



LIMITED PHASE II SUBSURFACE INVESTIGATION REPORT



7311, 7461, 7551 KIMBALL AVENUE, 7262 BICKMORE AVENUE
CHINO, CALIFORNIA

Prepared For:

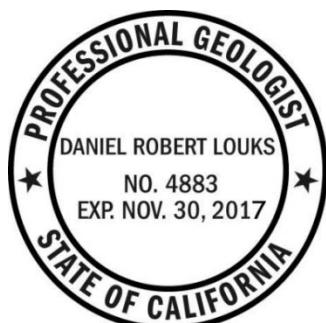
Richland Communities
3161 Michelson Drive, Suite 425
Irvine, CA 92612

Hillmann Project Number C3-6870

June 12, 2017

Written By:
Hillmann Consulting, LLC

Dan Louks
Professional Geologist 4883





June 12, 2017

Mr. Craig Cristina
Richland Communities
3161 Michelson Drive, Suite 425
Irvine, CA 92612

RE: Limited Phase II Subsurface Investigation Report
7311, 7461, 7551 Kimball Avenue, 7262 Bickmore Avenue
Chino, California
Hillmann Project Number: C3-6870

Dear Mr. Cristina:

Hillmann Consulting, LLC, is pleased to provide this Limited Phase II Subsurface Investigation Report prepared for the above referenced property.

This report is for the exclusive use of the entities named on the front cover, its affiliates, designates and assignees, rating agencies, prospective bond holders and bond holders, and no other party shall have any right to rely on any service provided by Hillmann Consulting, LLC, without prior written consent.

We appreciate the opportunity to provide environmental due diligence services. If you have any questions concerning this report, or if we can assist you in any other matter, please contact our office at 714-634-9500.

Very Truly Yours,
Hillmann Consulting, LLC

Brandon D. Clements
Brandon Clements
Regional Director

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1.0 INTRODUCTION / BACKGROUND

Hillmann Consulting, LLC (Hillmann) conducted a Limited Phase II Subsurface Investigation at 7311, 7461, 7551 Kimball Avenue, and 7262 Bickmore Avenue in Chino, California. The site includes two dairy farm areas, an active nursery, and two residences that in total occupy 63.43 acres. The property is located on south side of Kimball Avenue, between Euclid Avenue and Rincon Meadows Avenue; Bickmore Avenue lies just south of the property. The property is located in a rural area characterized by a mix of agricultural land and dairy farms as well as a section of single and multi-family homes (**Figure 1**). The property consists of portions of several regular-shaped parcels that together form an irregular configuration. The layout of the site is shown on **Figure 2**.

In April 2017, Hillmann conducted a Phase I Environmental Site Assessment for the property. Records indicate the property was first developed as a dairy farm in 1953. Additional dairy farms were developed within the property configuration in 1975 and 1987. In around 1990, a plant nursery was developed in the southern portion of the property and it was expanded in 1994 and 2005. In 2005 and 2006 the dairies located in the northeast and southwestern portions of the property were abandoned. The former and current use of the property for dairy purposes and as a nursery were identified as recognized environmental conditions that justified preliminary subsurface investigation. These results were presented in Hillman's "*Phase I Environmental Site Assessment Report*" dated April 10, 2017.

In June 2017, Hillmann completed the Limited Phase II Subsurface Investigation at the property that featured soil and soil gas sampling to identify potential contamination from organo-chlorine pesticides (OCP), lead, arsenic, and mercury, which may have been applied to the surface during agricultural activities, and for methane gas, produced from historic animal waste at the dairy farms. The objective of this work was to determine the current representative subsurface conditions across the site. This investigation was not intended to meet the more stringent requirements of a regulatory driven assessment.

The investigation featured soil gas sampling which was considered very important in determining possible vapor intrusion impacts from volatile chemicals and methane. The investigation included installation of 10 soil gas probes in the dairy farm areas, and collection of near-surface soil samples across remainder of the property which has been used agriculturally. Results indicated no detectable levels of VOC, and no significant levels of methane in the subsurface soil gas. In addition, none of the composited soil samples had detectable levels of OCP, or actionable levels of heavy metals. Based on these results we recommend no further sampling in the areas investigated.

2.0 GEOLOGY/HYDROGEOLOGY

Based on the drilling logs, shallow soils beneath the site consist primarily of clayey silt and silty clay from near surface to 10 feet below grade, the deepest interval explored by drilling in this investigation. Groundwater was not encountered during drilling to 10 feet below grade. Based on information available on the GeoTracker website, in 2005, groundwater was present at about 75 feet below grade at a site located about one-half mile east of the property

(Englesma Dairy, 8011 Kimball Avenue, Chino, Global ID-T0607126956). Descriptions of the sediments encountered during drilling are presented in the drilling logs (**Appendix C**).

3.0 SITE INVESTIGATION

On June 5, 2017, Hillmann collected 52 shallow soil samples from about one-foot below grade or less across agricultural areas the site. The sample locations were targeted using a rough grid pattern across the property. The soil samples were composited into 13 samples for laboratory analysis to provide a representative and random assessment of the soil conditions across the broad property.

The rationale for this sampling pattern is based on the assumption that any pesticide applications would have been evenly distributed over time and area. This is a reasonable assumption and is recommended in regulatory guidance provided by DTSC (*Interim Guidance for Sampling Agricultural Properties, August 2008*). The sampling locations are shown on **Figure 3**.

The soil samples were collected using a hand auger tool or soil sampling spatula from depths of about one-foot below grade or less from native soil. The samples were composited in the field by combining four adjacent sample locations into one sample container with roughly equal weight and volume from each discrete location. The samples were preserved in laboratory jars, sealed with Teflon tape and threaded caps and stored in a chilled cooler pending delivery to the laboratory. A total of 52 soil samples were composited into 13 separate samples that were submitted for laboratory analysis of organo-chlorine pesticides (OCP) by EPA Method 8081A and lead, arsenic, and mercury by EPA Method 6010B as recommended by DTSC guidance. A&R Laboratories of Ontario, California analyzed the samples.

In addition, Hillmann installed 10 soil gas probes in accessible areas of the former dairy farms located on the northeast and southwestern portions of the site. The probes were installed to total depths ranging from 5 to 10 feet below grade using a hydraulic direct push GeoProbe type drilling rig. The locations of the borings and soil samples are indicated on **Figure 3**.

The probes consist of plastic micro-porous vapor implants that are approximately 2 inches long with a 0.5-inch outside diameter, connected to 0.25-inch outside diameter nylaflow tubing that extended above the surface. The annulus around the vapor implants was backfilled with approximately 0.5 feet of screen-washed #3 sand. The probes were sealed using bentonite placed immediately above the sand pack to provide a secure borehole seal. The probes were finished with gas-tight fittings at the surface pending vapor purging and sampling.

The soil gas sampling probes were allowed to equilibrate for 48 hours before collecting vapor samples. Prior to vapor sampling, shut-in and leak tests were conducted on the probes. The probe head was attached to the sampling train assembly of Nylaflow tubing, valves, and fittings and connected to a purge pump. The pump was used to evacuate the sealed system using an applied vacuum of 100 inches of water column (in. WC). The vacuum on each probe was monitored for 90 seconds with the sampling train system sealed. After the shut-in test was validated, the sampling train was leak tested. Liquid isobutylene was applied around all connections in the sampling train to evaluate whether the system was sealed from ambient air

leaks. A detection of 10 times the reporting limit of this compound might suggest that ambient air leakage had occurred.

The purpose of purging is to remove stagnant air from the vapor sampling train to ensure representative samples are obtained. The probes were purged using an adjustable vacuum pump set at 200 mL/minute. During purging, the soil gas was monitored for VOC, oxygen, carbon dioxide and methane content using a Mini-Rae 2000 multi gas detector to ensure non-atmospheric air was being sampled (**Appendix D**).

After purging three volumes through the system, vapor samples were collected from each probe on June 7, 2017. During sampling, the purge pump was operated at 200 mL/minute, and the vacuum was monitored to ensure it was below 100 in. WC. Vacuum applied below this level helps ensure chemical partitioning from pore water to soil gas and the stress on the air seals are both minimized. The samples were containerized in Tedlar containers which were delivered to the laboratory for analysis. Fresh tubing was used on each sampling train between holes. The soil gas samples were tested VOC by EPA Method 8260B. In addition, two samples were tested for methane by EPA Method 8015B by A&R Laboratories of Ontario, California.

3.1 Laboratory Results

Results of soil sampling indicated none of the soil samples had detectable levels of OCP. Low background levels of lead and arsenic were detected in some samples. None of the heavy metal concentrations exceeded their respective conservative screening levels for residential or commercial applications. These results are summarized in **Table 1**. The laboratory report from soil sampling is included in **Appendix B**.

Results of soil gas sampling indicated none of the samples had detectable levels of VOC. Only one sample had detectable levels of methane with 26.1 ppmV detected in sample SG4-5. This concentration is well below the typical action level requirement for methane mitigation systems which is 10% LEL or about 5,000 ppmV. These results are summarized in **Table 2**. The laboratory report from soil gas sampling is included in **Appendix B**.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The subject site is a 63.43 acre property composed of portions of multiple parcels that has an irregular shape. Historically, the site was used as a dairy farm from the 1950s until 2005-2006 when these operations were discontinued. The southern portion of the site has been used as a nursery since the 1990s. These former and current activities were identified as recognized environmental conditions that justified preliminary subsurface investigation.

The investigation included shallow native soil sampling across current and former agricultural areas and testing of the soil for OCP, lead, arsenic, and mercury, which might have been used as pesticides at the site. The two former dairy areas were tested using soil gas sampling for VOC and for methane. During testing, the oxygen levels appeared to be high enough to prohibit methane generation (>3-5%) in all probes with the exception of SG4-5, which had <1% and trace levels of methane (26.1 ppmV). Results indicated no detectable levels of OCP and no actionable levels of heavy metals in soil. Results from soil gas sampling indicated no detectable

levels of VOC, and no significant methane levels in the soil gas. However, a significant amount of animal waste was observed in the unsurfaced areas of the dairy, and if this material is not removed from the site, a methane condition could develop if an impermeable surface cover is placed over the affected areas thereby allowing methane levels to build as oxygen is depleted.

Based on these results, we recommend no further sampling in the areas tested. To ensure that near surface soil with significant organic matter does not impact future development, we recommend removal of all animal waste prior to redevelopment.

5.0 LIMITATIONS

This Subsurface Investigation was performed in accordance with generally and currently accepted engineering practices and principles; however, the procedures and methodologies used in this investigation are not intended to meet all specific regulatory guidelines as this work was completed as a self-directed effort. Although the data in this report is indicative of subsurface conditions in areas investigated, no further conclusions regarding the absence or presence of subsurface contamination in other areas of the site should be construed or inferred other than those expressly stated in this report. The conclusions made are based on information obtained from field observations, independent laboratory analytical results, and from current and relevant Federal, State, regional, and local agencies.

TABLE 1
Summary of Soil Sampling Results (mg/Kg)

Sample ID	Lead	Arsenic	Mercury	OCP
Sampled June 5, 2017				
S1-S4	2.05	ND<1.00	ND<0.2	ND
S5-S8	2.17	ND<1.00	ND<0.2	ND
S9-S12	3.38	1.62	ND<0.2	ND
S13-S16	1.20	1.58	ND<0.2	ND
S17-S20	2.26	1.75	ND<0.2	ND
S21-S24	0.798	1.06	ND<0.2	ND
S25-S28	5.08	ND<1.00	ND<0.2	ND
S29-S32	3.91	1.01	ND<0.2	ND
S33-S36	4.18	ND<1.00	ND<0.2	ND
S37-S40	4.06	1.17	ND<0.2	ND
S41-S44	4.64	ND<1.00	ND<0.2	ND
S45-S48	7.95	1.51	ND<0.2	ND
S49-S52	5.57	1.64	ND<0.2	ND
<i>Residential RSL</i>	<i>80*</i>	<i>0.11*</i>	<i>1.0*</i>	<i>Var.</i>
<i>Commercial RSL</i>	<i>320*</i>	<i>0.36*</i>	<i>4.5*</i>	<i>Var.</i>
<i>DTSC Bkgrnd</i>	--	12	--	--

Notes: ND - Not Detected. EPA Regional Screening Levels (RSLs) are human health risk based screening levels used by EPA and DTSC in residential and commercial settings. DTSC Background Concentration is based on statistical study of sites throughout southern California. This concentration may be used as a screening level for anthropogenic and naturally occurring levels of arsenic in soil in southern California.* - Values modified by DTSC HHRA Note 3. Please refer to lab report for complete results.

TABLE 2
Summary of Soil Gas Sampling Results (ug/L)

Sample ID	Benzene	Toluene	Ethylbenzene	Xylenes	TCE	PCE	Other VOC	Methane
Sampled June 7, 2017								
SG1-10	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND	--
SG2-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND	--
SG3-10	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND	ND<15
SG4-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND	26.1
SG5-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND	--
SG6-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND	--
SG7-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND	--
SG8-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND	--
SG9-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND	--
SG10-5	ND<0.05	ND<0.1	ND<0.1	ND<0.2	ND<0.1	ND<0.1	ND	--
Residential RSL	0.0485*	155*	0.55	50	0.24	0.24*	--	--
Commercial RSL	0.42*	1,300*	4.9	440	3.0	2.1*	--	--

Notes: ND - Not Detected. EPA Region 9 Regional Screening Levels (RSLs) are human health risk based screening levels used by EPA and DTSC to determine Health Risk in residential and commercial settings. *-Values modified for California by DTSC HHRA Note 3. Screening levels for soil gas calculated using indoor air values and attenuation factors provided by DTSC. Please refer to laboratory report for complete results.

FIGURES

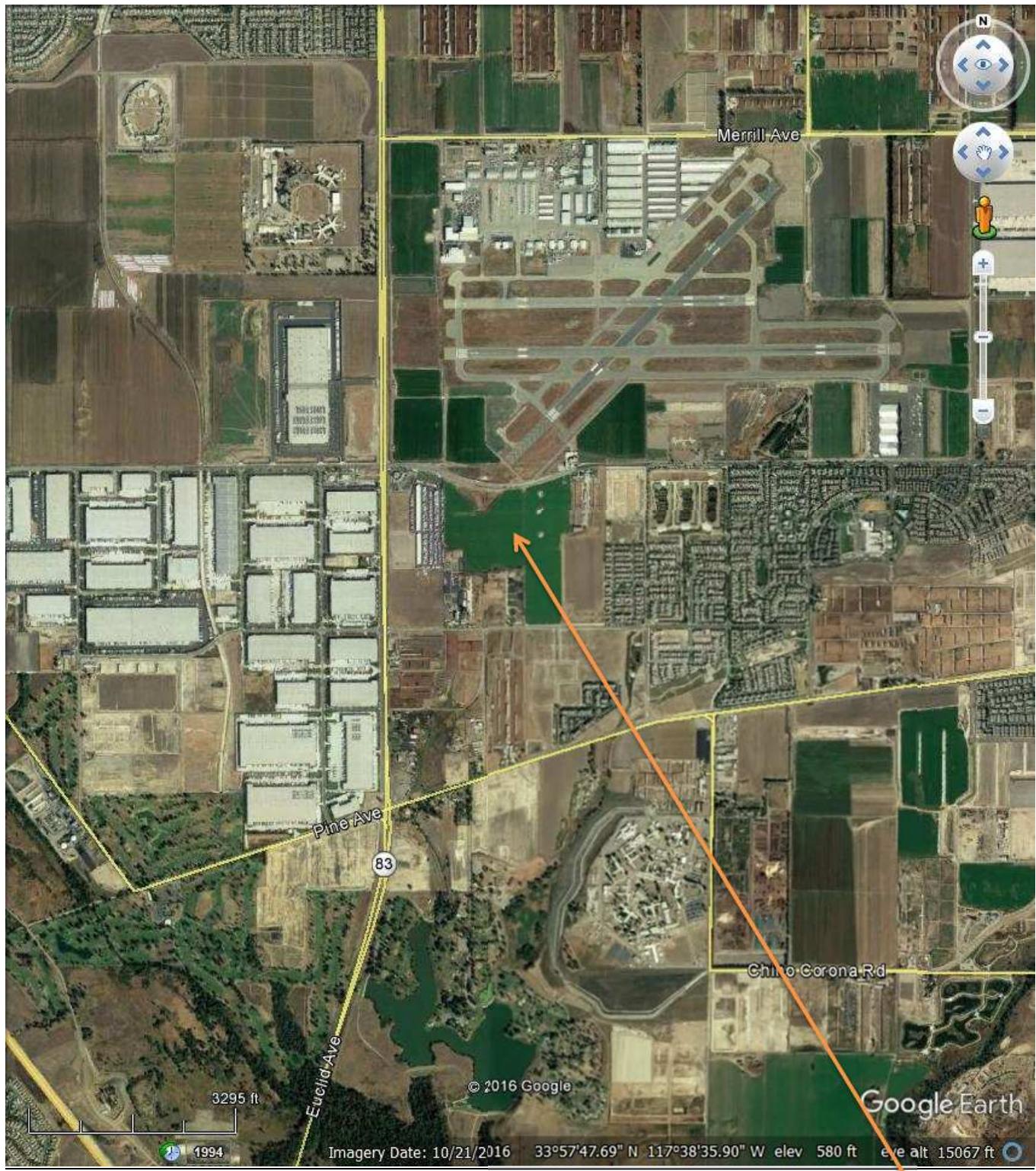


FIGURE 1

SITE

SITE VICINITY MAP
FORMER DAIRY / NURSERY
7311, 7461, 7551 Kimball Ave., 7262 Bickmore Ave.
Chino, California



Figure 2: SITE DIAGRAM

SCALE: (Not to Scale)

N ↑



Project Location: 7311, 7461, 7551 Kimball Avenue, 7262 Bickmore Avenue, APNs: 1056-111-03-0000, 1055-231-01-0000, 1055-231-02-0000 Chino, CA 91708
Project No.: C3-6805

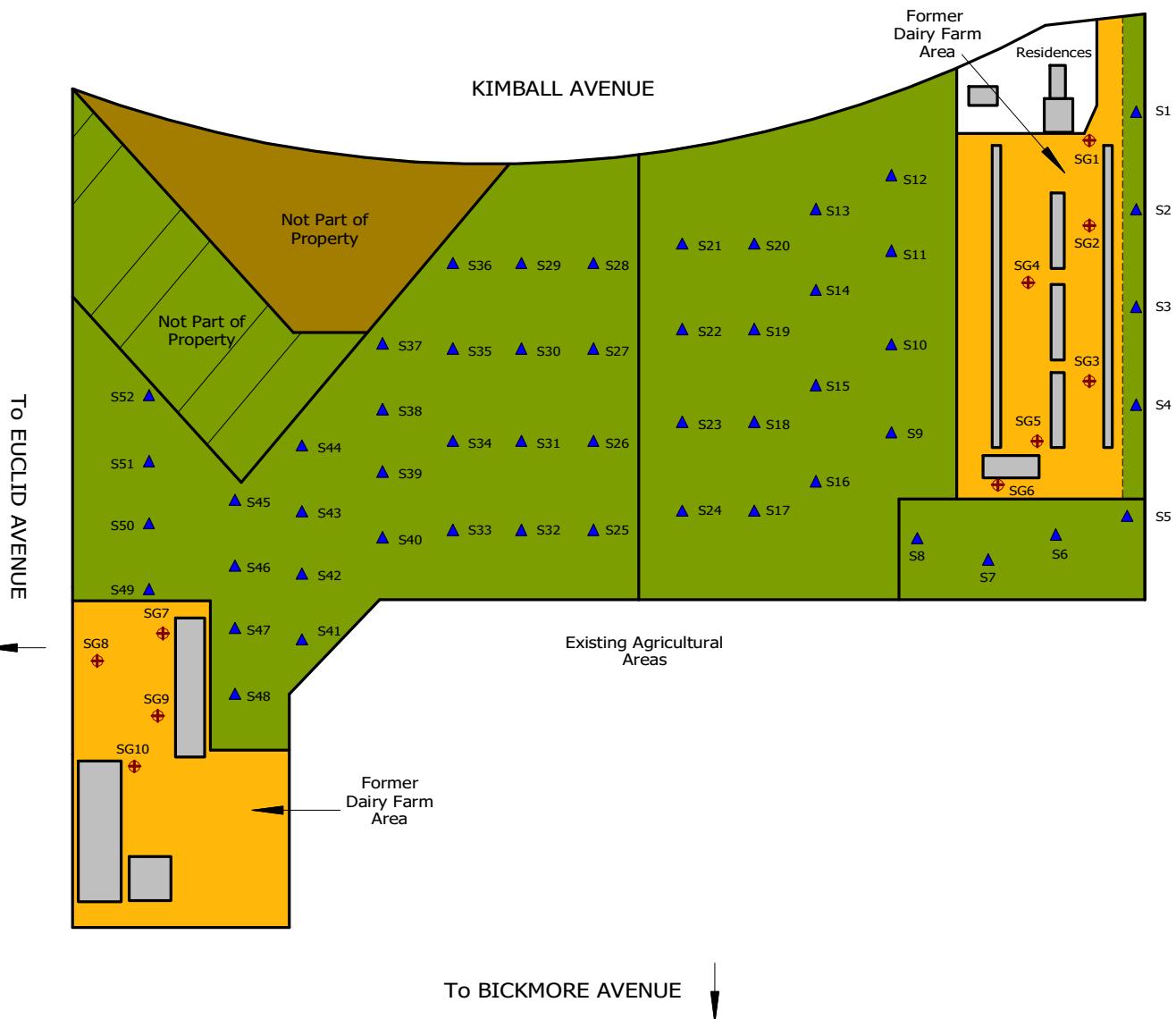


FIGURE 3
GENERAL SITE PLAN
DAIRY FARM / NURSERY
7311, 7461, 7551 Kimball Ave.,
7262 Bickmore Ave.
Chino, California

APPENDIX A

Site Photos



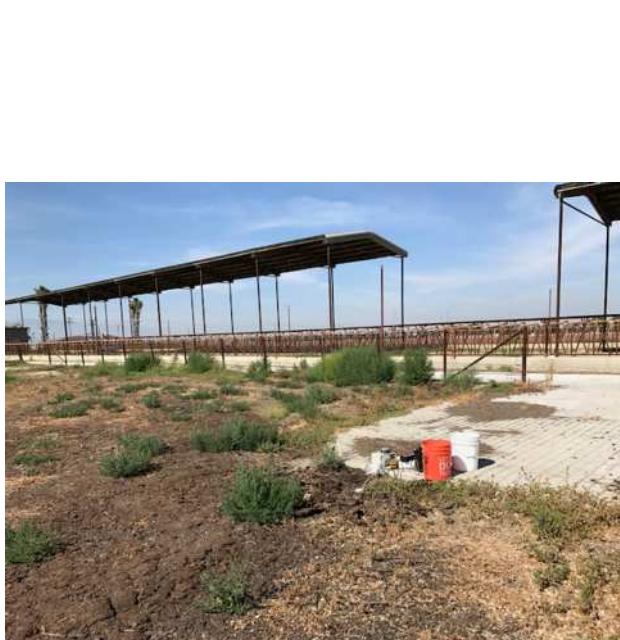
SG1



SG2



SG3



SG4



SG5



SG6



SG7



SG8



SG9



SG10

APPENDIX B

Laboratory Reports



A & R Laboratories

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FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
	2122

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CASE NARRATIVE

Authorized Signature Name / Title (print)

Signature / Date

Laboratory Job No. (Certificate of Analysis No.)

Project Name / No.

Dates Sampled (from/to)

Dates Received (from/to)

Dates Reported (from/to)

Chains of Custody Received

Ken Zheng, President

Ken Zheng, President
06/08/2017 17:07:07

1706-00035

FORMER DAIRY & NURSING

06/05/17 To 06/05/17

06/05/17 To 06/05/17

06/08/17 To 6/8/2017

Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Inorganic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

None



A & R Laboratories

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ONTARIO, CA 91761

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CERTIFICATE OF ANALYSIS

1706-00035

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE #110
ORANGE, CA

Date Reported 06/08/17
Date Received 06/05/17
Invoice No. 79530
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DAIRY & NURSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 S1-S4				Date & Time Sampled:			06/05/17	
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB
Arsenic	<1.00	mg/Kg		EPA 6010B	1.0	1.00	06/07/17	TLB
Lead	2.05	mg/Kg		EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20	mg/Kg		EPA 7471A	1.0	0.20	06/07/17	JEN
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
beta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan I	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Endosulfan II	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin Aldehyde	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100	mg/Kg		EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Methoxychlor	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020	mg/Kg		EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	76	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Decachlorobiphenyl	72	%REC		EPA 8081A/8082		50-150	06/06/17	VS

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CERTIFICATE OF ANALYSIS

1706-00035

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE #110
ORANGE, CA

Date Reported	06/08/17
Date Received	06/05/17
Invoice No.	79530
Cust #	G073
Permit Number	
Customer P.O.	

Project: FORMER DAIRY & NURSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 S5-S8						Date & Time Sampled:		06/05/17
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB
Arsenic	<1.00	mg/Kg		EPA 6010B	1.0	1.00	06/07/17	TLB
Lead	2.17	mg/Kg		EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20	mg/Kg		EPA 7471A	1.0	0.20	06/07/17	JEN
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
beta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
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Endosulfan II	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin Aldehyde	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100	mg/Kg		EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Methoxychlor	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020	mg/Kg		EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	70	%REC		EPA 8081A/8082		50-150	06/06/17	VS

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CERTIFICATE OF ANALYSIS

1706-00035

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE #110
ORANGE, CA

Date Reported 06/08/17
Date Received 06/05/17
Invoice No. 79530
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DAIRY & NURSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 S5-S8							Date & Time Sampled:	06/05/17
Sample Matrix: Soil								
.....continued								
Decachlorobiphenyl	65	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Sample: 003 S9-S12							Date & Time Sampled:	06/05/17
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB
Arsenic	1.62	mg/Kg		EPA 6010B	1.0	1.00	06/07/17	TLB
Lead	3.38	mg/Kg		EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20	mg/Kg		EPA 7471A	1.0	0.20	06/07/17	JEN
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
beta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan I	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Endosulfan II	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin Aldehyde	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100	mg/Kg		EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS

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Cust # G073
Permit Number
Customer P.O.

Project: FORMER DAIRY & NURSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 S9-S12							Date & Time Sampled:	06/05/17
Sample Matrix: Soil								
.....continued								
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020		mg/Kg	EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	71	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Decachlorobiphenyl	68	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Sample: 004 S13-S16							Date & Time Sampled:	06/05/17
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB
Arsenic	1.58		mg/Kg	EPA 6010B	1.0	1.00	06/07/17	TLB
Lead	1.20		mg/Kg	EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	06/07/17	JEN
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
beta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan I	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 S13-S16			Date & Time Sampled:			06/05/17		
Sample Matrix: Soil								
.....continued								
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100		mg/Kg	EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020		mg/Kg	EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	72	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Decachlorobiphenyl	69	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Sample: 005 S17-S20			Date & Time Sampled:			06/05/17		
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB
Arsenic	1.75		mg/Kg	EPA 6010B	1.0	1.00	06/07/17	TLB
Lead	2.26		mg/Kg	EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	06/07/17	JEN
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
beta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech		
Sample: 005 S17-S20					Date & Time Sampled:		06/05/17			
Sample Matrix: Soil										
.....continued										
Endosulfan I	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS		
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS		
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS		
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS		
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS		
Endrin ketone	<0.100		mg/Kg	EPA 8081A	1.0	0.100	06/06/17	VS		
Heptachlor	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS		
Heptachlor Epoxide	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS		
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS		
Toxaphene	<0.020		mg/Kg	EPA 8081A	1.0	0.020	06/06/17	VS		
[Surrogates]										
Tetrachloro-m-xylene	72	%REC		EPA 8081A/8082		50-150	06/06/17	VS		
Decachlorobiphenyl	70	%REC		EPA 8081A/8082		50-150	06/06/17	VS		
Sample: 006 S21-S24					Date & Time Sampled:		06/05/17			
Sample Matrix: Soil										
[Metals]										
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB		
Arsenic	1.06		mg/Kg	EPA 6010B	1.0	1.00	06/07/17	TLB		
Lead	0.798		mg/Kg	EPA 6010B	1.0	0.500	06/07/17	TLB		
[Mercury]										
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN		
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	06/07/17	JEN		
[Pesticides]										
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS		
Aldrin	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS		
alpha-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS		
beta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS		
delta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS		
gamma-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS		
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS		

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 S21-S24						Date & Time Sampled:		06/05/17
Sample Matrix: Soil								
.....continued								
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan I	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100		mg/Kg	EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020		mg/Kg	EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	77	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Decachlorobiphenyl	76	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Sample: 007 S25-S28						Date & Time Sampled:		06/05/17
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB
Arsenic	<1.00		mg/Kg	EPA 6010B	1.0	1.00	06/07/17	TLB
Lead	5.08		mg/Kg	EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	06/07/17	JEN
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 S25-S28						Date & Time Sampled:		06/05/17
Sample Matrix: Soil								
.....continued								
beta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan I	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100		mg/Kg	EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020		mg/Kg	EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	79		%REC	EPA 8081A/8082		50-150	06/06/17	VS
Decachlorobiphenyl	72		%REC	EPA 8081A/8082		50-150	06/06/17	VS
Sample: 008 S29-S32						Date & Time Sampled:		06/05/17
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB
Arsenic	1.01		mg/Kg	EPA 6010B	1.0	1.00	06/07/17	TLB
Lead	3.91		mg/Kg	EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	06/07/17	JEN

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CERTIFICATE OF ANALYSIS

1706-00035

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE #110
ORANGE, CA

Date Reported 06/08/17
Date Received 06/05/17
Invoice No. 79530
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DAIRY & NURSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 S29-S32							Date & Time Sampled:	06/05/17
Sample Matrix: Soil								
.....continued								
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
beta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan I	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Endosulfan II	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin Aldehyde	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100	mg/Kg		EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Methoxychlor	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020	mg/Kg		EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	76	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Decachlorobiphenyl	79	%REC		EPA 8081A/8082		50-150	06/06/17	VS

Sample: 009 S33-S36						Date & Time Sampled:	06/05/17
Sample Matrix: Soil							

[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0	06/07/17	TLB	
Arsenic	<1.00	mg/Kg		EPA 6010B	1.0	1.00	06/07/17	TLB



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Cust # G073
Permit Number
Customer P.O.

Project: FORMER DAIRY & NURSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 009 S33-S36							Date & Time Sampled:	06/05/17
Sample Matrix: Soil								
.....continued								
Lead	4.18		mg/Kg	EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	06/07/17	JEN
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
beta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan I	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100		mg/Kg	EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020		mg/Kg	EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	76		%REC	EPA 8081A/8082		50-150	06/06/17	VS
Decachlorobiphenyl	72		%REC	EPA 8081A/8082		50-150	06/06/17	VS



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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 S37-S40				Date & Time Sampled:			06/05/17	
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB
Arsenic	1.17	mg/Kg		EPA 6010B	1.0	1.00	06/07/17	TLB
Lead	4.06	mg/Kg		EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20	mg/Kg		EPA 7471A	1.0	0.20	06/07/17	JEN
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
beta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan I	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Endosulfan II	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin Aldehyde	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100	mg/Kg		EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Methoxychlor	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020	mg/Kg		EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	76	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Decachlorobiphenyl	78	%REC		EPA 8081A/8082		50-150	06/06/17	VS

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ORANGE, CA

Date Reported 06/08/17
Date Received 06/05/17
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Cust # G073
Permit Number
Customer P.O.

Project: FORMER DAIRY & NURSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 011 S41-S44						Date & Time Sampled:		06/05/17
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB
Arsenic	<1.00	mg/Kg		EPA 6010B	1.0	1.00	06/07/17	TLB
Lead	4.64	mg/Kg		EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20	mg/Kg		EPA 7471A	1.0	0.20	06/07/17	JEN
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
beta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan I	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Endosulfan II	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin Aldehyde	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100	mg/Kg		EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Methoxychlor	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020	mg/Kg		EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	75	%REC		EPA 8081A/8082		50-150	06/06/17	VS

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 011 S41-S44							Date & Time Sampled:	06/05/17
Sample Matrix: Soil								
.....continued								
Decachlorobiphenyl	72	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Sample: 012 S45-S48							Date & Time Sampled:	06/05/17
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB
Arsenic	1.51	mg/Kg		EPA 6010B	1.0	1.00	06/07/17	TLB
Lead	7.95	mg/Kg		EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20	mg/Kg		EPA 7471A	1.0	0.20	06/07/17	JEN
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
beta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010	mg/Kg		EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan I	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Endosulfan II	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin Aldehyde	<0.0020	mg/Kg		EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100	mg/Kg		EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010	mg/Kg		EPA 8081A	1.0	0.0010	06/06/17	VS

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 012 S45-S48							Date & Time Sampled:	06/05/17
Sample Matrix: Soil								
.....continued								
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020		mg/Kg	EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	80	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Decachlorobiphenyl	75	%REC		EPA 8081A/8082		50-150	06/06/17	VS
Sample: 013 S49-S52							Date & Time Sampled:	06/05/17
Sample Matrix: Soil								
[Metals]								
Metals Acid Digestion	Complete			EPA 3050B	1.0		06/07/17	TLB
Arsenic	1.64		mg/Kg	EPA 6010B	1.0	1.00	06/07/17	TLB
Lead	5.57		mg/Kg	EPA 6010B	1.0	0.500	06/07/17	TLB
[Mercury]								
Mercury Digestion	Complete			EPA 7471A	1.0		06/07/17	JEN
Mercury	<0.20		mg/Kg	EPA 7471A	1.0	0.20	06/07/17	JEN
[Pesticides]								
Ultrasonic Extraction	Complete			EPA 3550	1.0		06/06/17	VS
Aldrin	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
alpha-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
beta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
delta-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
gamma-BHC	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Chlordane	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
4,4'-DDD	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDE	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
4,4'-DDT	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Dieldrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan I	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Endosulfan II	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endosulfan Sulfate	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS

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USDA-EPA-NIOSH Testing Food Sanitation Consulting Chemical and Microbiological Analyses and Research



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FDA#	2030513
LA City#	10261
ELAP#'s	2789
	2790
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CERTIFICATE OF ANALYSIS

1706-00035

HILLMANN CONSULTING
DAN LOUKS
1745 ORANGEWOOD AVE #110
ORANGE, CA

Date Reported 06/08/17
Date Received 06/05/17
Invoice No. 79530
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DAIRY & NURSING

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 013 S49-S52							Date & Time Sampled:	06/05/17
Sample Matrix: Soil								
.....continued								
Endrin Aldehyde	<0.0020		mg/Kg	EPA 8081A	1.0	0.0020	06/06/17	VS
Endrin ketone	<0.100		mg/Kg	EPA 8081A	1.0	0.100	06/06/17	VS
Heptachlor	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Heptachlor Epoxide	<0.0010		mg/Kg	EPA 8081A	1.0	0.0010	06/06/17	VS
Methoxychlor	<0.010		mg/Kg	EPA 8081A	1.0	0.010	06/06/17	VS
Toxaphene	<0.020		mg/Kg	EPA 8081A	1.0	0.020	06/06/17	VS
[Surrogates]								
Tetrachloro-m-xylene	75		%REC	EPA 8081A/8082		50-150	06/06/17	VS
Decachlorobiphenyl	78		%REC	EPA 8081A/8082		50-150	06/06/17	VS

Respectfully Submitted:

Ken Zheng

Ken Zheng - Lab Director

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.
B1 = BOD dilution water is over specifications . The reported result may be biased high.
D = Surrogate recoveries are not calculated due to sample dilution.
E = Estimated value; Value exceeds calibration level of instrument.
H = Analyte was prepared and/or analyzed outside of the analytical method holding time
I = Matrix Interference.
J = Analyte concentration detected between RL and MDL.
Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.
S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor
RL = Reporting Limit, Adjusted by DF
MDL = Method Detection Limit, Adjusted by DF
Qual = Qualifier
Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.



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QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING
PACIFIC PALISADES, CA 90272

1706-00035

Date Reported	06/08/2017
Date Received	06/05/2017
Date Sampled	06/05/2017
Invoice No.	79530
Customer #	G073
Customer P.O.	

Project: FORMER DAIRY & NURSING

Method # EPA 6010B																							
QC Reference #		Date Analyzed: 6/7/2017 Technician: TLB																					
Samples 001 002 003 004 005 006 007 008 009 010 011 012 013																							
Results																							
		LCS %REC	LCS %DUP	LCS %RPD																			
Arsenic		89	99	10.7																			
Lead		101	95	5.3																			
Control Ranges																							
		LCS %REC		LCS %RPD																			
		75 - 125		0 - 20																			
		75 - 125		0 - 20																			

Method # EPA 7471A																							
QC Reference #		Date Analyzed: 6/7/2017 Technician: JEN																					
Samples 001 002 003 004 005 006 007 008 009 010 011 012 013																							
Results																							
		LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD																		
Mercury		92	89	86	4																		
Control Ranges																							
		LCS %REC		SPIKE %RPD																			
		75 - 125		0 - 25																			

Method # EPA 8081A																							
QC Reference #		Date Analyzed: 6/6/2017 Technician: VS																					
Samples 001 002 003 004 005 006 007 008 009 010 011 012 013																							
Results																							
		LCS %REC	SPIKE %REC	SPIKE %DUP	SPIKE %RPD																		
4,4'-DDT		86	85	72	14																		
Aldrin		85	85	76	10																		
Dieldrin		83	86	79	8																		
Endrin		82	84	78	7																		
gamma-BHC		81	81	78	4																		
Heptachlor		80	87	72	16																		
Control Ranges																							
		LCS %REC		SPIKE %RPD																			
		70 - 130		0 - 25																			
		70 - 130		0 - 25																			
		70 - 130		0 - 25																			
		70 - 130		0 - 25																			
		70 - 130		0 - 25																			

Method # EPA 8081A/8082																							
QC Reference #		Date Analyzed: 6/6/2017 Technician: VS																					
Samples 001 002 003 004 005 006 007 008 009 010 011 012 013																							
No QC recoveries reported.																							

No method blank results were above reporting limit

Respectfully Submitted:

Ken Zheng - President

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QUALITY CONTROL DATA REPORT

HILLMANN CONSULTING

1706-00035

Date Reported	06/08/2017
Date Received	06/05/2017
Date Sampled	06/05/2017

Project: FORMER DAIRY & NURSING

CHAIN OF CUSTODY

1706-00035

Page 1 of 1

Client Name **Hullman Consulting**
E-mail

Address **1745 ORANGEWOOD AVE # 110 ORANGE CA**
Report Attention **APL** Phone # **(714) 206-3916** Sampled BY **DL NH SL**

Project No./Name **Poison Oak + Nucus** Project Site **Bilharose & Umbrella Mine**
Fax: # **615/12**

Intact
 Seal

Normal

Rush
8 12 24 48 Hours

Date **2/25/06** Analyses Requested
Turn Around Time Requested

EPA8260B (VOCs & Oxygenates)
EPA8260B(BTEX & Oxygenates)
LUFT / 8015 (Gasoline)
LUFT / 8015 (Diesel)
EPA8081A (Organochlorine Pesticides)
EPA 8082 (PCBs)
EPA 8015M (Carbon Chain C4-C40)
EPA 6010B/7000 (CAM 17 Metals)
Micro: Plate Cnt., Coliform, E-Coli

Lead, Mercury, Arsenic

Remarks

Lab # (Lab use)	Client Sample ID	Sample Collection Date	Matrix Type	Sample Preserve	No., type* & size of container	Preservative Code	Receiving By Company	Date	Time	Note: Samples are discarded 30 days after results are reported unless other arrangements are made.
1	S1-S4	6/5/06	SOIL	NE GLASS	X	HCl	ARL	4/5/06	18:10	
2	S5-S8				X	HCl				
3	S9-S12				X	HNO3				
4	S13-S16				X	HNO3				
5	S17-S20				X	HNO3				
6	S21-S24				X	HNO3				
7	S25-S28				X	HNO3				
8	S29-S32				X	HNO3				
9	S33-S36				X	HNO3				
10	S37-S40				X	HNO3				
11	S41-S44				X	HNO3				
12	S45-S48				X	HNO3				
13	S49-S52				X	HNO3				

Relinquished By Signature	Company	Date	Time	Received By Signature	Company	Date	Time	Note: Samples are discarded 30 days after results are reported unless other arrangements are made.		
Relinquished By Signature	Company	Date	Time	Received By Signature	Company	Date	Time			

Matrix Code:
DW=Drinking Water
GW=Ground Water
WW=Waste Water
SD=Solid Waste

SL=Sludge
SS=Soil/Sediment
AR=Air
PP=Pure Product

HCl=HCl
HNO3=HNO3

NaOH=NaOH
Na2S2O3=Na2S2O3
H2SO4=H2SO4

* Sample Container Types:
T=Tedlar Air Bag
B=Brass Tube
P=Plastic Bottle
V=VOA Vial
E=EnCore

ARL

Sample Acceptance Checklist

CLIENT: Hillmann Consulting

WORK ORDER NUMBER: 1706-00035

Temperature: (Criteria: 0.0°C-6.0°C)

Sample Temp. (w/CF) °C (w/CF) 4.3°C

- Sample(s) outside temperature criteria: PM contacted by :
 Sample(s) outside temperature criteria, but received on ice/chilled on same day of sampling.
 Sample(s) received at ambient temperature; placed on ice for transport by courier.
 Ambient Temperature Air Filter

CUSTODY SEAL:

Cooler	<input type="checkbox"/>	Present and Intact	<input type="checkbox"/>	Present and Not Intact	<input checked="" type="checkbox"/>	Not Present
Sample(s)	<input type="checkbox"/>	Present and Intact	<input type="checkbox"/>	Present and Not Intact	<input checked="" type="checkbox"/>	Not Present

Sample Condition:

	Yes	No	N/A
Was a COC received	✓		
Were sample IDs present?	✓		
Were sampling dates & times present?	✓		
Was a relinquished signature present?	✓		
Were the tests required clearly indicated?	✓		
Were all samples sealed in plastic bags?		✓	
Did all bottle labels agree with COC? (ID, dates and times)	✓		
Were correct containers used for the tests required?	✓		
Was a sufficient amount of samples sent for tests indicated?	✓		
Was there headspace in VOA vials?			✓
Were the containers labeled with correct preservatives?			✓

Explanations/Comments:

Notification:

For discrepancies, how was the Project Manager notified? Verbal

Verbal: PM Initials: _____ Data/Time: _____

Email: Send to: _____ Data/Time: _____

Project Manager's response:

Completed By: Lynthia BozDate: 6-5-17



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CASE NARRATIVE

Authorized Signature Name / Title (print)

Ken Zheng, President

Signature / Date

Ken Zheng, President
06/08/2017 14:31:35

Laboratory Job No. (Certificate of Analysis No.)

1706-00058

Project Name / No.

FORMER DIARY

Dates Sampled (from/to)

06/07/17 To 06/07/17

Dates Received (from/to)

06/07/17 To 06/07/17

Dates Reported (from/to)

06/08/17 To 6/8/2017

Chains of Custody Received

Yes

Comments:

Subcontracting

Organic Analyses

No analyses sub-contracted

Sample Condition(s)

All samples intact

Positive Results (Organic Compounds)

Sample	Analyte	Result	Qual	Units	RL	Result	Qual	Units	RL
SG4-5	Methane	26.1		ppmv	15				



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CERTIFICATE OF ANALYSIS

1706-00058

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported	06/08/17
Date Received	06/07/17
Invoice No.	79527
Cust #	G073
Permit Number	
Customer P.O.	

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG1-10								
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	@ 15:20	VS
t-Amyl Methyl Ether (TAME)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Benzene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17		VS
Bromobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Bromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Bromodichloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Bromoform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Bromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
t-Butanol (TBA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17		VS
2-Butanone (MEK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17		VS
n-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
sec-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
tert-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Carbon Disulfide	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17		VS
Carbon Tetrachloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17		VS
Chlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Chloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Chloroform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Chloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
2-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
4-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Dibromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
1,2-Dibromoethane (EDB)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
1,2-Dibromo-3-Chloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Dibromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
1,2-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
1,3-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
1,4-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
Dichlorodifluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS
1,1-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17		VS

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CERTIFICATE OF ANALYSIS

1706-00058

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported 06/08/17
Date Received 06/07/17
Invoice No. 79527
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG1-10							Date & Time Sampled:	06/07/17 @ 15:20
Sample Matrix: Soil Vapor								
.....continued								
1,2-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Diisopropyl Ether (DiPE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethyl-t-Butyl Ether (EtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Hexachlorobutadiene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Hexanone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Isopropylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Isopropyltoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Methylene Chloride	<0.1	µg/L	EPA 8260B	1.0	0.1	06/07/17	VS	
4-Methyl-2-Pentanone (MIBK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Methyl-t-butyl Ether (MtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Naphthalene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
n-Propylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Styrene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Tetrachloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Toluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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PACIFIC PALISADES, CA 90272

Date Reported	06/08/17
Date Received	06/07/17
Invoice No.	79527
Cust #	G073
Permit Number	
Customer P.O.	

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 001 SG1-10								
Sample Matrix: Soil Vapor								
<i>.....continued</i>								
1,1,2-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorofluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorotrifluoroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3,5-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Vinyl Chloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
m,p-Xylenes	<0.20	µg/L	EPA 8260B	1.0	0.20	06/07/17	VS	
o-Xylene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
[VOC Surrogates]								
Dibromofluoromethane	92	%REC	EPA 8260B		70-130	06/07/17	VS	
Toluene-D8	96	%REC	EPA 8260B		70-130	06/07/17	VS	
Bromofluorobenzene	93	%REC	EPA 8260B		70-130	06/07/17	VS	
Sample: 002 SG2-5								
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
t-Amyl Methyl Ether (TAME)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Benzene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Bromobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromodichloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromoform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
t-Butanol (TBA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
2-Butanone (MEK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
n-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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CERTIFICATE OF ANALYSIS

1706-00058

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported 06/08/17
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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG2-5							Date & Time Sampled:	06/07/17 @ 15:30
Sample Matrix: Soil Vapor								
.....continued								
sec-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
tert-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Carbon Disulfide	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Carbon Tetrachloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Chlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromoethane (EDB)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromo-3-Chloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,4-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dichlorodifluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Diisopropyl Ether (DiPE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG2-5							Date & Time Sampled:	06/07/17 @ 15:30
Sample Matrix: Soil Vapor								
.....continued								
Ethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethyl-t-Butyl Ether (EtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Hexachlorobutadiene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Hexanone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Isopropylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Isopropyltoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Methylene Chloride	<0.1	µg/L	EPA 8260B	1.0	0.1	06/07/17	VS	
4-Methyl-2-Pentanone (MIBK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Methyl-t-butyl Ether (MtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Naphthalene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
n-Propylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Styrene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Tetrachloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Toluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorofluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorotrifluoroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3,5-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Vinyl Chloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
m,p-Xylenes	<0.20	µg/L	EPA 8260B	1.0	0.20	06/07/17	VS	
o-Xylene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
[VOC Vapor Sampling Tracer]								

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 002 SG2-5 Sample Matrix: Soil Vapor							Date & Time Sampled:	06/07/17 @ 15:30
<i>.....continued</i>								
Isopropanol (IPA) [VOC Surrogates]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	06/07/17	VS
Dibromofluoromethane	90	%REC		EPA 8260B		70-130	06/07/17	VS
Toluene-D8	93	%REC		EPA 8260B		70-130	06/07/17	VS
Bromofluorobenzene	95	%REC		EPA 8260B		70-130	06/07/17	VS
Sample: 003 SG3-10 Sample Matrix: Soil Vapor							Date & Time Sampled:	06/07/17 @ 15:40
Methane [VOCs by GCMS]								
Methane	<15		ppmv	EPA 8015B	1.0	15	06/07/17	KZ
Acetone	<1.0		µg/L	EPA 8260B	1.0	1.0	06/07/17	VS
t-Amyl Methyl Ether (TAME)	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
Benzene	<0.050		µg/L	EPA 8260B	1.0	0.050	06/07/17	VS
Bromobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
Bromochloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
Bromodichloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
Bromoform	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
Bromomethane	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
t-Butanol (TBA)	<1.0		µg/L	EPA 8260B	1.0	1.0	06/07/17	VS
2-Butanone (MEK)	<1.0		µg/L	EPA 8260B	1.0	1.0	06/07/17	VS
n-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
sec-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
tert-Butylbenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
Carbon Disulfide	<1.0		µg/L	EPA 8260B	1.0	1.0	06/07/17	VS
Carbon Tetrachloride	<0.050		µg/L	EPA 8260B	1.0	0.050	06/07/17	VS
Chlorobenzene	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
Chloroethane	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
Chloroform	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
Chloromethane	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
2-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
4-Chlorotoluene	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 SG3-10							Date & Time Sampled:	06/07/17 @ 15:40
Sample Matrix: Soil Vapor								
.....continued								
Dibromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromoethane (EDB)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromo-3-Chloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,4-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dichlorodifluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Diisopropyl Ether (DiPE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethyl-t-Butyl Ether (EtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Hexachlorobutadiene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Hexanone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Isopropylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Isopropyltoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Methylene Chloride	<0.1	µg/L	EPA 8260B	1.0	0.1	06/07/17	VS	
4-Methyl-2-Pentanone (MIBK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Methyl-t-butyl Ether (MtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Naphthalene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 003 SG3-10							Date & Time Sampled:	06/07/17 @ 15:40
Sample Matrix: Soil Vapor								
.....continued								
n-Propylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Styrene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Tetrachloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Toluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorofluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorotrifluoroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3,5-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Vinyl Chloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
m,p-Xylenes	<0.20	µg/L	EPA 8260B	1.0	0.20	06/07/17	VS	
o-Xylene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
[VOC Surrogates]								
Dibromofluoromethane	93	%REC	EPA 8260B		70-130	06/07/17	VS	
Toluene-D8	92	%REC	EPA 8260B		70-130	06/07/17	VS	
Bromofluorobenzene	95	%REC	EPA 8260B		70-130	06/07/17	VS	

Sample: 004 SG4-5					Date & Time Sampled:	06/07/17	@ 15:50
Sample Matrix: Soil Vapor							
Methane	26.1	ppmv	EPA 8015B	1.0	15	06/07/17	KZ
[VOCs by GCMS]							
Acetone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS

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CERTIFICATE OF ANALYSIS

1706-00058

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported 06/08/17
Date Received 06/07/17
Invoice No. 79527
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 SG4-5							Date & Time Sampled:	06/07/17 @ 15:50
Sample Matrix: Soil Vapor								
.....continued								
t-Amyl Methyl Ether (TAME)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Benzene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Bromobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromodichloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromoform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
t-Butanol (TBA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
2-Butanone (MEK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
n-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
sec-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
tert-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Carbon Disulfide	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Carbon Tetrachloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Chlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromoethane (EDB)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromo-3-Chloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,4-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dichlorodifluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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Date Reported	06/08/17
Date Received	06/07/17
Invoice No.	79527
Cust #	G073
Permit Number	
Customer P.O.	

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 004 SG4-5							Date & Time Sampled:	06/07/17 @ 15:50
Sample Matrix: Soil Vapor								
.....continued								
1,1-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Diisopropyl Ether (DiPE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethyl-t-Butyl Ether (EtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Hexachlorobutadiene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Hexanone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Isopropylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Isopropyltoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Methylene Chloride	<0.1	µg/L	EPA 8260B	1.0	0.1	06/07/17	VS	
4-Methyl-2-Pentanone (MIBK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Methyl-t-butyl Ether (MtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Naphthalene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
n-Propylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Styrene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Tetrachloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Toluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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CERTIFICATE OF ANALYSIS

1706-00058

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DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported 06/08/17
Date Received 06/07/17
Invoice No. 79527
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech			
Sample: 004 SG4-5					Date & Time Sampled:			06/07/17 @ 15:50			
Sample Matrix: Soil Vapor											
.....continued											
Trichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
1,2,3-Trichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
Trichlorofluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
Trichlorotrifluoroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
1,2,4-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
1,3,5-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
Vinyl Chloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS				
m,p-Xylenes	<0.20	µg/L	EPA 8260B	1.0	0.20	06/07/17	VS				
o-Xylene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
[VOC Vapor Sampling Tracer]											
Isopropanol (IPA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS				
[VOC Surrogates]											
Dibromofluoromethane	96	%REC	EPA 8260B		70-130	06/07/17	VS				
Toluene-D8	91	%REC	EPA 8260B		70-130	06/07/17	VS				
Bromofluorobenzene	95	%REC	EPA 8260B		70-130	06/07/17	VS				
Sample: 005 SG5-5					Date & Time Sampled:			06/07/17 @ 15:00			
Sample Matrix: Soil Vapor											
[VOCs by GCMS]											
Acetone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS				
t-Amyl Methyl Ether (TAME)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
Benzene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS				
Bromobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
Bromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
Bromodichloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
Bromoform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
Bromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
t-Butanol (TBA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS				
2-Butanone (MEK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS				
n-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				
sec-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS				

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Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 SG5-5							Date & Time Sampled:	06/07/17 @ 15:00
Sample Matrix: Soil Vapor								
.....continued								
tert-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Carbon Disulfide	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Carbon Tetrachloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Chlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromoethane (EDB)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromo-3-Chloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,4-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dichlorodifluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Diisopropyl Ether (DiPE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 SG5-5							Date & Time Sampled:	06/07/17 @ 15:00
Sample Matrix: Soil Vapor								
.....continued								
Ethyl-t-Butyl Ether (EtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Hexachlorobutadiene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Hexanone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Isopropylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Isopropyltoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Methylene Chloride	<0.1	µg/L	EPA 8260B	1.0	0.1	06/07/17	VS	
4-Methyl-2-Pentanone (MIBK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Methyl-t-butyl Ether (MtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Naphthalene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
n-Propylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Styrene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Tetrachloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Toluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorofluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorotrifluoroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3,5-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Vinyl Chloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
m,p-Xylenes	<0.20	µg/L	EPA 8260B	1.0	0.20	06/07/17	VS	
o-Xylene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	

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CERTIFICATE OF ANALYSIS

1706-00058

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported	06/08/17
Date Received	06/07/17
Invoice No.	79527
Cust #	G073
Permit Number	
Customer P.O.	

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 005 SG5-5 Sample Matrix: Soil Vapor					Date & Time Sampled:		06/07/17	@ 15:00
<i>.....continued</i>								
[VOC Surrogates]								
Dibromofluoromethane	92	%REC		EPA 8260B	70-130	06/07/17	VS	
Toluene-D8	91	%REC		EPA 8260B	70-130	06/07/17	VS	
Bromofluorobenzene	96	%REC		EPA 8260B	70-130	06/07/17	VS	
Sample: 006 SG6-5 Sample Matrix: Soil Vapor					Date & Time Sampled:		06/07/17	@ 15:10
[VOCs by GCMS]								
Acetone	<1.0	µg/L		EPA 8260B	1.0	1.0	06/07/17	VS
t-Amyl Methyl Ether (TAME)	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
Benzene	<0.050	µg/L		EPA 8260B	1.0	0.050	06/07/17	VS
Bromobenzene	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
Bromochloromethane	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
Bromodichloromethane	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
Bromoform	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
Bromomethane	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
t-Butanol (TBA)	<1.0	µg/L		EPA 8260B	1.0	1.0	06/07/17	VS
2-Butanone (MEK)	<1.0	µg/L		EPA 8260B	1.0	1.0	06/07/17	VS
n-Butylbenzene	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
sec-Butylbenzene	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
tert-Butylbenzene	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
Carbon Disulfide	<1.0	µg/L		EPA 8260B	1.0	1.0	06/07/17	VS
Carbon Tetrachloride	<0.050	µg/L		EPA 8260B	1.0	0.050	06/07/17	VS
Chlorobenzene	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
Chloroethane	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
Chloroform	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
Chloromethane	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
2-Chlorotoluene	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
4-Chlorotoluene	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
Dibromochloromethane	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS
1,2-Dibromoethane (EDB)	<0.10	µg/L		EPA 8260B	1.0	0.10	06/07/17	VS

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1706-00058

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PACIFIC PALISADES, CA 90272

Date Reported 06/08/17
Date Received 06/07/17
Invoice No. 79527
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 SG6-5							Date & Time Sampled:	06/07/17 @ 15:10
Sample Matrix: Soil Vapor								
.....continued								
1,2-Dibromo-3-Chloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,4-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dichlorodifluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Diisopropyl Ether (DiPE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethyl-t-Butyl Ether (EtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Hexachlorobutadiene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Hexanone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Isopropylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Isopropyltoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Methylene Chloride	<0.1	µg/L	EPA 8260B	1.0	0.1	06/07/17	VS	
4-Methyl-2-Pentanone (MIBK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Methyl-t-butyl Ether (MtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Naphthalene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
n-Propylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Styrene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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CERTIFICATE OF ANALYSIS

1706-00058

GSA ENGINEERING
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PACIFIC PALISADES, CA 90272

Date Reported 06/08/17
Date Received 06/07/17
Invoice No. 79527
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 006 SG6-5								
Sample Matrix: Soil Vapor								
<i>.....continued</i>								
.....continued								
1,1,1,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Tetrachloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Toluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorofluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorotrifluoroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3,5-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Vinyl Chloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
m,p-Xylenes	<0.20	µg/L	EPA 8260B	1.0	0.20	06/07/17	VS	
o-Xylene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
[VOC Surrogates]								
Dibromofluoromethane	92	%REC	EPA 8260B		70-130	06/07/17	VS	
Toluene-D8	94	%REC	EPA 8260B		70-130	06/07/17	VS	
Bromofluorobenzene	96	%REC	EPA 8260B		70-130	06/07/17	VS	
Sample: 007 SG7-5								
Sample Matrix: Soil Vapor								
.....continued								
Acetone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
t-Amyl Methyl Ether (TAME)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Benzene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Bromobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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Date Reported	06/08/17
Date Received	06/07/17
Invoice No.	79527
Cust #	G073
Permit Number	
Customer P.O.	

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 SG7-5							Date & Time Sampled:	06/07/17 @ 14:10
Sample Matrix: Soil Vapor								
.....continued								
Bromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromodichloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromoform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
t-Butanol (TBA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
2-Butanone (MEK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
n-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
sec-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
tert-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Carbon Disulfide	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Carbon Tetrachloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Chlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromoethane (EDB)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromo-3-Chloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,4-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dichlorodifluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 SG7-5							Date & Time Sampled:	06/07/17 @ 14:10
Sample Matrix: Soil Vapor								
.....continued								
1,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Diisopropyl Ether (DiPE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethyl-t-Butyl Ether (EtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Hexachlorobutadiene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Hexanone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Isopropylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Isopropyltoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Methylene Chloride	<0.1	µg/L	EPA 8260B	1.0	0.1	06/07/17	VS	
4-Methyl-2-Pentanone (MIBK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Methyl-t-butyl Ether (MtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Naphthalene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
n-Propylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Styrene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Tetrachloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Toluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorofluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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CERTIFICATE OF ANALYSIS

1706-00058

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported 06/08/17
Date Received 06/07/17
Invoice No. 79527
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 007 SG7-5							Date & Time Sampled:	06/07/17 @ 14:10
Sample Matrix: Soil Vapor								
.....continued								
Trichlorotrifluoroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3,5-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Vinyl Chloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
m,p-Xylenes	<0.20	µg/L	EPA 8260B	1.0	0.20	06/07/17	VS	
o-Xylene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
[VOC Surrogates]								
Dibromofluoromethane	94	%REC	EPA 8260B		70-130	06/07/17	VS	
Toluene-D8	93	%REC	EPA 8260B		70-130	06/07/17	VS	
Bromofluorobenzene	96	%REC	EPA 8260B		70-130	06/07/17	VS	
Sample: 008 SG8-5							Date & Time Sampled:	06/07/17 @ 14:20
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
t-Amyl Methyl Ether (TAME)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Benzene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Bromobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromodichloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromoform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
t-Butanol (TBA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
2-Butanone (MEK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
n-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
sec-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
tert-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Carbon Disulfide	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Carbon Tetrachloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	

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Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 SG8-5							Date & Time Sampled:	06/07/17 @ 14:20
Sample Matrix: Soil Vapor								
.....continued								
Chlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromoethane (EDB)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromo-3-Chloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,4-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dichlorodifluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Diisopropyl Ether (DiPE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethyl-t-Butyl Ether (EtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Hexachlorobutadiene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Hexanone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	

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Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 SG8-5							Date & Time Sampled:	06/07/17 @ 14:20
Sample Matrix: Soil Vapor								
.....continued								
Isopropylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Isopropyltoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Methylene Chloride	<0.1	µg/L	EPA 8260B	1.0	0.1	06/07/17	VS	
4-Methyl-2-Pentanone (MIBK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Methyl-t-butyl Ether (MtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Naphthalene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
n-Propylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Styrene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Tetrachloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Toluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorofluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorotrifluoroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3,5-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Vinyl Chloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
m,p-Xylenes	<0.20	µg/L	EPA 8260B	1.0	0.20	06/07/17	VS	
o-Xylene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
[VOC Surrogates]								
Dibromofluoromethane	90	%REC	EPA 8260B		70-130	06/07/17	VS	
Toluene-D8	93	%REC	EPA 8260B		70-130	06/07/17	VS	

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 008 SG8-5 Sample Matrix: Soil Vapor					Date & Time Sampled:		06/07/17	@ 14:20
<i>.....continued</i>								
Bromofluorobenzene	96	%REC	EPA 8260B		70-130	06/07/17	VS	
Sample: 009 SG9-5 Sample Matrix: Soil Vapor					Date & Time Sampled:		06/07/17	@ 14:30
[VOCs by GCMS]								
Acetone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
t-Amyl Methyl Ether (TAME)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Benzene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Bromobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromodichloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromoform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
t-Butanol (TBA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
2-Butanone (MEK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
n-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
sec-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
tert-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Carbon Disulfide	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Carbon Tetrachloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Chlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromoethane (EDB)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromo-3-Chloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 009 SG9-5							Date & Time Sampled:	06/07/17 @ 14:30
Sample Matrix: Soil Vapor								
.....continued								
1,3-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,4-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dichlorodifluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Diisopropyl Ether (DiPE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethyl-t-Butyl Ether (EtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Hexachlorobutadiene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Hexanone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Isopropylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Isopropyltoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Methylene Chloride	<0.1	µg/L	EPA 8260B	1.0	0.1	06/07/17	VS	
4-Methyl-2-Pentanone (MIBK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Methyl-t-butyl Ether (MtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Naphthalene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
n-Propylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Styrene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Tetrachloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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CERTIFICATE OF ANALYSIS

1706-00058

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported	06/08/17
Date Received	06/07/17
Invoice No.	79527
Cust #	G073
Permit Number	
Customer P.O.	

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 009 SG9-5							Date & Time Sampled:	06/07/17 @ 14:30
Sample Matrix: Soil Vapor								
.....continued								
Toluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorofluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorotrifluoroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3,5-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Vinyl Chloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
m,p-Xylenes	<0.20	µg/L	EPA 8260B	1.0	0.20	06/07/17	VS	
o-Xylene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
[VOC Surrogates]								
Dibromofluoromethane	90	%REC	EPA 8260B		70-130	06/07/17	VS	
Toluene-D8	96	%REC	EPA 8260B		70-130	06/07/17	VS	
Bromofluorobenzene	92	%REC	EPA 8260B		70-130	06/07/17	VS	
Sample: 010 SG10-5					Date & Time Sampled:	06/07/17	@ 14:40	
Sample Matrix: Soil Vapor								
[VOCs by GCMS]								
Acetone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
t-Amyl Methyl Ether (TAME)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Benzene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Bromobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromodichloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Bromoform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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CERTIFICATE OF ANALYSIS

1706-00058

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported	06/08/17
Date Received	06/07/17
Invoice No.	79527
Cust #	G073
Permit Number	
Customer P.O.	

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 SG10-5							Date & Time Sampled:	06/07/17 @ 14:40
Sample Matrix: Soil Vapor								
.....continued								
Bromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
t-Butanol (TBA)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
2-Butanone (MEK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
n-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
sec-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
tert-Butylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Carbon Disulfide	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Carbon Tetrachloride	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
Chlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloroform	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Chloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Chlorotoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromochloromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromoethane (EDB)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dibromo-3-Chloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dibromomethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,4-Dichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Dichlorodifluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,2-Dichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2,2-Dichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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CERTIFICATE OF ANALYSIS

1706-00058

GSA ENGINEERING
DAN LOUKS
16950 AVENIDA DE SANTA YNEZ
PACIFIC PALISADES, CA 90272

Date Reported 06/08/17
Date Received 06/07/17
Invoice No. 79527
Cust # G073
Permit Number
Customer P.O.

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 SG10-5							Date & Time Sampled:	06/07/17 @ 14:40
Sample Matrix: Soil Vapor								
.....continued								
1,1-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
cis-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
trans-1,3-Dichloropropene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Diisopropyl Ether (DiPE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Ethyl-t-Butyl Ether (EtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Hexachlorobutadiene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
2-Hexanone	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Isopropylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
4-Isopropyltoluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Methylene Chloride	<0.1	µg/L	EPA 8260B	1.0	0.1	06/07/17	VS	
4-Methyl-2-Pentanone (MIBK)	<1.0	µg/L	EPA 8260B	1.0	1.0	06/07/17	VS	
Methyl-t-butyl Ether (MtBE)	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Naphthalene	<0.050	µg/L	EPA 8260B	1.0	0.050	06/07/17	VS	
n-Propylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Styrene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2,2-Tetrachloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Tetrachloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Toluene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trichlorobenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,1-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,1,2-Trichloroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichloroethene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,3-Trichloropropane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorofluoromethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
Trichlorotrifluoroethane	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,2,4-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	
1,3,5-Trimethylbenzene	<0.10	µg/L	EPA 8260B	1.0	0.10	06/07/17	VS	

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Date Reported	06/08/17
Date Received	06/07/17
Invoice No.	79527
Cust #	G073
Permit Number	
Customer P.O.	

Project: FORMER DIARY

Analysis	Result	Qual	Units	Method	DF	RL	Date	Tech
Sample: 010 SG10-5							Date & Time Sampled:	06/07/17 @ 14:40
Sample Matrix: Soil Vapor								
.....continued								
Vinyl Chloride	<0.050		µg/L	EPA 8260B	1.0	0.050	06/07/17	VS
m,p-Xylenes	<0.20		µg/L	EPA 8260B	1.0	0.20	06/07/17	VS
o-Xylene	<0.10		µg/L	EPA 8260B	1.0	0.10	06/07/17	VS
[VOC Vapor Sampling Tracer]								
Isopropanol (IPA)	<1.0		µg/L	EPA 8260B	1.0	1.0	06/07/17	VS
[VOC Surrogates]								
Dibromofluoromethane	92		%REC	EPA 8260B		70-130	06/07/17	VS
Toluene-D8	96		%REC	EPA 8260B		70-130	06/07/17	VS
Bromofluorobenzene	94		%REC	EPA 8260B		70-130	06/07/17	VS

Respectfully Submitted:

Ken Zheng

Ken Zheng - Lab Director

QUALIFIERS

B = Detected in the associated Method Blank at a concentration above the routine RL.

B1 = BOD dilution water is over specifications . The reported result may be biased high.

D = Surrogate recoveries are not calculated due to sample dilution.

E = Estimated value; Value exceeds calibration level of instrument.

H = Analyte was prepared and/or analyzed outside of the analytical method holding time

I = Matrix Interference.

J = Analyte concentration detected between RL and MDL.

Q = One or more quality control criteria did not meet specifications. See Comments for further explanation.

S = Customer provided specification limit exceeded.

ABBREVIATIONS

DF = Dilution Factor

RL = Reporting Limit, Adjusted by DF

MDL = Method Detection Limit, Adjusted by DF

Qual = Qualifier

Tech = Technician

As regulatory limits change frequently, A & R Laboratories advises the recipient of this report to confirm such limits with the appropriate federal, state, or local authorities before acting in reliance on the regulatory limits provided.

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.



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QUALITY CONTROL DATA REPORT

GSA ENGINEERING
PACIFIC PALISADES, CA 90272

1706-00058

Date Reported	06/08/2017
Date Received	06/07/2017
Date Sampled	06/07/2017
Invoice No.	79527
Customer #	G073
Customer P.O.	

Project: FORMER DIARY

Method #		EPA 8015B			Technician: KZ	
QC Reference #		Date Analyzed: 6/7/2017				
Samples		003	004	Control Ranges		
Results						
	LCS %REC	LCS %DUP	LCS %RPD	LCS %REC	LCS %RPD	
Methane	96	98	2	70 - 130	0 - 25	

Method #		EPA 8260B			Technician: VS								
QC Reference #		Date Analyzed: 6/7/2017											
Samples		001	002	003	004	005	006	007	008	009	010	Control Ranges	
Results													
	LCS %REC	LCS %DUP	LCS %RPD	LCS %REC	LCS %RPD								
1,1-Dichloroethene	95	98	3	70 - 130	0 - 25								
Benzene	92	92	0	70 - 130	0 - 25								
Chlorobenzene	97	95	2	70 - 130	0 - 25								
Toluene	92	93	1	70 - 130	0 - 25								
Trichloroethene	94	90	4	70 - 130	0 - 25								

No method blank results were above reporting limit

Respectfully Submitted:

Ken Zheng

Ken Zheng - President

For any feedback concerning our services, please contact Jenny Jiang, Project Manager at 951.779.0310. You may also contact Ken Zheng, President at office@arlaboratories.com.

CHAIN OF CUSTODY

A & R Work Order #: 1706-000088

Page 1 of 1

Client Name Hillman Consulting
E-mail

Address 1745 W. Oaktree Ave., #100
Report Attention Dan Loh
Phone # (704) 206-3900
Fax: #

Project Folmer Oil
No./Name Project Site
262 Belmont / 7340 20th Avenue
Charlotte, NC

Intact
 Seal

Turn Around Time Requested
8 12 24 48 Hours

Chilled
 Normal

Analyses Requested
No., type* & size of container

EPA8260B (VOCs & Oxygenates)
EPA8260B(BTEX & Oxygenates)
LUFT / 8015 (Gasoline)
LUFT / 8015 (Diesel)
EPA8081A (Organochlorine Pesticides)
EPA 8082 (PCBs)
EPA 8015M (Carbon Chain C4-C40)
EPA 6010B/7000 (CAM 17 Metals)
Micro: Plate Cnt., Coliform, E-Coli

Methane

Remarks
Komball
Proj.
Bicknell
Proj.

Lab #	Client (Lab use)	Sample ID	Sample Collection Date	Matrix Type	Sample Preserve	No., type* & size of container	Remarks
1		S61-10	6/17/12	15:20	Air	-	X
2		S62-5		15:30			X
3		S63-10		15:40			X
4		S64-5		15:50			X
5		S65-5		15:50			X
6		S66-5		15:10			X
7		S67-5		14:10			X
8		S68-5		14:20			X
9		S69-5		14:30			X
10		S610-5		14:40			X

Relinquished By	Company	Date	Time	Received By	Company	Date	Time
<u>Hillman</u>		6/17/12	17:00	<u>J. Loh</u>		6/17/12	17:00

Relinquished By Company Date Time

Received By Company Date Time
Note: Samples are discarded 30 days after results are reported unless other arrangements are made.

Matrix Code:	Preservative Code	SH=NaOH
DW=Drinking Water	C=Ice	ST=Na2S2O3
GW=Ground Water	HC=HCl	HS=H2SO4
WW=Waste Water	AR=Air	
SD=Solid Waste	PP=Pure Product	HN=HNO3

* Sample Container Types:
T=Tedlar Air Bag
G=Glass Container
ST=Steel Tube

B=Brass Tube
P=Plastic Bottle
V=VOA Vial
E=EnCore

APPENDIX C

Drilling Logs

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER SG1

PROJECT Former Dairy

LOCATION Bickmore & Kimball, Ontario, CA

DATE DRILLED June 5, 2017

SURFACE ELEVATION

SCREEN: DIA. LENGTH

CASING: DIA. LENGTH

DRILLING COMPANY Hillmann

DRILLER Dan/Neil

OWNER

PROJECT NUMBER

TOTAL DEPTH OF HOLE 10 Feet

DEPTH TO WATER

SLOT SIZE

TYPE

DRILL METHOD Hand Auger

LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5						ML	Clayey SILT; brown, low plasticity, slightly moist, no odor.
10						CL	Silty CLAY; light gray, low plasticity, hard, dry, no odor. Install Soil Gas Probe SG1 at 10 feet bgs. Install filter pack along sampling tip. Seal with bentonite to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER SG2

PROJECT Former Dairy OWNER _____

LOCATION Bickmore & Kimball, Ontario, CA PROJECT NUMBER _____

DATE DRILLED June 5, 2017 TOTAL DEPTH OF HOLE 5 Feet

SURFACE ELEVATION DEPTH TO WATER _____

SCREEN: DIA. LENGTH SLOT SIZE _____

CASING: DIA. LENGTH TYPE _____

DRILLING COMPANY Hillmann DRILL METHOD Hand Auger

DRILLER Dan/Neil LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5						ML	Clayey SILT; brown, low plasticity, slightly moist, no odor. Install Soil Gas Probe SG2 at 5 feet bgs. Install filter pack along sampling tip. Seal with bentonite to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER	SG3	OWNER	
PROJECT	Former Dairy	PROJECT NUMBER	
LOCATION	Bickmore & Kimball, Ontario, CA	TOTAL DEPTH OF HOLE	10 Feet
DATE DRILLED	June 5, 2017	DEPTH TO WATER	
SURFACE ELEVATION		SLOT SIZE	
SCREEN: DIA.	LENGTH	TYPE	
CASING: DIA.	LENGTH		
DRILLING COMPANY	Hillmann	DRILL METHOD	Hand Auger
DRILLER	Dan/Neil	LOG BY	Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5						ML	Clayey SILT; brown, low plasticity, slightly moist, no odor.
10						CL	Silty CLAY; light gray, low plasticity, hard, dry, no odor. Install Soil Gas Probe SG3 at 10 feet bgs. Install filter pack along sampling tip. Seal with bentonite to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER	SG4	OWNER	
PROJECT	Former Dairy	PROJECT NUMBER	
LOCATION	Bickmore & Kimball, Ontario, CA	TOTAL DEPTH OF HOLE	5 Feet
DATE DRILLED	June 5, 2017	DEPTH TO WATER	
SURFACE ELEVATION		SLOT SIZE	
SCREEN: DIA.	LENGTH	TYPE	
CASING: DIA.	LENGTH		
DRILLING COMPANY	Hillmann	DRILL METHOD	Hand Auger
DRILLER	Dan/Neil	LOG BY	Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5						ML	Clayey SILT; brown, low plasticity, slightly moist, no odor. Install Soil Gas Probe SG4 at 5 feet bgs. Install filter pack along sampling tip. Seal with bentonite to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER	SG5	OWNER	
PROJECT	Former Dairy	PROJECT NUMBER	
LOCATION	Bickmore & Kimball, Ontario, CA	TOTAL DEPTH OF HOLE	5 Feet
DATE DRILLED	June 5, 2017	DEPTH TO WATER	
SURFACE ELEVATION		SLOT SIZE	
SCREEN: DIA.	LENGTH	TYPE	
CASING: DIA.	LENGTH		
DRILLING COMPANY	Hillmann	DRILL METHOD	Hand Auger
DRILLER	Dan/Neil	LOG BY	Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5						ML	Clayey SILT; brown, low plasticity, slightly moist, no odor. Install Soil Gas Probe SG5 at 5 feet bgs. Install filter pack along sampling tip. Seal with bentonite to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER	SG6	OWNER	
PROJECT	Former Dairy	PROJECT NUMBER	
LOCATION	Bickmore & Kimball, Ontario, CA	TOTAL DEPTH OF HOLE	5 Feet
DATE DRILLED	June 5, 2017	DEPTH TO WATER	
SURFACE ELEVATION		SLOT SIZE	
SCREEN: DIA.	LENGTH	TYPE	
CASING: DIA.	LENGTH		
DRILLING COMPANY	Hillmann	DRILL METHOD	Hand Auger
DRILLER	Dan/Neil	LOG BY	Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5						ML	Clayey SILT; brown, low plasticity, slightly moist, no odor. Install Soil Gas Probe SG6 at 5 feet bgs. Install filter pack along sampling tip. Seal with bentonite to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER	SG7	OWNER	
PROJECT	Former Dairy	PROJECT NUMBER	
LOCATION	Bickmore & Kimball, Ontario, CA	TOTAL DEPTH OF HOLE	5 Feet
DATE DRILLED	June 5, 2017	DEPTH TO WATER	
SURFACE ELEVATION		SLOT SIZE	
SCREEN: DIA.	LENGTH	TYPE	
CASING: DIA.	LENGTH		
DRILLING COMPANY	Hillmann	DRILL METHOD	Hand Auger
DRILLER	Dan/Neil	LOG BY	Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5						ML	<p>SILT; brown, low plasticity, some clay, loose, dry, no odor.</p> <p>Install Soil Gas Probe SG7 at 5 feet bgs. Install filter pack along sampling tip. Seal with bentonite to surface.</p>

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER SG8

PROJECT Former Dairy

LOCATION Bickmore & Kimball, Ontario, CA

DATE DRILLED June 5, 2017

SURFACE ELEVATION

SCREEN: DIA. LENGTH

CASING: DIA. LENGTH

DRILLING COMPANY Hillmann

DRILLER Dan/Neil

OWNER

PROJECT NUMBER

TOTAL DEPTH OF HOLE 5 Feet

DEPTH TO WATER

SLOT SIZE

TYPE

DRILL METHOD Hand Auger

LOG BY Dan Louks

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5						ML	<p>SILT; brown, low plasticity, some clay, loose, dry, no odor.</p> <p>Install Soil Gas Probe SG8 at 5 feet bgs. Install filter pack along sampling tip. Seal with bentonite to surface.</p>

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER	SG9	
PROJECT	Former Dairy	
LOCATION	Bickmore & Kimball, Ontario, CA	
DATE DRILLED	June 5, 2017	
SURFACE ELEVATION		
SCREEN: DIA.	LENGTH	SLOT SIZE
CASING: DIA.	LENGTH	TYPE
DRILLING COMPANY	Hillmann	DRILL METHOD
DRILLER	Dan/Neil	
LOG BY	Dan Louks	

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5						ML	Clayey SILT; brown, low plasticity, loose, dry, no odor. Install Soil Gas Probe SG9 at 5 feet bgs. Install filter pack along sampling tip. Seal with bentonite to surface.

DRILL/LITHOLOGIC LOG

BORING/WELL NUMBER	SG10	
PROJECT	Former Dairy	
LOCATION	Bickmore & Kimball, Ontario, CA	
DATE DRILLED	June 5, 2017	
SURFACE ELEVATION		
SCREEN: DIA.	LENGTH	SLOT SIZE
CASING: DIA.	LENGTH	TYPE
DRILLING COMPANY	Hillmann	DRILL METHOD
DRILLER	Dan/Neil	
LOG BY	Dan Louks	

DEPTH (FEET)	WELL CONST		PID (PPM)	SAMPLES		SOIL CLASS (USCS)	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
	PIPE	FILL		NUMBER	BLOW		
5						ML	Clayey SILT; brown, low plasticity, loose, dry, no odor. Install Soil Gas Probe SG10 at 5 feet bgs. Install filter pack along sampling tip. Seal with bentonite to surface.

APPENDIX D

Soil Gas Monitoring Data

SOIL GAS MONITORING DATA FORM

PROJECT: Former Dairy
LOCATION: 7311, 7461, 7551 Kimball Ave., 7262 Bickmore Ave,
 Chino, California
DATE: June 7, 2017

	VAPOR PROBE INFO							
PROBE ID	SG1	SG2	SG3	SG4	SG5			
PROBE DEPTH (ft)	10	5	10	5	5			
EXTRACTION DATA								
Applied Vacuum (in. WC)	5.0	5.0	5.0	5.0	5.0			
FLOW (L/min)	0.2	0.2	0.2	0.2	0.2			
Pore Volumes (borehole - sand pack)	3	3	3	3	3			
MONITORING DATA								
OXYGEN (%)	14.7	12.5	16.4	0.3	11.8			
CARBON DIOXIDE (%)	4.78	>5	4.52	>5	4.5			
VOC by PID (ppm)	0.0	0.0	0.0	0.0	0.0			
Methane by TLV (ppm)	<100	<100	220	1,000	<100			

	VAPOR PROBE INFO							
PROBE ID	SG6	SG7	SG8	SG9	SG10			
PROBE DEPTH (ft)	5	5	5	5	5			
EXTRACTION DATA								
Applied Vacuum (in. WC)	5.0	5.0	5.0	5.0	5.0			
FLOW (L/min)	0.2	0.2	0.2	0.2	0.2			
Pore Volumes (borehole - sand pack)	3	3	3	3	3			
MONITORING DATA								
OXYGEN (%)	11.6	20.3	20.3	20.2	19.5			
CARBON DIOXIDE (%)	>5	0.8	0.88	0.85	0.72			
VOC by PID (ppm)	0.0	0.0	0.0	0.0	0.0			
Methane by TLV (ppm)	<100	<100	<100	<100	<100			

REMARKS:

SAMPLED BY: DL