	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
N24513SVF	24513 NEPTUNE AVE	2010-08-05	10:21	Front	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
N24513SVF	24513 NEPTUNE AVE	2012-08-02	15:00	Front	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 29	< 4.1										
N24513SVHD	24513 NEPTUNE AVE	2012-08-02	15:00	Front	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 29	< 4.1										
N24513SVH	24513 NEPTUNE AVE	2012-08-02	15:26	House	< 10	< 3.7	< 4.5	< 85	< 5.1	< 4.3	< 120	< 140	< 67	< 4.5	< 5.1	< 3.6	< 5.8	< 36	< 5.1										
N24513SVB	24513 NEPTUNE AVE	2012-08-02	15:30	Back	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 27	< 3.8										
N24513SVB	24513 NEPTUNE AVE	2013-06-05	14:57	Back	< 12	< 4.5	< 5.6	< 100	< 6.3	< 5.2	< 150	< 180	< 83	< 5.6	< 6.3	< 4.4	< 7.2	< 44	< 6.3										
N24513SVBS	24513 NEPTUNE AVE	2013-06-05	14:57	Back	< 23 U	< 2.3 U	< 4.6 U	< 98	< 2.3 U	< 2.3 U	< 140	< 160	< 77	< 2.3 U	< 2.3 U	< 4.6 U	< 2.3 U	< 2.3 U	< 2.3 U										
N24513SVH	24513 NEPTUNE AVE	2013-06-05	15:16	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 170	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 41	< 5.8										
N24513SVF	24513 NEPTUNE AVE	2013-06-05	15:25	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 42	< 5.9										
R24513SVB	24513 RAVENNA AVE	2010-04-23	12:51	Back	< 11	< 4	< 5	< 94 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 74 N.J.	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
R24513SVH	24513 RAVENNA AVE	2010-04-23	14:30	House	23	8.3	18	620 N.J.	9.7	7.5	520 N.J.	< 160 N.J.	930 N.J.	11	62	28	< 6.5	< 4	< 5.7										
R24513SVF	24513 RAVENNA AVE	2010-04-23	15:45	Front	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
R24513SVH	24513 RAVENNA AVE	2010-08-19	13:44	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 42	< 5.9										
R24513SVF	24513 RAVENNA AVE	2010-08-19	14:33	Front	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 42	< 5.9										
R24513SVB	24513 RAVENNA AVE	2010-08-19	15:14	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
R24513SVF	24513 RAVENNA AVE	2012-05-25	14:44	Front	< 7.9	< 2.8	< 3.5	< 66	< 3.9	3.8	< 93	< 110	< 52	< 3.5	< 3.9	< 2.8	< 4.5	< 28	< 3.9										
R24513SVFD	24513 RAVENNA AVE	2012-05-25	14:44	Front	< 7.8	< 2.8	< 3.4	< 65	< 3.9	3.9	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 27	< 3.9										
R24513SVB	24513 RAVENNA AVE	2012-05-25	15:00	Back	< 7.4	< 2.6	< 3.2	< 61	< 3.7	< 3.1	< 87	< 100	< 48	< 3.2	< 3.7	< 2.6	< 4.2	< 26	< 3.7										
R24513SVHA	24513 RAVENNA AVE	2013-07-25	14:42	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 41	< 5.8										
R24513SVB	24513 RAVENNA AVE	2013-07-25	14:51	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 42	< 5.9										
R24513SVF	24513 RAVENNA AVE	2013-07-25	15:15	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 42	< 5.9										
M24516SVH	24516 MARBELLA AVE	2010-05-27	09:16	House	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	6.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24516SVB	24516 MARBELLA AVE	2010-05-27	10:11	Back	< 12	< 4.2	< 5.2	< 98 N.J.	< 5.8	< 4.9	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.2	< 5.8	< 4.1	< 6.7	< 41	< 5.8										
M24516SVG	24516 MARBELLA AVE	2010-05-27	10:55	Garage	< 12	< 4.2	< 5.2	< 98 N.J.	< 5.8	< 4.9	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.2	< 5.8	< 4.1	< 6.7	< 41	< 5.8										

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection																						
					Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4- Trimethyl- benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl- benzene UG/M3	1.97%	Cumene (isopropyl- benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
M24516SVH	24516 MARBELLA AVE	2012-05-24	14:57	House	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 27	< 3.8										
M24516SVG	24516 MARBELLA AVE	2012-05-24	15:14	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 27	< 3.8										
M24516SVGD	24516 MARBELLA AVE	2012-05-24	15:14	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 27	< 3.8										
M24516SVB	24516 MARBELLA AVE	2012-05-24	15:39	Back	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 27	< 3.8										
M24517SVF	24517 MARBELLA AVE	2009-10-06	13:40	Front	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6										
M24517SVB	24517 MARBELLA AVE	2009-10-06	17:16	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24517SVBD	24517 MARBELLA AVE	2009-10-06	17:16	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24517SVH	24517 MARBELLA AVE	2011-02-08	09:42	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24517SVH	24517 MARBELLA AVE	2011-10-11	13:46	House	< 7.9	< 2.8	< 3.5	< 66	< 3.9	< 3.3	< 93	< 110	< 52	< 3.5	< 3.9	< 2.8	< 4.5	< 2.8	< 3.9										
M24517SVF	24517 MARBELLA AVE	2011-10-11	14:20	Front	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1										
M24517SVFD	24517 MARBELLA AVE	2011-10-11	14:20	Front	< 8.3	< 3	< 3.7	< 69	< 4.2	< 3.5	< 98	< 120	< 55	< 3.7	< 4.2	< 2.9	< 4.7	< 2.9	< 4.2										
M24517SVB	24517 MARBELLA AVE	2011-10-11	14:57	Back	< 7.7	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24517SVBD	24517 MARBELLA AVE	2011-10-11	14:57	Back	< 7.7	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24517SVB	24517 MARBELLA AVE	2012-03-23	15:05	Back	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24517SVBD	24517 MARBELLA AVE	2012-03-23	15:05	Back	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	150	110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24517SVF	24517 MARBELLA AVE	2012-03-23	15:16	Front	< 7.6	< 2.7	16	< 64	< 3.8	< 3.2	< 90	< 110	< 50	4.9	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24517SVB	24517 MARBELLA AVE	2013-08-20	14:42	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6										
M24517SVH	24517 MARBELLA AVE	2013-08-20	14:57	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
M24517SVF	24517 MARBELLA AVE	2013-08-20	15:02	Front	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6										
N24518SVB	24518 NEPTUNE AVE	2010-07-28	10:05	Back	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	6	< 4.2	< 6.8	< 4.2	< 5.9										
N24518SVH	24518 NEPTUNE AVE	2010-07-28	11:06	House	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6										
N24518SVG	24518 NEPTUNE AVE	2010-07-28	12:10	Garage	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
N24518SVH	24518 NEPTUNE AVE	2013-04-26	09:59	House	< 11	< 3.8	< 4.7	< 88	< 5.3	< 4.4	< 120	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6.1	< 3.8	< 5.3										
N24518SVG	24518 NEPTUNE AVE	2013-04-26	10:29	Garage	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6										
N24518SVB	24518 NEPTUNE AVE	2013-04-26	10:32	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1										
N24518SVBD	24518 NEPTUNE AVE	2013-04-26	10:32	Back	< 12	< 4.4	< 5.4	< 100	< 6.2	< 5.1	< 150	< 170	< 81	< 5.4	< 6.2	< 4.3	< 7	< 4.4	< 6.2										
N24518SVH	24518 NEPTUNE AVE	2013-07-16	14:56	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6										
N24518SVBD	24518 NEPTUNE AVE	2013-07-16	14:56	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1										
N24518SVH	24518 NEPTUNE AVE	2013-07-16	15:35	House	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 84	< 5.6	< 6.3	< 4.4	< 7.2	< 4.5	< 6.3										
N24518SVG	24518 NEPTUNE AVE	2013-07-16	15:38	Garage	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
R24518SVH2	24518 RAVENNA AVE	2010-04-26	14:09	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
R24518SVH1	24518 RAVENNA AVE	2010-04-26	15:09	House	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
R24518SVF	24518 RAVENNA AVE	2010-04-26	16:04	Front	< 11	< 3.9	< 4.8	< 91 N.J	< 5.5	< 4.6	< 130 N.J	< 160 N.J	< 72 N.J	< 4.8	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
R24518SVF	24518 RAVENNA AVE	2012-07-12	14:58	Front	< 7.1	< 2.5	< 3.1	< 59	< 3.5 PF	< 3	< 84	< 100	< 47	< 3.1	< 3.5	< 2.5	< 4	< 2.5	< 3.5										
R24518SVFD	24518 RAVENNA AVE	2012-07-12	14:58	Front	< 7.1	< 2.5	< 3.1	< 59	< 3.5 PF	< 3	< 84	< 100	< 47	< 3.1	< 3.5	< 2.5	< 4	< 2.5	< 3.5										
R24518SVH1	24518 RAVENNA AVE	2012-07-12	15:08	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9 PF	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9										
R24518SVH2	24518 RAVENNA AVE	2012-07-12	15:49	House	14	< 3	< 3.6	< 69	< 4.1 PF	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1										
N24519SVB	24519 NEPTUNE AVE	2010-08-10	09:01	Back	< 12	< 4.1	< 5.1	< 96 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 76 N.J	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
N24519SVH	24519 NEPTUNE AVE	2010-08-10	09:59	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
N24519SVF	24519 NEPTUNE AVE	2010-08-10	10:47	Front	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
N24519SVB	24519 NEPTUNE AVE	2012-06-29	14:47	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1										
N24519SVBD	24519 NEPTUNE AVE	2012-06-29	14:47	Back	< 8.1	< 2.9	< 3.6	< 67	< 4	< 3.4	< 95	< 110	< 53	< 3.6	< 4	< 2.8	< 4.6	< 2.8	< 4										
N24519SVH	24519 NEPTUNE AVE	2012-06-29	14:56	House	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
N24519SVF	24519 NEPTUNE AVE	2012-06-29	15:26	Front	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1										
P24519SVH	24519 PANAMA AVE	2010-10-18	00:00	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
P24519SVF	24519 PANAMA AVE	2010-10-18	13:31	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
P24519SVS	24519 PANAMA AVE	2010-10-18	13:31	Front	4	< 1.6	< 3.3	< 16	< 1.6	< 1.6	< 130	< 160	< 74	< 1.6	< 1.6	< 3.3	< 1.6	< 1.6	< 1.6										
P24519SVB	24519 PANAMA AVE	2010-10-18	14:14	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
P24519SVBS	24519 PANAMA AVE	2010-10-18	14:14	Back	< 3.4	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7	< 130	< 160	< 73	< 1.7	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7										
P24519SVB	24519 PANAMA AVE	2013-06-06	14:48	Back	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 5.6										
P24519SVH	24519 PANAMA AVE	2013-06-06	14:48	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1										
P24519SVF	24519 PANAMA AVE	2013-06-06	15:10	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.9	< 4.2	< 6										

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
M24522SVH	24522 MARBELLA AVE	2010-04-30	09:04	House	< 11	< 4	< 5	< 94 N/J	< 5.6	< 4.7	< 130 N/J	< 160 N/J	< 74 N/J	< 5	< 5.6	< 4	< 6.5	< 4	< 6.5	< 4	< 5.6									
M24522SVB	24522 MARBELLA AVE	2010-04-30	09:57	Back	< 12	< 4.3	19	< 99 N/J	< 5.9	< 5	< 140 N/J	< 170 N/J	< 78 N/J	11	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9									
M24522SVF	24522 MARBELLA AVE	2010-04-30	10:58	Front	< 12	< 4.2	< 5.2	< 98 N/J	< 5.9	< 4.9	< 140 N/J	< 170 N/J	< 77 N/J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.9									
M24522SVFD	24522 MARBELLA AVE	2010-04-30	10:58	Front	< 12	< 4.2	< 5.1	< 97 N/J	< 5.8	< 4.8	< 140 N/J	< 160 N/J	< 77 N/J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8									
M24522SVG	24522 MARBELLA AVE	2010-10-13	09:08	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 6.5	< 4	< 5.6									
M24522SVH	24522 MARBELLA AVE	2010-10-13	10:04	House	< 10	< 3.8	< 4.7	< 88	< 5.3	< 4.4	< 120	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6	< 3.7	< 6	< 3.7	< 5.3									
M24522SVB	24522 MARBELLA AVE	2010-10-13	11:35	Back	< 13	< 4.6	< 5.6	< 110	< 6.4	< 5.3	< 150	< 180	< 84	< 5.6	< 6.4	< 4.4	< 7.3	< 4.4	< 7.3	< 4.4	< 6.4									
M24522SVF	24522 MARBELLA AVE	2012-04-20	10:30	Front	< 9.7	< 3.5	< 4.3	< 81	< 4.9	< 4	< 120	< 140 PF	< 64	< 4.3	< 4.9	< 3.4	< 5.6	< 3.4	< 5.6	< 3.4	< 4.9									
M24522SVH	24522 MARBELLA AVE	2012-04-20	10:32	House	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 4.4	< 2.7	< 3.8									
M24522SVB	24522 MARBELLA AVE	2012-04-20	11:11	Back	< 8.4	< 3	< 3.7	< 70	< 4.2	< 3.5	< 100	< 120 PF	< 55	< 3.7	< 4.2	< 2.9	< 4.8	< 2.9	< 4.8	< 2.9	< 4.2									
M24522SVBD	24522 MARBELLA AVE	2012-04-20	11:11	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120 PF	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.7	< 2.9	< 4.1									
M24522SVH	24522 NEPTUNE AVE	2010-06-15	14:13	House	< 11	< 4	< 4.9	< 93 N/J	< 5.6	< 4.6	< 130 N/J	< 160 N/J	< 73 N/J	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 6.3	< 3.9	< 5.6									
M24522SVF	24522 NEPTUNE AVE	2010-06-15	14:59	Front	< 12	< 4.2	< 5.2	< 99 N/J	< 5.9	< 4.9	< 140 N/J	< 170 N/J	< 78 N/J	< 5.2	< 5.9	< 4.1	< 6.8	< 4.1	< 6.8	< 4.1	< 5.9									
M24522SVH	24522 NEPTUNE AVE	2011-02-02	13:54	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.8	< 6.3	< 3.9	< 5.5									
M24522SVBA	24522 NEPTUNE AVE	2011-02-02	14:25	Back	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 6.2	< 3.8	< 5.4									
M24522SVF	24522 NEPTUNE AVE	2011-02-02	14:57	Front	21	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 4.8	< 5.9	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	7.2									
M24522SVH	24522 NEPTUNE AVE	2012-04-05	09:57	House	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.7	< 2.9	< 4.1									
M24522SVF	24522 NEPTUNE AVE	2012-04-05	09:59	Front	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.7	< 2.9	< 4.1									
M24522SVFD	24522 NEPTUNE AVE	2012-04-05	09:59	Front	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.7	< 2.9	< 4.1									
M24522SVBA	24522 NEPTUNE AVE	2012-04-05	10:55	Back	< 8.4	< 3	< 3.7	< 70	< 4.2	< 3.5	< 100	< 120	< 55	< 3.7	< 4.2	< 2.9	< 4.8	< 2.9	< 4.8	< 2.9	< 4.2									
M24522SVH	24522 NEPTUNE AVE	2013-06-06	09:52	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 7	< 4.3	< 6.1									
M24522SVBA	24522 NEPTUNE AVE	2013-06-06	10:09	Back	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4.0	< 5.6									
M24522SVBAS	24522 NEPTUNE AVE	2013-06-06	10:09	Back	< 19 U	< 1.9 U	< 3.9 U	< 99	< 5.9	< 4.9	< 140 N/J	< 170 N/J	< 79	< 1.9 U	< 1.9 U	< 3.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U									
M24522SVFS	24522 NEPTUNE AVE	2013-06-06	10:20	Front	< 19 U	< 1.9 U	< 3.8 U	< 99	< 5.7	< 4.8	< 140	< 160	< 75	< 1.9 U	< 1.9 U	< 3.8 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U									
P24522SVG	24522 PANAMA AVE	2010-06-09	12:59	Garage	< 12	< 4.4	< 5.4	< 100 N/J	< 6.1	< 5.1	< 140 N/J	< 170 N/J	< 80 N/J	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 7	< 4.3	< 6.1									
P24522SVB	24522 PANAMA AVE	2010-06-09	14:01	Back	< 12	< 4.2	< 5.1	< 97 N/J	< 5.8	< 4.8	< 140 N/J	< 160 N/J	< 77 N/J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8									
P24522SVH	24522 PANAMA AVE	2010-06-17	12:25	House	< 12	< 4.3	< 5.2	< 99 N/J	< 5.9	< 5	< 140 N/J	< 170 N/J	< 78 N/J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9									
P24522SVHS	24522 PANAMA AVE	2010-06-17	12:25	House	< 3.5	< 1.8	< 3.5	< 97	< 1.8	< 1.8	< 140	< 160	< 77	< 1.8	< 1.8	< 3.5	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8									
P24522SVB	24522 PANAMA AVE	2013-03-22	15:11	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8									
P24522SVBD	24522 PANAMA AVE	2013-03-22	15:11	Back	< 12	< 4.2	< 5.1	< 99	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.8	< 4.1	< 6.8	< 4.1	< 5.9									
P24522SVH	24522 PANAMA AVE	2013-03-22	15:19	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4	< 6.6	< 4	< 5.8									
P24522SVG	24522 PANAMA AVE	2013-03-22	15:54	Garage	< 11	< 3.9	< 4.8	< 91	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 6.2	< 3.8	< 5.4									
P24522SVH	24522 RAVENNA AVE	2010-11-01	13:28	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6									
P24522SVG	24522 RAVENNA AVE	2010-11-01	14:02	Garage	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
P24522SVB	24522 RAVENNA AVE	2010-11-01	14:41	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24522SVG	24522 RAVENNA AVE	2012-08-23	15:00	Garage	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.3	< 7.1	< 4.3	< 6.2									
P24522SVH	24522 RAVENNA AVE	2012-08-23	15:08	House	31	5.5	< 5.2	< 99	< 5.9	5.1	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9									
P24522SVB	24522 RAVENNA AVE	2012-08-23	15:29	Back	< 13	< 4.5	< 5.6	180	< 6.3	< 5.3	230	< 180	< 84	< 4.5	< 6.3	< 4.4	< 7.2	< 4.4	< 7.2	< 4.4	< 6.3									
P24522SVG	24522 RAVENNA AVE	2013-03-22	15:54	Garage	< 11	< 3.9	< 4.8	< 91	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 6.2	< 3.8	< 5.4									
P24522SVH	24522 RAVENNA AVE	2010-11-01	13:28	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6									
P24522SVG	24522 RAVENNA AVE	2010-11-01	14:02	Garage	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
P24522SVB	24522 RAVENNA AVE	2010-11-01	14:41	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24522SVG	24522 RAVENNA AVE	2012-08-23	15:00	Garage	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.3	< 7.1	< 4.3	< 6.2									
P24522SVH	24522 RAVENNA AVE	2012-08-23	15:08	House	31	5.5	< 5.2	< 99	< 5.9	5.1	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9									
P24522SVB	24522 RAVENNA AVE	2012-08-23	15:29	Back	< 13	< 4.5	< 5.6	180	< 6.3	< 5.3	230	< 180	< 84	< 4.5	< 6.3	< 4.4	< 7.2	< 4.4	< 7.2	< 4.4	< 6.3									
P24522SVH	24522 RAVENNA AVE	2013-05-21	09:54	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 6.5	< 4	< 5.6									
P24522SVG	24522 RAVENNA AVE	2013-05-21	09:59	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 160	< 77	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9									
P24522SVBD	24522 RAVENNA AVE	2013-05-21	09:59	Back	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 6.7	<										

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection														
					Isopropanol UG/M3	Hexane UG/M3		p/m-Xylene UG/M3	C6-C8 Aliphatics UG/M3	1,2,4-Trimethyl-benzene UG/M3	Heptane UG/M3	C8-C10 Aliphatics UG/M3	C10-C12 Aliphatics UG/M3	C5-C6 Aliphatics UG/M3	Ethyl-benzene UG/M3	Cumene (isopropyl-benzene) UG/M3	Cyclohexane UG/M3	Freon 11 UG/M3	Methylene Chloride UG/M3	4-Ethyltoluene UG/M3	
M245233VG	24523 MARBELLA AVE	2013-08-28	10:08	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	13	< 41	< 5.8		
N245233VH	24523 NEPTUNE AVE	2010-04-07	14:40	House	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6		
N245233VF	24523 NEPTUNE AVE	2010-04-07	15:41	Front	< 12	< 4.2	< 5.2	< 99 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9		
N245233VB	24523 NEPTUNE AVE	2010-04-07	16:36	Back	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9		
N245233VH	24523 NEPTUNE AVE	2012-10-04	09:56	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
N245233VF	24523 NEPTUNE AVE	2012-10-04	10:37	Front	< 10	< 4.1	< 4.6	< 87	< 5.2	< 4.3	< 120	< 150	< 69	< 4.6	< 5.2	< 3.6	< 6	< 37	< 5.2		
N245233VB	24523 NEPTUNE AVE	2012-10-04	10:50	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 40	< 5.6		
N245233VBS	24523 NEPTUNE AVE	2012-10-04	10:50	Back	< 20 U	< 2 U	< 4 U	< 94	< 2 U	< 2 U	< 2 U	< 170	< 77	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U		
N245233VH	24523 NEPTUNE AVE	2013-02-22	10:20	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9		
N245233VHS	24523 NEPTUNE AVE	2013-02-22	10:20	House	< 20 U	< 2 U	< 4.1 U	< 95	< 2 U	< 2 U	< 140	< 170	< 75	< 2 U	< 2 U	< 4.1 U	< 2 U	< 2 U	< 2 U		
N245233VB	24523 NEPTUNE AVE	2013-02-22	10:36	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7		
N245233VBS	24523 NEPTUNE AVE	2013-02-22	10:36	Back	< 20 U	< 2 U	< 4 U	< 95	< 2 U	< 2 U	< 140	< 160	< 75	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U		
N245233VF	24523 NEPTUNE AVE	2013-02-22	11:09	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7		
N245233VFD	24523 NEPTUNE AVE	2013-02-22	11:09	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7		
R245233VF	24523 RAVENNA AVE	2009-11-08	10:58	Front	< 11	< 3.8	< 4.7	< 83	< 5.3	< 4.4	< 120	< 140	< 65	< 4.7	< 5.3	< 3.7	< 6.1	< 3.8	< 5.3		
R245233VFS	24523 RAVENNA AVE	2009-11-08	10:58	Front	0.95 J	< 1.9	< 3.8	< 66	< 1.9	< 1.9	< 140	< 170	< 77	< 1.9	1.4 J	< 3.8	1.3 J	< 1.9	< 1.9		
R245233VBA	24523 RAVENNA AVE	2009-12-03	16:11	Back	< 10	< 3.8	< 4.6	430 N.J	< 5.2	< 4.4	230 N.J	530 N.J	290 N.J	< 4.6	16	32	< 6	< 3.7	< 5.2		
R245233VH	24523 RAVENNA AVE	2010-08-24	09:54	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
R245233VF	24523 RAVENNA AVE	2010-08-24	10:58	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
R245233VB	24523 RAVENNA AVE	2010-08-24	11:00	Back	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
R245233VH	24523 RAVENNA AVE	2011-03-25	09:23	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M245265VH	24526 MARBELLA AVE	2010-10-13	13:28	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
M245265VG	24526 MARBELLA AVE	2010-10-13	14:08	Garage	< 9.9	< 3.6	< 4.4	< 83	< 5	< 4.1	< 120	< 140	< 65	< 4.4	< 5	< 3.5	< 5.7	< 3.5	< 5		
M245265VB	24526 MARBELLA AVE	2010-10-13	14:51	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M245265VBA	24526 MARBELLA AVE	2010-11-03	09:42	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
M245265VH	24526 MARBELLA AVE	2012-04-19	10:00	House	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110 PF	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4		
M245265VG	24526 MARBELLA AVE	2012-04-19	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
M245265VGD	24526 MARBELLA AVE	2012-04-19	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
M245265VB	24526 MARBELLA AVE	2012-04-19	10:41	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120 PF	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1		
N245285VH	24528 NEPTUNE AVE	2010-11-03	09:42	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
N245285VH	24528 NEPTUNE AVE	2010-11-03	10:25	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
N245285VGD	24528 NEPTUNE AVE	2012-04-19	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
M245265VB	24526 MARBELLA AVE	2012-04-19	10:41	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120 PF	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1		
N245285VH	24528 NEPTUNE AVE	2010-11-03	09:42	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
N245285VH	24528 NEPTUNE AVE	2010-11-03	10:25	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
N245285VGD	24528 NEPTUNE AVE	2012-04-19	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
M245265VB	24526 MARBELLA AVE	2012-04-19	10:41	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120 PF	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1		
N245285VH	24528 NEPTUNE AVE	2010-11-03	09:42	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
N245285VH	24528 NEPTUNE AVE	2010-11-03	10:25	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
N245285VGD	24528 NEPTUNE AVE	2012-04-19	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
M245265VB	24526 MARBELLA AVE	2012-04-19	10:41	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120 PF	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1		
N245285VH	24528 NEPTUNE AVE	2010-11-03	09:42	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
N245285VH	24528 NEPTUNE AVE	2010-11-03	10:25	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
N245285VGD	24528 NEPTUNE AVE	2012-04-19	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
M245265VB	24526 MARBELLA AVE	2012-04-19	10:41	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120 PF	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1		
N245285VH	24528 NEPTUNE AVE	2010-11-03	09:42	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9		
N245285VH	24528 NEPTUNE AVE	2010-11-03	10:25	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8		
N245285VB	24528 NEPTUNE AVE	2010-11-03	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
N245285VGD	24528 NEPTUNE AVE	2012-04-19	10:36	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110 PF	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8		
M245265VB	24526 MARBELLA AVE	2012-04-19	10:41	Back</																	

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4- Trimethyl- benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl- benzene UG/M3	1.97%	Cumene (isopropyl- benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3	1.72%	Methylene Chloride UG/M3	1.72%	4-Ethyltoluene UG/M3	1.60%
					UG/M3	UG/M3																															
P24529SVF	24529 PANAMA AVE	2012-05-17	10:37	Front	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 29	< 4.1																		
P24529SVFS	24529 PANAMA AVE	2012-05-17	10:37	Front	< 4 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U	< 92	< 110	< 51	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U																		
P24529SVHA	24529 PANAMA AVE	2012-05-31	08:20	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9																		
P24529SVF	24529 RAVENNA AVE	2011-08-18	14:54	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9																		
P24529SVFS	24529 RAVENNA AVE	2011-08-18	14:54	Front	5.7	< 1.7 U	< 3.5 U	< 97	< 1.7 U	< 1.7 U	< 140	< 160	< 77	< 1.7 U	< 1.7 U	< 3.5 U	< 1.7 U	< 1.7 U	< 1.7 U																		
P24529SVH	24529 RAVENNA AVE	2011-08-18	15:25	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8																		
P24529SVHS	24529 RAVENNA AVE	2011-08-18	15:25	House	< 3.5 U	< 1.8 U	< 3.5 U	< 99	< 1.8 U	< 1.8 U	< 140	< 170	< 78	< 1.8 U	< 1.8 U	< 3.5 U	< 1.8 U	< 1.8 U	< 1.8 U																		
P24529SVB	24529 RAVENNA AVE	2011-08-18	16:24	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9																		
P24529SVBS	24529 RAVENNA AVE	2011-08-18	16:24	Back	< 3.5 U	< 1.8 U	5	< 93	< 1.8 U	< 1.8 U	< 130	< 160	< 74	< 1.8 U	< 1.8 U	< 3.5 U	< 1.8 U	< 1.8 U	< 1.8 U																		
P24529SVH	24529 RAVENNA AVE	2013-08-02	14:48	House	< 11	< 4	< 5	< 99	< 5.6	< 4.7	< 140	< 170	< 78	< 4.9	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6																		
P24529SVB	24529 RAVENNA AVE	2013-08-02	14:54	Back	< 12	< 4.2	< 5.2	< 99	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9																		
P24529SVF	24529 RAVENNA AVE	2013-08-02	15:18	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7																		
P24532SVB	24532 MARBELLA AVE	2009-10-09	10:05	Back	< 11	< 4	< 5	< 93 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 74 N.J.	< 4.9	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVBS	24532 MARBELLA AVE	2009-10-09	10:05	Back	8.7	< 2.3	< 4.5	< 93 N.J.	< 2.3	< 2.3	< 260 N.J.	< 310 N.J.	< 150 N.J.	< 2.3	1.91	< 4.5	1.21	< 2.3	< 2.3																		
P24532SVF	24532 MARBELLA AVE	2009-10-09	11:40	Front	< 11	< 3.9	< 4.9	< 180 N.J.	< 5.5	< 4.6	< 140	< 170	< 75	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5																		
P24532SVFS	24532 MARBELLA AVE	2009-10-09	11:40	Front	< 4	< 2	< 4	< 2	< 2	< 2	< 87	< 100	< 48	< 3.2	< 3.7	< 2.6	< 4.2	< 2.6	< 3.7																		
P24532SVH	24532 MARBELLA AVE	2011-09-23	08:33	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9																		
P24532 SVF	24532 MARBELLA AVE	2011-09-23	09:04	Front	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9																		
P24532 SVF-D	24532 MARBELLA AVE	2011-09-23	09:04	Front	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9																		
P24532 SVB	24532 MARBELLA AVE	2011-09-23	09:37	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7																		
P24532SVH	24532 MARBELLA AVE	2012-04-05	15:17	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9																		
P24532SVF	24532 MARBELLA AVE	2012-04-05	15:24	Front	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8																		
P24532SVB	24532 MARBELLA AVE	2012-04-05	15:56	Back	< 7.3	< 2.6	< 3.2	< 61	< 3.7	< 3	< 87	< 100	< 48	< 3.2	< 3.7	< 2.6	< 4.2	< 2.6	< 3.7																		
P24532SVBD	24532 MARBELLA AVE	2012-04-05	15:56	Back	< 7.3	< 2.6	< 3.2	< 61	< 3.7	< 3	< 87	< 100	< 48	< 3.2	< 3.7	< 2.6	< 4.2	< 2.6	< 3.7																		
P24532SVH	24532 MARBELLA AVE	2013-08-23	13:48	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6																		
P24532SVF	24532 MARBELLA AVE	2013-08-23	13:54	Front	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 83	< 5.6	< 6.3	< 4.4	< 7.2	< 4.5	< 6.3																		
P24532SVB	24532 MARBELLA AVE	2013-08-23	14:18	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9																		
P24532SVG	24532 NEPTUNE AVE	2010-05-19	14:06	Garage	< 13	6.5	53	170 N.J.	< 6.7	11	< 160 N.J.	< 190 N.J.	< 88 N.J.	7.2	< 6.7	14	< 7.7	< 4.7	< 6.7																		
P24532SVH	24532 NEPTUNE AVE	2010-05-19	14:56	House	85	< 4.1	51	160 N.J.	12	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	14	< 5.7	42	< 6.5	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2D	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
P24532SVB2	24532 NEPTUNE AVE	2010-09-03	13:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74																								

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Analyte Units	Isopropanol UG/M3	Hexane UG/M3	p/m-Xylene UG/M3	C6-C8 Aliphatics UG/M3	1,2,4-Trimethyl-benzene UG/M3	Heptane UG/M3	C8-C10 Aliphatics UG/M3	C10-C12 Aliphatics UG/M3	C5-C6 Aliphatics UG/M3	Ethyl-benzene UG/M3	Cumene (isopropyl-benzene) UG/M3	Cyclohexane UG/M3	Freon 11 UG/M3	Methylene Chloride UG/M3
R24532SVHD	24532 RAVENNA AVE	2011-05-11	15:48	House	13	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
R24532SVB	24532 RAVENNA AVE	2012-11-16	14:54	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7
R24532SVF	24532 RAVENNA AVE	2012-11-16	15:37	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 42	< 5.9
R24532SVB	24532 RAVENNA AVE	2013-07-31	14:41	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	< 43	< 6.1
R24532SVF	24532 RAVENNA AVE	2013-07-31	15:31	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7
R24532SVH	24532 RAVENNA AVE	2013-07-31	15:48	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 40	< 5.6
N24533SVH	24533 NEPTUNE AVE	2010-07-12	13:52	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
N24533SVF	24533 NEPTUNE AVE	2010-07-12	14:26	Front	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9
N24533SVB	24533 NEPTUNE AVE	2010-07-12	15:01	Back	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6
N24533SVB	24533 NEPTUNE AVE	2013-03-07	09:58	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 41	< 5.8
N24533SVBS	24533 NEPTUNE AVE	2013-03-07	09:58	Back	< 20 U	< 2 U	< 3.9 U	< 96	< 2 U	< 2 U	< 140	< 160	< 76	< 2 U	< 2 U	< 3.9 U	< 2 U	< 2 U	< 2 U
N24533SVH	24533 NEPTUNE AVE	2013-03-07	10:00	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 41	< 5.8
N24533SVF	24533 NEPTUNE AVE	2013-03-07	10:33	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7
N24533SVF5	24533 NEPTUNE AVE	2013-03-07	10:33	Front	< 20 U	< 2 U	< 4 U	< 96	< 2 U	< 2 U	< 140	< 160	< 76	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U
N24533SVB	24533 NEPTUNE AVE	2013-07-03	09:44	Back	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 75	< 5.1	< 5.8	< 4	< 6.6	< 41	< 5.8
N24533SVBD	24533 NEPTUNE AVE	2013-07-03	09:44	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 41	< 5.8
N24533SVH	24533 NEPTUNE AVE	2013-07-03	10:00	House	< 12	< 4.2	< 5.2	< 99	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.8	< 42	< 5.9
N24533SVF	24533 NEPTUNE AVE	2013-07-03	10:10	Front	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 41	< 5.8
N24533SVH	24533 PANAMA AVE	2011-03-18	14:10	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
P24533SVFA	24533 PANAMA AVE	2011-03-18	14:44	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6
P24533SVFAD	24533 PANAMA AVE	2011-03-18	14:44	Front	< 11	< 4.1	< 5.1	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
P24533SVFA	24533 PANAMA AVE	2012-09-20	10:33	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 42	< 5.9
P24533SVFAS	24533 PANAMA AVE	2012-09-20	10:33	Front	< 20 U	< 2 U	< 4 U	< 99	< 2 U	< 2 U	< 140	< 170	< 78	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U
P24533SVH	24533 PANAMA AVE	2012-09-20	10:44	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 43	< 6.1
P24533SVBA	24533 PANAMA AVE	2012-09-20	11:28	Back	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 44	< 6.2
P24533SVBA	24533 PANAMA AVE	2013-07-24	14:42	Back	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 44	< 6.2
P24533SVH	24533 PANAMA AVE	2013-07-24	14:47	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 41	< 5.8
P24533SVFA	24533 PANAMA AVE	2013-07-24	15:05	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7
R24533SVG	24533 RAVENNA AVE	2010-09-07	09:26	Garage	< 13	< 4.7	< 5.8	< 110	< 6.6	< 5.5	< 160	< 190	< 87	< 5.8	< 6.6	< 4.6	< 7.6	< 4.7	< 6.6
R24533SVH	24533 RAVENNA AVE	2010-09-07	10:05	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.8	< 4.3	< 6.1
R24533SVB	24533 RAVENNA AVE	2010-09-07	11:04	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9
R24 533 SVH	24533 RAVENNA AVE	2012-09-27	10:16	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 42	< 5.9
R24 533 SVG	24533 RAVENNA AVE	2012-09-27	10:18	Garage	< 11	< 4.2	< 4.7	< 88	< 5.3	5	< 120	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6.1	< 38	< 5.3
R24 533 SVB	24533 RAVENNA AVE	2012-09-27	11:05	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 41	< 5.8
R24533SVHA	24533 RAVENNA AVE	2013-08-27	09:49	House	18	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7
R24533SVB	24533 RAVENNA AVE	2013-08-27	09:55	Back	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 39	< 5.5
R24533SVBS	24533 RAVENNA AVE	2013-08-27	09:55	Back	< 19 U	12 J	< 3.8 U	< 1.9 U	9.4 J					< 1.9 U	< 1.9 U	< 3.8 U	< 1.9 U	< 1.9 U	< 1.9 U
R24533SVG	24533 RAVENNA AVE	2013-08-27	10:20	Garage	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 43	< 6
M24602SVF	24602 MARBELLA AVE	2010-11-04	13:10	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6
M24602SVB	24602 MARBELLA AVE	2010-11-04	13:54	Back	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2
M24602SVH	24602 MARBELLA AVE	2012-06-01	09:55	House	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 26	< 3.7
M24602SVF	24602 MARBELLA AVE	2012-06-01	10:05	Front	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 27	< 3.8
M24602SVFS	24602 MARBELLA AVE	2012-06-01	10:05	Front	9.6	< 1.7 U	< 3.3 U	< 1.7 U	< 1.7 U	< 1.7 U				< 1.7 U	< 1.7 U	4.2	< 1.7 U	< 1.7 U	< 1.7 U
M24602SVB	24602 MARBELLA AVE	2012-06-01	10:29	Back	< 8	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.6	< 28	< 4
M24602SVH	24602 MARBELLA AVE	2012-06-01	09:55	House	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 26	< 3.7
M24602SVF	24602 MARBELLA AVE	2012-06-01	10:05	Front	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 27	< 3.8
M24602SVB	24602 MARBELLA AVE	2013-08-27	14:57	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 42	< 6
M24602SVH	24602 MARBELLA AVE	2013-08-27	15:00	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 42	< 5.9
M24602SVF	24602 MARBELLA AVE	2013-08-27	15:24	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2
N24602SVH	24602 NEPTUNE AVE	2010-07-27	09:30	House	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6
N24602SVB	24602 NEPTUNE AVE	2010-07-27	10:10	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
N24602SVF	24602 NEPTUNE AVE	2010-07-27	11:00	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection														
					Isopropanol UG/M3	Hexane UG/M3		p/m-Xylene UG/M3	C6-C8 Aliphatics UG/M3	1,2,4-Trimethyl-benzene UG/M3	Heptane UG/M3	C8-C10 Aliphatics UG/M3	C10-C12 Aliphatics UG/M3	C5-C6 Aliphatics UG/M3	Ethyl-benzene UG/M3	Cumene (isopropyl-benzene) UG/M3	Cyclohexane UG/M3	Freon 11 UG/M3	Methylene Chloride UG/M3	4-Ethyltoluene UG/M3	
N24602SVB	24602 NEPTUNE AVE	2011-03-04	15:08	Back	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 4	< 5.6	
N24602SVF	24602 NEPTUNE AVE	2011-03-04	15:22	Front	< 12	< 4.1	< 5.1	< 96	< 4.1	< 4.8	< 140	< 160	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8	
N24602SVFD	24602 NEPTUNE AVE	2011-03-04	15:22	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7	
N24602SVH	24602 NEPTUNE AVE	2011-03-04	15:56	House	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 4	< 5.6	
N24602SVB	24602 NEPTUNE AVE	2012-06-29	09:59	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1	
N24602SVB8	24602 NEPTUNE AVE	2012-06-29	09:59	Back	< 18 U	< 1.8 U	< 3.6 U	< 64	< 1.8 U	< 1.8 U	< 90	< 110	< 110	< 50	< 1.8 U	< 1.8 U	< 3.6 U	< 1.8 U	< 1.8 U	< 3.8	
N24602SVH	24602 NEPTUNE AVE	2012-06-29	10:05	House	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8	
N24602SVF	24602 NEPTUNE AVE	2012-06-29	10:34	Front	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1	
N24602SVF5	24602 NEPTUNE AVE	2012-06-29	10:34	Front	< 17 U	< 1.7 U	< 3.5 U	< 98	< 1.7 U	< 1.7 U	< 140	< 160	< 160	< 77	< 1.7 U	< 1.7 U	< 3.5 U	< 1.7 U	< 1.7 U	< 1.7 U	
R24602SVB	24602 RAVENNA AVE	2012-10-05	09:57	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8	
R24602SVF	24602 RAVENNA AVE	2012-10-05	09:57	Front	< 13	< 4.6	< 5.7	< 110	< 6.5	< 5.4	< 150	< 180	< 180	< 85	< 5.7	< 6.5	< 4.5	< 7.4	< 4.6	< 6.5	
R24602SVF5	24602 RAVENNA AVE	2012-10-05	09:57	Front	< 26 U	< 2.6 U	< 5.3 U	< 100	< 2.6 U	< 2.6 U	< 140	< 170	< 170	< 80	< 2.6 U	< 2.6 U	< 5.3 U	< 2.6 U	< 2.6 U	< 2.6 U	
R24602SVH	24602 RAVENNA AVE	2012-10-05	10:57	House	< 12	5.5	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1	
R24602SVB	24602 RAVENNA AVE	2013-04-10	10:04	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 170	< 80 PF	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1	
R24602SVH	24602 RAVENNA AVE	2013-04-10	10:09	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 170	< 77 PF	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9	
R24602SVF	24602 RAVENNA AVE	2013-04-10	10:35	Front	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 160	< 72 PF	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5	
M24603SVB	24603 MARBELLA AVE	2009-09-24	11:29	Back	< 40	520	5200	1700 N.J.	2200	400	3000 N.J.	< 560 UJ,N.J.	6700 N.J.	< 75 N.J.	1100	40	64	< 23	< 14	1300	
M24603SVF	24603 MARBELLA AVE	2009-09-24	12:22	Front	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 UJ,N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7		
M24603SVH	24603 MARBELLA AVE	2010-01-15	11:00	House	< 11	< 3.9	< 4.9	< 92 N.J.	< 5.5	< 4.6	< 130 N.J.	< 160 N.J.	< 72 N.J.	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5		
M24603SVF	24603 MARBELLA AVE	2010-01-15	11:56	Front	< 10	< 3.8	< 4.6	< 87 N.J.	< 5.2	< 4.4	< 120 N.J.	< 150 N.J.	< 69 N.J.	< 4.6	< 5.2	< 3.7	< 6	< 3.7	< 5.2		
M24603SVB	24603 MARBELLA AVE	2010-01-15	12:34	Back	< 12	< 4.2	< 5.2	< 98 N.J.	< 5.8	< 4.9	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8		
M24603SVH	24603 MARBELLA AVE	2010-10-15	13:37	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.8	
M24603SVF	24603 MARBELLA AVE	2010-10-15	13:37	House	< 3.5	< 1.8	< 3.5	< 94	< 1.8	< 1.8	< 140	< 160	< 160	< 75	< 1.8	< 1.8	< 3.5	< 1.8	< 1.8	< 1.8	
M24603SVF	24603 MARBELLA AVE	2010-10-15	13:45	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 170	< 170	< 80	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7	
M24603SVB	24603 MARBELLA AVE	2010-10-15	14:17	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 170	< 80	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1	
N24603SVH	24603 NEPTUNE AVE	2010-11-04	09:20	House	< 10	< 3.7	< 4.6	< 86	< 5.2	< 4.3	< 120	< 150	< 150	< 68	< 4.6	< 5.2	< 3.6	< 5.9	< 3.6	< 5.2	
N24603SVG	24603 NEPTUNE AVE	2010-11-04	09:59	Garage	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6	
N24603SVB	24603 NEPTUNE AVE	2010-11-04	10:35	Back	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8	
N24603SVBD	24603 NEPTUNE AVE	2010-11-04	10:35	Back	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8	
N24603SVB	24603 NEPTUNE AVE	2013-03-07	14:51	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7	
N24603SVH	24603 NEPTUNE AVE	2013-03-07	14:51	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7	
N24603SVBD	24603 NEPTUNE AVE	2013-03-07	14:51	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7	
N24603SVH	24603 NEPTUNE AVE	2013-03-07	14:54	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8	
N24603SVH	24603 NEPTUNE AVE	2013-03-07	14:54	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8	
N24603SVG	24603 NEPTUNE AVE	2013-03-07	15:25	Garage	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8	
N24603SVH	24603 NEPTUNE AVE	2013-07-18	15:02	House	< 10	< 3.7	< 4.6	< 87	< 5.2	< 4.3	< 120	< 150	< 150	< 69	< 4.6	< 5.2	< 3.6	< 6	< 3.7	< 5.2	
N24603SVB	24603 NEPTUNE AVE	2013-07-18	15:13	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6	
N24603SVG	24603 NEPTUNE AVE	2013-07-18	15:26	Garage	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8	
P24603SVH	24603 PANAMA AVE	2011-02-10	08:56	House	< 11	< 4	< 4.9	< 94	< 5.6	< 4.7	< 130	< 160	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6	
P24603SVF	24603 PANAMA AVE	2011-02-10	09:30	Front	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5	
P24603SVG	24603 PANAMA AVE	2011-02-10	10:09	Garage	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6	
P24603SVG5	24603 PANAMA AVE	2011-02-10	10:09	Garage	< 3.6	< 1.8	< 3.6	< 98	< 1.8	< 1.8	< 140	< 160	< 160	< 77	< 1.8	< 1.8	< 3.6	< 1.8	< 1.8	< 1.8	
P24603SVH	24603 PANAMA AVE	2012-10-19	09:43	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8	
P24603SVF	24603 PANAMA AVE	2012-10-19	10:08	Front	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1	
P24603SVFD	24603 PANAMA AVE	2012-10-19	10:08	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9	
P24603SVG	24603 PANAMA AVE	2012-10-19	10:16	Garage	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8	
R24603SVB	24603 RAVENNA AVE	2009-09-19	10:49	Back	< 11	< 4	< 4.9	< 93 N.J.	< 5.6	< 4.6	< 130 N.J.	< 160 UJ,N.J.	< 73 N.J.	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 5.6		
R24603SVF	24603 RAVENNA AVE	2009-09-19	11:36	Front	< 13	< 4.6	< 5.7	< 110 N.J.	< 6.5	< 5.4	< 150 N.J.	< 180 UJ,N.J.	< 85 N.J.	< 5.7	< 6.5	< 4.5	< 7.4	< 4.5	< 6.5		
R24603SVH	24603 RAVENNA AVE	2011-02-24	09:28	House	14	< 3.9	9.9	< 90	10	< 4.5	< 130	< 150	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4	
R24603SVF	24603 RAVENNA AVE	2011-02-24	10:10	Front	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8	
R24603SVB	24603 RAVENNA AVE	2011-02-24	11:07	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6	
R24603SVBS	24603 RAVENNA AVE																				

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection														
					Analyte Units	Isopropanol UG/M3	Hexane UG/M3	p/m-Xylene UG/M3	C6-C8 Aliphatics UG/M3	1,2,4-Trimethyl-benzene UG/M3	Heptane UG/M3	C8-C10 Aliphatics UG/M3	C10-C12 Aliphatics UG/M3	C5-C6 Aliphatics UG/M3	Ethyl-benzene UG/M3	Cumene (isopropyl-benzene) UG/M3	Cyclohexane UG/M3	Freon 11 UG/M3	Methylene Chloride UG/M3
R24603SVBD	24603 RAVENNA AVE	2012-06-01	15:51	Back	< 8	< 2.9	< 3.5	< 67	< 4	< 3.3	< 95	< 110	< 53	< 3.5	< 4	< 2.8	< 4.6	< 28	< 4
R24603SVF	24603 RAVENNA AVE	2012-06-01	16:24	Front	< 7.7	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 27	< 3.8
R24603VFD	24603 RAVENNA AVE	2012-06-01	16:24	Front	< 7.7	< 2.8	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 51	< 3.4	< 3.8	< 2.7	< 4.4	< 27	< 3.8
M24606SVB	24606 MARBELLA AVE	2010-04-20	14:37	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
M24606SVF	24606 MARBELLA AVE	2010-04-20	15:41	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
M24606SVH	24606 MARBELLA AVE	2010-04-20	16:40	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.7	< 130 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
M24606SVF	24606 MARBELLA AVE	2012-01-13	12:28	Front	< 7.6	< 2.7	3.9	< 64	< 3.8	< 3.2	< 90	< 110	170	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8
M24606SVFS	24606 MARBELLA AVE	2012-01-13	12:28	Front	< 3.4 U	< 1.7 U	< 3.4 U	< 64	< 1.7 U	< 1.7 U	< 94	< 110	< 1.7 U	< 1.7 U	< 1.7 U	< 3.4 U	< 1.7 U	< 1.7 U	< 1.7 U
M24606SVH	24606 MARBELLA AVE	2012-01-13	13:17	House	< 7.9	< 2.8	< 3.5	< 66	4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4
M24606SVHS	24606 MARBELLA AVE	2012-01-13	13:17	House	< 3.6 U	< 1.8 U	< 3.6 U	< 65	2.1	< 1.8 U	< 92	< 110	< 1.8 U	< 1.8 U	< 1.8 U	< 3.6 U	< 1.8 U	< 1.8 U	< 1.8 U
M24606SVB	24606 MARBELLA AVE	2012-01-13	13:54	Back	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9
M24606SVBS	24606 MARBELLA AVE	2012-01-13	13:54	Back	< 3.5 U	< 1.8 U	< 3.5 U	< 64	< 1.8 U	< 1.8 U	< 91	< 110	< 51	< 1.8 U	< 1.8 U	< 3.5 U	< 1.8 U	< 1.8 U	< 1.8 U
M24608SVF	24608 NEPTUNE AVE	2010-04-29	15:18	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.7	< 130 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
M24608SVB	24608 NEPTUNE AVE	2010-04-29	16:18	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
M24608SVH	24608 NEPTUNE AVE	2010-07-09	13:47	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
M24608SVH	24608 NEPTUNE AVE	2010-09-08	13:44	House	< 11	15	< 5	< 95	< 5.7	11	< 140	< 160	< 75	< 5	< 5.7	4.1	< 6.5	7.5	< 5.7
M24608SVF	24608 NEPTUNE AVE	2010-09-08	14:15	Front	< 12	< 4.2	< 5.3	< 100	< 6	< 4.9	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6
M24608SVB	24608 NEPTUNE AVE	2010-09-08	15:06	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
M24608SVH	24608 NEPTUNE AVE	2012-05-18	14:50	House	< 7.7	< 2.7	< 3.4	< 64	< 3.8	3.7	< 91	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8
M24608SVF	24608 NEPTUNE AVE	2012-05-18	15:04	Front	< 8.2	< 2.9	< 3.6	< 68	< 4.1	< 3.4	< 97	< 120	< 54	< 3.6	< 4.1	< 2.8	< 4.7	< 2.9	< 4.1
M24608VFD	24608 NEPTUNE AVE	2012-05-18	15:04	Front	< 8.2	< 3	< 3.6	< 69	< 4.1	3.7	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1
M24608SVB	24608 NEPTUNE AVE	2012-05-18	15:22	Back	< 8	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.6	< 2.8	< 4
M24608SVH	24608 NEPTUNE AVE	2013-08-30	15:18	House	37	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9
M24608SVB	24608 NEPTUNE AVE	2013-08-30	15:18	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8
M24608SVF	24608 NEPTUNE AVE	2013-08-30	15:41	Front	< 12	< 4.2	< 5.2	< 99	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9
M24608SVB	24608 PANAMA AVE	2010-08-12	14:47	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 170 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
M24608SVF	24608 PANAMA AVE	2010-08-12	15:23	Front	< 12	< 4.2	< 5.2	< 98 N.J	< 5.8	< 4.9	< 140 N.J	< 160 N.J	< 77 N.J	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8
M24608SVB	24608 PANAMA AVE	2012-04-06	15:43	Back	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8
M24608SVBD	24608 PANAMA AVE	2012-04-06	15:43	Back	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8
M24608SVF	24608 PANAMA AVE	2012-04-06	16:26	Front	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7
M24608SVH	24608 PANAMA AVE	2012-04-27	11:38	House	< 7.7	< 2.8	< 3.4	< 64	7.5	< 3.2	< 91	< 110	< 51	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8
R24608SVB	24608 RAVENNA AVE	2010-04-08	11:15	Back	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6
R24608SVF	24608 RAVENNA AVE	2010-04-08	12:14	Front	< 12	< 4.2	< 5.2	< 98 N.J	< 5.8	< 4.9	< 140 N.J	< 160 N.J	< 77 N.J	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8
R24608SVG	24608 RAVENNA AVE	2010-08-04	13:23	Garage	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
R24608SVG	24608 RAVENNA AVE	2012-05-17	15:13	Garage	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1
R24608SVGD	24608 RAVENNA AVE	2012-05-17	15:13	Garage	< 8.1	< 2.9	< 3.6	< 68	< 4	< 3.4	< 96	< 110	< 53	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1
R24608SVB	24608 RAVENNA AVE	2012-05-17	15:25	Back	< 7.7	< 2.8	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 51	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8
R24608SVF	24608 RAVENNA AVE	2012-05-17	16:01	Front	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9
R24608SVG	24608 RAVENNA AVE	2013-08-22	10:02	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
R24608SVB	24608 RAVENNA AVE	2013-08-22	10:04	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
R24608SVF	24608 RAVENNA AVE	2013-08-22	10:33	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 78	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6
R24608SVFS	24608 RAVENNA AVE	2013-08-22	10:33	Front	< 20 U	< 2 U	< 4.1 U	< 100	< 2 U	< 2 U	< 140	< 170	< 79	< 2 U	< 2 U	< 4.1 U	< 2 U	< 2 U	< 2 U
N24609SVH	24609 NEPTUNE AVE	2010-04-28	14:09	House	< 12	< 4.2	< 5.1	< 97 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8
N24609SVF	24609 NEPTUNE AVE	2010-04-28	15:06	Front	< 12	< 4.2	< 5.2	< 99 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9
N24609SVFS	24609 NEPTUNE AVE	2010-04-28	15:06	Front	< 3.5	< 1.7	< 3.5	< 1.7	< 1.7	< 1.7	< 140 N.J	< 160 N.J	< 76 N.J	< 1.7	< 1.7	< 3.5	< 1.7	< 1.7	< 1.7
N24609SVB	24609 NEPTUNE AVE	2010-04-28	13:35	Back	33	< 4.1	< 5.1	< 96 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 76 N.J	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8
N24609SVF	24609 NEPTUNE AVE	2010-08-20	13:35	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7
N24609SVH	24609 NEPTUNE AVE	2010-08-20	14:03	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1
N24609SVB	24609 NEPTUNE AVE	2010-08-20	14:30	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6
N24609SVH	24609 NEPTUNE AVE	2010-12-10	15:19	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6
N24609SVB	24609 NEPTUNE AVE	2010-12-10	15:42	Back	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4
N24609SVBD	24609 NEPTUNE AVE	2010-12-10	15:42	Back	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4- Trimethyl- benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl- benzene UG/M3	1.97%	Cumene (isopropyl- benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3	1.72%	Methylene Chloride UG/M3	1.72%	4-Ethyltoluene UG/M3	1.60%
					UG/M3	UG/M3																															
N24609SVF	24609 NEPTUNE AVE	2010-12-10	15:52	Front	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5																		
N24609SVH	24609 NEPTUNE AVE	2013-05-03	10:11	House	< 10	< 3.6	< 4.4	< 84	< 5	< 4.2	< 120	< 140	< 66	< 4.4	< 5	< 3.5	< 5.7	< 3.5	< 5																		
N24609SVB	24609 NEPTUNE AVE	2013-05-03	10:33	Back	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8																		
N24609SVF	24609 NEPTUNE AVE	2013-05-03	10:55	Front	< 13	< 4.6	< 5.6	< 110	< 6.4	< 5.3	< 150	< 180	< 84	< 5.6	< 6.4	< 4.5	< 7.3	< 4.5	< 6.4																		
P24609SVH	24609 PANAMA AVE	2010-04-30	13:27	House	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7																		
P24609SVF	24609 PANAMA AVE	2010-04-30	14:39	Front	13	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7																		
P24609SVB	24609 PANAMA AVE	2010-04-30	15:33	Back	< 12	< 4.3	< 5.2	< 99 N.J.	< 5.9	< 5	< 140 N.J.	< 170 N.J.	< 78 N.J.	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9																		
P24609SVH	24609 PANAMA AVE	2010-10-25	09:26	House	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6																		
P24609SVF	24609 PANAMA AVE	2010-10-25	10:11	Front	< 9.8	< 3.5	< 4.3	< 82	< 4.9	< 4.1	< 120	< 140	< 64	< 4.3	< 4.9	< 3.4	< 5.6	< 3.4	< 4.9																		
P24609SVB	24609 PANAMA AVE	2010-10-25	10:56	Back	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 5.9																		
P24609SVS	24609 PANAMA AVE	2010-10-25	10:56	Back	< 4.1	< 2	< 4.1	< 2	< 2	< 2	< 130	< 160	< 72	< 2	< 2	< 4.1	< 2	< 2	< 2																		
P24609SVF	24609 PANAMA AVE	2011-02-18	10:08	Front	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5																		
P24609SVS	24609 PANAMA AVE	2011-02-18	10:08	Front	< 3.4	< 1.7	< 3.4	< 92	< 1.7	< 1.7	< 130	< 160	< 72	< 1.7	< 1.7	< 3.4	2.4	< 1.7	< 1.7																		
P24609SVH	24609 PANAMA AVE	2011-02-18	10:31	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 140	< 170	< 79	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5																		
P24609SVB	24609 PANAMA AVE	2011-02-18	11:28	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6																		
R24609SVH	24609 RAVENNA AVE	2010-11-09	09:25	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8																		
R24609SVG	24609 RAVENNA AVE	2010-11-09	09:59	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7																		
R24609SVB	24609 RAVENNA AVE	2010-11-09	10:31	Back	< 11	< 3.9	< 4.8	< 91	< 5.5	< 4.6	< 130	< 160	< 72	< 4.8	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5																		
R24609SVH	24609 RAVENNA AVE	2012-09-21	15:01	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9																		
R24609SVG	24609 RAVENNA AVE	2012-09-21	15:02	Garage	< 13	< 4.6	< 5.7	< 110	< 6.5	< 5.4	< 150	< 180	< 85	< 5.7	< 6.5	< 4.5	< 7.4	< 4.6	< 6.5																		
R24609SVB	24609 RAVENNA AVE	2012-09-21	15:34	Back	14	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5																		
R24609SVH	24609 RAVENNA AVE	2013-04-30	14:54	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 5.9																		
R24609SVB	24609 RAVENNA AVE	2013-04-30	15:08	Back	< 12	< 4.4	< 5.4	< 100	< 6.2	< 5.1	< 150	< 170	< 81	< 5.4	< 6.2	< 4.3	< 7	< 4.3	< 6.2																		
R24609SVG	24609 RAVENNA AVE	2013-04-30	15:22	Garage	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9																		
M24612SVH	24612 MARBELLA AVE	2010-08-13	09:15	House	< 11	< 4	< 5	< 94 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 74 N.J.	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
M24612SVB	24612 MARBELLA AVE	2010-08-13	10:03	Back	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7																		
M24612SVG	24612 MARBELLA AVE	2010-08-13	10:48	Garage	< 12	< 4.2	< 5.2	< 98 N.J.	< 5.8	< 4.9	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8																		
M24612SVH	24612 MARBELLA AVE	2012-05-10	14:39	House	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8																		
M24612SVG	24612 MARBELLA AVE	2012-05-10	14:53	Garage	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9																		
M24612SVGD	24612 MARBELLA AVE	2012-05-10	14:53	Garage	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9																		
M24612SVB	24612 MARBELLA AVE	2012-05-10	15:17	Back	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8																		
N24612SVH	24612 NEPTUNE AVE	2010-11-11	09:14	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8																		
N24612SVF	24612 NEPTUNE AVE	2010-11-11	09:44	Front	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8																		
N24612SVFD	24612 NEPTUNE AVE	2010-11-11	09:44	Front	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8																		
N24612SVBA	24612 NEPTUNE AVE	2011-02-07	09:21	Back	< 11	< 3.8	< 4.7	< 88	< 5.3	< 4.4	< 120	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6.1	< 3.8	< 5.3																		
N24612SVBAS	24612 NEPTUNE AVE	2011-02-07	09:21	Back	< 3.3	< 1.6	< 3.3	< 1.6	< 1.6	< 1.6	< 140	< 160	< 75	< 1.6	< 1.6	< 3.3	< 1.6	< 1.6	< 1.6																		
N24612SVF	24612 NEPTUNE AVE	2011-03-11	14:50	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 170	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7																		
N24612SVH	24612 NEPTUNE AVE	2011-03-11	15:17	House	< 12	< 5.7	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9																		
N24612SVBA	24612 NEPTUNE AVE	2011-03-11	15:27	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9																		
N24612SVH	24612 NEPTUNE AVE	2013-08-13	14:56	House	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 5.6																		
N24612SVF	24612 NEPTUNE AVE	2013-08-13	15:31	Front	21	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6																		
N24612SVBA	24612 NEPTUNE AVE	2013-08-13	15:48	Back	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 5.9																		
P24612SVB	24612 PANAMA AVE	2013-01-25	10:24	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6																		
P24612SVG	24612 PANAMA AVE	2013-01-25	10:58	Garage	< 11	< 3.8	< 4.7	< 88	< 5.3	< 4.4	< 120	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6.1	< 3.8	< 5.3																		
P24612SVHA	24612 PANAMA AVE	2013-02-06	15:34	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7																		
P24612SVHA	24612 PANAMA AVE	2013-02-06	15:34	House	< 12	< 5.7	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9																		
P24612SVBA	24612 PANAMA AVE	2013-05-17	14:51	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9																		
P24612SVB	24612 PANAMA AVE	2013-05-17	15:28	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79 PF	< 5.3	< 6	< 4.2	< 6.9	< 4.2	< 6																		
P24612SVBD	24612 PANAMA AVE	2013-05-17	15:28	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80 PF	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1																		
P24612SVG	24612 PANAMA AVE	2013-05-17	15:34	Garage	< 12	< 6.7	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76 PF	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8																		
R24612SVH	24612 RAVENNA AVE	2011-01-14	10:04	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7																		
R24612SVG	24612 RAVENNA AVE	2011-01-14	10:51	Garage	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6																		
R24612SVBB	24612 RAVENNA AVE	2011-01-14	11:																																		

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection																						
					Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4- Trimethyl- benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl- benzene UG/M3	1.97%	Cumene (isopropyl- benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
R24612SVBB	24612 RAVENNA AVE	2012-11-01	14:46	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7										
R24612SVBBD	24612 RAVENNA AVE	2012-11-01	14:46	Back	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 41	< 5.8										
R24612SVH	24612 RAVENNA AVE	2012-11-01	14:49	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 40	< 5.6										
R24612SVG	24612 RAVENNA AVE	2012-11-01	15:32	Garage	< 11	< 3.8	< 4.7	< 89	< 5.4	< 4.5	< 130	< 150	< 70	< 4.7	< 5.4	< 6.1	< 38	< 5.4											
R24612SVBB	24612 RAVENNA AVE	2013-06-25	14:50	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 6.9	< 43	< 6											
R24612SVH	24612 RAVENNA AVE	2013-06-25	14:53	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 6.5	< 40	< 5.7											
R24612SVG	24612 RAVENNA AVE	2013-06-25	15:18	Garage	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 6.6	< 41	< 5.8											
M24613SVH	24613 RAVENNA AVE	2010-05-26	09:03	House	< 11	< 4	< 5	< 93 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 74 N.J.	< 4.9	< 5.6	< 6.4	< 4	< 5.6											
M24613SVG	24613 RAVENNA AVE	2010-05-26	10:01	Garage	< 12	< 4.1	< 5.1	< 96 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 76 N.J.	32	< 5.8	< 6.6	< 4.1	< 5.8											
M24613SVB	24613 MARBELLA AVE	2010-05-26	10:49	Back	< 12	< 4.1	< 5.1	< 96 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 76 N.J.	< 5.1	< 5.8	< 6.6	4 J	< 5.8											
M24613SVG	24613 MARBELLA AVE	2012-10-11	11:01	Garage	< 12	< 4.3	< 5.2	410	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 6.8	< 42	< 5.9											
M24613SVGS	24613 MARBELLA AVE	2012-10-11	11:01	Garage	< 18 U	2.7	< 3.6 U	< 1.8 U	< 1.8 U	2.3	< 120	< 150	< 70	< 1.8 U	< 1.8 U	< 1.8 U	< 3.6 U	< 1.8 U	< 1.8 U										
M24613SVB	24613 MARBELLA AVE	2012-10-11	11:41	Back	< 11	5.7	< 4.7	< 88	< 5.3	5	< 120	< 150	< 70	< 4.7	< 5.3	< 6.1	< 38	< 5.3											
M24613SVHA	24613 MARBELLA AVE	2012-10-24	12:14	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 6.8	< 42	< 5.9											
M24613SVHA	24613 MARBELLA AVE	2013-04-19	10:01	House	< 11	< 3.9	< 4.8	< 91	< 5.5	< 4.6	< 130	< 160	< 72 PF	< 4.8	< 5.5	< 6.3	< 39	< 5.5											
M24613SVB	24613 MARBELLA AVE	2013-04-19	10:10	Back	< 12	< 4.2	< 5.2	< 99	< 5.9	< 4.9	< 140	< 170	< 78 PF	< 5.2	< 5.9	< 6.8	< 42	< 5.9											
M24613SVBD	24613 MARBELLA AVE	2013-04-19	10:10	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80 PF	< 5.3	< 6	< 6.9	< 43	< 6											
M24613SVG	24613 MARBELLA AVE	2013-04-19	10:35	Garage	< 11	< 3.8	< 4.7	< 89	< 5.4	< 4.5	< 130	< 150	< 70 PF	< 4.7	< 5.4	< 6.1	< 38	< 5.4											
M24613SVB	24613 NEPTUNE AVE	2010-08-09	13:59	Back	< 12	< 4.3	< 5.2	< 99 N.J.	< 5.9	< 5	< 140 N.J.	< 170 N.J.	< 78 N.J.	< 5.2	< 5.9	< 6.8	< 42	< 5.9											
M24613SVF	24613 NEPTUNE AVE	2010-08-09	14:44	Front	< 12	< 4.2	< 5.2	< 98 N.J.	< 5.8	< 4.9	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.2	< 5.8	< 6.7	< 41	< 5.8											
M24613SVH	24613 NEPTUNE AVE	2012-05-11	09:55	House	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 4.3	< 2.6	< 4.1	< 3.7										
M24613SVF	24613 NEPTUNE AVE	2012-05-11	10:04	Front	< 8.1	< 2.9	< 3.6	< 67	< 4	< 3.4	< 95	< 110	< 53	< 3.6	< 4	< 4.6	< 2.8	< 2.8	< 4										
M24613SVFS	24613 NEPTUNE AVE	2012-05-11	10:04	Front	< 3.8 U	< 1.9 U	< 3.8 U	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 1.9 U	< 1.9 U	< 1.9 U	< 3.8 U	< 1.9 U	< 1.9 U										
M24613SVB	24613 NEPTUNE AVE	2012-05-11	10:42	Back	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 4.4	< 2.7	< 4.4	< 2.7										
M24613SVBS	24613 NEPTUNE AVE	2012-05-11	10:42	Back	< 3.5 U	< 1.8 U	< 3.5 U	< 110	< 1.8 U	< 1.8 U	< 150	< 180	< 84	< 1.8 U	< 1.8 U	< 1.8 U	< 3.5 U	< 1.8 U	< 1.8 U										
M24613SVB	24613 NEPTUNE AVE	2013-08-29	09:42	Back	< 13	< 4.6	< 5.6	< 110	< 6.4	< 5.3	< 150	< 180	< 84	< 5.6	< 6.4	< 7.3	< 4.4	< 6.4	< 6.4										
M24613SVBD	24613 NEPTUNE AVE	2013-08-29	09:42	Back	< 13	< 4.6	< 5.6	< 110	< 6.4	< 5.3	< 150	< 180	< 84	< 5.6	< 6.4	< 7.3	< 4.4	< 6.4	< 6.4										
M24613SVH	24613 NEPTUNE AVE	2013-08-29	09:47	House	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 84	< 5.6	< 6.3	< 7.2	< 4.4	< 6.3	< 6.3										
P24613SVF	24613 PANAMA AVE	2010-06-25	14:07	Front	< 12	< 4.2	< 5.2	< 99 N.J.	< 5.9	< 4.9	< 140 N.J.	< 170 N.J.	< 78 N.J.	< 5.2	< 5.9	< 6.8	< 4.2	< 5.9	< 5.9										
P24613SVH	24613 PANAMA AVE	2010-06-25	14:43	House	13	< 4.3	< 5.2	< 99 N.J.	< 5.9	< 5	< 140 N.J.	< 170 N.J.	< 78 N.J.	< 5.2	< 5.9	< 6.8	< 4.2	< 5.9	< 5.9										
P24613SVB	24613 PANAMA AVE	2010-06-25	15:25	Back	< 12	< 4.1	< 5.1	< 96 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 76 N.J.	< 5.1	< 5.8	< 6.6	< 4	< 5.8	< 5.8										
P24613SVH	24613 PANAMA AVE	2011-02-10	10:10	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 6.3	< 3.8	< 3.9	< 5.5										
P24613SVF	24613 PANAMA AVE	2011-02-10	10:48	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 6.5	< 4	< 4	< 5.7										
P24613SVB	24613 PANAMA AVE	2011-02-10	10:59	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 6.7	< 4.1	< 5.8	< 5.8										
P24613SVB	24613 PANAMA AVE	2012-09-13	14:58	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 6.8	< 4.2	< 6.8	< 6.8										
P24613SVBD	24613 PANAMA AVE	2012-09-13	14:58	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 6.7	< 4.1	< 5.8	< 5.8										
P24613SVF	24613 PANAMA AVE	2012-09-13	15:05	Front	< 12	14	< 5.2	< 98	< 5.8	16	< 140	< 160	< 77	< 5.2	< 5.8	< 6.7	< 4.1	< 5.8	< 5.8										
P24613SVH	24613 PANAMA AVE	2012-09-13	15:45	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 6.8	< 4.2	< 6.8	< 6.8										
R24613SVH	24613 RAVENNA AVE	2009-12-31	13:46	House	< 12	< 4.3	< 5.2	< 99 N.J.	< 5.9	< 5	< 140 N.J.	< 170 N.J.	< 78 N.J.	< 5.2	< 5.9	< 6.8	< 4.2	< 6.8	< 6.8										
R24613SVF	24613 RAVENNA AVE	2009-12-31	14:22	Front	14	< 4.3	27	< 100 N.J.	13	< 5	< 140 N.J.	< 170 N.J.	< 79 N.J.	7.6	< 6	< 6.8	< 4.2	< 6.8	< 6.8										
R24613SVFS	24613 RAVENNA AVE	2009-12-31	14:22	Front	8.7	< 2.1	< 4.2	< 2.1	< 2.1	< 2.1	< 140 N.J.	< 170 N.J.	< 79 N.J.	< 2.1	3	< 6.8	< 4.2	< 2.1	< 2.1										
R24613SVB	24613 RAVENNA AVE	2009-12-31	15:07	Back	< 12	< 4.2	< 5.2	< 99 N.J.	< 5.9	< 4.9	< 140 N.J.	< 170 N.J.	< 78 N.J.	< 5.2	< 5.9	< 6.8	< 4.1	< 5.9	< 5.9										
R24613SVH	24613 RAVENNA AVE	2011-05-20	10:20	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 6.5	< 4	< 5.7	< 5.7										
R24613SVF	24613 RAVENNA AVE	2011-05-20	10:26	Front	< 22	< 8	< 9.8	< 180	< 11	10	< 260	< 320	< 150	< 9.8	< 11	< 13	< 7.9	< 11	< 11										
R24613SVFS	24613 RAVENNA AVE	2011-05-20	10:26	Front	< 3.4 U	< 1.7 U	< 3.4 U	< 1.7 U	< 1.7 U	< 1.7 U	< 140	< 160	< 76	< 1.7 U	< 1.7 U	< 1.7 U	< 3.4 U	< 1.7 U	< 1.7 U										
R24613SVB	24613 RAVENNA AVE	2011-05-20	10:55	Back	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 6.6	< 4	< 5.8	< 5.8										
R24613SVBS	24613 RAVENNA AVE	2011-05-20	10:55	Back	< 3.5 U	< 1.8 U	< 3.5 U	< 1.8 U	< 1.8 U	< 1.8 U	< 140	< 160	< 76	< 1.8 U	< 1.8 U	< 1.8 U	< 3.5 U	< 1.8 U	< 1.8 U										
M24616SVH	24616 MARBELLA AVE	2010-04-22	15:26	House	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	1100 N.J.	< 75 N.J.	< 5	< 5.7	< 6.5	< 4	< 5.7	< 5.7										
M24616SVB	24616 MARBELLA AVE	2010-04-22	16:44	Back	< 22	< 8.1	< 9.9	< 190 N.J.	< 11	< 9.4	< 270 N.J.	770 N.J.	< 150 N.J.	< 9.9	< 11	< 13	< 7.9	< 8	< 11										
M24616SVF	24616 MARBELLA AVE	2010-04-23	11:55	Front	< 11	< 4	< 5	< 94 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 74 N.J.	< 5	< 5.6	< 6.4	< 4	< 5.6	< 5.6										
M24616SVFD	24616 MARBELLA AVE	2010-04-23	11:55	Front	< 11	< 4	< 5	< 94 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 74 N.J.	< 5	< 5.6	< 6.4	< 4	< 5.6	< 5.6										
M24616SVH	24616 MARBELLA AVE	2010-08-25	09:07	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 6.5	< 4	< 5.7	< 5.7										



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection																						
					Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4- Trimethyl- benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl- benzene UG/M3	1.97%	Cumene (isopropyl- benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
P24619SVH	24619 PANAMA AVE	2010-04-27	14:34	House	48	< 12	< 3.9	< 4.9	< 92 N.J	< 5.5	< 4.6	< 130 N.J	< 160 N.J	< 72 N.J	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5									
P24619SVB	24619 PANAMA AVE	2010-04-27	15:08	Back	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
P24619SVBD	24619 PANAMA AVE	2010-04-27	15:08	Back	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
P24619SVF	24619 PANAMA AVE	2010-04-27	15:58	Front	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
P24619SVH	24619 PANAMA AVE	2010-05-25	13:59	House	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
P24619SVH	24619 PANAMA AVE	2010-10-11	14:30	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1										
P24619SVF	24619 PANAMA AVE	2010-10-11	15:09	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
P24619SVB	24619 PANAMA AVE	2010-10-11	15:57	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
P24619SVBS	24619 PANAMA AVE	2010-10-11	15:57	Back	5.9	< 1.7	< 3.4	< 3.4	< 1.7	< 1.7	< 140	< 160	< 77	< 1.7	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7										
P24619SVF	24619 PANAMA AVE	2011-02-11	14:43	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
P24619SVB	24619 PANAMA AVE	2011-02-11	15:10	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
P24619SVHA	24619 PANAMA AVE	2011-12-08	15:10	House	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7										
P24619SVF	24619 PANAMA AVE	2011-12-08	15:39	Front	< 8.1	< 2.9	< 3.6	< 67	< 4	< 3.4	< 95	< 110	< 53	< 3.6	< 4	< 2.8	< 4.6	< 2.8	< 4										
P24619SVB	24619 PANAMA AVE	2011-12-08	15:39	Front	< 3.7	< 1.8 U	< 3.7 U	< 64	< 1.8 U	< 1.8 U	< 90	< 110	< 50	< 1.8 U	< 1.8 U	< 3.7 U	< 1.8 U	< 1.8 U	< 1.8 U										
P24619SVBS	24619 PANAMA AVE	2011-12-08	16:09	Back	< 7.6	< 2.7	< 3.4	< 3.4	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
P24619SVBS	24619 PANAMA AVE	2011-12-08	16:09	Back	< 3.4 U	< 1.7 U	< 3.4 U	< 3.4 U	< 1.7 U	< 1.7 U	< 150	< 180	< 82	< 1.7 U	< 1.7 U	< 3.4 U	< 1.7 U	< 1.7 U	< 1.7 U										
P24619SVF	24619 RAVENNA AVE	2010-08-30	13:40	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 140	< 170	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 6.8 b	< 6.2										
P24619SVB	24619 RAVENNA AVE	2010-08-30	14:24	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6										
P24619SVBD	24619 RAVENNA AVE	2010-08-30	14:24	Back	< 16	< 5.6	< 6.9	< 130	< 7.8	< 6.5	< 180	< 220	< 100	< 6.9	< 7.8	< 5.5	< 9	< 5.5	< 7.8										
P24619SVF	24619 RAVENNA AVE	2013-03-01	09:58	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6										
P24619SVFS	24619 RAVENNA AVE	2013-03-01	09:58	Front	< 17 U	< 1.7 U	< 3.3 U	< 3.3 U	< 1.7 U	< 1.7 U	< 140	< 160	< 76	< 1.7 U	< 1.7 U	< 3.3 U	< 1.7 U	< 1.7 U	< 1.7 U										
P24619SVB	24619 RAVENNA AVE	2013-03-01	10:28	Back	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 3.4	< 6.6	< 4.1	< 5.8										
P24619SVBS	24619 RAVENNA AVE	2013-03-15	09:41	Back	< 17 U	< 1.7 U	< 3.3 U	< 3.3 U	< 1.7 U	< 1.7 U	< 140	< 160	< 76	< 1.7 U	< 1.7 U	< 3.3 U	< 1.7 U	< 1.7 U	< 1.7 U										
P24619SVHA	24619 RAVENNA AVE	2013-07-19	14:47	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 3.4	< 6.6	< 4.1	< 5.8										
P24619SVHA	24619 RAVENNA AVE	2013-07-19	14:47	House	< 11	< 3.8	< 4.7	< 88	< 5.3	< 4.4	< 120	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6.1	< 3.8	< 5.3										
P24619SVB	24619 RAVENNA AVE	2013-07-19	14:49	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7										
P24619SVF	24619 RAVENNA AVE	2013-07-19	15:24	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
P24622SVH	24622 MARBELLA AVE	2010-05-28	13:48	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.7	< 130 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
P24622SVB	24622 MARBELLA AVE	2010-05-28	14:26	Back	< 11	< 3.9	< 4.8	< 91 N.J	< 5.5	< 4.6	< 130 N.J	< 160 N.J	< 72 N.J	< 4.8	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
P24622SVG	24622 MARBELLA AVE	2010-05-28	15:27	Garage	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6										
P24622SVH	24622 MARBELLA AVE	2012-11-16	09:57	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 140	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
P24622SVG	24622 MARBELLA AVE	2012-11-16	10:05	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7										
P24622SVB	24622 MARBELLA AVE	2012-11-16	10:41	Back	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
P24622SVB	24622 MARBELLA AVE	2013-06-07	09:45	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
P24622SVBS	24622 MARBELLA AVE	2013-06-07	09:45	Back	< 20 U	< 2 U	< 4 U	< 4 U	< 2 U	< 2 U	< 140	< 160	< 76	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U										
P24622SVH	24622 MARBELLA AVE	2013-06-07	09:47	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7										
P24622SVG	24622 MARBELLA AVE	2013-06-07	10:09	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
P24622SVH	24622 MARBELLA AVE	2013-06-07	10:09	Garage	< 20 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U	< 140	< 160	< 76	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U										
P24622SVB	24622 MARBELLA AVE	2010-08-19	09:33	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6										
P24622SVH	24622 NEPTUNE AVE	2010-08-19	10:18	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
P24622SVF	24622 NEPTUNE AVE	2010-08-19	11:03	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
P24622SVF	24622 NEPTUNE AVE	2011-02-01	09:40	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6										
P24622SVB	24622 NEPTUNE AVE	2011-02-01	10:25	Back	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2										
P24622SVH	24622 NEPTUNE AVE	2011-02-01	11:06	House	< 12	< 4.3	< 5.2	< 99	< 6.1	< 5	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1										
P24622SVH	24622 NEPTUNE AVE	2012-03-30	10:57	House	< 7.7	< 2.7	< 3.4	< 64	< 7.4	< 3.2	< 91	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
P24622SVF	24622 NEPTUNE AVE	2013-08-21	10:21	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6										
P24622SVFS	24622 NEPTUNE AVE	2013-08-21	10:21	Front	< 21 U	2.1	< 4.2 U	< 2.1 U	< 2.1 U	< 2.1 U	< 150	< 180	< 82	< 2.1 U	< 2.1 U	< 4.2 U	< 2.1 U	< 2.1 U	< 2.1 U										
P24622SVB	24622 NEPTUNE AVE	2013-08-21	10:40	Back	< 12	< 4.5	< 5.5	< 100	< 6.3	< 5.2	< 150	< 180	< 82	< 5.5	< 6.3	< 4.4	< 7.2	< 4.4	< 6.3										
P24622SVH	24622 NEPTUNE AVE	2013-08-23	12:34	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
P24623SVH	24623 MARBELLA AVE	2010-08-03	13:50	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
P24623SVG	24623 MARBELLA AVE	2010-08-03	14:07	Garage	< 12	< 4.2	< 5.2	< 98 N.J	< 5.8	< 4.9	< 140 N.J	< 160 N.J	< 77 N.J	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
P24623SVGD	24623 MARBELLA AVE	2010-08-03	14:07	Garage	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection	Isopropanol UG/M3 4.47%	Hexane UG/M3 3.74%	p/m-Xylene UG/M3 3.12%	C6-C8 Aliphatics UG/M3 2.72%	1,2,4- Trimethyl- benzene UG/M3 2.63%	Heptane UG/M3 2.63%	C8-C10 Aliphatics UG/M3 2.54%	C10-C12 Aliphatics UG/M3 2.01%	C5-C6 Aliphatics UG/M3 2.01%	Ethyl- benzene UG/M3 1.97%	Cumene (isopropyl- benzene) UG/M3 1.89%	Cyclohexane UG/M3 1.89%	Freon 11 UG/M3 1.72%	Methylene Chloride UG/M3 1.72%	4-Ethyltoluene UG/M3 1.60%
					Isopropanol UG/M3	Hexane UG/M3																
M246233SVB	24623 MARBELLA AVE	2010-08-03	14:37	Back	< 12	< 4.4	< 5.4	< 100 N.J.	< 6.1	< 5.1	< 140 N.J.	< 170 N.J.	< 80 N.J.	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	12			
M246233SVG	24623 MARBELLA AVE	2011-01-28	15:15	Garage	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9			
M246233SVH	24623 MARBELLA AVE	2011-01-28	15:21	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6			
M246233SVB	24623 MARBELLA AVE	2011-01-28	15:53	Back	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2			
M246233SVH	24623 NEPTUNE AVE	2010-06-11	13:58	House	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	220 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246233SVF	24623 NEPTUNE AVE	2010-06-11	14:50	Front	< 12	< 4.2	< 5.2	< 98 N.J.	< 5.8	< 4.9	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8			
M246233SVB	24623 NEPTUNE AVE	2011-02-16	09:43	Back	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	72	< 4	< 5.6			
M246233SVF	24623 NEPTUNE AVE	2011-02-16	10:20	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9			
M246233VHD	24623 NEPTUNE AVE	2011-02-16	10:20	Front	< 12	< 4.3	6	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9			
M246233VH	24623 NEPTUNE AVE	2011-02-16	11:08	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8			
M246233SVF	24623 NEPTUNE AVE	2011-03-31	10:49	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246233SVF5	24623 NEPTUNE AVE	2011-03-31	10:49	Front	< 3.6	< 1.8	< 3.6	< 95	< 1.8	< 1.8	< 140	< 160	< 75	< 1.8	< 1.8	< 3.6	1.9	< 1.8	< 1.8			
M246233VH	24623 NEPTUNE AVE	2011-03-31	11:07	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246233VB	24623 NEPTUNE AVE	2011-03-31	11:39	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	42	< 4	< 5.6			
M246233VB5	24623 NEPTUNE AVE	2011-03-31	11:39	Back	< 3.6	< 1.8	< 3.6	< 95 N.J.	< 1.8	< 1.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 1.8	< 1.8	< 3.6	32	< 1.8	< 1.8			
M246273VH	24627 MARBELLA AVE	2010-07-19	13:48	House	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246273VG	24627 MARBELLA AVE	2010-07-19	14:24	Garage	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246273VB	24627 MARBELLA AVE	2010-07-19	15:05	Back	< 12	< 4.4	< 5.5	< 100 N.J.	< 6.2	< 5.2	< 150 N.J.	< 180 N.J.	< 82 N.J.	< 5.5	< 6.2	< 4.4	< 7.1	< 4.4	< 6.2			
M246273VH	24627 MARBELLA AVE	2012-05-11	14:43	House	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8			
M246273VG	24627 MARBELLA AVE	2012-05-11	14:49	Garage	< 8.1	< 2.9	< 3.6	< 67	< 4	< 3.4	< 95	< 110	< 53	< 3.6	< 4	< 2.8	< 4.6	< 2.8	< 4			
M246273VGD	24627 MARBELLA AVE	2012-05-11	14:49	Garage	< 8.1	< 2.9	< 3.6	< 67	< 4	< 3.4	< 95	< 110	< 53	< 3.6	< 4	< 2.8	< 4.6	< 2.8	< 4			
M246273VB	24627 MARBELLA AVE	2012-05-11	15:21	Back	< 8.1	< 2.9	< 3.6	< 67	< 4	< 3.4	< 95	< 110	< 53	< 3.6	< 4	< 2.8	< 4.6	< 2.8	< 4			
M246283VH	24628 MARBELLA AVE	2010-12-03	13:44	Front	< 11	< 4.1	7.8	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246283VFD	24628 MARBELLA AVE	2010-12-03	13:44	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8			
M246283VB	24628 MARBELLA AVE	2010-12-03	14:31	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8			
M246283VH	24628 MARBELLA AVE	2011-06-23	10:40	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246283VH	24628 MARBELLA AVE	2011-06-23	10:40	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246283VH	24628 MARBELLA AVE	2011-06-23	10:40	House	< 3.5 U	< 1.8 U	< 3.5 U	< 66	< 1.8 U	< 1.8 U	< 140	< 160	< 75	< 1.8 U	< 1.8 U	< 3.5 U	< 1.8 U	< 1.8 U	< 1.8 U			
M246283VB	24628 MARBELLA AVE	2011-06-23	11:24	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246283VBS	24628 MARBELLA AVE	2011-06-23	11:24	Back	< 3.6 U	< 1.8 U	< 3.6 U	< 64	< 1.8 U	< 1.8 U	< 90	< 110	< 50	< 1.8 U	< 1.8 U	< 3.6 U	< 1.8 U	< 1.8 U	< 1.8 U			
M246283VFD	24628 MARBELLA AVE	2011-06-23	12:12	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246283VH	24628 MARBELLA AVE	2011-06-23	12:12	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246283VFD	24628 MARBELLA AVE	2011-06-23	12:12	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246283VH	24628 MARBELLA AVE	2011-10-27	13:09	Front	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4			
M246283VFS	24628 MARBELLA AVE	2011-10-27	13:09	Front	< 3.6 U	< 1.8 U	< 3.6 U	< 66	< 1.8 U	< 1.8 U	< 140	< 160	< 75	< 1.8 U	< 1.8 U	< 3.6 U	< 1.8 U	< 1.8 U	< 1.8 U			
M246283VH	24628 MARBELLA AVE	2011-10-27	14:12	House	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4			
M246283VHS	24628 MARBELLA AVE	2011-10-27	14:12	House	< 3.6 U	< 1.8 U	< 3.6 U	< 64	< 1.8 U	< 1.8 U	< 90	< 110	< 50	< 1.8 U	< 1.8 U	< 3.6 U	< 1.8 U	< 1.8 U	< 1.8 U			
M246283VB	24628 MARBELLA AVE	2011-10-27	14:55	Back	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8			
M246283VBS	24628 MARBELLA AVE	2011-10-27	14:55	Back	< 3.5 U	< 1.7 U	< 3.5 U	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 1.7 U	< 1.7 U	< 3.5 U	< 1.7 U	< 1.7 U	< 1.7 U			
M246283VH	24628 NEPTUNE AVE	2010-10-27	13:02	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9			
M246283VH	24628 NEPTUNE AVE	2010-10-27	13:35	Garage	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 5.6			
M246283VH	24628 NEPTUNE AVE	2010-10-27	14:34	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1			
M246283VH	24628 NEPTUNE AVE	2013-02-07	14:35	Back	< 26	< 9.3	< 12	< 220	< 13	< 11	< 310	< 370	< 170	< 12	< 13	< 9.1	< 15	< 92	< 13			
M246283VBA	24628 NEPTUNE AVE	2013-02-07	15:12	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246283VBA	24628 NEPTUNE AVE	2013-06-19	15:03	Back	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74 PF	< 4.9	< 5.6	< 3.9	< 6.4	< 4	< 5.6			
M246283VBA	24628 NEPTUNE AVE	2013-06-19	15:03	Back	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73 PF	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 5.6			
M246283VH	24628 NEPTUNE AVE	2013-06-19	15:05	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72 PF	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.6			
M246283VH	24628 NEPTUNE AVE	2013-06-19	15:38	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75 PF	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M246283VH	24628 NEPTUNE AVE	2010-07-09	13:57	House	< 12	< 4.3	< 5.2	< 99 N.J.	< 5.9	< 5	< 140 N.J.	< 170 N.J.	< 78 N.J.	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9			
M24629SVF	24629 NEPTUNE AVE	2010-07-09	15:14	Front	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M24629SVB	24629 NEPTUNE AVE	2010-07-09	15:32	Back	12	< 4.1	< 5	< 95 N.J.	9.2	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	100	< 4	< 6.5	< 4	< 5.7			
M24629SVB	24629 NEPTUNE AVE	2011-02-03	15:16	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7			
M24629SVH	24629 NEPTUNE AVE	2011-02-03	15:24	House	< 12	< 4.2	< 5.2															

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection																						
					Isopropanol UG/M3	4.47%		Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4- Trimethyl- benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl- benzene UG/M3	1.97%	Cumene (isopropyl- benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%
N24632SVF	24632 NEPTUNE AVE	2009-10-02	13:16	Front	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
N24632SVB	24632 NEPTUNE AVE	2009-10-02	14:09	Back	< 12	< 4.5	< 5.5	< 100 N.J	< 6.3	< 5.2	< 150 N.J	< 180 N.J	< 82 N.J	< 5.5	< 6.3	< 4.4	< 7.2	< 4.4	< 6.3										
N24632SVF	24632 NEPTUNE AVE	2010-07-20	10:44	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
N24632SVG	24632 NEPTUNE AVE	2010-08-24	08:55	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
N24632SVB	24632 NEPTUNE AVE	2010-08-24	09:39	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
N24632SVF	24632 NEPTUNE AVE	2013-02-08	12:50	Front	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
N24632SVG	24632 NEPTUNE AVE	2013-02-08	13:28	Garage	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 71	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4										
N24632SVBA	24632 NEPTUNE AVE	2013-08-09	09:56	Back	< 12	14	< 5.5	120	< 6.3	9	650	1200	150	< 5.5	< 6.3	< 4.4	< 7.2	< 4.4	< 6.3										
N24632SVBAS	24632 NEPTUNE AVE	2013-08-09	09:56	Back	< 21 U	13	< 4.3 U		< 2.1 U	8.3				< 2.1 U	< 2.1 U	< 4.3 U	< 2.1 U	< 2.1 U	< 2.1 U										
N24632SVF	24632 NEPTUNE AVE	2013-08-09	10:04	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2										
N24632SVG	24632 NEPTUNE AVE	2013-08-09	10:23	Garage	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 5.6										
N24700SVH	24700 MARELLA AVE	2010-06-09	09:02	House	< 12	< 4.2	< 5.1	< 97 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
N24700SVHS	24700 MARELLA AVE	2010-06-09	09:02	House	< 3.5	< 1.7	< 3.5	< 98 N.J	< 1.7	< 1.7	< 140 N.J	< 170 N.J	< 77 N.J	< 1.7	< 1.7	< 3.5	< 1.7	< 1.7	< 1.7										
N24700SVF	24700 MARELLA AVE	2010-06-09	09:38	Front	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 160 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.6	< 4.2	< 5.9										
N24700SVB	24700 MARELLA AVE	2010-07-15	14:27	Back	88	25	< 5.1	1500 N.J	< 5.8	< 4.8	500 N.J	< 160 N.J	810 N.J	< 5.1	< 5.8	67	< 6.6	< 4.1	< 5.8										
N24700SVF	24700 MARELLA AVE	2010-07-15	15:22	Front	1400	28	< 5.9	930 N.J	< 6.7	< 5.6	390 N.J	< 190 N.J	560 N.J	< 5.9	< 6.7	30	< 7.6	< 4.7	< 6.7										
N24700SVH	24700 MARELLA AVE	2010-07-15	16:12	House	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6										
N24700SVF	24700 MARELLA AVE	2010-07-15	10:29	Front	< 8.7	< 3.1	< 3.9	< 93 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 4.9	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
N24700SVB	24700 MARELLA AVE	2011-10-20	11:10	Back	< 9.9	< 3.5	< 4.4	< 82	< 4.9	< 4.1	< 120	< 140	< 65	< 4.4	< 4.9	< 3.4	< 5.6	< 3.5	< 4.9										
N24700SVH	24700 MARELLA AVE	2011-10-20	15:18	House	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4										
N24700SVHD	24700 MARELLA AVE	2011-10-20	15:18	House	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4										
N24700SVH	24700 MARELLA AVE	2013-03-15	14:45	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
N24700SVB	24700 MARELLA AVE	2013-03-15	14:47	Back	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 5.5										
N24700SVBS	24700 MARELLA AVE	2013-03-15	14:47	Back	< 24 U	< 2.4 U	< 4.9 U	< 92 N.J	< 5.5	< 4.6	< 130 N.J	< 160 N.J	< 72 N.J	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
N24700SVF	24700 MARELLA AVE	2013-03-15	15:23	Front	< 11	< 3.9	< 4.8	< 91	< 5.4	< 4.5	530	1500	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4										
N24700SVFD	24700 MARELLA AVE	2013-03-15	15:23	Front	< 11	< 4	< 4.9	< 92	< 5.5	< 4.6	590	1500	< 73	< 4.9	< 5.5	< 3.9	< 6.3	< 3.9	< 5.5										
P24702SVH	24702 PANAMA AVE	2010-06-03	09:09	House	17	< 3.9	< 4.9	< 92 N.J	< 5.5	< 4.6	< 130 N.J	< 160 N.J	< 72 N.J	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
P24702SVG	24702 PANAMA AVE	2010-06-03	09:56	Garage	< 11	< 3.9	< 4.9	< 92 N.J	< 5.5	< 4.6	< 130 N.J	< 160 N.J	< 72 N.J	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
P24702SVGS	24702 PANAMA AVE	2010-06-03	09:56	Garage	< 3.3	< 1.7	< 3.3	< 95 N.J	< 1.7	< 1.7	< 140 N.J	< 160 N.J	< 75 N.J	< 1.7	< 1.7	< 3.3	< 1.7	< 1.7	< 1.7										
P24702SVB	24702 PANAMA AVE	2010-06-03	10:38	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
P24702SVG	24702 PANAMA AVE	2011-02-24	15:30	Garage	< 11	< 3.8	< 4.7	< 89	< 5.4	< 4.5	< 130	< 150	< 70	< 4.7	< 5.4	< 3.8	< 6.1	< 3.8	< 5.4										
P24702SVH	24702 PANAMA AVE	2011-02-24	15:34	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
P24702SVB	24702 PANAMA AVE	2011-02-24	16:20	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
P24702SVB	24702 PANAMA AVE	2013-06-12	09:46	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4.0	< 5.6										
P24702SVBS	24702 PANAMA AVE	2013-06-12	09:46	Back	< 20 U	< 2 U	< 4.1 U	< 97	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
P24702SVH	24702 PANAMA AVE	2013-06-12	09:56	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
P24702SVG	24702 PANAMA AVE	2013-06-12	10:18	Garage	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4.0	< 5.6										
P24702SVGS	24702 PANAMA AVE	2013-06-12	10:18	Garage	< 20 U	< 2 U	< 4 U	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
M24703SVF	24703 MARELLA AVE	2010-03-29	11:37	Front	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
M24703SVH	24703 MARELLA AVE	2010-03-29	12:58	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	1100 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24703SVB	24703 MARELLA AVE	2010-03-29	13:53	Back	< 12	< 4.2	< 5.1	< 97 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
M24703SVH	24703 MARELLA AVE	2010-08-23	09:27	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
M24703SVF	24703 MARELLA AVE	2010-08-23	10:15	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24703SVB	24703 MARELLA AVE	2010-08-23	10:57	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24703SVH	24703 MARELLA AVE	2010-08-23	14:49	House	8.3	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9										
M24703SVB	24703 MARELLA AVE	2012-04-20	15:21	Back	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24703SVBD	24703 MARELLA AVE	2012-04-20	15:21	Back	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24703SVF	24703 MARELLA AVE	2012-04-20	15:47	Front	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24703SVB	24703 MARELLA AVE	2013-07-11	09:37	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6										
M24703SVBD	24703 MARELLA AVE	2013-07-11	09:37	Back	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
M24703SVF	24703 MARELLA AVE	2013-07-11	09:45	Front	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4										



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
M24703SVH	24703 MARBELLA AVE	2013-07-11	10:16	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7											
M24703SVB	24703 NEPTUNE AVE	2009-09-22	08:48	Back	< 13	< 4.8	< 5.9	< 110 N.J.	< 6.7	< 5.6	< 160 N.J.	< 190 UJ,N.J.	< 88 N.J.	< 5.9	< 5.7	< 4.7	< 7.6	< 4.7	< 6.7											
M24703SVF	24703 NEPTUNE AVE	2009-09-22	09:36	Front	< 12	< 4.4	< 5.4	< 100 N.J.	< 6.1	< 5.1	< 140 N.J.	< 170 UJ,N.J.	< 80 N.J.	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1											
M24703SVBD	24703 NEPTUNE AVE	2009-09-22	09:36	Front	< 12	< 4.3	12	< 100 N.J.	62	< 5	< 140 N.J.	< 170 UJ,N.J.	< 79 N.J.	< 5.3	< 6	< 4.2	< 6.8	< 4.2	32											
M24703SVH	24703 NEPTUNE AVE	2010-11-03	14:04	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8											
M24703SVF	24703 NEPTUNE AVE	2010-11-03	14:54	Front	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
M24703SVB	24703 NEPTUNE AVE	2010-11-03	15:45	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6											
M24703SVBS	24703 NEPTUNE AVE	2010-11-03	15:45	Back	< 3.6	< 1.8	< 3.6	< 100	< 1.8	< 1.8	< 150	< 180	< 83	< 1.8	< 1.8	< 3.6	< 1.8	< 1.8	< 1.8											
M24703SVB	24703 NEPTUNE AVE	2013-04-26	14:43	Back	< 12	< 4.5	< 5.6	< 100	< 6.3	< 5.2	< 150	< 180	< 83	< 5.6	< 6.3	< 4.4	< 7.2	< 4.4	< 6.3											
M24703SVH	24703 NEPTUNE AVE	2013-04-26	14:54	House	< 11	< 3.9	< 4.8	< 91	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4											
M24703SVF	24703 NEPTUNE AVE	2013-04-26	15:16	Front	18	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
M24703SVH	24703 RAVENNA AVE	2010-10-11	09:26	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
M24703SVG	24703 RAVENNA AVE	2010-10-11	10:14	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
M24703SVB	24703 RAVENNA AVE	2010-10-11	10:14	Garage	< 3.4	< 1.7	< 3.4	< 95	< 1.7	< 1.7	< 140	< 160	< 75	< 1.7	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7											
M24703SVH	24703 RAVENNA AVE	2010-10-11	11:03	Back	< 11	< 4.1	< 5.1	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
M24703SVH	24703 RAVENNA AVE	2013-03-08	09:42	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
M24703SVG	24703 RAVENNA AVE	2013-03-08	10:14	Garage	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6											
M24703SVGD	24703 RAVENNA AVE	2013-03-08	10:14	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
M24703SVH	24703 RAVENNA AVE	2013-07-24	09:53	House	14	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6											
M24703SVB	24703 RAVENNA AVE	2013-07-24	10:06	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
M24703SVBD	24703 RAVENNA AVE	2013-07-24	10:06	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
M24703SVG	24703 RAVENNA AVE	2013-07-24	10:25	Garage	20	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7											
M24706SVB	24706 MARBELLA AVE	2011-01-31	13:48	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6											
M24706SVG	24706 MARBELLA AVE	2011-01-31	14:56	Garage	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9											
M24706SVH	24706 MARBELLA AVE	2011-01-31	16:20	House	< 11	23	19	22000	17	< 4.6	11000	1600	16000	8.2	18	360	< 6.3	< 3.9	8.1											
M24706SVH	24706 MARBELLA AVE	2011-09-15	14:30	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
M24706SVHD	24706 MARBELLA AVE	2011-09-15	14:30	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
M24706SVB	24706 MARBELLA AVE	2011-09-15	15:10	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
M24706SVG	24706 MARBELLA AVE	2011-09-15	16:01	Garage	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6											
M24706SVH	24706 MARBELLA AVE	2013-02-21	14:53	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5											
M24706SVB	24706 MARBELLA AVE	2013-02-21	15:09	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7											
M24706SVBD	24706 MARBELLA AVE	2013-02-21	15:09	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
M24706SVG	24706 MARBELLA AVE	2013-02-21	15:27	Garage	< 11	12	5	< 95	5.8	9.5	< 140	< 160	< 75	< 5	5.7	4	6.5	4.0	5.7											
M24706SVB	24706 MARBELLA AVE	2013-06-26	14:49	Back	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5											
M24706SVH	24706 MARBELLA AVE	2013-06-26	14:51	House	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 5.6											
M24706SVG	24706 MARBELLA AVE	2013-06-26	15:17	Garage	< 12	< 4.2	< 5.2	< 99	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9											
M24706SVB	24706 RAVENNA AVE	2010-08-23	00:00	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6											
M24706SVH	24706 RAVENNA AVE	2010-08-23	13:28	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2											
M24706SVH	24706 RAVENNA AVE	2010-08-23	14:03	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9											
M24706SVB	24706 RAVENNA AVE	2010-08-23	14:57	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9											
M24706SVH	24706 RAVENNA AVE	2013-04-25	14:59	House	< 12	< 4.1	< 5.1	< 96	6.2	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8											
R24706SVF	24706 RAVENNA AVE	2013-04-25	15:28	Front	< 12	< 4.4	< 5.4	< 100	6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1											
M24707SVH	24707 MARBELLA AVE	2010-06-28	09:52	House	12	< 4.2	< 5.1	< 97 N.J.	< 5.8	< 4.8	< 140 N.J.	1300 N.J.	< 77 N.J.	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8											
M24707SVB	24707 MARBELLA AVE	2010-06-28	11:30	Back	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
M24707SVH	24707 MARBELLA AVE	2011-05-06	14:12	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1											
M24707SVB	24707 MARBELLA AVE	2011-05-06	14:53	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
M24707SVBS	24707 MARBELLA AVE	2011-05-06	14:53	Back	< 3.6	< 1.8	< 3.6	< 99	< 1.8	< 1.8	< 140	< 170	< 78	< 1.8	< 1.8	< 3.6	< 1.8	< 1.8	< 1.8											
M24707SVF	24707 MARBELLA AVE	2011-05-06	15:24	Front	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9											
M24707SVFS	24707 MARBELLA AVE	2011-05-06	15:26	Front	< 4.1	< 2	< 4.1	< 98	< 2	< 2	< 140	< 170	< 77	< 2	< 2	< 4.1	< 2	< 2	< 2											
M24707SVH	24707 MARBELLA AVE	2012-09-07	10:34	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
M24707SVF	24707 MARBELLA AVE	2012-09-07	11:01	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
M24707SVFS	24707 MARBELLA AVE	2012-09-07	11:01	Front	< 20 U	< 2 U	< 4 U	< 98	< 2 U	< 2 U	< 140	< 160	< 77	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U											



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
R24709SVFS	24709 RAVENNA AVE	2013-03-21	10:06	Front	< 20 U	< 2 U	< 4 U	< 93	< 2 U	< 2 U	< 130	< 160	< 73	< 2 U	< 2 U	< 4 U	< 2 U	< 4 U	< 2 U	< 39	< 2 U	< 5.6								
R24709SVB2	24709 RAVENNA AVE	2013-03-21	11:10	Back	< 11	< 4	< 4.9	< 95	< 5.6	4.9	< 140	< 160	< 75	< 5.6	< 3.9	< 2 U	< 6.3	< 2 U	< 39	< 5.6										
R24709SVH	24709 RAVENNA AVE	2013-03-22	16:33	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5.7	< 4	< 6.5	< 2 U	< 4	< 40	< 5.7										
R24709SVB	24709 RAVENNA AVE	2013-08-14	14:49	Back	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 4.4	< 7.1	< 4.4	< 7.1	< 44	< 6.2										
R24709SVH	24709 RAVENNA AVE	2013-08-14	14:52	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 4.1	< 6.7	< 4.1	< 6.7	< 42	< 5.9										
R24709SVF	24709 RAVENNA AVE	2013-08-14	15:20	Front	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 4.1	< 6.6	< 5.8	< 4.1	< 41	< 5.8										
R24709SVB2	24709 RAVENNA AVE	2013-08-14	15:28	Back	< 11	< 3.9	< 4.8	< 91	< 5.5	< 4.6	< 130	< 160	< 72	< 4.8	< 3.8	< 6.3	< 5.5	< 3.8	< 39	< 5.5										
M24710SVB	24710 MARBELLA AVE	2010-09-14	14:59	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 4.1	< 6.7	< 5.8	< 4.1	< 41	< 5.8										
M24710SVF	24710 MARBELLA AVE	2010-09-14	15:40	Front	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 71	< 4.8	< 3.8	< 6.2	< 5.4	< 3.8	< 38	< 5.4										
M24710SVF	24710 MARBELLA AVE	2011-02-08	13:36	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 4.2	< 6.8	< 5.9	< 4.2	< 42	< 5.9										
M24710SVH	24710 MARBELLA AVE	2011-02-08	14:11	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 4	< 6.5	< 5.7	< 4	< 4	< 5.7										
M24710SVB	24710 MARBELLA AVE	2011-02-08	15:14	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 3.9	< 6.4	< 5.6	< 3.9	< 4	< 5.6										
M24710SVF	24710 MARBELLA AVE	2012-05-03	15:19	Front	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 2.7	< 4.4	< 3.8	< 2.7	< 27	< 3.8										
M24710SVH	24710 MARBELLA AVE	2012-05-03	15:38	Front	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 2.7	< 4.4	< 3.8	< 2.7	< 27	< 3.8										
M24710SVB	24710 MARBELLA AVE	2012-05-03	15:38	House	< 7.8	< 2.8	12	< 65	6.8	< 3.5	< 92	< 110	< 51	< 3.4	< 2.7	< 4.4	< 3.9	< 2.7	< 27	6.1										
M24710SVB	24710 MARBELLA AVE	2012-05-03	16:03	Back	< 8.4	< 3	57	150	60	< 3.5	< 100	< 120	< 55	7.4	< 2.9	< 4.8	< 4.2	< 2.9	< 30	29										
M24712SVF	24712 NEPTUNE AVE	2010-04-21	14:48	Front	< 12	8.5	88	< 99 N.J	120	14	< 140 N.J	< 170 N.J	< 78 N.J	58	6.4	< 6.8	6.8	6.4	< 4.2	< 4.2	42									
M24712SVB	24712 NEPTUNE AVE	2010-04-21	15:45	Back	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 4.1	< 6.7	< 5.9	< 4.1	< 4.2	< 5.9										
M24712SVH2	24712 NEPTUNE AVE	2010-08-11	08:58	House	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 3.9	< 6.4	< 5.6	< 3.9	< 4	< 5.6										
M24712SVF	24712 NEPTUNE AVE	2011-02-07	09:16	Front	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 3.8	< 6.3	< 5.5	< 3.8	< 3.9	< 5.5										
M24712SVH2	24712 NEPTUNE AVE	2011-02-07	10:04	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 4	< 6.5	< 5.7	< 4	< 4	< 5.7										
M24712SVB	24712 NEPTUNE AVE	2011-02-07	10:59	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 4.1	< 6.6	< 5.8	< 4.1	< 4.1	< 5.8										
M24712SVB5	24712 NEPTUNE AVE	2011-02-07	10:59	Back	< 3.4	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7	< 140	< 160	< 1.7	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7	1.8	< 1.7										
M24712SVH2	24712 NEPTUNE AVE	2013-01-18	14:55	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 4	< 6.5	< 5.7	< 4	< 40	< 5.7										
M24712SVB	24712 NEPTUNE AVE	2013-01-18	14:57	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 4	< 6.5	< 5.7	< 4	< 40	< 5.7										
M24712SVF	24712 NEPTUNE AVE	2013-01-18	15:26	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 4.3	< 7.1	< 6.2	< 4.4	< 4.4	< 6.2										
M24712SVH	24712 NEPTUNE AVE	2013-06-12	14:48	Back	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 4	< 6.6	< 5.8	< 4.1	< 4.1	< 5.8										
M24712SVH2	24712 NEPTUNE AVE	2013-06-12	15:02	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 3.8	< 6.3	< 5.5	< 3.8	< 39	< 5.5										
M24712SVF	24712 NEPTUNE AVE	2013-06-12	15:14	Front	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 4.1	< 6.8	< 5.9	< 4.1	< 4.2	< 5.9										
M24712SVH	24712 PANAMA AVE	2010-08-12	14:06	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 4.2	< 6.7	< 5.9	< 4.2	< 4.2	< 5.9										
M24712SVB	24712 PANAMA AVE	2010-08-12	14:54	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 4	< 6.5	< 5.7	< 4	< 4	< 5.7										
M24712SVF	24712 PANAMA AVE	2010-08-12	15:45	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 4.2	< 6.8	< 5.9	< 4.2	< 4.2	< 5.9										
M24712SVH	24712 PANAMA AVE	2011-02-25	15:09	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 4.2	< 6.8	< 5.9	< 4.2	< 4.2	< 5.9										
M24712SVB	24712 PANAMA AVE	2011-02-25	15:36	Back	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 3.9	< 6.4	< 5.6	< 3.9	< 4	< 5.6										
M24712SVBD	24712 PANAMA AVE	2011-02-25	15:36	Back	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 3.9	< 6.4	< 5.6	< 3.9	< 4	< 5.6										
M24712SVF	24712 PANAMA AVE	2011-02-25	16:00	Front	< 12	12	< 5.1	< 96	< 5.8	12	< 140	< 160	< 76	< 5.1	< 4	< 6.6	< 5.8	< 4	< 4.1	< 5.8										
M24712SVF	24712 RAVENNA AVE	2010-01-04	10:51	Front	< 12	< 4.2	< 5.1	< 97 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	< 4.1	< 6.6	< 5.8	< 4.1	< 4.1	< 5.8										
M24712SVH	24712 RAVENNA AVE	2010-01-04	11:38	House	16	< 3.9	< 4.9	< 92 N.J	< 5.5	< 4.6	< 130 N.J	< 160 N.J	< 72 N.J	< 4.9	< 3.8	< 6.3	< 5.5	< 3.9	< 3.9	< 5.5										
M24712SVB	24712 RAVENNA AVE	2010-01-04	12:30	Back	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 4.1	< 6.7	< 5.9	< 4.2	< 4.2	< 5.9										
M24712SVB	24712 RAVENNA AVE	2011-06-10	11:35	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 4.2	< 6.9	< 6.1	50	< 4.2	< 6.1										
M24712SVB5	24712 RAVENNA AVE	2011-06-10	11:35	Back	< 3.7 U	< 1.8 U	< 3.7 U	< 1.8 U	< 1.8 U	< 1.8 U	< 140	< 170	< 74	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U										
M24712SVF	24712 RAVENNA AVE	2011-06-10	12:17	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 3.9	< 6.4	< 5.6	< 3.9	< 4	< 5.6										
M24712SVFS	24712 RAVENNA AVE	2011-06-10	12:17	Front	< 3.6 U	< 1.8 U	< 3.6 U	< 1.8 U	< 1.8 U	< 1.8 U	< 130	< 160	< 74	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U										
M24712SVH	24712 RAVENNA AVE	2011-06-10	13:00	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 3.9	< 6.4	< 5.6	< 3.9	< 4	< 5.6										
M24712SVH	24712 RAVENNA AVE	2011-06-10	13:00	House	< 3.5 U	< 1.7 U	< 3.5 U	< 1.7 U	< 1.7 U	< 1.7 U	< 140	< 160	< 77	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U										
M24713SVH	24713 MARBELLA AVE	2011-04-26	14:01	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 4.1	< 6.7	< 5.8	< 4.1	< 4.1	< 5.8										
M24713SVHD	24713 MARBELLA AVE	2011-04-26	14:01	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 4.1	< 6.7	< 5.8	< 4.1	< 4.1	< 5.8										
M24713SVF	24713 MARBELLA AVE	2011-04-26	14:47	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 4.3	< 7.1	< 6.2	< 4.4	< 4.4	< 6.2										
M24713SVFD	24713 MARBELLA AVE	2011-04-26	14:47	Front	< 13	< 4.6	< 5.7	< 110	< 6.5	< 5.4	< 150	< 180	< 85	< 5.7	< 4.5	< 7.4	< 6.5	< 4.6	< 4.6	< 6.5										
M24713SVB	24713 MARBELLA AVE	2011-04-26	15:28	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 4.1	< 6.7	< 5.8	< 4.1	< 4.1	< 5.8										
M24713SVH	24713 MARBELLA AVE	2013-03-08	14:39	House	< 12	<																								

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection	Analyte Units																					
					UG/M3	4.47%		Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%
M24713SVF	24713 MARBELLA AVE	2013-03-08	15:08	Front	< 11	< 3.9	< 4.8	< 91	< 5.5	< 4.6	< 130	< 160	< 72	< 4.8	< 5.5	< 3.8	< 6.3	< 39	< 5.5										
M24713SVH	24713 MARBELLA AVE	2013-07-30	14:52	House	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.4	< 39	< 5.6										
M24713SVB	24713 MARBELLA AVE	2013-07-30	15:06	Back	33	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 41	< 5.8										
M24713SVF	24713 MARBELLA AVE	2013-07-30	15:23	Front	< 11	< 3.9	< 4.8	< 91	< 5.4	< 4.5	< 130	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 38	< 5.4										
P24713SVH	24713 PANAMA AVE	2011-05-10	09:26	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
P24713SVB	24713 PANAMA AVE	2011-05-10	10:08	Back	< 11	< 4.1	12	< 95	8.2	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.8										
P24713SVG	24713 PANAMA AVE	2011-05-10	10:59	Garage	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6										
P24713SVGS	24713 PANAMA AVE	2011-05-10	10:59	Garage	< 3.3	< 1.7	< 3.3	< 100	< 1.7	< 1.7	< 140	< 170	< 79 PF	< 1.7	< 1.7	< 3.3	< 1.7	< 1.7	< 1.7										
P24713SVH	24713 PANAMA AVE	2013-04-05	09:46	House	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79 PF	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6										
P24713SVB	24713 PANAMA AVE	2013-04-05	10:13	Back	< 23	< 8.2	< 10	< 190	< 11	< 9.5	< 270	< 320	< 150 PF	< 10	< 11	< 8	< 13	< 80	< 11										
P24713SVBD	24713 PANAMA AVE	2013-04-05	10:13	Back	< 21	< 7.4	< 9.2	< 170	< 10	< 8.6	< 240	< 290	< 140 PF	< 9.2	< 10	< 7.3	< 12	< 73	< 10										
P24713SVG	24713 PANAMA AVE	2013-04-05	10:16	Garage	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77 PF	< 5.2	< 5.8	< 4.1	< 6.7	< 41	< 5.8										
P24713SVGD	24713 PANAMA AVE	2013-04-05	10:16	Garage	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77 PF	< 5.2	< 5.8	< 4.1	< 6.7	< 41	< 5.8										
R24713SVH	24713 RAVENNA AVE	2011-04-06	13:59	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
R24713SVG	24713 RAVENNA AVE	2011-04-06	14:43	Garage	< 14	< 4.9	< 6	< 110	< 6.8	< 5.6	< 160	< 190	< 89	< 6	< 6.8	< 4.8	< 7.8	< 4.8	< 6.8										
R24713SVGD	24713 RAVENNA AVE	2011-04-06	14:43	Garage	< 14	< 4.9	< 6	< 110	< 6.8	< 5.6	< 160	< 190	< 89	< 6	< 6.8	< 4.8	< 7.8	< 4.8	< 6.8										
R24713SVB	24713 RAVENNA AVE	2011-04-06	15:27	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
R24713SVBD	24713 RAVENNA AVE	2011-04-06	15:27	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
R24713SVH	24713 RAVENNA AVE	2013-08-01	14:52	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7										
R24713SVB	24713 RAVENNA AVE	2013-08-01	15:06	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 41	< 5.8										
R24713SVG	24713 RAVENNA AVE	2013-08-01	15:16	Garage	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 42	< 5.9										
R24713SVB	24713 RAVENNA AVE	2010-04-26	09:40	Back	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
R24713SVH	24713 RAVENNA AVE	2010-04-26	10:30	Front	< 12	< 4.2	< 5.1	< 97 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
N24713SVH	24715 NEPTUNE AVE	2010-04-26	11:38	House	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
N24713SVB	24715 NEPTUNE AVE	2011-02-18	15:05	Back	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 42	< 5.9										
N24713SVH	24715 NEPTUNE AVE	2011-02-18	15:48	House	< 14	< 4.9	< 6	< 110	< 6.8	< 5.6	< 160	< 190	< 89	< 6	< 6.8	< 4.8	< 7.8	< 4.8	< 6.8										
N24713SVF	24715 NEPTUNE AVE	2011-02-18	16:41	Front	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
N24713SVH	24715 NEPTUNE AVE	2013-08-07	14:44	House	31	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 42	< 5.9										
N24713SVB	24715 NEPTUNE AVE	2013-08-07	14:54	Back	< 12	< 4.5	< 5.5	< 100	< 6.3	< 5.2	< 150	< 180	< 82	< 5.5	< 6.3	< 4.4	< 7.2	< 44	< 6.3										
N24713SVH	24715 NEPTUNE AVE	2013-08-07	15:38	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 43	< 6										
M24716SVG	24716 MARBELLA AVE	2010-07-02	14:50	Garage	< 12	< 4.3	< 5.2	< 99 N.J.	< 5.9	< 5	< 140 N.J.	< 170 N.J.	< 78 N.J.	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24716SVH	24716 MARBELLA AVE	2010-07-02	16:23	House	< 12	< 4.1	< 5.1	< 96 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 76 N.J.	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
M24716SVH	24716 MARBELLA AVE	2011-04-19	14:21	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6										
M24716SVG	24716 MARBELLA AVE	2011-04-19	15:03	Garage	< 14	< 5.1	< 6.3	< 120	< 7.2	< 6	< 170	< 200	< 94	< 6.3	< 7.2	< 5	< 8.2	< 5	< 7.2										
M24716SVB	24716 MARBELLA AVE	2011-04-19	15:40	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6										
M24716SVBD	24716 MARBELLA AVE	2011-04-19	15:40	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6										
M24716SVH	24716 MARBELLA AVE	2012-05-24	09:56	Back	< 10	< 3.7	< 4.6	< 86	< 5.2	< 4.3	< 120	< 150	< 68	< 4.6	< 5.2	< 3.6	< 5.9	< 37	< 5.2										
M24716SVB	24716 MARBELLA AVE	2012-05-24	09:56	Back	< 7.7	< 2.8	< 3.4	130	< 3.8	< 3.2	290 J	< 110	< 51	< 4.9	< 3.8	< 2.7	< 4.4	< 27	< 3.8										
M24716SVH	24716 MARBELLA AVE	2012-05-24	10:29	House	< 7.5	< 2.7	< 3.3	200	< 3.8	< 3.1	< 89	< 110	< 50	< 3.3	< 3.8	9.8	< 4.3	< 26	< 3.8										
M24716SVG	24716 MARBELLA AVE	2012-05-24	10:42	Garage	< 7.6	< 2.7	< 3.4	64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	9.8	< 4.4	< 27	< 3.8										
M24716SVH	24716 MARBELLA AVE	2013-07-25	09:55	House	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 44	< 6.2										
M24716SVB	24716 MARBELLA AVE	2013-07-25	10:04	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7										
M24716SVBD	24716 MARBELLA AVE	2013-07-25	10:04	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 42	< 5.9										
M24716SVG	24716 MARBELLA AVE	2013-07-25	10:25	Garage	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 40	< 5.6										
R24716SVH	24716 RAVENNA AVE	2012-03-01	11:22	House	< 11	< 3.8	< 4.7	< 89	< 5.3	< 4.4	< 130	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6.1	< 38	< 5.3										
R24716SVHD	24716 RAVENNA AVE	2012-03-01	11:22	House	< 10	< 3.7	< 4.6	< 87	< 5.2	< 4.3	< 120	< 150	< 69	< 4.6	< 5.2	< 3.6	< 6	< 37	< 5.2										
R24716SVG	24716 RAVENNA AVE	2012-03-01	11:32	Garage	< 9.6	< 3.4	< 4.2	< 80	< 4.8	< 4	< 110	< 140	< 63	< 4.2	< 4.8	< 3.4	< 5.5	< 34	< 4.8										
R24716SVB	24716 RAVENNA AVE	2012-03-01	12:01	Back	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 28	< 4										
M24717SVH	24717 MARBELLA AVE	2010-07-02	14:52	House	< 12	< 4.2	6.3	< 97 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
M24717SVF	24717 MARBELLA AVE	2010-07-02	16:12	Front	< 12	< 4.1	< 5.1	< 96 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 76 N.J.	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
M24717SVB	24717 MARBELLA AVE	2010-07-02	16:51	Back	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4.6	< 5.7										
M24717SVH	24717 MARBELLA AVE	2012-07-26	09:56	House	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 27	< 3.8										

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection																						
					Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4- Trimethyl- benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl- benzene UG/M3	1.97%	Cumene (isopropyl- benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
M24717SVB	24717 MARBELLA AVE	2012-07-26	10:08	Back	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 28	< 4										
M24717SVBD	24717 MARBELLA AVE	2012-07-26	10:08	Back	< 7.9	< 2.8	< 3.5	< 66	< 3.9	< 3.3	< 93	< 110	< 52	< 3.5	< 3.9	< 2.8	< 4.5	< 28	< 3.9										
M24717SVF	24717 MARBELLA AVE	2012-07-26	10:27	Front	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 83	< 5.6	< 6.3	< 4.4	< 7.2	< 45	< 6.3										
M24717SVH	24717 MARBELLA AVE	2013-05-23	14:49	House	< 12	< 5.9	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77 PF	< 5.1	< 5.8	< 4.1	< 6.6	< 41	< 5.8										
M24717SVB	24717 MARBELLA AVE	2013-05-23	15:08	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80 PF	< 5.3	< 6	< 4.2	< 6.9	< 43	< 6										
M24717SVF	24717 MARBELLA AVE	2013-05-23	15:22	Front	< 11	< 5.3	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74 PF	< 5	< 5.6	< 3.9	< 6.4	< 40	< 5.6										
M24718SVG	24718 NEPTUNE AVE	2010-09-08	09:57	Garage	< 12	< 4.1	< 5.1	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4.1	< 6.5	< 4	< 5.7										
M24718SVB	24718 NEPTUNE AVE	2010-09-08	10:47	Back	< 11	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
M24718SVHA	24718 NEPTUNE AVE	2011-02-04	09:36	House	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 71	< 4.8	< 5.4	< 6.2	< 3.8	< 3.8	< 5.4										
M24718SVHB	24718 NEPTUNE AVE	2012-02-24	10:34	Back	< 14	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 26	< 3.7										
M24718SVG	24718 NEPTUNE AVE	2012-02-24	10:58	Garage	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 39	< 3.7										
M24718SVB	24718 NEPTUNE AVE	2012-02-24	11:25	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 29	< 4.1										
M24718SVBD	24718 NEPTUNE AVE	2012-02-24	11:25	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 29	< 4.1										
M24718SVB2	24718 PANAMA AVE	2010-06-24	09:32	Back	< 12	< 4.2	< 5.1	< 97 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
M24718SVF	24718 PANAMA AVE	2010-06-24	10:19	Front	< 12	< 4.2	< 5.1	< 97 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
M24718SVH	24718 PANAMA AVE	2010-06-24	11:18	House	< 12	< 4.3	< 5.2	< 99 N.J.	< 5.9	< 5	< 140 N.J.	< 170 N.J.	< 78 N.J.	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24718SVB2	24718 PANAMA AVE	2012-10-18	10:00	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7										
M24718SVB2D	24718 PANAMA AVE	2012-10-18	10:00	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 41	< 5.8										
M24718SVH	24718 PANAMA AVE	2012-10-18	10:03	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 39	< 5.5										
M24718SVF	24718 PANAMA AVE	2012-10-18	10:42	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7										
M24718SVH	24718 PANAMA AVE	2013-05-16	10:09	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 78	< 5.1	< 5.8	< 4.1	< 6.6	< 41	< 5.8										
M24718SVG	24718 PANAMA AVE	2013-05-16	10:12	Garage	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 42	< 5.9										
M24718SVB2	24718 PANAMA AVE	2013-05-16	11:10	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7										
M24718SVB	24718 NEPTUNE AVE	2010-07-16	14:03	Back	< 22	< 4.4	< 5.4	< 100 N.J.	< 6.1	< 5.1	< 140 N.J.	< 170 N.J.	< 80 N.J.	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1										
M24719SVH	24719 NEPTUNE AVE	2010-07-16	14:52	House	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24719SVF	24719 NEPTUNE AVE	2010-07-16	15:43	Front	< 87	< 4.2	< 5.2	< 98 N.J.	< 5.8	< 4.9	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
M24719SVH	24719 NEPTUNE AVE	2012-07-19	15:00	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9 PF	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 27	< 3.9										
M24719SVB	24719 NEPTUNE AVE	2012-07-19	15:32	Back	< 10	< 3.8	< 4.7	< 88	< 5.3 PF	< 4.4	< 120	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6	< 37	< 5.3										
M24719SVBD	24719 NEPTUNE AVE	2012-07-19	15:32	Back	< 7.9	< 2.8	< 3.5	< 66	< 4 PF	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 28	< 4										
M24719SVH	24719 PANAMA AVE	2010-06-28	09:23	House	< 25	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 1000 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24719SVF	24719 PANAMA AVE	2010-06-28	11:21	Front	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.7	< 130 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24719SVBA	24719 PANAMA AVE	2011-03-04	08:51	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24719SVH	24719 PANAMA AVE	2011-03-04	09:38	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24719SVHS	24719 PANAMA AVE	2011-03-04	09:38	House	< 3.5	< 1.7	< 3.5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24719SVF	24719 PANAMA AVE	2011-03-04	10:20	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 1.7	< 1.7	< 3.5	< 1.7	< 1.7	< 1.7										
M24719SVFS	24719 PANAMA AVE	2011-03-04	10:20	Front	< 3.4	< 2.4	< 3.4	< 95	< 1.7	< 1.7	< 140	< 160	< 75	< 1.7	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7										
M24719SVF	24719 PANAMA AVE	2012-09-28	09:49	Front	< 11	< 19	< 5	< 95	< 5.7	< 11	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7										
M24719SVBA	24719 PANAMA AVE	2012-09-28	10:34	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7										
M24719SVB	24719 RAVENNA AVE	2010-04-21	12:16	Back	< 12	< 4.2	< 5.2	< 98 N.J.	< 5.9	< 4.9	< 140 N.J.	< 170 N.J.	< 77 N.J.	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
M24719SVF	24719 RAVENNA AVE	2010-04-21	12:43	Front	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24719 SVB	24719 RAVENNA AVE	2012-11-29	10:07	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 40	< 5.6										
M24719 SVBD	24719 RAVENNA AVE	2012-11-29	10:07	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 40	< 5.6										
M24719 SVH	24719 RAVENNA AVE	2012-11-29	10:11	House	< 14	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.3	< 39	< 5.6										
M24719 SVF	24719 RAVENNA AVE	2012-11-29	10:44	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 40	< 5.7										
M24722SVH	24722 MARBELLA AVE	2010-11-29	09:19	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24722SVF	24722 MARBELLA AVE	2010-11-29	09:55	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24722SVFD	24722 MARBELLA AVE	2010-11-29	09:55	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 5.8										
M24722SVB	24722 MARBELLA AVE	2010-11-29	11:03	Back	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 84	< 5.6	< 6.3	< 4.4	< 7.2	< 4.5	< 6.3										
M24722SVH	24722 MARBELLA AVE	2012-06-07	10:06	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 27	< 3.9										
M24722SVF	24722 MARBELLA AVE	2012-06-07	10:10	Front	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 27	< 3.8										
M24722SVFS	24722 MARBELLA AVE	2012-06-07	10:10	Front	< 3.5 U	< 1.8 U	< 3.5 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U										

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
M24722SVB	24722 MARBELLA AVE	2012-06-07	10:49	Back	< 8.4	< 3	< 3.7	< 70	< 4.2	< 3.5	< 100	< 120	< 56	< 3.7	< 4.2	< 3	< 4.8	< 30	< 4.2											
M24722SVB	24722 MARBELLA AVE	2013-04-11	14:37	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78 PF	< 5.2	< 5.9	< 4.2	< 6.8	< 42	< 5.9											
M24722SVBD	24722 MARBELLA AVE	2013-04-11	14:37	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78 PF	< 5.2	< 5.9	< 4.2	< 6.8	< 42	< 5.9											
M24722SVH	24722 MARBELLA AVE	2013-04-11	15:12	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74 PF	< 5	< 5.6	< 3.9	< 6.4	< 40	< 5.6											
M24722SVF	24722 MARBELLA AVE	2013-04-11	15:15	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78 PF	< 5.2	< 5.9	< 4.2	< 6.8	< 42	< 5.9											
M24722SVH	24722 NEPTUNE AVE	2010-07-23	13:35	House	< 11	< 3.9	< 4.9	< 92 N.J.	< 5.5	< 4.6	< 130 N.J.	< 160 N.J.	< 72 N.J.	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5											
M24722SVG	24722 NEPTUNE AVE	2010-07-23	14:07	Garage	< 11	< 3.9	< 4.8	< 90 N.J.	< 5.4	< 4.5	< 130 N.J.	< 150 N.J.	< 71 N.J.	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4											
M24722SVB	24722 NEPTUNE AVE	2010-07-23	14:42	Back	< 11	< 4	< 5	< 94 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 74 N.J.	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6											
M24722SVH	24722 NEPTUNE AVE	2012-04-13	15:06	House	< 8	< 2.9	< 3.5	< 67	< 4	< 3.3	< 95	< 110	< 53	< 3.5	< 4	< 4.6	< 2.8	< 28	< 4											
M24722SVG	24722 NEPTUNE AVE	2012-04-13	15:07	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8											
M24722SVG D	24722 NEPTUNE AVE	2012-04-13	15:07	Garage	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8											
M24722SVB	24722 NEPTUNE AVE	2012-04-13	15:49	Back	< 20	< 2.4	< 2.9	< 55	< 3.3	< 2.8	< 78	< 94	< 44	< 2.9	< 3.3	< 2.5	< 3.8	< 2.3	< 3.3											
M24722SVB	24722 PANAMA AVE	2010-04-26	10:23	Back	< 12	< 5.5	< 5.4	< 100 N.J.	< 6.1	< 5.1	< 140 N.J.	< 170 N.J.	< 80 N.J.	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1											
M24722SVF	24722 PANAMA AVE	2010-04-26	11:28	Front	< 12	< 4.4	< 5.4	< 100 N.J.	< 6.1	< 5.1	< 140 N.J.	< 170 N.J.	< 80 N.J.	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1											
M24722SVFD	24722 PANAMA AVE	2010-08-17	13:32	House	< 12	< 4.3	< 5.3	< 100 N.J.	< 6	< 5	< 140 N.J.	< 170 N.J.	< 80 N.J.	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6											
M24722SVH	24722 PANAMA AVE	2010-08-17	13:32	House	49	< 4.3	26	< 99 N.J.	161	8.5	< 140 N.J.	< 170 N.J.	< 78 N.J.	6.9	< 5.9	< 4.2	< 6.8	< 4.2	< 4											
M24722SVF	24722 PANAMA AVE	2011-03-07	09:27	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
M24722SVFD	24722 PANAMA AVE	2011-03-07	09:27	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6											
M24722SVG	24722 PANAMA AVE	2011-03-07	10:06	Garage	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 4	< 5.6											
M24722SVGD	24722 PANAMA AVE	2011-03-07	10:06	Garage	< 11	< 4	< 5	< 93	7.5	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 4	< 5.6											
M24722SVB	24722 PANAMA AVE	2011-03-07	10:49	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
M24722SVG	24722 PANAMA AVE	2012-04-26	10:06	Garage	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9											
M24722SVF	24722 PANAMA AVE	2012-04-26	10:23	Front	< 7.9	< 2.8	< 3.5	< 65	< 4	< 3.2	< 94	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9											
M24722SVB	24722 PANAMA AVE	2012-04-26	10:38	Back	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9											
M24722SVH	24722 RAVENNA AVE	2010-10-25	09:53	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8											
M24722SVF	24722 RAVENNA AVE	2010-10-25	10:39	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6											
M24722SVB	24722 RAVENNA AVE	2010-10-25	11:16	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1											
M24722SVH	24722 RAVENNA AVE	2012-11-09	15:01	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1											
M24722SVB	24722 RAVENNA AVE	2012-11-09	15:15	Back	< 12	< 4.3	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9											
M24722SVF	24722 RAVENNA AVE	2012-11-09	15:39	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
M24722SVB	24722 RAVENNA AVE	2013-05-02	09:54	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160 PF	< 75	< 5	< 5.7	< 4	7.5	< 40	< 5.7											
M24722SVBD	24722 RAVENNA AVE	2013-05-02	09:54	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170 PF	< 78	< 5.2	< 5.9	< 4.2	7.7	< 42	< 5.9											
M24722SVH	24722 RAVENNA AVE	2013-05-02	10:05	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160 PF	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 41	< 5.8											
M24722SVF	24722 RAVENNA AVE	2013-05-02	10:31	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160 PF	< 74	< 5	< 5.6	< 4	< 6.5	< 40	< 5.6											
M24723SVB	24723 MARBELLA AVE	2010-03-29	16:23	Back	< 12	< 4.5	< 5.5	< 100 N.J.	< 6.3	< 5.2	< 150 N.J.	< 180 N.J.	< 82 N.J.	< 5.5	< 6.3	< 4.4	< 7.2	< 4.4	< 6.3											
M24723SVH	24723 MARBELLA AVE	2010-04-07	12:12	House	< 12	< 4.1	< 5.1	< 96 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 76 N.J.	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8											
M24723SVF	24723 MARBELLA AVE	2010-07-21	09:24	Front	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
M24723SVB	24723 MARBELLA AVE	2012-06-21	15:14	Front	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4											
M24723SVFD	24723 MARBELLA AVE	2012-06-21	15:14	Front	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4											
M24723SVH	24723 MARBELLA AVE	2012-06-21	15:21	House	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4											
M24723SVB	24723 MARBELLA AVE	2012-06-21	15:47	Back	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4											
M24723SVH	24723 RAVENNA AVE	2010-11-02	13:51	Back	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2											
M24723SVH	24723 RAVENNA AVE	2010-11-02	13:54	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
M24723SVF	24723 RAVENNA AVE	2010-11-02	14:27	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
M24723SVH	24723 RAVENNA AVE	2012-11-08	10:04	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
M24723SVFD	24723 RAVENNA AVE	2012-11-08	10:04	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
M24723SVH	24723 RAVENNA AVE	2012-11-08	10:23	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
M24723SVB	24723 RAVENNA AVE	2012-11-08	10:40	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
M24723SVH	24723 RAVENNA AVE	2013-04-23	10:15	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74 PF	< 5	< 5.6	< 3.9	< 6.4	< 40	< 5.6											
M24723SVB	24723 RAVENNA AVE	2013-04-23	10:16	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74 PF	< 5	< 5.6	< 3.9	< 6.4	< 40	< 5.6											
M24723SVF	24723 RAVENNA AVE	2013-04-23	10:58	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82 PF	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2											

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection	Isopropanol UG/M3 4.47%	Hexane UG/M3 3.74%	p/m-Xylene UG/M3 3.12%	C6-C8 Aliphatics UG/M3 2.72%	1,2,4- Trimethyl- benzene UG/M3 2.63%	Heptane UG/M3 2.63%	C8-C10 Aliphatics UG/M3 2.54%	C10-C12 Aliphatics UG/M3 2.01%	C5-C6 Aliphatics UG/M3 2.01%	Ethyl- benzene UG/M3 1.97%	Cumene (isopropyl- benzene) UG/M3 1.89%	Cyclohexane UG/M3 1.89%	Freon 11 UG/M3 1.72%	Methylene Chloride UG/M3 1.72%	4-Ethyltoluene UG/M3 1.60%
					UG/M3	UG/M3																
N24725SVB	24725 NEPTUNE AVE	2009-10-02	09:53	Back	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9	
N24725SVF	24725 NEPTUNE AVE	2009-10-02	10:54	Front	< 12	< 4.3	< 5.3	< 100 N.J	< 6	< 5	< 140 N.J	< 170 N.J	< 80 N.J	< 5.3	< 6	< 4.2	< 6.9	< 4.2	< 6.9	< 4.3	< 6	
N24725SVH	24725 NEPTUNE AVE	2010-06-16	09:14	House	< 12	< 4.3	< 5.3	< 100 N.J	< 6	< 5	< 140 N.J	< 170 N.J	< 79 N.J	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 6	
N24725SVB	24725 NEPTUNE AVE	2010-06-16	10:30	Back	< 11	< 4.1	11	< 95 N.J	7.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	6.6	
N24725SVF	24725 NEPTUNE AVE	2010-06-16	11:18	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
N24725SVH	24725 NEPTUNE AVE	2012-06-22	14:51	House	< 8 PF	< 2.9	< 3.5	< 67	< 4	< 3.3	< 95	< 110	< 53	< 3.5	< 4	< 2.8	< 4.6	< 2.8	< 4.6	< 2.8	< 4	
N24725SVB	24725 NEPTUNE AVE	2012-06-22	15:21	Back	< 7.7 PF	< 2.8	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 51	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 4.4	< 2.7	< 3.8	
N24725SVBD	24725 NEPTUNE AVE	2012-06-22	15:21	Back	< 7.7 PF	< 2.8	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 51	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 4.4	< 2.7	< 3.8	
N24725SVF	24725 NEPTUNE AVE	2012-06-22	15:27	Front	< 7.7 PF	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 4.4	< 2.7	< 3.8	
M24726SVH	24726 MARBELLA AVE	2010-06-07	09:03	House	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
M24726SVB	24726 MARBELLA AVE	2010-06-07	10:06	Back	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 6.5	< 4	< 5.6	
M24726SVF	24726 MARBELLA AVE	2010-08-19	08:52	Front	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6	
M24726SVHA	24726 MARBELLA AVE	2012-12-14	15:04	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.8	< 6.3	< 4	< 5.5	
M24726SVBA	24726 MARBELLA AVE	2012-12-19	11:07	Garage	< 22	< 8	< 9.8	< 180	< 11	< 9.3	< 260	< 310	< 150	< 9.8	< 11	< 7.8	< 13	< 7.8	< 13	< 7.8	< 11	
R24726SVBAD	24726 RAVENNA AVE	2011-03-14	10:13	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8	
R24726SVH	24726 RAVENNA AVE	2011-03-14	10:13	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8	
R24726SVH	24726 RAVENNA AVE	2011-03-14	11:00	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
R24726SVH	24726 RAVENNA AVE	2012-12-20	14:58	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6	
R24726SVG	24726 RAVENNA AVE	2012-12-20	15:01	Garage	20 b	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
R24726SVBA	24726 RAVENNA AVE	2012-12-20	15:33	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
N24728SVG	24728 NEPTUNE AVE	2010-05-14	14:56	Garage	< 12	4.5	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.9	
N24728SVH2	24728 NEPTUNE AVE	2010-05-14	15:49	House	50	< 4.2	< 5.2	< 99 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.1	< 6.8	< 4.1	< 6.8	< 4.1	< 5.9	
N24728SVH	24728 NEPTUNE AVE	2010-05-14	16:37	House	90	< 4.1	< 5.1	< 96 N.J	< 5.8	< 4.8	< 140 N.J	300 N.J	< 76 N.J	< 5.1	< 5.8	< 4	< 6.6	< 4	< 6.6	< 4	< 5.8	
N24728SVH2	24728 NEPTUNE AVE	2010-09-21	09:25	House	< 11	< 3.8	9.2	< 88	7	< 4.4	< 120	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6.1	< 3.7	< 6.1	< 3.8	< 5.3	
N24728SVH	24728 NEPTUNE AVE	2010-09-21	10:07	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
N24728SVG	24728 NEPTUNE AVE	2010-09-21	10:46	Garage	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.8	< 6.3	< 3.9	< 5.5	
N24728SVGD	24728 NEPTUNE AVE	2010-09-21	10:46	Garage	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.8	< 6.3	< 3.9	< 5.5	
N24728SVG	24728 NEPTUNE AVE	2013-05-31	09:54	Garage	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.2	< 6.9	< 4.3	< 6	
N24728SVG	24728 NEPTUNE AVE	2013-05-31	09:54	Garage	< 20 U	< 2 U	< 4.1 U	< 2 U	< 2 U	< 2 U	< 140	< 160	< 76	< 2 U	< 2 U	< 4.1 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 6.6
N24728SVH	24728 NEPTUNE AVE	2013-05-31	10:23	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4	< 6.6	< 4.1	< 5.8	
P24728SVH	24728 PANAMA AVE	2013-05-31	10:17	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9	
P24728SVH	24728 PANAMA AVE	2010-11-08	09:13	House	< 12	< 4.3	< 5.2	< 99	< 5.5	< 5	< 140	< 160	< 77 PF	< 4.9	< 5.5	< 3.8	< 6.3	< 3.8	< 6.3	< 3.9	< 5.5	
P24728SVB	24728 PANAMA AVE	2010-11-08	10:09	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8	
P24728SVB	24728 PANAMA AVE	2010-11-08	10:09	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8	
P24728SVG	24728 PANAMA AVE	2010-11-08	11:20	Garage	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9	
P24728SVGS	24728 PANAMA AVE	2010-11-08	11:20	Garage	< 3.4	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7	< 140	< 170	< 80	< 1.7	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7
P24728SVG	24728 PANAMA AVE	2012-11-02	10:05	Garage	< 13	< 4.7	< 5.8	< 110	< 6.6	< 5.5	< 160	< 190	< 87	< 5.8	< 6.6	< 4.6	< 7.6	< 4.6	< 7.6	< 4.7	< 6.6	
P24728SVGD	24728 PANAMA AVE	2012-11-02	10:05	Garage	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 84	< 5.6	< 6.3	< 4.4	< 7.2	< 4.4	< 7.2	< 4.5	< 6.3	
P24728SVB	24728 PANAMA AVE	2012-11-02	10:20	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9	
P24728SVH	24728 PANAMA AVE	2013-06-18	15:28	Back	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72 PF	< 4.9	< 5.5	< 3.8	< 6.3	< 3.8	< 6.3	< 3.9	< 5.5	
P24728SVH2	24728 PANAMA AVE	2013-06-18	15:32	House	< 12	< 4.2	16	< 98	15	< 4.9	< 140	< 170	< 77 PF	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 6.7	< 4.2	9.8 E2	
P24728SVG	24728 PANAMA AVE	2013-06-18	16:07	Garage	< 13	< 4.7	< 5.8	< 110	< 6.6	< 5.5	< 160	< 190	< 87 PF	< 5.8	< 6.6	< 4.6	< 7.5	< 4.6	< 7.5	< 4.6	< 6.6	
N24729SVB	24729 NEPTUNE AVE	2009-09-18	09:13	Back	< 12	< 4.2	< 5.2	< 98 N.J	< 5.8	< 4.9	< 140 N.J	< 160 UJ	< 77 N.J	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8	
N24729SVF	24729 NEPTUNE AVE	2009-09-18	10:38	Front	< 13	< 4.6	< 5.7	< 110 N.J	< 6.5	< 5.4	< 150 N.J	< 180 UJ	< 85 N.J	< 5.7	< 6.5	< 4.5	< 7.4	< 4.5	< 7.4	< 4.6	< 6.5	
N24729SVH	24729 NEPTUNE AVE	2010-07-08	09:11	House	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6	
N24729SVF	24729 NEPTUNE AVE	2010-07-08	09:54	Front	< 10	< 3.6	< 4.4	< 84 N.J	< 5	< 4.2	< 120 N.J	< 140 N.J	< 66 N.J	< 4.4	< 5	< 3.5	< 5.8	< 3.5	< 5.8	< 3.6	< 5	
N24729SVH	24729 NEPTUNE AVE	2010-07-08	09:54	Front	< 10	< 3.7	< 4.5	< 86 N.J	< 5.1	< 4.3	< 120 N.J	< 140 N.J	< 68 N.J	< 4.5	< 5.1	< 3.6	< 5.9	< 3.6	< 5.9	< 3.6	< 5.1	
N24729SVB	24729 NEPTUNE AVE	2010-07-08	10:54	Back	< 12	< 4.2	< 5.2	< 98 N.J	< 5.8	< 4.9	< 140 N.J	< 160 N.J	< 77 N.J	< 5.2	< 5.8	<						

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection																						
					Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4- Trimethyl- benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl- benzene UG/M3	1.97%	Cumene (isopropyl- benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
R24729SVF	24729 RAVENNA AVE	2010-07-14	15:25	Front	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
R24729SVH	24729 RAVENNA AVE	2012-08-24	14:48	House	13	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7										
R24729SVF	24729 RAVENNA AVE	2012-08-24	14:49	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4.0	< 5.6										
R24729SVB	24729 RAVENNA AVE	2012-08-24	15:18	Back	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2										
R24729SVB	24729 RAVENNA AVE	2013-06-20	15:29	Back	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 83 PF	< 5.6	< 6.3	< 4.4	< 7.2	< 4.5	< 6.3										
R24729SVH	24729 RAVENNA AVE	2013-06-20	15:31	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 80 PF	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
R24729SVF	24729 RAVENNA AVE	2013-06-20	16:01	Front	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80 PF	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1										
M24732SVF	24732 MARBELLA AVE	2010-07-01	10:19	Front	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24732SVB	24732 MARBELLA AVE	2010-07-01	10:19	Back	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24732SVH	24732 MARBELLA AVE	2013-01-11	09:47	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
M24732SVB	24732 MARBELLA AVE	2013-01-11	10:12	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24732SVBD	24732 MARBELLA AVE	2013-01-11	10:12	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24732SVF	24732 MARBELLA AVE	2013-01-11	10:16	Front	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6										
M24732SVH	24732 MARBELLA AVE	2013-05-23	10:13	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77 PF	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
M24732SVB	24732 MARBELLA AVE	2013-05-23	10:14	Back	< 12	< 4.7	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77 PF	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
M24732SVBD	24732 MARBELLA AVE	2013-05-23	10:14	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75 PF	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7										
M24732SVF	24732 MARBELLA AVE	2013-05-23	10:36	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77 PF	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
M24732SVH	24732 NEPTUNE AVE	2010-09-20	14:13	House	< 11	< 3.8	< 4.7	550	< 5.4	< 4.5	280	< 150	510	< 4.7	< 5.4	14	< 6.1	< 3.8	< 5.4										
M24732SVHD	24732 NEPTUNE AVE	2010-09-20	14:13	House	< 11	3.9	< 4.7	520	< 5.4	4.8	230	< 150	500	< 4.7	< 5.4	12	< 6.1	< 3.8	< 5.4										
M24732SVB	24732 NEPTUNE AVE	2010-09-20	15:13	Back	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	250	200	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
M24732SVF	24732 NEPTUNE AVE	2010-09-20	16:00	Front	< 32	< 11	< 14	< 270	< 16	< 13	< 380	< 450	< 210	< 14	< 16	< 11	< 18	< 1.7	< 1.7										
M24732SVH	24732 NEPTUNE AVE	2011-02-18	09:09	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24732SVF	24732 NEPTUNE AVE	2011-02-18	09:52	Front	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
M24732SVF5	24732 NEPTUNE AVE	2011-02-18	09:52	Front	< 3.4	1.8	< 3.4	< 94	< 1.7	< 1.7	< 140	< 160	< 74	< 5	< 5.7	< 3.4	< 1.7	< 1.7	< 1.7										
M24732SVB	24732 NEPTUNE AVE	2011-02-18	10:42	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24732SVB5	24732 NEPTUNE AVE	2011-02-18	10:42	Back	< 3.4	< 1.7	< 3.4	< 94	< 1.7	< 1.7	< 140	< 160	< 74	< 5	< 5.7	< 3.4	< 1.7	< 1.7	< 1.7										
M24732SVF	24732 NEPTUNE AVE	2011-03-10	09:56	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
M24732SVF5	24732 NEPTUNE AVE	2011-03-10	09:56	Front	< 3.6	< 1.8	< 3.6	< 84	< 1.8	< 1.8	< 120	< 140	< 75	< 1.8	< 1.8	< 3.6	2	< 1.8	< 1.8										
M24732SVH	24732 NEPTUNE AVE	2011-03-10	10:38	House	< 10	< 3.6	< 4.4	< 84	< 5	< 4.2	< 140	< 160	< 66	< 4.4	< 5	< 3.5	< 5.8	< 3.6	< 5										
M24732SVH	24732 NEPTUNE AVE	2011-03-10	11:13	Back	< 12	< 4.2	< 5.2	170	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.7	< 4.1	< 6.7	< 4.1	< 5.8										
M24732SVB	24732 PANAMA AVE	2010-04-22	17:02	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24732SVB	24732 PANAMA AVE	2010-04-22	17:02	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24732SVH	24732 PANAMA AVE	2010-04-23	10:34	House	< 11	< 3.9	< 4.9	< 92 N.J	< 5.5	< 4.6	< 130 N.J	< 160 N.J	< 72 N.J	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5										
M24732SVH	24732 PANAMA AVE	2010-08-31	13:58	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	4.3	< 5.7										
M24732SVB	24732 PANAMA AVE	2010-08-31	14:36	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24732SVBD	24732 PANAMA AVE	2010-08-31	14:36	Back	< 12	< 4.3	14	< 99	29	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	19										
M24732SVF	24732 PANAMA AVE	2010-08-31	15:16	Front	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 81	< 5.4	< 6.1	< 4.3	< 7	7.4	< 6.1										
M24732SVH	24732 PANAMA AVE	2012-06-14	14:49	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9										
M24732SVF	24732 PANAMA AVE	2012-06-14	15:01	Front	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7										
M24732SVFD	24732 PANAMA AVE	2012-06-14	15:01	Front	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7										
M24732SVB	24732 PANAMA AVE	2012-06-14	15:27	Back	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24732SVH	24732 RAVENNA AVE	2010-10-11	09:20	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
M24732SVG	24732 RAVENNA AVE	2010-10-11	10:23	Garage	13	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24732SVG5	24732 RAVENNA AVE	2010-10-11	10:23	Garage	< 3.4	< 1.7	< 3.4	< 95	< 1.7	< 1.7	< 140	< 160	< 75	< 1.7	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7										
M24732SVB	24732 RAVENNA AVE	2010-10-11	11:09	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
M24732SVG	24732 RAVENNA AVE	2012-06-22	10:00	Garage	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4										
M24732SVB	24732 RAVENNA AVE	2012-06-22	10:11	Back	< 8.2	< 3	< 3.6	< 69	< 4.1	< 3.4	< 98	< 120	< 54	< 3.6	< 4.1	< 2.9	< 4.7	< 2.9	< 4.1										
M24732SVS	24732 RAVENNA AVE	2012-06-22	10:11	Back	< 18 U	< 1.8 U	< 3.6 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U	< 1.8 U										
M24732SVH	24732 RAVENNA AVE	2012-06-22	10:33	House	< 7.7	< 2.8	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 51	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
M24733SVH	24733 MARBELLA AVE	2010-08-06	09:12	House	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
M24733SVG	24733 MARBELLA AVE	2010-08-06	09:53	Garage	< 12	< 4.2	< 5.2	< 98 N.J	< 5.8	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
M24733SVGD	24733 MARBELLA AVE	2010-08-06	09:53	Garage	< 12	< 4.2	< 5.2	< 98 N.J	< 5.8	< 4.9	< 140 N.J	< 160 N.J	< 77 N.J	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection	Isopropanol UG/M3	Hexane UG/M3	p/m-Xylene UG/M3	C6-C8 Aliphatics UG/M3	1,2,4- Trimethyl- benzene UG/M3	Heptane UG/M3	C8-C10 Aliphatics UG/M3	C10-C12 Aliphatics UG/M3	C5-C6 Aliphatics UG/M3	Ethyl- benzene UG/M3	Cumene (isopropyl- benzene) UG/M3	Cyclohexane UG/M3	Freon 11 UG/M3	Methylene Chloride UG/M3	4-Ethyltoluene UG/M3
					UG/M3	4.7%																
M24733SVB	24733 MARBELLA AVE	2010-08-06	10:38	Back	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
M24733SVG	24733 MARBELLA AVE	2012-06-08	14:36	Garage	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 4.4	< 2.7	< 3.9	
M24733VGD	24733 MARBELLA AVE	2012-06-08	14:36	Garage	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 4.4	< 2.7	< 3.9	
M24733SVB	24733 MARBELLA AVE	2012-06-08	15:08	Back	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4.5	< 2.8	< 4	
M24733SVB	24733 MARBELLA AVE	2013-04-04	14:39	Back	< 10	< 3.8	< 4.6	< 88	< 5.2	< 4.4	< 120	< 150	< 69 PF	< 4.6	< 5.2	< 3.7	< 6	< 3.7	< 6	< 3.7	< 5.3	
M24733SVHA	24733 MARBELLA AVE	2013-04-04	14:47	House	< 8.6	< 3.1	< 3.8	< 72	< 4.3	< 3.6	< 100	< 120	< 57 PF	< 3.8	< 4.3	< 3	< 4.9	< 3	< 4.9	< 3	< 4.3	
M24733SVG	24733 MARBELLA AVE	2013-04-04	15:08	Garage	< 9.1	< 3.3	< 4	< 76	< 4.5	< 4.8	< 110	< 130	< 60 PF	< 4	< 4.5	< 3.2	< 5.2	< 3.2	< 5.2	< 3.2	< 4.3	
M24733SVH	24733 PANAMA AVE	2011-01-27	09:40	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
P24733SVF	24733 PANAMA AVE	2011-01-27	10:20	Front	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 72	< 4.9	< 5.5	< 3.8	< 6.3	< 3.8	< 6.3	< 3.9	< 5.5	
P24733SVFS	24733 PANAMA AVE	2011-01-27	10:20	Front	< 3.5	< 1.7	< 3.5	< 100	< 1.7	< 1.7	< 140	< 170	< 79	< 1.7	< 1.7	< 3.5	< 1.7	< 3.5	< 1.7	< 1.7	< 1.7	
P24733SVB	24733 PANAMA AVE	2011-01-27	11:04	Back	< 12	< 4.3	< 5.3	< 94	< 6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4.0	< 5.6	
P24733SVB	24733 PANAMA AVE	2013-02-21	09:54	Back	< 11	< 4	< 5	< 94	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9	
P24733SVS	24733 PANAMA AVE	2013-02-21	09:54	Back	< 19 U	< 1.9 U	< 3.8 U	< 99	< 5.9	< 1.9 U	< 140	< 170	< 78	< 1.9 U	< 1.9 U	< 3.8 U	< 1.9 U	< 3.8 U	< 1.9 U	< 1.9 U	< 1.9 U	
P24733SVH	24733 PANAMA AVE	2013-02-21	10:06	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9	
P24733SVF	24733 PANAMA AVE	2013-02-21	10:36	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9	
P24733SVH	24733 PANAMA AVE	2013-02-21	10:36	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9	
P24733SVH	24733 PANAMA AVE	2013-07-23	09:48	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9	
P24733SVB	24733 PANAMA AVE	2013-07-23	09:51	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8	
P24733SVBD	24733 PANAMA AVE	2013-07-23	09:51	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
P24733SVF	24733 PANAMA AVE	2013-07-23	10:10	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4.0	< 5.6	
R24733SVH	24733 RAVENNA AVE	2010-04-08	13:49	House	< 11	< 4	< 5	< 94 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 74 N.J.	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6	
R24733SVF	24733 RAVENNA AVE	2010-04-08	14:57	Front	< 11	< 4	< 5	< 94 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 74 N.J.	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6	
R24733SVB	24733 RAVENNA AVE	2010-04-08	15:49	Back	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
R24733SVH	24733 RAVENNA AVE	2012-07-27	10:42	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 4.4	< 2.7	< 3.9	
R24733SVB	24733 RAVENNA AVE	2012-07-27	10:42	Back	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4.5	< 2.8	< 4	
R24733SVBD	24733 RAVENNA AVE	2012-07-27	10:42	Back	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4.5	< 2.8	< 4	
R24733SVF	24733 RAVENNA AVE	2012-07-27	10:46	Front	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 4.4	< 2.7	< 3.8	
N24735SVH	24735 NEPTUNE AVE	2010-11-17	09:23	House	16	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8	
N24735SVF	24735 NEPTUNE AVE	2010-11-17	10:19	Front	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6	
N24735SVB	24735 NEPTUNE AVE	2010-11-17	11:03	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
N24735VBD	24735 NEPTUNE AVE	2010-11-17	11:03	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
N24735SVB	24735 NEPTUNE AVE	2010-11-17	11:03	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
N24735SVB	24735 NEPTUNE AVE	2012-11-15	10:03	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
N24735VBD	24735 NEPTUNE AVE	2012-11-15	10:03	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
N24735SVF	24735 NEPTUNE AVE	2012-11-15	10:45	Front	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 6.7	< 4.2	< 5.9	
N24735SVH	24735 NEPTUNE AVE	2012-11-20	13:43	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9	
N24735SVB	24735 NEPTUNE AVE	2013-06-11	14:49	Back	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 6.7	< 4.2	< 5.9	
N24735SVH	24735 NEPTUNE AVE	2013-06-11	15:00	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6	
N24735SVF	24735 NEPTUNE AVE	2013-06-11	15:23	Front	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 160	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 6.7	< 4.2	< 5.9	
R24736SVH	24736 RAVENNA AVE	2010-04-28	14:11	House	< 12	< 4.3	< 5.2	< 99 N.J.	< 5.9	< 4.9	< 140 N.J.	< 170 N.J.	< 78 N.J.	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9	
R24736SVF	24736 RAVENNA AVE	2010-04-28	15:04	Front	< 3.6	< 1.8	< 3.6	< 93 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 74 N.J.	< 1.8	< 1.8	< 3.6	< 1.8	< 3.6	< 1.8	< 3.6	< 1.8	
R24736SVB	24736 RAVENNA AVE	2010-04-28	15:50	Back	< 11	< 4	< 5	< 93 N.J.	< 5.6	< 4.7	< 130 N.J.	< 160 N.J.	< 74 N.J.	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 4	< 5.6	
R24736SVB	24736 RAVENNA AVE	2013-06-04	14:50	Back	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8	
R24736SVH	24736 RAVENNA AVE	2013-06-04	14:59	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
R24736SVF	24736 RAVENNA AVE	2013-06-04	15:18	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.3	< 7.1	< 4.4	< 6.2	
M24737SVB	24737 MARBELLA AVE	2010-04-30	09:18	Back	< 12	< 4.2	12	< 97 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8	
M24737SVF	24737 MARBELLA AVE	2010-04-30	10:04	Front	< 12	< 4.2	< 5.1	< 97 N.J.	< 5.8	< 4.8	< 140 N.J.	< 160 N.J.	< 77 N.J.	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8	
M24737SVH	24737 MARBELLA AVE	2010-04-30	11:03	House	< 11	< 4.1	< 5	< 95 N.J.	< 5.7	< 4.8	< 140 N.J.	< 160 N.J.	< 75 N.J.	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7	
M24737SVH	24737 MARBELLA AVE	2010-09-03	09:56	House	< 11	< 4	< 5	< 94</														

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection																						
					Isopropanol UG/M3	4.47%		Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethylbenzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethylbenzene UG/M3	1.97%	Cumene (isopropylbenzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%
M24737SVH	24737 MARBELLA AVE	2012-12-07	15:12	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8									
M24737SVF	24737 MARBELLA AVE	2012-12-07	15:42	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7									
M24737SVB	24737 MARBELLA AVE	2013-05-24	09:56	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6									
M24737SVBD	24737 MARBELLA AVE	2013-05-24	09:56	Back	< 11	4.1	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 160	< 74	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6									
M24737SVH	24737 MARBELLA AVE	2013-05-24	09:56	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7									
M24737SVF	24737 MARBELLA AVE	2013-05-24	10:24	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7									
M24738SVB	24738 NEPTUNE AVE	2009-09-23	09:00	Back	< 12	< 4	< 5	< 94 N.J	11	< 4.7	< 130 N.J	< 160 N.J,UJ	< 160 N.J,UJ	< 74 N.J	< 5	< 5.6	< 4	< 6.5	< 4	< 5.6									
M24738SVF	24738 NEPTUNE AVE	2009-09-23	09:45	Front	< 11	< 4.1	< 5.1	< 96 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J,UJ	< 76 N.J	< 5.1	< 5.1	< 4	< 6.6	< 4.1	< 5.8										
M24738SVH	24738 NEPTUNE AVE	2012-02-23	10:03	House	< 10	< 3.7	< 4.6	< 86	< 5.2	< 4.3	< 120	< 150	< 150	< 68	< 4.6	< 5.2	< 3.6	< 5.9	< 3.6	< 5.2									
M24738SVF	24738 NEPTUNE AVE	2012-02-23	10:33	Front	< 11	< 3.9	6.1	< 91	< 5.5	< 4.6	< 130	< 160	< 160	87	< 4.8	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5									
M24738SVFD	24738 NEPTUNE AVE	2012-02-23	10:33	Front	< 11	< 3.8	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 150	100	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4									
M24738SVF	24738 NEPTUNE AVE	2013-08-28	15:10	Front	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2									
M24738SVFD	24738 NEPTUNE AVE	2013-08-28	15:10	Front	< 12	< 4.4	< 5.4	< 100	< 6.2	< 5.1	< 150	< 170	< 170	< 81	< 5.4	< 6.2	< 4.3	< 7	< 4.4	< 6.2									
M24738SVB	24738 NEPTUNE AVE	2013-08-28	15:44	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9									
M24738SVH	24738 PANAMA AVE	2010-09-07	13:44	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7									
M24738SVHD	24738 PANAMA AVE	2010-09-07	13:44	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7									
M24738SVB	24738 PANAMA AVE	2010-09-07	14:25	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6									
M24738SVF	24738 PANAMA AVE	2010-09-07	15:03	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8									
M24738SVH	24738 PANAMA AVE	2012-09-07	14:53	House	170	< 4	< 5	19000	< 5.6	< 4.7	12000	4500 PE	1400	170	< 5.2	40	32	< 6.4	< 4.0	< 5.6									
M24738SVF	24738 PANAMA AVE	2012-09-07	15:37	Front	< 11	4.6	< 4.7	180	< 5.3	< 4.4	290	< 150	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6.1	< 3.8	< 5.3									
M24738SVB	24738 PANAMA AVE	2012-09-07	15:55	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9									
M24738SVH	24738 PANAMA AVE	2013-06-11	09:41	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7									
M24738SVB	24738 PANAMA AVE	2013-06-11	09:46	Back	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9									
M24738SVS	24738 PANAMA AVE	2013-06-11	09:46	Back	< 30 U	< 3 U	< 5.9 U	< 3 U	< 3 U	< 3 U	< 3 U	< 3 U	< 3 U	< 3 U	< 3 U	< 3 U	< 5.9 U	< 3 U	< 3 U	< 3 U									
M24738SVF	24738 PANAMA AVE	2013-06-11	10:19	Front	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 170	< 77	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9									
M24738SVF5	24738 PANAMA AVE	2013-06-11	10:19	Front	< 21 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U									
M24739SVH	24739 NEPTUNE AVE	2010-10-12	09:45	House	< 9.9	< 3.6	< 4.4	< 83	< 5	< 4.1	< 120	< 140	< 140	< 65	< 4.4	< 5	< 3.5	< 5.7	< 3.5	< 5									
M24739SVF	24739 NEPTUNE AVE	2010-10-12	11:48	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7									
M24739SVG	24739 NEPTUNE AVE	2011-11-11	12:08	Garage	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7									
M24739SVH	24739 NEPTUNE AVE	2011-11-11	12:45	House	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7									
M24739SVF	24739 NEPTUNE AVE	2011-11-11	13:30	Front	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8									
M24739SVFD	24739 NEPTUNE AVE	2011-11-11	13:30	Front	< 7.6	< 2.7	23 j	< 64	19 j	< 3.2	< 90	< 110	< 110	< 50	4.6	< 3.8	< 2.7	< 4.4	< 2.7	11 j									
M24739SVH	24739 NEPTUNE AVE	2012-09-21	10:05	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8									
M24739SVG	24739 NEPTUNE AVE	2012-09-21	10:10	Garage	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8									
M24739SVGS	24739 NEPTUNE AVE	2012-09-21	10:10	Garage	< 19 U	< 1.9 U	< 3.7 U	< 19 U	< 1.9 U	< 1.9 U	< 140	< 160	< 160	< 82	< 1.9 U	< 1.9 U	< 3.7 U	< 1.9 U	< 1.9 U	< 1.9 U									
M24739SVG	24739 NEPTUNE AVE	2013-04-30	10:10	Garage	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8									
M24739SVGD	24739 NEPTUNE AVE	2013-04-30	10:10	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7									
M24739SVH	24739 NEPTUNE AVE	2013-04-30	10:51	House	< 12	12	< 5.2	< 98	< 5.9	10	< 140	< 170	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9									
M24739SVH	24739 PANAMA AVE	2011-02-07	13:57	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7									
M24739SVHS	24739 PANAMA AVE	2011-02-07	13:57	House	< 3.5	< 1.7	< 3.5	< 100	< 1.7	< 1.7	< 150	< 180	< 180	< 82	< 1.7	< 1.7	< 3.5	< 1.7	< 1.7	< 1.7									
M24739SVB	24739 PANAMA AVE	2011-02-07	14:43	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7									
M24739SVF	24739 PANAMA AVE	2011-02-07	14:43	Front	< 12	< 4.4	< 5.5	< 94	< 6.2	< 5.2	< 130	< 150	< 150	< 74	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2									
M24739SVB	24739 PANAMA AVE	2011-02-07	15:15	Back	< 12	< 4.4	< 5.5	< 94	< 6.2	< 5.2	< 130	< 150	< 150	< 74	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2									
M24739SVB	24739 PANAMA AVE	2012-10-26	10:02	Back	< 11	< 4	< 5	< 90	< 5.6	< 4.7	< 130	< 150	< 150	< 72	< 5	< 5.6	< 4	< 6.5	< 4.0	< 5.6									
M24739SVBD	24739 PANAMA AVE	2012-10-26	10:02	Back	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 150	< 72	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4									
M24739SVH	24739 PANAMA AVE	2012-10-26	10:30	House	< 11	7.6	< 4.8	< 90	< 5.4	7	< 130	< 150	< 150	74	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4									
M24739SVF	24739 PANAMA AVE	2012-10-26	10:33	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9									
M24739SVF	24739 PANAMA AVE	2013-06-13	14:50	Front	< 12	< 4.2	< 5.2	< 99	< 5.9	< 4.9	< 140	< 170	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.8	< 4.2	< 5.9									
M24739SVH	24739 PANAMA AVE	2013-06-13	14:59	House	< 12	< 4.4	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.4	< 6.2									
M24739SVB	24739 PANAMA AVE	2013-06-13	15:21	Back	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 170	< 79	< 5.3	< 6	< 4.2	< 6.9	< 4.2	< 6									
M24739SVH	24739 RAVENNA AVE	2010-10-13	09:06	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 160	< 76	< 5.1	< 5.8													



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
R24749SVBD	24749 RAVENNA AVE	2010-09-10	09:45	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
R24749SVG	24749 RAVENNA AVE	2010-09-10	10:25	Garage	< 290	4100	< 130	< 98	< 150	2700	< 130	< 160	< 72	200	< 150	14000	< 170	< 100	< 150											
R24749SVH	24749 RAVENNA AVE	2010-12-17	12:14	House	< 11	< 3.9	< 4.9	< 92	< 5.5	< 4.6	< 130	< 160	< 4.9	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 5.5											
R24749SVHS	24749 RAVENNA AVE	2010-12-17	12:14	House	< 3.3	< 1.6	< 3.3	< 1.6	< 1.6	< 1.6	< 130	< 160	< 72	< 1.6	< 1.6	< 3.3	< 1.6	< 1.6	< 1.6											
R24749SVG	24749 RAVENNA AVE	2010-12-17	12:37	Garage	< 58	1500	49	120000	< 29	910	44000	8500	15000	120	< 29	6800	< 33	< 20	< 29											
R24749SVB	24749 RAVENNA AVE	2010-12-17	13:05	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
R24749SVB	24749 RAVENNA AVE	2013-08-06	10:00	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
R24749SVBD	24749 RAVENNA AVE	2013-08-06	10:00	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
R24749SVH	24749 RAVENNA AVE	2013-08-06	10:02	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
R24749SVG	24749 RAVENNA AVE	2013-08-06	10:29	Garage	< 11	310	20	27000	< 5.5	89	13000	4800	3000	< 5.2	< 5.8	560	< 6.3	< 39	< 5.5											
R24752SVF	24752 RAVENNA AVE	2010-04-09	11:14	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
R24752SVB	24752 RAVENNA AVE	2010-04-09	12:34	Back	< 12	< 4.2	< 5.2	< 98 N.J	< 5.8	< 4.9	< 140 N.J	< 160 N.J	< 77 N.J	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
R24752SVH2	24752 RAVENNA AVE	2010-05-21	13:38	House	< 20	< 7.2	< 8.9	< 95 N.J	< 10	< 8.4	< 140 N.J	< 160 N.J	< 75 N.J	< 8.9	< 10	< 7	< 12	< 7.1	< 10											
R24752SVH2	24752 RAVENNA AVE	2012-07-20	15:01	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9											
R24752SVF	24752 RAVENNA AVE	2012-07-20	15:08	Front	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8											
R24752SVB	24752 RAVENNA AVE	2012-07-20	15:45	Back	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9											
R24803SVG	24803 NEPTUNE AVE	2010-09-07	14:58	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
R24803SVB	24803 NEPTUNE AVE	2010-09-07	15:46	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1											
R24803SVBD	24803 NEPTUNE AVE	2010-09-07	15:46	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
R24803SVHA	24803 NEPTUNE AVE	2011-03-31	14:15	House	< 13	< 4.6	< 5.7	< 110	< 6.5	< 5.4	< 150	< 180	< 85	< 5.7	< 6.5	< 4.5	< 7.4	< 4.6	< 6.5											
R24803SVG	24803 NEPTUNE AVE	2011-03-31	14:59	Garage	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
R24803SVB	24803 NEPTUNE AVE	2011-03-31	15:33	Back	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 84	< 5.6	< 6.3	< 4.4	< 7.2	< 4.5	< 6.3											
R24803SVBD	24803 NEPTUNE AVE	2011-03-31	15:38	Back	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 84	< 5.6	< 6.3	< 4.4	< 7.2	< 4.5	< 6.3											
R24803SVHB	24803 NEPTUNE AVE	2011-02-01	14:47	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1											
R24803SVB	24803 NEPTUNE AVE	2013-02-01	14:47	Back	< 13	< 4.5	< 5.6	< 100	< 6.3	< 5.3	< 150	< 180	< 84	< 5.6	< 6.3	< 4.4	< 7.2	< 4.5	< 6.3											
R24803SVG	24803 NEPTUNE AVE	2013-02-01	15:18	Garage	< 11	< 3.9	< 4.8	< 90	< 5.4	< 4.5	< 130	< 150	< 71	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 5.4											
R24803SVB	24803 NEPTUNE AVE	2013-07-12	14:58	Back	30	< 3.6	18	< 84	< 5.1	< 4.2	< 120	< 140	< 67	12	< 5.1	10	< 5.8	< 3.6	< 5.1											
R24803SVG	24803 NEPTUNE AVE	2013-07-12	15:20	Garage	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6											
R24803SVHB	24803 NEPTUNE AVE	2013-07-15	11:15	House	17	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6											
R24803SVH	24803 PANAMA AVE	2010-08-09	14:02	House	< 12	< 4.3	< 5.2	< 98 N.J	< 5.8	< 4.9	< 140 N.J	< 160 N.J	< 77 N.J	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8											
R24803SVB	24803 PANAMA AVE	2010-08-09	15:14	Back	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9											
R24803SVF	24803 PANAMA AVE	2010-08-09	15:45	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVH	24803 PANAMA AVE	2011-02-18	14:16	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVB	24803 PANAMA AVE	2011-02-18	14:28	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVG	24803 PANAMA AVE	2011-02-18	15:05	Garage	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6											
P24803SVG	24803 PANAMA AVE	2013-01-31	14:39	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVH	24803 PANAMA AVE	2013-01-31	14:40	House	< 13	< 4.7	< 5.8	< 110	< 6.6	< 5.5	< 160	< 190	< 87	< 5.8	< 6.6	< 4.6	< 7.6	< 4.7	< 6.6											
P24803SVB	24803 PANAMA AVE	2013-01-31	15:12	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVF	24803 PANAMA AVE	2010-08-09	15:45	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVH	24803 PANAMA AVE	2011-02-18	14:16	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVB	24803 PANAMA AVE	2011-02-18	14:28	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVG	24803 PANAMA AVE	2011-02-18	15:05	Garage	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6											
P24803SVG	24803 PANAMA AVE	2013-01-31	14:39	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVH	24803 PANAMA AVE	2013-01-31	14:40	House	< 13	< 4.7	< 5.8	< 110	< 6.6	< 5.5	< 160	< 190	< 87	< 5.8	< 6.6	< 4.6	< 7.6	< 4.7	< 6.6											
P24803SVB	24803 PANAMA AVE	2013-01-31	15:12	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVF	24803 PANAMA AVE	2010-08-09	15:45	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVH	24803 PANAMA AVE	2011-02-18	14:16	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVB	24803 PANAMA AVE	2011-02-18	14:28	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVG	24803 PANAMA AVE	2011-02-18	15:05	Garage	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 80	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6											
P24803SVG	24803 PANAMA AVE	2013-01-31	14:39	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVH	24803 PANAMA AVE	2013-01-31	14:40	House	< 13	< 4.7	< 5.8	< 110	< 6.6	< 5.5	< 160	< 190	< 87	< 5.8	< 6.6	< 4.6	< 7.6	< 4.7	< 6.6											
P24803SVB	24803 PANAMA AVE	2013-01-31	15:12	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVF	24803 PANAMA AVE	2010-08-09	15:45	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7											
P24803SVH	24803 PANAMA AVE	2011-02-18	14:16</																											

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Analyte Units		Frequency of Detection																						
					Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4- Trimethyl- benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl- benzene UG/M3	1.97%	Cumene (isopropyl- benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
P24809SVBD	24809 PANAMA AVE	2009-10-15	16:08	Back	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
P24809SVB	24809 PANAMA AVE	2010-07-28	10:19	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
P24809SVF	24809 PANAMA AVE	2010-07-28	11:02	Front	< 12	< 4.4	< 5.4	< 100 N.J	< 6.1	< 5.1	< 140 N.J	< 170 N.J	< 80 N.J	< 5.4	< 6.1	< 4.3	< 7	< 4.3	< 6.1										
P24809SVH	24809 PANAMA AVE	2011-02-08	09:21	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
P24809SVHA	24809 PANAMA AVE	2012-03-23	10:28	House	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9										
P24809SVF	24809 PANAMA AVE	2012-03-23	11:04	Front	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.8										
P24809SVBS	24809 PANAMA AVE	2012-03-23	11:12	Back	< 3.4 U	< 1.7 U	< 3.4 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U										
P24812SVH	24812 PANAMA AVE	2010-05-05	08:54	House	< 12	< 4.3	< 5.2	< 99 N.J	< 5.9	< 5	< 140 N.J	< 170 N.J	< 78 N.J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
P24812SVB	24812 PANAMA AVE	2010-05-05	10:21	Back	< 12	< 4.2	< 5.1	< 97 N.J	< 5.8	< 4.8	< 140 N.J	< 160 N.J	< 77 N.J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 5.8										
P24812SVBD	24812 PANAMA AVE	2010-05-05	10:21	Back	< 12	< 4.2	< 5.2	< 98 N.J	< 5.9	< 4.9	< 140 N.J	< 170 N.J	< 77 N.J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.2	< 5.9										
P24812SVF	24812 PANAMA AVE	2010-05-05	11:08	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
P24812SVH	24812 PANAMA AVE	2012-12-06	15:07	House	< 12	7.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
P24812SVB	24812 PANAMA AVE	2012-12-06	15:08	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.7										
P24812SVF	24812 PANAMA AVE	2012-12-06	15:39	Front	< 12	4.5	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.3	< 7.1	< 4.3	< 6.2										
P24812SVB	24812 PANAMA AVE	2013-05-01	14:58	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7										
P24812SVH	24812 PANAMA AVE	2013-05-01	15:14	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4.1	< 5.8										
P24812SVF	24812 PANAMA AVE	2013-05-01	15:34	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.8	< 4.2	< 6										
P24813SVH	24813 PANAMA AVE	2010-10-26	09:15	House	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
P24813SVB	24813 PANAMA AVE	2010-10-26	10:54	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
P24813SVFA	24813 PANAMA AVE	2010-11-23	10:00	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
P24813SVFAS	24813 PANAMA AVE	2010-11-23	10:00	Front	< 3.3	< 1.7	< 3.3	2.7	2.7	< 1.7	< 1.7	< 1.7	< 80	< 1.7	< 1.7	< 3.3	2.3	< 1.7											
P24813SVH	24813 PANAMA AVE	2012-08-23	10:00	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.3	< 6.1										
P24813SVFA	24813 PANAMA AVE	2012-08-23	10:06	Front	14	< 4.3	< 5.2	1100 j	< 5.9	< 5	570 j	< 170	< 78	7.8	< 5.9	5.3	< 6.8	< 4.2	< 5.9										
P24813SVFAD	24813 PANAMA AVE	2012-08-23	10:06	Front	< 12	< 4.3	< 5.2	120 j	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
P24813SVB	24813 PANAMA AVE	2012-08-23	10:28	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7										
P24813SVB	24813 PANAMA AVE	2013-06-04	10:00	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4.0	< 5.7										
P24813SVBS	24813 PANAMA AVE	2013-06-04	10:00	Back	< 20 U	< 2 U	< 4 U	< 4 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 4 U	< 2 U	< 2 U	< 2 U										
P24813SVH	24813 PANAMA AVE	2013-06-04	10:08	House	< 11	< 3.8	< 4.7	< 89	< 5.4	< 4.5	< 130	< 150	< 70	< 4.7	< 5.4	< 3.8	< 6.1	< 3.8	< 5.4										
P24813SVFA	24813 PANAMA AVE	2013-06-04	10:32	Front	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6										
P24813SVFAS	24813 PANAMA AVE	2013-06-04	10:32	Front	< 19 U	< 1.9 U	< 3.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U										
P24815SVB	24815 NEPTUNE AVE	2009-09-17	14:43	Back	< 6.8	< 2.4	< 3	< 110 N.J	< 3.4	< 2.8	< 150 N.J	< 180 N.J,U	< 84 N.J	< 3	< 3.4	< 2.4	< 3.9	< 2.4	< 3.4										
N24815SVF	24815 NEPTUNE AVE	2009-09-17	15:57	Front	< 12	< 4.3	< 5.3	< 100 N.J	< 6	< 5	< 140 N.J	< 170 N.J,U	< 80 N.J	< 5.3	< 6	< 4.2	< 6.9	< 4.3	< 6										
N24815SVH	24815 NEPTUNE AVE	2010-08-13	10:09	House	< 11	< 4	< 5	< 94 N.J	< 5.6	< 4.7	< 130 N.J	< 160 N.J	< 74 N.J	< 5	< 5.6	< 3.9	< 6.4	< 4	< 5.6										
N24815SVF	24815 NEPTUNE AVE	2010-08-13	10:54	Front	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
N24815SVB	24815 NEPTUNE AVE	2010-08-13	11:59	Back	< 11	< 4.1	< 5	< 95 N.J	< 5.7	< 4.8	< 140 N.J	< 160 N.J	< 75 N.J	< 5	< 5.7	< 4	< 6.5	< 4	< 5.7										
N24815SVH	24815 NEPTUNE AVE	2012-03-29	09:58	House	< 7.7	< 2.8	< 3.4	< 64	< 3.8	< 3.2	< 91	< 110	< 51	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 3.8										
N24815SVBS	24815 NEPTUNE AVE	2012-03-29	09:58	House	< 3.5 U	< 1.7 U	< 3.5 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U										
N24815SVF	24815 NEPTUNE AVE	2012-03-29	10:37	Front	< 7.5	< 2.7	< 3.3	< 62	< 3.7	< 3.1	< 88	< 100	< 49	< 3.3	< 3.7	< 2.6	< 4.3	< 2.6	< 3.7										
N24815SVH	24815 NEPTUNE AVE	2012-03-29	10:37	Front	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9										
P24818SVH	24818 PANAMA AVE	2010-11-12	10:21	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
P24818SVHS	24818 PANAMA AVE	2010-11-12	10:21	House	< 3.4	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7										
P24818SVF	24818 PANAMA AVE	2010-11-12	11:06	Front	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 5.9										
P24818SVFD	24818 PANAMA AVE	2010-11-12	11:06	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 5.8										
P24818SVF	24818 PANAMA AVE	2012-06-08	10:25	Front	< 8.1	< 2.9	< 3.6	< 67	< 4	< 3.4	< 95	< 110	< 53	< 3.6	< 4	< 2.8	< 4.6	< 2.8	< 4										
P24818SVFS	24818 PANAMA AVE	2012-06-08	10:25	Front	< 3.5 U	< 1.7 U	< 3.5 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U										
P24818SVH	24818 PANAMA AVE	2012-06-08	10:30	House	< 7.9	< 2.8	< 3.5	< 66	< 4	< 3.3	< 94	< 110	< 52	< 3.5	< 4	< 2.8	< 4.5	< 2.8	< 4										
P24818SVBA	24818 PANAMA AVE	2012-06-08	11:02	Back	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 92	< 110	< 51	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 3.9										
P24818SVBAS	24818 PANAMA AVE	2012-06-08	11:02	Back	< 3.5 U	< 1.7 U	< 3.5 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U										
P24818SVBA	24818 PANAMA AVE	2013-03-29	15:42	Back	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6										
P24818SVFA	24818 PANAMA AVE	2013-04-02	15:37	Front	< 11	< 4	< 5	< 93	< 5.6	< 4.7	230	< 160	< 74 PF	< 4.9	< 5.6	< 3.9	< 6.4	< 4.0	< 5.6										
P24818SVHA	24818 PANAMA AVE	2013-04-02	15:40	House	< 12	< 4.2	< 5.2	< 98	< 5.9	< 4.9	< 140	< 170	< 78 PF	< 5.2	< 5.9	4.5	< 6.7	< 4.2	< 5.9										

Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
P24819SVH	24819 PANAMA AVE	2010-06-10	09:16	House	13	< 4.1	< 5	< 95 N/J	< 5.7	< 4.8	< 140 N/J	< 160 N/J	< 75 N/J	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24819SVB	24819 PANAMA AVE	2010-06-10	11:10	Back	< 11	< 3.9	< 4.9	< 92 N/J	< 5.5	< 4.6	< 130 N/J	< 160 N/J	< 72 N/J	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 6.3	< 3.9	< 5.5									
P24819SVF	24819 PANAMA AVE	2010-06-10	11:17	Front	< 11	< 4	5.4	< 93 N/J	15	< 4.6	< 130 N/J	1400 N/J	< 73 N/J	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 6.3	< 3.9	< 5.6									
P24819SVF	24819 PANAMA AVE	2011-04-21	11:16	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24819SVFS	24819 PANAMA AVE	2011-04-21	11:16	Front	< 4	< 2	< 4	< 2	< 2	< 2	< 2	< 2	< 75	< 2	< 2	< 4	< 2	< 2	< 4	< 2	< 2									
P24819SVH	24819 PANAMA AVE	2011-04-21	12:22	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24819SVHS	24819 PANAMA AVE	2011-04-21	12:22	House	< 2.9	< 1.4	< 2.9	< 1.4	< 1.4	< 1.4	< 140	< 160	< 75	< 1.4	< 1.4	< 2.9	< 1.4	< 1.4	< 2.9	< 1.4	< 1.4									
P24819SVB	24819 PANAMA AVE	2011-04-21	12:31	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24819SVBS	24819 PANAMA AVE	2011-04-21	12:31	Back	< 3.5	< 1.7	< 3.5	< 1.7	< 1.7	< 1.7	< 140	< 170	< 78	< 1.7	< 1.7	< 3.5	< 1.7	< 1.7	< 3.5	< 1.7	< 1.7									
P24819SVB	24819 PANAMA AVE	2013-08-22	14:46	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9									
P24819SVH	24819 PANAMA AVE	2013-08-22	15:07	House	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9									
P24819SVF	24819 PANAMA AVE	2013-08-22	15:22	Front	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 77	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8									
P24822SVH	24822 PANAMA AVE	2010-06-23	09:06	House	< 11	6.3	5.4	< 95 N/J	< 5.7	5.8	< 140 N/J	< 160 N/J	< 75 N/J	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24822SVB	24822 PANAMA AVE	2010-06-23	09:51	Back	< 12	< 4.2	< 5.2	< 98 N/J	< 5.8	< 4.9	< 140 N/J	< 160 N/J	< 77 N/J	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
P24822SVF	24822 PANAMA AVE	2010-06-23	10:32	Front	< 11	< 3.9	< 4.8	< 90 N/J	< 5.4	< 4.5	440 N/J	< 150 N/J	< 71 N/J	< 4.8	< 5.4	< 3.8	< 6.2	< 3.8	< 6.2	< 3.8	< 5.4									
P24822SVH	24822 PANAMA AVE	2013-06-20	10:29	House	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80 PF	< 5.4	< 6.1	< 4.2	< 6.9	< 4.2	< 6.9	< 4.2	< 6.1									
P24822SVF	24822 PANAMA AVE	2013-06-20	10:35	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75 PF	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24822SVFD	24822 PANAMA AVE	2013-06-20	10:35	Front	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76 PF	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8									
P24822SVB	24822 PANAMA AVE	2013-06-21	08:41	Back	< 12	< 4.4	< 5.4	< 100	< 6.2	< 5.1	< 150	< 170	< 81 PF	< 5.4	< 6.2	< 4.3	< 7	< 4.3	< 7	< 4.3	< 6.2									
P24828SVH	24828 PANAMA AVE	2011-10-27	08:46	House	< 7.6	< 2.7	< 3.4	< 64	< 3.8	< 3.2	< 90	< 110	< 50	< 3.4	< 3.8	< 2.7	< 4.4	< 2.7	< 4.4	< 2.7	< 3.8									
P24828SVB	24828 PANAMA AVE	2011-10-27	09:21	Back	< 7.2	< 2.6	< 3.2	< 60	< 3.6	< 3	< 85	< 100	< 47	< 3.2	< 3.6	< 2.5	< 4.1	< 2.5	< 4.1	< 2.5	< 3.6									
P24828SVBS	24828 PANAMA AVE	2011-10-27	09:21	Back	< 3.3 U	< 1.6 U	< 3.3 U	< 1.6 U	< 1.6 U	< 1.6 U	< 92	< 110	< 51	< 1.6 U	< 1.6 U	< 3.3 U	< 1.6 U	< 1.6 U	< 3.3 U	< 1.6 U	< 1.6 U									
P24828SVF	24828 PANAMA AVE	2011-10-27	10:03	Front	< 7.8	< 2.8	< 3.4	< 65	< 3.9	< 3.2	< 140	< 160	< 77	< 3.4	< 3.9	< 2.7	< 4.4	< 2.7	< 4.4	< 2.7	< 3.9									
P24828SVB	24828 PANAMA AVE	2012-09-13	10:20	Back	< 12	8.7j	< 5.2	< 98	< 5.8	19j	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
P24828SVBS	24828 PANAMA AVE	2012-09-13	10:20	Back	< 20 U	< 2 U	< 3.9 U	< 2 U	< 2 U	< 2 U	< 120	< 150	< 70	< 2 U	< 2 U	< 3.9 U	< 2 U	< 2 U	< 3.9 U	< 2 U	< 2 U									
P24828SVH	24828 PANAMA AVE	2012-09-13	10:24	House	< 11	< 3.8	< 4.7	< 88	< 5.3	< 4.4	< 130	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6.1	< 3.7	< 6.1	< 3.7	< 5.3									
P24828SVF	24828 PANAMA AVE	2012-09-13	10:51	Front	< 11	6.9	< 5	< 94	< 5.6	5.5	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 3.9	< 5.6									
P24828SVB	24828 PANAMA AVE	2013-04-16	14:53	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24828SVH	24828 PANAMA AVE	2013-04-16	15:01	House	< 12	< 4.5	< 5.6	< 100	< 6.3	< 5.2	< 150	< 180	< 83	< 5.6	< 6.3	< 4.4	< 7.2	< 4.4	< 7.2	< 4.4	< 6.3									
P24828SVF	24828 PANAMA AVE	2013-04-16	15:21	Front	< 12	< 4.5	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180	< 82	< 5.5	< 6.2	< 4.4	< 7.1	< 4.4	< 7.1	< 4.4	< 6.2									
P24829SVH	24829 PANAMA AVE	2010-05-21	09:17	House	< 11	< 4	< 5	< 94 N/J	< 5.6	< 4.7	< 130 N/J	< 160 N/J	< 74 N/J	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 3.9	< 5.6									
P24829SVP	24829 PANAMA AVE	2010-05-21	10:31	Back Patio	< 11	< 3.9	< 4.9	< 92 N/J	< 5.5	< 4.6	< 130 N/J	< 160 N/J	< 72 N/J	< 4.9	9.3	< 3.8	< 6.3	< 3.8	< 6.3	< 3.8	< 5.5									
P24829SVFS	24829 PANAMA AVE	2010-05-21	10:31	Back Patio	< 3.3	< 1.7	< 3.3	< 1.7	< 1.7	< 1.7	< 140 N/J	< 170 N/J	< 78 N/J	< 1.7	2.1	< 3.3	< 1.7	< 1.7	< 3.3	< 1.7	< 1.7									
P24829SVF	24829 PANAMA AVE	2010-05-21	11:21	Front	< 12	< 4.3	< 5.2	< 99 N/J	< 5.9	< 5	< 140	< 160	< 75	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9									
P24829SVH	24829 PANAMA AVE	2010-09-13	08:53	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24829SVF	24829 PANAMA AVE	2010-09-13	09:52	Front	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
P24829SVFS	24829 PANAMA AVE	2010-09-13	09:52	Front	< 3.5	< 1.7	< 3.5	6400	< 5.7	< 1.7	2100	480	340	< 1.7	16	< 3.5	< 1.7	< 3.5	< 1.7	< 3.5	< 1.7									
P24829SVB	24829 PANAMA AVE	2010-09-13	10:42	Back Patio	< 11	< 4.1	< 5	< 94	< 5.7	< 4.8	< 140	< 160	< 75	9.8	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7										
P24829SVBS	24829 PANAMA AVE	2010-09-13	10:42	Back Patio	< 3.4	< 1.7	< 3.4	< 1.7	< 1.7	< 1.7	< 140	< 160	< 75	< 1.7	< 1.7	< 3.4	< 1.7	< 1.7	< 3.4	< 1.7	< 1.7									
P24829SVH	24829 PANAMA AVE	2013-05-09	10:16	House	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8									
P24829SVF	24829 PANAMA AVE	2013-05-09	10:26	Front	< 12	< 4.5	< 5.5	< 100	< 6.3	< 5.2	< 150	< 180 PF	< 82	< 5.5	< 6.3	< 4.4	< 7.2	< 4.4	< 7.2	< 4.4	< 6.3									
P24829SVFD	24829 PANAMA AVE	2013-05-09	10:26	Front	< 12	< 4.5	< 5.5	< 100	< 6.2	< 5.2	< 150	< 180 PF	< 82	< 5.5	< 6.2	< 4.4	< 7.1	< 4.4	< 7.1	< 4.4	< 6.2									
P24832SVG	24832 PANAMA AVE	2010-10-06	09:38	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24832SVB	24832 PANAMA AVE	2010-10-06	10:13	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.7	< 130	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24832SVH	24832 PANAMA AVE	2010-10-06	10:56	House	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
P24832SVB	24832 PANAMA AVE	2012-09-28	15:01	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.2	< 6.9	< 4.2	< 5.7									
P24832SVG	24832 PANAMA AVE	2012-09-28	15:21	Garage	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
P24832SVH	24832 PANAMA AVE	2012-09-28	16:10	House	< 11	4.3	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74	< 5	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 3.9	< 5.6									
P24832SVH	24832 PANAMA AVE	2013-05-16	14:55	House	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140																			



Table B-2  
Sub-Slab Soil Vapor Results  
Former Kast Property  
Carson, California

Sample ID	Address	Sample Date	Sample Time	Location	Frequency of Detection																									
					Analyte Units	Isopropanol UG/M3	4.47%	Hexane UG/M3	3.74%	p/m-Xylene UG/M3	3.12%	C6-C8 Aliphatics UG/M3	2.72%	1,2,4-Trimethyl-benzene UG/M3	2.63%	Heptane UG/M3	2.63%	C8-C10 Aliphatics UG/M3	2.54%	C10-C12 Aliphatics UG/M3	2.01%	C5-C6 Aliphatics UG/M3	2.01%	Ethyl-benzene UG/M3	1.97%	Cumene (isopropyl-benzene) UG/M3	1.89%	Cyclohexane UG/M3	1.89%	Freon 11 UG/M3
244305SVB	305 244TH ST	2010-07-01	16:06	Back	< 12	< 4.4	< 5.5	< 100 N/J	< 6.2	< 5.2	< 150 N/J	< 180 N/J	< 82 N/J	< 5.5	< 6.2	< 4.4	< 7.1	< 4.4	< 7.1	< 4.4	< 6.2									
244305SVH	305 244TH ST	2012-10-18	14:50	House	< 12	7.8	< 5.2	< 98	< 5.8	4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
244305SVG	305 244TH ST	2012-10-18	15:00	Garage	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
244305SVB	305 244TH ST	2012-10-22	12:54	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
244305SVG	305 244TH ST	2013-04-24	15:14	Garage	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76 PF	< 5.1	< 5.8	< 4	< 6.6	< 4	< 6.6	< 4.1	< 5.8									
244305SVH	305 244TH ST	2013-04-24	15:14	House	< 12	< 4.5	< 5.6	< 100	< 6.3	< 5.2	< 150	< 180	< 83 PF	< 5.6	< 6.3	< 4.4	< 7.2	< 4.4	< 7.2	< 4.4	< 6.3									
244305VHD	305 244TH ST	2013-04-24	15:14	House	< 12	< 4.5	< 5.6	< 100	< 6.3	< 5.2	< 150	< 180	< 83 PF	< 5.6	< 6.3	< 4.4	< 7.2	< 4.4	< 7.2	< 4.4	< 6.3									
244305SVB	305 244TH ST	2013-04-24	15:58	Back	< 11	< 4	< 5	< 94	< 5.6	< 4.7	< 130	< 160	< 74 PF	< 5	< 5.6	< 3.9	< 6.4	< 6.4	< 6.4	< 4	< 5.6									
244317SVH	317 244TH ST	2011-01-24	09:07	House	< 11	< 4	< 5	< 93	< 5.6	< 4.7	< 130	< 160	< 74	< 4.9	< 5.6	< 3.9	< 6.4	< 6.4	< 6.4	< 4	< 5.6									
244317SVG	317 244TH ST	2011-01-24	09:51	Garage	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.3	< 3.9	< 6.3	< 3.9	< 5.6									
244317SVB	317 244TH ST	2011-01-24	10:27	Back	< 46	< 16	< 20	< 380	< 23	< 19	< 540	< 650	< 300	< 20	< 23	< 16	< 26	< 16	< 26	23	< 23									
244317SVB	317 244TH ST	2011-03-24	15:44	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
244317SVB	317 244TH ST	2011-03-24	15:44	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
244317SVB	317 244TH ST	2011-03-24	15:44	Back	< 3.5	< 1.8	< 3.5	< 92	< 1.8	< 1.8	< 130	< 160	< 72	< 1.8	< 1.8	< 3.5	< 1.8	< 1.8	< 3.5	< 1.8	< 1.8									
244317SVG	317 244TH ST	2011-03-24	15:58	Garage	< 11	< 3.9	< 4.9	< 95	< 5.5	< 4.6	< 140	< 160	< 75	< 4.9	< 5.5	< 3.8	< 6.3	< 3.9	< 6.3	< 3.9	< 5.5									
244317SVH	317 244TH ST	2011-03-24	16:33	House	< 11	< 4.1	< 5.1	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
244321SVH	321 244TH ST	2010-11-18	08:54	House	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4	< 6.6	< 4.1	< 5.8									
244321SVB	321 244TH ST	2010-11-18	09:36	Back	< 11	< 3.8	< 4.7	< 88	< 5.3	< 4.4	< 120	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6.1	< 3.7	< 6.1	< 3.8	< 5.3									
244321SVB	321 244TH ST	2010-11-18	09:36	Back	< 10	< 3.8	< 4.6	< 87	< 5.2	< 4.4	< 120	< 150	< 69	< 4.6	< 5.2	< 3.7	< 6	< 3.7	< 6	< 3.7	< 5.2									
244321SVF	321 244TH ST	2010-11-18	10:13	Front	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
244321SVB	321 244TH ST	2013-03-22	09:59	Back	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.4	< 6.4	< 6.4	< 3.9	< 5.6									
244321SVBS	321 244TH ST	2013-03-22	09:59	Back	< 19 U	< 1.9 U	< 3.7 U	< 100	< 1.9 U	< 1.9 U	< 140	< 170	< 79	< 1.9 U	< 1.9 U	< 3.7 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U									
244321SVH	321 244TH ST	2013-03-22	09:59	House	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.9	< 4.2	< 6.9	< 4.2	< 6									
244321SVF	321 244TH ST	2013-03-22	10:33	Front	< 12	< 4.3	< 5.3	< 100	< 6	< 5	< 140	< 170	< 79	< 5.3	< 6	< 4.2	< 6.9	< 4.2	< 6.9	< 4.2	< 6									
244321SVS	321 244TH ST	2013-03-22	10:33	Front	< 20 U	< 2 U	< 4.1 U	< 100	< 2 U	< 2 U	< 140	< 170	< 79	< 2 U	< 2 U	< 4.1 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U									
244321SVH	321 244TH ST	2013-08-02	09:31	House	< 10	< 3.7	< 4.6	< 87	< 5.2	< 4.3	< 120	< 150	< 69	< 4.6	< 5.2	< 3.6	< 6	< 3.6	< 6	< 3.7	< 5.2									
244321SVB	321 244TH ST	2013-08-02	09:47	Back	< 11	< 4.1	< 5	< 95	< 5.7	< 4.8	< 140	< 160	< 75	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
244321SVBS	321 244TH ST	2013-08-02	09:47	Back	< 21 U	< 2.1 U	< 4.1 U	< 96	< 2.1 U	< 2.1 U	< 140	< 160	< 76	< 2.1 U	< 2.1 U	< 4.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.1 U									
244321SVF	321 244TH ST	2013-08-02	09:58	Front	< 12	< 4.1	< 5.1	< 96	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4	< 6.6	< 4	< 6.6	< 4.1	< 5.8									
244321SVH	321 244TH ST	2010-05-05	13:40	House	< 12	< 4.2	< 5.2	< 98 N/J	< 5.9	< 4.9	< 140 N/J	< 170 N/J	< 77 N/J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 6.7	< 4.2	< 5.9									
244321SVG	321 244TH ST	2010-05-05	15:51	Garage	< 12	< 4.3	< 5.2	< 99 N/J	< 5.9	< 5	< 140 N/J	< 170 N/J	< 78 N/J	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9									
244321SVB	321 244TH ST	2010-05-05	16:39	Back	< 11	< 4.1	< 5	< 95 N/J	< 5.7	< 4.8	< 140 N/J	< 160 N/J	< 75 N/J	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
244321SVB	321 244TH ST	2010-05-05	16:39	Back	< 11	< 4.1	< 5	< 95 N/J	< 5.7	< 4.8	< 140 N/J	< 160 N/J	< 75 N/J	< 5	< 5.7	< 4	< 6.5	< 4	< 6.5	< 4	< 5.7									
244321SVB	321 244TH ST	2013-02-14	10:05	Back	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
244321SVBD	321 244TH ST	2013-02-14	10:05	Back	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9									
244321SVH	321 244TH ST	2013-02-14	10:12	House	< 12	< 4.2	< 5.2	< 98	< 5.8	< 4.9	< 140	< 160	< 77	< 5.2	< 5.8	< 4.1	< 6.7	< 4.1	< 6.7	< 4.1	< 5.8									
244321SVG	321 244TH ST	2013-02-14	10:39	Garage	< 12	< 4.3	< 5.2	< 99	< 5.9	< 5	< 140	< 170	< 78	< 5.2	< 5.9	< 4.2	< 6.8	< 4.2	< 6.8	< 4.2	< 5.9									
244321SVB	321 244TH ST	2013-07-31	09:53	Back	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 3.9	< 5.6									
244321SVBD	321 244TH ST	2013-07-31	09:53	Back	< 11	< 4	< 4.9	< 93	< 5.6	< 4.6	< 130	< 160	< 73	< 4.9	< 5.6	< 3.9	< 6.4	< 3.9	< 6.4	< 3.9	< 5.6									
244321SVH	321 244TH ST	2013-07-31	10:02	House	< 12	< 4.2	< 5.2	< 99	< 5.8	< 4.9	< 140	< 170	< 78	< 5.2	< 5.9	< 4.1	< 6.8	< 4.1	< 6.8	< 4.1	< 5.9									
244321SVG	321 244TH ST	2013-07-31	10:24	Garage	< 12	< 4.2	< 5.1	< 97	< 5.8	< 4.8	< 140	< 160	< 76	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8									
244331SVH	331 244TH ST	2010-08-04	13:23	House	< 12	< 4.2	< 5.2	< 98 N/J	< 5.9	< 4.9	< 140 N/J	< 170 N/J	< 77 N/J	< 5.2	< 5.9	< 4.1	< 6.7	< 4.1	< 6.7	< 4.2	< 5.9									
244331SVG	331 244TH ST	2010-08-04	14:04	Garage	< 12	< 4.1	< 5.1	< 96 N/J	< 5.8	< 4.8	< 140 N/J	320 N/J	< 76 N/J	< 5.1	15	< 4	< 6.6	< 4	< 6.6	< 4.1	< 5.8									
244331SVB	331 244TH ST	2010-08-04	14:40	Back	< 12	< 4.2	< 5.1	< 97 N/J	< 5.8	< 4.8	< 140 N/J	< 160 N/J	< 77 N/J	< 5.1	< 5.8	< 4.1	< 6.6	< 4.1	< 6.6	< 4.1	< 5.8									
244331SVH	331 244TH ST	2012-08-30	15:14	House	14	5.1	< 4.7	< 88	< 5.3	< 4.4	< 120	< 150	< 70	< 4.7	< 5.3	< 3.7	< 6.1	< 3.7	< 6.1	< 3.8	< 5.3									
244331SVG	331 244TH ST	2012-08-30	15:50	Garage	14	13	< 5.6	< 100	< 6.3	8.6	< 150	< 180	< 84	< 5.6	< 6.3	< 4.4	< 7.2	< 4.4	< 7.2	< 4.5	< 6.3									
244331SVB	331 244TH ST	2012-08-30	16:39	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.2	< 6.9	< 4.3	< 6.1									
244331SVBD	331 244TH ST	2012-08-30	16:39	Back	< 12	< 4.4	< 5.4	< 100	< 6.1	< 5.1	< 140	< 170	< 80	< 5.4	< 6.1	< 4.2	< 6.9	< 4.2	< 6.9	< 4.3	< 6.1									
244331																														