

HARMONY GROVE VILLAGE SOUTH

APPENDIX K-3

PHASE II ENVIRONMENTAL SITE ASSESSMENT

for the

FINAL ENVIRONMENTAL IMPACT REPORT

PDS2015-GPA-15-002

PDS2015-SP-15-002

PDS-REZ-15-003

PDS2018-TM-5626

PDS2015-MUP-15-008

Log No.: PDS2015-ER-15-08-006

JULY 2018

Prepared for:

COUNTY OF SAN DIEGO

PLANNING & DEVELOPMENT SERVICES

5510 OVERLAND AVENUE, SUITE 310

SAN DIEGO, CALIFORNIA 92123



Project No. 09412-06-04
October 21, 2015

Ms. Kathryn Murrel
RCS-Harmony Partners, LLC
321 12th Street, Suite 200
Manhattan Beach, California 90266

Subject: PHASE II ENVIRONMENTAL SITE ASSESSMENT
HARMONY GROVE VILLAGE SOUTH
SAN DIEGO COUNTY, CALIFORNIA

Dear Ms. Murrel:

In accordance with your request on behalf of RCS-Harmony Partners, LLC, we performed a Phase II Environmental Site Assessment (ESA) of the approximately 112-acre property comprised of essentially undeveloped land located south of Harmony Grove Road and east of Country Club Drive (the Site) in San Diego County, California (Figure 1). We understand that this Phase II ESA assessment is required by County of San Diego as indicated in the County's correspondence titled *Project Issue Checklist for Harmony Grove Village South* (County Project No. PDS2015-SP-15-002). The Site is further identified by Assessor's Parcel Numbers (APNs) 235-011-06; 238-021-08, -09, and -10.

Our scope of services included review of pertinent environmental reports previously prepared for the property, soil sampling within the identified area, analysis of laboratory test results, and preparation of this report. The purpose of the Phase II ESA was to evaluate onsite shallow soils for the potential presence of pesticides based on the historical agricultural use of the Site, as required by the County of San Diego to obtain a vesting tentative map for the proposed residential development.

SITE DESCRIPTION AND BACKGROUND

Based on observations made during recent field work and review of Geocon Incorporated reports titled *Phase I Environmental Site Assessment, Harmony Grove Property, Escondido, California*, dated February 5, 2009, and *Records Review Update, Harmony Grove Village, 2810 Country Club Drive, Escondido, California*, revised October 9, 2014, the Site consists of undeveloped land traversed by unpaved and paved roads and covered with vegetation. Three structures were observed onsite, including remnants of a former residence, a brick and clay/mud structure with three partial walls, and a square concrete structure. Trash and debris were observed scattered throughout the Site. No significant odors, pools of liquid, significantly stained soil, distressed vegetation, ASTs, wells, or ponds were observed at the Site as indicated in our 2009 Phase I ESA. According to the 2009 Phase I ESA and Records Review Update, the Site is not listed on any of the databases searched by EDR or in our review of readily available agency records for the Site.

Based on a review of historical aerial photographs and information obtained during the preparation of the 2009 *Phase I ESA*, the Site consisted primarily of undeveloped land with structures at the central portion of the Site as early as the late 1920s. Evidence of historical agricultural use was apparent from at least the 1920s to the 1980s, although historical use appears to be sporadic and not continuous.

SCOPE OF SERVICES

The scope of services of the Phase II *ESA* included collecting soil samples from the Site and having them analyzed for contaminants of concern (COCs) related to historical agricultural land use. Soil sampling was conducted on October 1, 2015.

Soil Sampling

Soil sampling consisted of the following activities:

- Advanced 21 borings, B1 through B21, using a hand-auger at approximate 3-acre centers throughout the Site (Figure 2).
- Collected soil samples from each boring at depths of 0.5 to 1.0-foot and 2.0 to 2.5-feet.

Laboratory Analysis

We submitted the soil samples to Advanced Technology Laboratories (ATL), a state-certified laboratory in Signal Hill, California, for analysis as follows:

- Shallow samples (0.5 to 1.0-foot depth) were analyzed for organochlorine pesticides (OCPs) by United States Environmental Protection Agency (USEPA) Test Method 8081A and arsenic by USEPA Test Method 6010B.
- Deep samples (2.0 to 2.5-foot depth) were held for analysis pending results of analysis of the shallow samples.

FINDINGS AND CONCLUSIONS

OCPs were not detected in the shallow soil samples collected from the Site. Arsenic was detected in 18 of the 21 shallow soil samples at concentrations up to 2.6 milligrams per kilogram (mg/kg). A copy of the laboratory analytical report is attached.

We compared the reported concentrations of arsenic to regulatory health risk-based soil screening levels developed by the State of California (the California Human Health Screening Levels – [CHHSLs]). The arsenic concentrations that were detected in soil at the Site exceed the residential CHHSL of 0.070 mg/kg. This is a common occurrence because the screening levels are less than the reporting limit of 1.0 mg/kg. However, the maximum detected arsenic concentration is below the California's DTSC regional background level for arsenic in southern California soils of 12 mg/kg based upon the report prepared by the DTSC titled *Determination of a Southern California Regional Background Arsenic Concentration in Soil*, dated March 2008. In the report, the DTSC indicates that this finding suggests that 12 mg/kg may be a useful screening number for evaluating arsenic as a

chemical of potential concern. An earlier study presented in a report titled *Background Concentrations of Trace and Major Elements in California Soils* published by the University of California (Riverside), Division of Agriculture and Natural Resources (Bradford, G.R., et al, 1996) concluded that background arsenic concentrations range up to 11 mg/kg.

As a result of the well-documented background levels of arsenic in California soils, the Cal/EPA published the following statement in the document title *Use of California Human Health Screening Levels [CHHSLs] in evaluation of Contaminated Properties*, January 2005: "Naturally occurring background concentrations of arsenic, beryllium, cadmium, chromium, and other metals in soils may exceed their respective soil CHHSLs. Cal/EPA generally does not require cleanup of soil to below background levels. This issue is frequently encountered with arsenic. Natural background concentrations of arsenic in California are often well above the health-based, direct-exposure goals in soil of 0.07 mg/kg for residential land use and 0.24 mg/kg for commercial/industrial land use."

Based on the analytical results, it appears that the historical agricultural use of the Site has not resulted in the presence of the COCs in shallow soil. The findings of this Phase II ESA suggest that additional assessment of the Site with respect to the COCs is not warranted at this time.

LIMITATIONS

The conclusions presented in this report are based upon reasonable visual observations made at the Site and research of available materials within the scope and budget of the contract. The information presented is relevant to the dates of our site visit and should not be relied upon to represent conditions at later dates. The opinions expressed herein are based on our experience with similar studies and information obtained during our effort. If additional information becomes available, we request the opportunity to review the information and modify our opinions, if necessary. Any reliance upon the information, conclusions, or recommendations contained in this report for purposes other than the transfer of the site shall be at the sole risk of the party undertaking such use.

Our services have been conducted using the degree of care and skill ordinarily exercised, under similar circumstances, by environmental sciences consultants practicing in this or similar localities. No other warranty, express or implied, is made as to the professional opinions presented in this report. Geocon is not responsible for the conclusions, opinions, or recommendations made by others based on this information.

This report was compiled based partially on information supplied to Geocon from outside sources, other information that is in the public domain and visual observations made at the property. The preliminary conclusions and recommendations herein are based solely on the information Geocon obtained in compiling the report. Geocon makes no warranty as to the accuracy of statements made by others which may be contained in the report, nor are any other warranties or guarantees, express or implied, included or intended by the report except that it has been prepared in accordance with the current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by other professional consultants or firms performing the same or similar services. None of the work performed hereunder shall constitute or be represented as a legal opinion of any kind or nature, but shall be a representation of findings of fact from records examined.

We appreciate the opportunity to be of service. Please contact the undersigned with any comments or questions.

Very truly yours,

GEOCON INCORPORATED



Elizabeth A. Miller, PG
Project Geologist

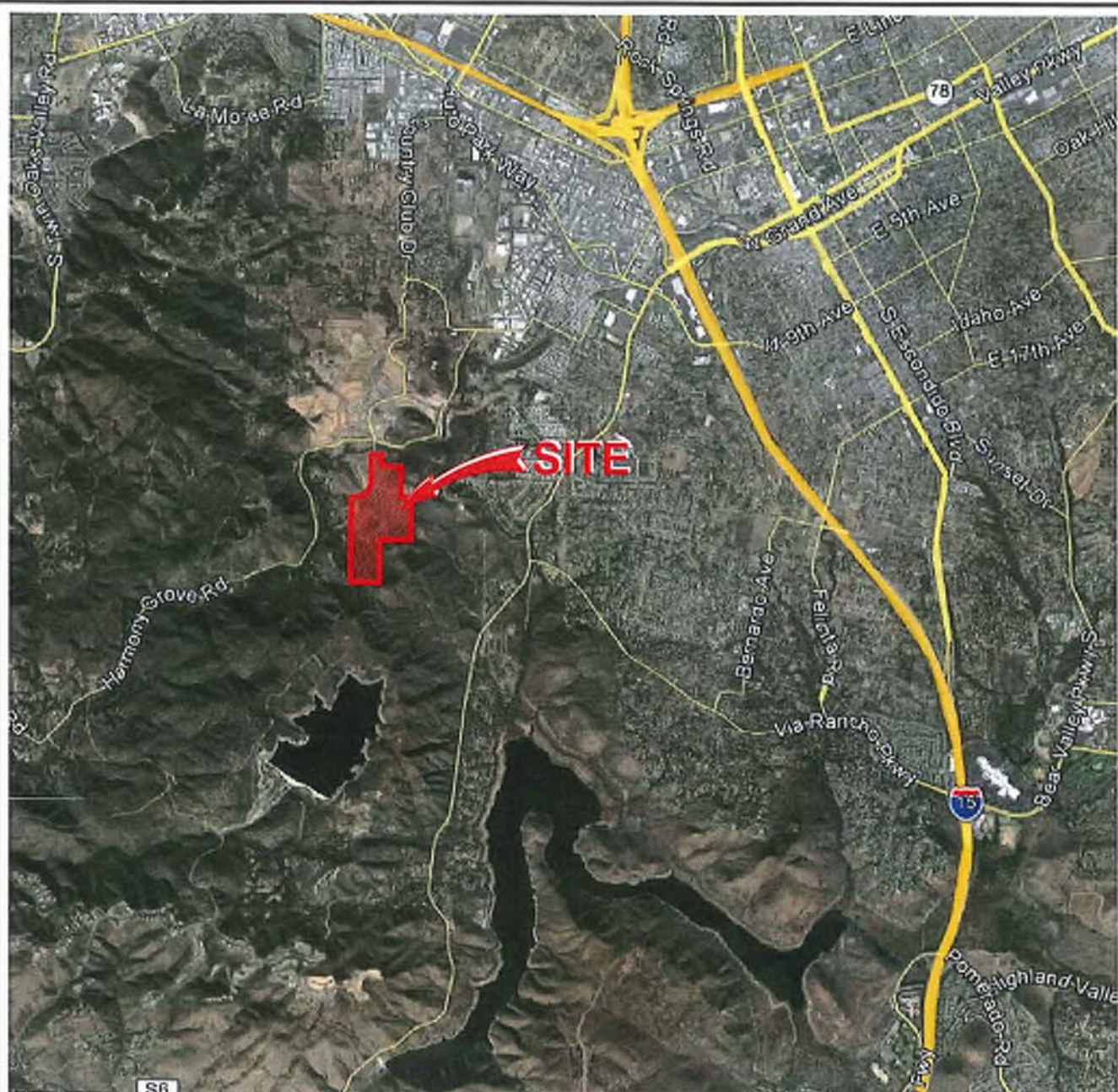
EAM:JEJ:ejc



John E. Juhrend, PE, CEG
Senior Engineer

Attachments: Figure 1, Vicinity Map
Figure 2, Site Plan
Laboratory Reports and Chain-Of-Custody Documentation

(e-mail) Addressee



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NO SCALE

VICINITY MAP

GEOCON
INCORPORATED



GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 297.4
PHONE 858 558-6900 - FAX 858 558-6159

HARMONY GROVE VILLAGE SOUTH
SAN DIEGO COUNTY, CALIFORNIA

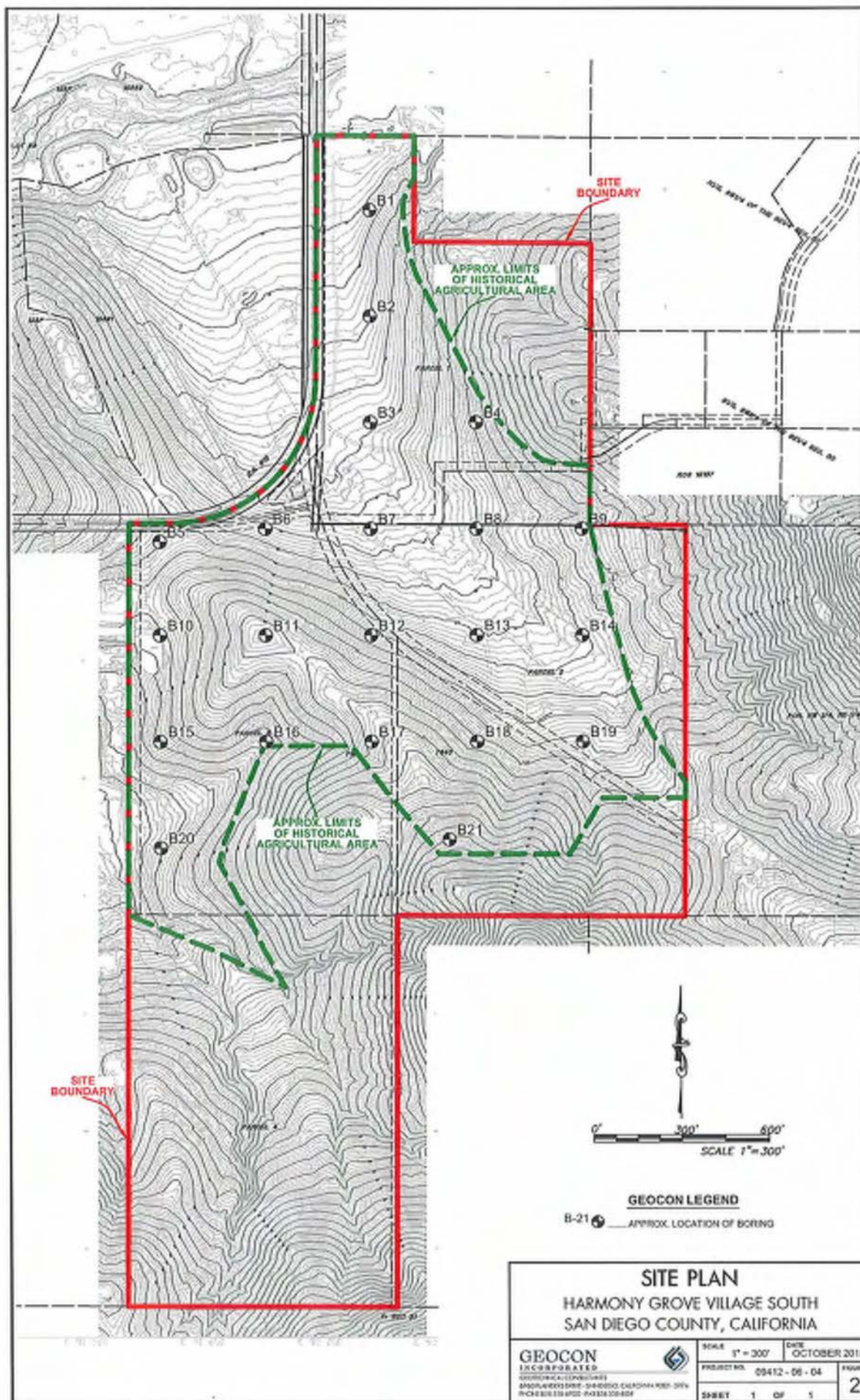
EA / RA

DSK/GTYPD

DATE OCTOBER 2015

PROJECT NO. 09412 - 06 - 04

FIG. 1





October 09, 2015

Elizabeth Miller
Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121
Tel: (858) 558-6100
Fax: (858) 558-8437

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Re: ATL Work Order Number : 1503387

Client Reference : Harmony Grove Village South, 9412-06-04

Enclosed are the results for sample(s) received on October 02, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E Rodriguez'.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
B1-0.5	1503387-01	Soil	10/01/15 8:02	10/02/15 11:00
B2-0.5	1503387-03	Soil	10/01/15 8:36	10/02/15 11:00
B3-0.5	1503387-05	Soil	10/01/15 8:40	10/02/15 11:00
B4-0.5	1503387-07	Soil	10/01/15 9:00	10/02/15 11:00
B5-0.5	1503387-09	Soil	10/01/15 13:10	10/02/15 11:00
B6-0.5	1503387-11	Soil	10/01/15 10:55	10/02/15 11:00
B7-0.5	1503387-13	Soil	10/01/15 10:35	10/02/15 11:00
B8-0.5	1503387-15	Soil	10/01/15 9:00	10/02/15 11:00
B9-0.5	1503387-17	Soil	10/01/15 9:35	10/02/15 11:00
B10-0.5	1503387-19	Soil	10/01/15 12:50	10/02/15 11:00
B11-0.5	1503387-21	Soil	10/01/15 11:48	10/02/15 11:00
B12-0.5	1503387-23	Soil	10/01/15 12:14	10/02/15 11:00
B13-0.5	1503387-25	Soil	10/01/15 9:31	10/02/15 11:00
B14-0.5	1503387-27	Soil	10/01/15 9:50	10/02/15 11:00
B15-0.5	1503387-29	Soil	10/01/15 11:50	10/02/15 11:00
B16-0.5	1503387-31	Soil	10/01/15 12:45	10/02/15 11:00
B17-0.5	1503387-33	Soil	10/01/15 11:01	10/02/15 11:00
B18-0.5	1503387-35	Soil	10/01/15 10:06	10/02/15 11:00
B19-0.5	1503387-37	Soil	10/01/15 10:08	10/02/15 11:00
B20-0.5	1503387-39	Soil	10/01/15 12:10	10/02/15 11:00
B21-0.5	1503387-41	Soil	10/01/15 10:39	10/02/15 11:00



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C

Report To : Elizabeth Miller

Reported : 10/09/2015

Client Sample ID B1-0.5

Lab ID: 1503387-01

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	1	B5J0187	10/07/2015	10/08/15 15:52	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:26	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:26	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:26	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:26	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:26	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 15:26	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:26	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:26	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 15:26	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 15:26	
Surrogate: Decachlorobiphenyl	53.4 %	16 - 137		B5J0177	10/07/2015	10/07/15 15:26	
Surrogate: Tetrachloro-m-xylene	54.4 %	16 - 105		B5J0177	10/07/2015	10/07/15 15:26	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B2-0.5

Lab ID: 1503387-03

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	1	B5J0187	10/07/2015	10/08/15 16:05	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:37	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:37	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:37	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:37	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:37	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 15:37	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:37	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:37	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 15:37	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 15:37	
Surrogate: Decachlorobiphenyl	60.5 %	16 - 137		B5J0177	10/07/2015	10/07/15 15:37	
Surrogate: Tetrachloro-o-xylene	65.3 %	16 - 105		B5J0177	10/07/2015	10/07/15 15:37	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B3-0.5

Lab ID: 1503387-05

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B5J0187	10/07/2015	10/08/15 16:08	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:47	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:47	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:47	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:47	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:47	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 15:47	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:47	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:47	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 15:47	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 15:47	
Surrogate: Decachlorobiphenyl	37.4 %	16 - 137		B5J0177	10/07/2015	10/07/15 15:47	
Surrogate: Tetrachloro-m-xylene	44.6 %	16 - 105		B5J0177	10/07/2015	10/07/15 15:47	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B4-0.5

Lab ID: 1503387-07

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	1.0	1	B5J0187	10/07/2015	10/08/15 16:12	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:58	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:58	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:58	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:58	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:58	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 15:58	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 15:58	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:58	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 15:58	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 15:58	
Surrogate: Decachlorobiphenyl	64.0 %	16 - 137		B5J0177	10/07/2015	10/07/15 15:58	
Surrogate: Tetrachloro-m-xylene	66.5 %	16 - 105		B5J0177	10/07/2015	10/07/15 15:58	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C

Report To : Elizabeth Miller

Reported : 10/09/2015

Client Sample ID B5-0.5

Lab ID: 1503387-09

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	2.6	2.0	2	B5J0187	10/07/2015	10/08/15 17:50	D5

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:08	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:08	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:08	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:08	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:08	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 16:08	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:08	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:08	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 16:08	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 16:08	
Surrogate: Decachlorobiphenyl	64.0 %	16 - 137		B5J0177	10/07/2015	10/07/15 16:08	
Surrogate: Tetrachloro-m-xylene	61.7 %	16 - 105		B5J0177	10/07/2015	10/07/15 16:08	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B6-0.5

Lab ID: 1503387-11

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.5	1.0	1	B5J0187	10/07/2015	10/08/15 16:20	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:19	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:19	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:19	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:19	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:19	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 16:19	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:19	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:19	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 16:19	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 16:19	
Surrogate: Decachlorobiphenyl	66.0 %	16 - 137		B5J0177	10/07/2015	10/07/15 16:19	
Surrogate: Tetrachloro-m-xylene	72.4 %	16 - 105		B5J0177	10/07/2015	10/07/15 16:19	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C

Report To : Elizabeth Miller

Reported : 10/09/2015

Client Sample ID B7-0.5

Lab ID: 1503387-13

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	1	B5J0187	10/07/2015	10/08/15 16:31	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:29	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:29	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:29	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:29	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:29	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 16:29	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:29	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:29	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 16:29	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 16:29	
Surrogate: Decachlorobiphenyl	60.3 %	16 - 137		B5J0177	10/07/2015	10/07/15 16:29	
Surrogate: Tetrachloro-m-xylene	64.0 %	16 - 105		B5J0177	10/07/2015	10/07/15 16:29	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B8-0.5

Lab ID: 1503387-15

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.8	1.0	1	B5J0177	10/07/2015	10/08/15 16:34	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:40	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:40	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:40	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:40	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:40	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 16:40	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:40	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:40	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 16:40	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 16:40	
Surrogate: Decachlorobiphenyl	55.1 %	16 - 137		B5J0177	10/07/2015	10/07/15 16:40	
Surrogate: Tetrachloro-m-xylene	53.0 %	16 - 105		B5J0177	10/07/2015	10/07/15 16:40	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C

Report To : Elizabeth Miller

Reported : 10/09/2015

Client Sample ID B9-0.5

Lab ID: 1503387-17

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B5J0187	10/07/2015	10/08/15 16:39	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:50	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:50	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:50	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:50	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:50	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 16:50	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 16:50	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:50	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 16:50	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 16:50	
Surrogate: Decachlorobiphenyl	64.9 %	16 - 137		B5J0177	10/07/2015	10/07/15 16:50	
Surrogate: Tetrachloro-m-xylene	65.7 %	16 - 105		B5J0177	10/07/2015	10/07/15 16:50	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B10-0.5

Lab ID: 1503387-19

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.7	1.0	1	BSJ0187	10/07/2015	10/08/15 16:43	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
4,4'-DDE	ND	2.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
4,4'-DDT	ND	2.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Aldrin	ND	1.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
alpha-BHC	ND	1.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
alpha-Chlordane	ND	1.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
beta-BHC	ND	1.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Chlordane	ND	8.5	1	BSJ0177	10/07/2015	10/07/15 17:01	
delta-BHC	ND	1.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Dieldrin	ND	2.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Endosulfan I	ND	1.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Endosulfan II	ND	2.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Endosulfan sulfate	ND	2.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Endrin	ND	2.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Endrin aldehyde	ND	2.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Endrin ketone	ND	2.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
gamma-BHC	ND	1.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
gamma-Chlordane	ND	1.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Heptachlor	ND	1.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Heptachlor epoxide	ND	1.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Methoxychlor	ND	5.0	1	BSJ0177	10/07/2015	10/07/15 17:01	
Toxaphene	ND	50	1	BSJ0177	10/07/2015	10/07/15 17:01	
Surrogate: Decachlorobiphenyl	66.7 %	16 - 137		BSJ0177	10/07/2015	10/07/15 17:01	
Surrogate: Tetrachloro-m-xylene	70.5 %	16 - 105		BSJ0177	10/07/2015	10/07/15 17:01	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B11-0.5

Lab ID: 1503387-21

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	1	B5J0187	10/07/2015	10/08/15 16:47	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:11	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:11	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:11	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:11	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:11	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 17:11	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:11	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:11	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 17:11	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 17:11	
Surrogate: Decachlorobiphenyl	77.1 %	16 - 137		B5J0177	10/07/2015	10/07/15 17:11	
Surrogate: Tetrachloro-m-xylene	77.6 %	16 - 105		B5J0177	10/07/2015	10/07/15 17:11	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B12-0.5

Lab ID: 1503387-23

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.6	1.0	1	B5J0187	10/07/2015	10/08/15 16:50	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:22	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:22	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:22	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:22	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:22	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 17:22	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:22	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:22	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 17:22	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 17:22	
Surrogate: Decachlorobiphenyl	71.8 %	16 - 137		B5J0177	10/07/2015	10/07/15 17:22	
Surrogate: Tetrachloro-m-xylene	74.0 %	16 - 105		B5J0177	10/07/2015	10/07/15 17:22	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C

Report To : Elizabeth Miller

Reported : 10/09/2015

Client Sample ID B13-0.5

Lab ID: 1503387-25

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.3	1.0	1	B5J0187	10/07/2015	10/08/15 16:54	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:32	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:32	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:32	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:32	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:32	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 17:32	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:32	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:32	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 17:32	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 17:32	
Surrogate: Decachlorobiphenyl	75.1 %	16 - 137		B5J0177	10/07/2015	10/07/15 17:32	
Surrogate: Tetrachloro-m-xylene	77.8 %	16 - 105		B5J0177	10/07/2015	10/07/15 17:32	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B14-0.5

Lab ID: 1503387-27

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B5J0187	10/07/2015	10/08/15 16:57	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:42	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:42	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:42	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:42	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:42	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 17:42	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:42	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:42	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 17:42	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 17:42	
Surrogate: Decachlorobiphenyl	72.8 %	16 - 137		B5J0177	10/07/2015	10/07/15 17:42	
Surrogate: Tetrachloro-m-xylene	81.4 %	16 - 105		B5J0177	10/07/2015	10/07/15 17:42	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B15-0.5

Lab ID: 1503387-29

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	1.0	1	B5J0187	10/07/2015	10/08/15 17:02	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:53	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:53	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:53	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:53	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:53	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 17:53	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 17:53	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:53	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 17:53	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 17:53	
Surrogate: Decachlorobiphenyl	71.3 %	16 - 137		B5J0177	10/07/2015	10/07/15 17:53	
Surrogate: Tetrachloro-m-xylene	78.0 %	16 - 105		B5J0177	10/07/2015	10/07/15 17:53	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B16-0.5

Lab ID: 1503387-31

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.0	1.0	1	B5J0187	10/07/2015	10/08/15 17:06	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:03	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:03	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:03	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:03	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:03	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 18:03	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:03	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:03	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 18:03	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 18:03	
Surrogate: Decachlorobiphenyl	77.2 %	16 - 137		B5J0177	10/07/2015	10/07/15 18:03	
Surrogate: Tetrachloro-m-xylene	80.5 %	16 - 105		B5J0177	10/07/2015	10/07/15 18:03	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C

Report To : Elizabeth Miller

Reported : 10/09/2015

Client Sample ID B17-0.5

Lab ID: 1503387-33

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	ND	5.0	5	B5J0187	10/07/2015	10/09/15 10:31	D5

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:14	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:14	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:14	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:14	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:14	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 18:14	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:14	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:14	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 18:14	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 18:14	
Surrogate: Decachlorobiphenyl	79.0 %	16 - 137		B5J0177	10/07/2015	10/07/15 18:14	
Surrogate: Tetrachloro-m-xylene	79.6 %	16 - 105		B5J0177	10/07/2015	10/07/15 18:14	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C

Report To : Elizabeth Miller

Reported : 10/09/2015

Client Sample ID B18-0.5

Lab ID: 1503387-35

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.1	1.0	1	B5J0187	10/07/2015	10/08/15 17:20	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:24	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:24	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:24	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:24	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:24	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 18:24	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:24	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:24	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 18:24	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 18:24	
Surrogate: Decachlorobiphenyl	81.8 %	16 - 137		B5J0177	10/07/2015	10/07/15 18:24	
Surrogate: Tetrachloro-m-xylene	82.1 %	16 - 105		B5J0177	10/07/2015	10/07/15 18:24	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B19-0.5

Lab ID: 1503387-37

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.2	1.0	1	B5J0187	10/07/2015	10/08/15 17:23	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:34	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:34	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:34	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:34	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:34	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 18:34	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:34	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:34	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 18:34	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 18:34	
Surrogate: Decachlorobiphenyl	77.2 %	16 - 137		B5J0177	10/07/2015	10/07/15 18:34	
Surrogate: Tetrachloro-m-xylene	75.8 %	16 - 105		B5J0177	10/07/2015	10/07/15 18:34	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B20-0.5

Lab ID: 1503387-39

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.1	1.0	1	B5J0187	10/07/2015	10/08/15 17:27	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:45	
4,4'-DDE	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:45	
4,4'-DDT	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Aldrin	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:45	
alpha-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:45	
alpha-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:45	
beta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Chlordane	ND	8.5	1	B5J0177	10/07/2015	10/07/15 18:45	
delta-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Dieldrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Endosulfan I	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Endosulfan II	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Endosulfan sulfate	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Endrin	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Endrin aldehyde	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Endrin ketone	ND	2.0	1	B5J0177	10/07/2015	10/07/15 18:45	
gamma-BHC	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:45	
gamma-Chlordane	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Heptachlor	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Heptachlor epoxide	ND	1.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Methoxychlor	ND	5.0	1	B5J0177	10/07/2015	10/07/15 18:45	
Toxaphene	ND	50	1	B5J0177	10/07/2015	10/07/15 18:45	
Surrogate: Decachlorobiphenyl	73.6 %	16 - 137		B5J0177	10/07/2015	10/07/15 18:45	
Surrogate: Tetrachloro-m-xylene	74.7 %	16 - 105		B5J0177	10/07/2015	10/07/15 18:45	



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Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Client Sample ID B21-0.5

Lab ID: 1503387-41

Total Metals by ICP-AES EPA 6010B

Analyst: RR

Analyte	Result (mg/kg)	PQL (mg/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Arsenic	1.9	1.0	1	B5J0188	10/07/2015	10/08/15 17:39	

Organochlorine Pesticides by EPA 8081

Analyst: CL

Analyte	Result (ug/kg)	PQL (ug/kg)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
4,4'-DDD	ND	2.0	1	B5J0211	10/08/2015	10/09/15 10:10	
4,4'-DDE	ND	2.0	1	B5J0211	10/08/2015	10/09/15 10:10	
4,4'-DDT	ND	2.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Aldrin	ND	1.0	1	B5J0211	10/08/2015	10/09/15 10:10	
alpha-BHC	ND	1.0	1	B5J0211	10/08/2015	10/09/15 10:10	
alpha-Chlordane	ND	1.0	1	B5J0211	10/08/2015	10/09/15 10:10	
beta-BHC	ND	1.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Chlordane	ND	8.5	1	B5J0211	10/08/2015	10/09/15 10:10	
delta-BHC	ND	1.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Dieldrin	ND	2.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Endosulfan I	ND	1.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Endosulfan II	ND	2.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Endosulfan sulfate	ND	2.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Endrin	ND	2.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Endrin aldehyde	ND	2.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Endrin ketone	ND	2.0	1	B5J0211	10/08/2015	10/09/15 10:10	
gamma-BHC	ND	1.0	1	B5J0211	10/08/2015	10/09/15 10:10	
gamma-Chlordane	ND	1.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Heptachlor	ND	1.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Heptachlor epoxide	ND	1.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Methoxychlor	ND	5.0	1	B5J0211	10/08/2015	10/09/15 10:10	
Toxaphene	ND	50	1	B5J0211	10/08/2015	10/09/15 10:10	
Surrogate: Decachlorobiphenyl	87.7 %	16 - 137		B5J0211	10/08/2015	10/09/15 10:10	
Surrogate: Tetrachloro-m-xylene	80.2 %	16 - 105		B5J0211	10/08/2015	10/09/15 10:10	



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Project Number : Harmony Grove Village South, 9412-06-C

Report To : Elizabeth Miller

Reported : 10/09/2015

QUALITY CONTROL SECTION

Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5J0187 - EPA 3050B_S									
Blank (B5J0187-BLK1)				Prepared: 10/7/2015 Analyzed: 10/8/2015					
Arsenic	ND	1.0			NR				
LCS (B5J0187-BS1)				Prepared: 10/7/2015 Analyzed: 10/8/2015					
Arsenic	45.4762	1.0	50.0000		91.0	80 - 120			
Matrix Spike (B5J0187-MS1)				Source: 1503387-01 Prepared: 10/7/2015 Analyzed: 10/8/2015					
Arsenic	107.983	1.0	125.000	1.90094	84.9	57 - 109			
Matrix Spike Dup (B5J0187-MSD1)				Source: 1503387-01 Prepared: 10/7/2015 Analyzed: 10/8/2015					
Arsenic	108.301	1.0	125.000	1.90094	85.1	57 - 109	0.295	20	



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Total Metals by ICP-AES EPA 6010B - Quality Control

Analyte	Result (mg/kg)	PQL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5J0188 - EPA 3050B_S									
Blank (B5J0188-BLK1)				Prepared: 10/7/2015 Analyzed: 10/8/2015					
Arsenic	ND	1.0		NR					
LCS (B5J0188-BS1)				Prepared: 10/7/2015 Analyzed: 10/8/2015					
Arsenic	44.1065	1.0	50.0000		88.2	80 - 120			
Matrix Spike (B5J0188-MS1)				Source: 1503387-41 Prepared: 10/7/2015 Analyzed: 10/8/2015					
Arsenic	101.312	1.0	125.000	1.85257	79.6	57 - 109			
Matrix Spike Dup (B5J0188-MSD1)				Source: 1503387-41 Prepared: 10/7/2015 Analyzed: 10/8/2015					
Arsenic	99.9556	1.0	125.000	1.85257	78.5	57 - 109	1.35	20	



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD Limit	Notes
Batch B5J0177 - GCSEMI_PCB/PEST_S							
Blank (B5J0177-BLK1)				Prepared: 10/7/2015 Analyzed: 10/7/2015			
4,4'-DDD	ND	2.0			NR		
4,4'-DDD [2C]	ND	2.0			NR		
4,4'-DDE	ND	2.0			NR		
4,4'-DDE [2C]	ND	2.0			NR		
4,4'-DDT	ND	2.0			NR		
4,4'-DDT [2C]	ND	2.0			NR		
Aldrin	ND	1.0			NR		
Aldrin [2C]	ND	1.0			NR		
alpha-BHC	ND	1.0			NR		
alpha-BHC [2C]	ND	1.0			NR		
alpha-Chlordane	ND	1.0			NR		
alpha-Chlordane [2C]	ND	1.0			NR		
beta-BHC	ND	1.0			NR		
beta-BHC [2C]	ND	1.0			NR		
Chlordane	ND	8.5			NR		
Chlordane [2C]	ND	8.5			NR		
delta-BHC	ND	1.0			NR		
delta-BHC [2C]	ND	1.0			NR		
Dieldrin	ND	2.0			NR		
Dieldrin [2C]	ND	2.0			NR		
Endosulfan I	ND	1.0			NR		
Endosulfan I [2C]	ND	1.0			NR		
Endosulfan II	ND	2.0			NR		
Endosulfan II [2C]	ND	2.0			NR		
Endosulfan sulfate	ND	2.0			NR		
Endosulfan Sulfate [2C]	ND	2.0			NR		
Endrin	ND	2.0			NR		
Endrin [2C]	ND	2.0			NR		
Endrin aldehyde	ND	2.0			NR		
Endrin aldehyde [2C]	ND	2.0			NR		
Endrin ketone	ND	2.0			NR		
Endrin ketone [2C]	ND	2.0			NR		
gamma-BHC	ND	1.0			NR		
gamma-BHC [2C]	ND	1.0			NR		
gamma-Chlordane	ND	1.0			NR		
gamma-Chlordane [2C]	ND	1.0			NR		
Heptachlor	ND	1.0			NR		
Heptachlor [2C]	ND	1.0			NR		
Heptachlor epoxide	ND	1.0			NR		
Heptachlor epoxide [2C]	ND	1.0			NR		
Methoxychlor	ND	5.0			NR		



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Project Number : Harmony Grove Village South, 9412-06-C
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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD RPD	RPD Limit	Notes
Batch B5J0177 - GCSEMI_PCB/PEST_S (continued)								
Blank (B5J0177-BLK1) - Continued				Prepared: 10/7/2015 Analyzed: 10/7/2015				
Methoxychlor [2C]	ND	5.0			NR			
Toxaphene	ND	50			NR			
Toxaphene [2C]	ND	50			NR			
Surrogate: Decachlorobiphenyl	12.23		16.6667		73.4	16 - 137		
Surrogate: Decachlorobiphenyl [2C]	10.50		16.6667		63.0	16 - 137		
Surrogate: Tetrachloro-w-xylene	12.78		16.6667		76.7	16 - 105		
Surrogate: Tetrachloro-w-xylene [2C]	14.16		16.6667		84.9	16 - 105		
LCS (B5J0177-BS1)				Prepared: 10/7/2015 Analyzed: 10/7/2015				
4,4'-DDD	12.0505	2.0	16.6667		72.3	58 - 100		
4,4'-DDD [2C]	12.9880	2.0	16.6667		77.9	58 - 100		
4,4'-DDE	12.4945	2.0	16.6667		75.0	65 - 99		
4,4'-DDE [2C]	14.0910	2.0	16.6667		84.5	65 - 99		
4,4'-DDT	11.1905	2.0	16.6667		67.1	39 - 116		
4,4'-DDT [2C]	9.14517	2.0	16.6667		54.9	39 - 116		
Aldrin	12.3852	1.0	16.6667		74.3	57 - 94		
Aldrin [2C]	14.2478	1.0	16.6667		85.5	57 - 94		
alpha-BHC	12.9983	1.0	16.6667		78.0	58 - 84		
alpha-BHC [2C]	14.6360	1.0	16.6667		87.8	58 - 84		L3
alpha-Chlordane	11.9005	1.0	16.6667		71.4	58 - 96		
alpha-Chlordane [2C]	13.4073	1.0	16.6667		80.4	58 - 96		
beta-BHC	12.2537	1.0	16.6667		73.5	58 - 87		
beta-BHC [2C]	13.6552	1.0	16.6667		81.9	58 - 87		
delta-BHC	13.0487	1.0	16.6667		78.3	18 - 75		L3
delta-BHC [2C]	15.4177	1.0	16.6667		92.5	18 - 75		L3
Dieldrin	11.7100	2.0	16.6667		70.3	62 - 94		
Dieldrin [2C]	12.7577	2.0	16.6667		76.5	62 - 94		
Endosulfan I	11.2007	1.0	16.6667		67.2	58 - 90		
Endosulfan I [2C]	12.5285	1.0	16.6667		75.2	58 - 90		
Endosulfan II	11.5638	2.0	16.6667		69.4	63 - 95		
Endosulfan II [2C]	12.3180	2.0	16.6667		73.9	63 - 95		
Endosulfan sulfate	12.3890	2.0	16.6667		74.3	59 - 89		
Endosulfan Sulfate [2C]	13.1937	2.0	16.6667		79.2	59 - 89		
Endrin	11.9493	2.0	16.6667		71.7	64 - 96		
Endrin [2C]	12.8440	2.0	16.6667		77.1	64 - 96		
Endrin aldehyde	11.8147	2.0	16.6667		70.9	65 - 95		
Endrin aldehyde [2C]	13.1052	2.0	16.6667		78.6	65 - 95		
Endrin ketone	13.1532	2.0	16.6667		78.9	59 - 101		
Endrin ketone [2C]	12.4438	2.0	16.6667		74.7	59 - 101		
gamma-BHC	13.1510	1.0	16.6667		78.9	63 - 89		
gamma-BHC [2C]	14.5158	1.0	16.6667		87.1	63 - 89		



Certificate of Analysis

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Report To : Elizabeth Miller

Reported : 10/09/2015

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
Batch B5J0177 - GCSEMI_PCB/PEST_S (continued)								
LCS (B5J0177-BS1) - Continued				Prepared: 10/7/2015 Analyzed: 10/7/2015				
gamma-Chlordane	12.1113	1.0	16.6667		72.7	61 - 95		
gamma-Chlordane [2C]	13.4493	1.0	16.6667		80.7	61 - 95		
Heptachlor	12.4455	1.0	16.6667		74.7	65 - 102		
Heptachlor [2C]	13.4853	1.0	16.6667		80.9	65 - 102		
Heptachlor epoxide	12.1810	1.0	16.6667		73.1	61 - 95		
Heptachlor epoxide [2C]	13.6350	1.0	16.6667		81.8	61 - 95		
Methoxychlor	10.8788	5.0	16.6667		65.3	29 - 128		
Methoxychlor [2C]	7.79017	5.0	16.6667		46.7	29 - 128		
Surrogate: Decachlorobiphenyl	12.26		16.6667		73.5	16 - 137		
Surrogate: Decachlorobiphenyl [2C]	10.52		16.6667		63.1	16 - 137		
Surrogate: Tetrachloro-m-xylene	12.91		16.6667		77.5	16 - 105		
Surrogate: Tetrachloro-m-xylene [2C]	14.52		16.6667		87.1	16 - 105		
Matrix Spike (B5J0177-MS1)				Source: 1503387-05	Prepared: 10/7/2015 Analyzed: 10/7/2015			
4,4'-DDD	9.28250	2.0	16.6667	ND	55.7	27 - 123		
4,4'-DDD [2C]	10.0128	2.0	16.6667	ND	60.1	27 - 123		
4,4'-DDE	8.90967	2.0	16.6667	ND	53.5	28 - 126		
4,4'-DDE [2C]	9.91783	2.0	16.6667	ND	59.5	28 - 126		
4,4'-DDT	8.89017	2.0	16.6667	ND	53.3	12 - 149		
4,4'-DDT [2C]	8.08850	2.0	16.6667	ND	48.5	12 - 149		
Aldrin	8.49083	1.0	16.6667	ND	50.9	29 - 116		
Aldrin [2C]	9.32967	1.0	16.6667	ND	56.0	29 - 116		
alpha-BHC	11.6815	1.0	16.6667	ND	70.1	27 - 104		
alpha-BHC [2C]	13.1720	1.0	16.6667	ND	79.0	27 - 104		
alpha-Chlordane	8.93833	1.0	16.6667	ND	53.6	14 - 130		
alpha-Chlordane [2C]	9.96617	1.0	16.6667	ND	59.8	14 - 130		
beta-BHC	12.0515	1.0	16.6667	ND	72.3	20 - 115		
beta-BHC [2C]	13.6323	1.0	16.6667	ND	81.8	20 - 115		
delta-BHC	13.1690	1.0	16.6667	ND	79.0	8 - 78		M7
delta-BHC [2C]	15.4170	1.0	16.6667	ND	92.5	8 - 78		M7
Dieldrin	9.20950	2.0	16.6667	ND	55.3	20 - 134		
Dieldrin [2C]	9.92250	2.0	16.6667	ND	59.5	20 - 134		
Endosulfan I	8.80617	1.0	16.6667	ND	52.8	27 - 114		
Endosulfan I [2C]	9.77117	1.0	16.6667	ND	58.6	27 - 114		
Endosulfan II	9.86267	2.0	16.6667	ND	59.2	16 - 125		
Endosulfan II [2C]	10.1702	2.0	16.6667	ND	61.0	16 - 125		
Endosulfan sulfate	10.5063	2.0	16.6667	ND	63.0	1 - 126		
Endosulfan Sulfate [2C]	10.9725	2.0	16.6667	ND	65.8	1 - 126		
Endrin	9.53083	2.0	16.6667	ND	57.2	33 - 122		
Endrin [2C]	10.2607	2.0	16.6667	ND	61.6	33 - 122		
Endrin aldehyde	10.6968	2.0	16.6667	ND	64.2	0 - 137		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5J0177 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike (B5J0177-MS1) - Continued		Source: 1503387-05		Prepared: 10/7/2015 Analyzed: 10/7/2015					
Endrin aldehyde [2C]	11.7078	2.0	16.6667	ND	70.2	0 - 137			
Endrin ketone	11.3115	2.0	16.6667	ND	67.9	10 - 126			
Endrin ketone [2C]	10.4085	2.0	16.6667	ND	62.5	10 - 126			
gamma-BHC	12.2880	1.0	16.6667	ND	73.7	30 - 111			
gamma-BHC [2C]	13.6092	1.0	16.6667	ND	81.7	30 - 111			
gamma-Chlordane	8.98200	1.0	16.6667	ND	53.9	16 - 130			
gamma-Chlordane [2C]	9.98483	1.0	16.6667	ND	59.9	16 - 130			
Heptachlor	9.25483	1.0	16.6667	ND	55.5	34 - 127			
Heptachlor [2C]	10.1700	1.0	16.6667	ND	61.0	34 - 127			
Heptachlor epoxide	9.74767	1.0	16.6667	ND	58.5	19 - 130			
Heptachlor epoxide [2C]	10.5552	1.0	16.6667	ND	63.3	19 - 130			
Methoxychlor	8.54650	5.0	16.6667	ND	51.3	16 - 153			
Methoxychlor [2C]	7.64150	5.0	16.6667	ND	45.8	16 - 153			
Surrogate: Decachlorobiphenyl	8.489		16.6667		50.9	16 - 137			
Surrogate: Decachlorobiphenyl [2C]	7.172		16.6667		43.0	16 - 137			
Surrogate: Tetrachloro-m-xylene	9.133		16.6667		54.9	16 - 105			
Surrogate: Tetrachloro-m-xylene [2C]	10.28		16.6667		61.7	16 - 105			
Matrix Spike Dup (B5J0177-MSD1)		Source: 1503387-05		Prepared: 10/7/2015 Analyzed: 10/7/2015					
4,4'-DDD	9.50267	2.0	16.6667	ND	57.0	27 - 123	2.34	20	
4,4'-DDD [2C]	10.1732	2.0	16.6667	ND	61.0	27 - 123	1.59	20	
4,4'-DDE	9.34633	2.0	16.6667	ND	56.1	28 - 126	4.78	20	
4,4'-DDE [2C]	10.4033	2.0	16.6667	ND	62.4	28 - 126	4.78	20	
4,4'-DDT	8.58000	2.0	16.6667	ND	51.5	12 - 149	3.55	20	
4,4'-DDT [2C]	7.42550	2.0	16.6667	ND	44.6	12 - 149	8.55	20	
Aldrin	9.11300	1.0	16.6667	ND	54.7	29 - 116	7.07	20	
Aldrin [2C]	10.2798	1.0	16.6667	ND	61.7	29 - 116	9.69	20	
alpha-BHC	12.3500	1.0	16.6667	ND	74.1	27 - 104	5.56	20	
alpha-BHC [2C]	13.8138	1.0	16.6667	ND	82.9	27 - 104	4.76	20	
alpha-Chlordane	9.40950	1.0	16.6667	ND	56.5	14 - 130	5.14	20	
alpha-Chlordane [2C]	10.4483	1.0	16.6667	ND	62.7	14 - 130	4.72	20	
beta-BHC	12.1997	1.0	16.6667	ND	73.2	20 - 115	1.22	20	
beta-BHC [2C]	13.7653	1.0	16.6667	ND	82.6	20 - 115	0.971	20	
delta-BHC	13.1115	1.0	16.6667	ND	78.7	8 - 78	0.438	20	M7
delta-BHC [2C]	15.4370	1.0	16.6667	ND	92.6	8 - 78	0.130	20	M7
Dieldrin	9.57183	2.0	16.6667	ND	57.4	20 - 134	3.86	20	
Dieldrin [2C]	10.3465	2.0	16.6667	ND	62.1	20 - 134	4.18	20	
Endosulfan I	9.27467	1.0	16.6667	ND	55.6	27 - 114	5.18	20	
Endosulfan I [2C]	10.2595	1.0	16.6667	ND	61.6	27 - 114	4.88	20	
Endosulfan II	10.0700	2.0	16.6667	ND	60.4	16 - 125	2.08	20	
Endosulfan II [2C]	10.5983	2.0	16.6667	ND	63.6	16 - 125	4.12	20	



Certificate of Analysis

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6960 Flanders Drive
San Diego, CA 92121

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Report To : Elizabeth Miller

Reported : 10/09/2015

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5J0177 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B5J0177-MSD1) - Continued				Source: 1503387-05		Prepared: 10/7/2015 Analyzed: 10/7/2015			
Endosulfan sulfate	11.0797	2.0	16.6667	ND	66.5	1 - 126	5.31	20	
Endosulfan Sulfate [2C]	11.7578	2.0	16.6667	ND	70.5	1 - 126	6.91	20	
Endrin	9.86383	2.0	16.6667	ND	59.2	33 - 122	3.43	20	
Endrin [2C]	10.5795	2.0	16.6667	ND	63.5	33 - 122	3.06	20	
Endrin aldehyde	11.0833	2.0	16.6667	ND	66.5	0 - 137	3.55	20	
Endrin aldehyde [2C]	12.0900	2.0	16.6667	ND	72.5	0 - 137	3.21	20	
Endrin ketone	11.6045	2.0	16.6667	ND	69.6	10 - 126	2.56	20	
Endrin ketone [2C]	11.2163	2.0	16.6667	ND	67.3	10 - 126	7.47	20	
gamma-BHC	12.6475	1.0	16.6667	ND	75.9	30 - 111	2.88	20	
gamma-BHC [2C]	13.9607	1.0	16.6667	ND	83.8	30 - 111	2.55	20	
gamma-Chlordane	9.51900	1.0	16.6667	ND	57.1	16 - 130	5.81	20	
gamma-Chlordane [2C]	10.5385	1.0	16.6667	ND	63.2	16 - 130	5.40	20	
Heptachlor	9.76933	1.0	16.6667	ND	58.6	34 - 127	5.41	20	
Heptachlor [2C]	10.6293	1.0	16.6667	ND	63.8	34 - 127	4.42	20	
Heptachlor epoxide	10.1645	1.0	16.6667	ND	61.0	19 - 130	4.19	20	
Heptachlor epoxide [2C]	11.2045	1.0	16.6667	ND	67.2	19 - 130	5.97	20	
Methoxychlor	8.31700	5.0	16.6667	ND	49.9	16 - 153	2.72	20	
Methoxychlor [2C]	6.12933	5.0	16.6667	ND	36.8	16 - 153	22.0	20	R
Surrogate: Decachlorobiphenyl	8.982		16.6667		53.9	16 - 137			
Surrogate: Decachlorobiphenyl [2C]	7.800		16.6667		46.8	16 - 137			
Surrogate: Tetrachloro-m-xylene	9.907		16.6667		59.4	16 - 105			
Surrogate: Tetrachloro-m-xylene [2C]	11.08		16.6667		66.5	16 - 105			



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Organochlorine Pesticides by EPA 8081 - Quality Control

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD RPD	RPD Limit	Notes
Batch B5J0211 - GCSEMI_PCB/PEST_S								
Blank (B5J0211-BLK1)				Prepared: 10/8/2015 Analyzed: 10/9/2015				
4,4'-DDD	ND	2.0			NR			
4,4'-DDD [2C]	ND	2.0			NR			
4,4'-DDE	ND	2.0			NR			
4,4'-DDE [2C]	ND	2.0			NR			
4,4'-DDT	ND	2.0			NR			
4,4'-DDT [2C]	ND	2.0			NR			
Aldrin	ND	1.0			NR			
Aldrin [2C]	ND	1.0			NR			
alpha-BHC	ND	1.0			NR			
alpha-BHC [2C]	ND	1.0			NR			
alpha-Chlordane	ND	1.0			NR			
alpha-Chlordane [2C]	ND	1.0			NR			
beta-BHC	ND	1.0			NR			
beta-BHC [2C]	ND	1.0			NR			
Chlordane	ND	8.5			NR			
Chlordane [2C]	ND	8.5			NR			
delta-BHC	ND	1.0			NR			
delta-BHC [2C]	ND	1.0			NR			
Dieldrin	ND	2.0			NR			
Dieldrin [2C]	ND	2.0			NR			
Endosulfan I	ND	1.0			NR			
Endosulfan I [2C]	ND	1.0			NR			
Endosulfan II	ND	2.0			NR			
Endosulfan II [2C]	ND	2.0			NR			
Endosulfan sulfate	ND	2.0			NR			
Endosulfan Sulfate [2C]	ND	2.0			NR			
Endrin	ND	2.0			NR			
Endrin [2C]	ND	2.0			NR			
Endrin aldehyde	ND	2.0			NR			
Endrin aldehyde [2C]	ND	2.0			NR			
Endrin ketone	ND	2.0			NR			
Endrin ketone [2C]	ND	2.0			NR			
gamma-BHC	ND	1.0			NR			
gamma-BHC [2C]	ND	1.0			NR			
gamma-Chlordane	ND	1.0			NR			
gamma-Chlordane [2C]	ND	1.0			NR			
Heptachlor	ND	1.0			NR			
Heptachlor [2C]	ND	1.0			NR			
Heptachlor epoxide	ND	1.0			NR			
Heptachlor epoxide [2C]	ND	1.0			NR			
Methoxychlor	ND	5.0			NR			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD	RPD Limit	Notes
Batch B5J0211 - GCSEMI_PCB/PEST_S (continued)								
Blank (B5J0211-BLK1) - Continued				Prepared: 10/8/2015 Analyzed: 10/9/2015				
Methoxychlor [2C]	ND	5.0			NR			
Toxaphene	ND	50			NR			
Toxaphene [2C]	ND	50			NR			
Surrogate: Decachlorobiphenyl	15.10		16.6667		90.6	16 - 137		
Surrogate: Decachlorobiphenyl [2C]	13.09		16.6667		78.5	16 - 137		
Surrogate: Tetrachloro-m-xylene	14.10		16.6667		84.6	16 - 105		
Surrogate: Tetrachloro-m-xylene [2C]	13.56		16.6667		81.3	16 - 105		
LCS (B5J0211-BS1)				Prepared: 10/8/2015 Analyzed: 10/9/2015				
4,4'-DDD	15.2445	2.0	16.6667		91.5	58 - 100		
4,4'-DDD [2C]	13.9405	2.0	16.6667		83.6	58 - 100		
4,4'-DDE	16.0488	2.0	16.6667		96.3	65 - 99		
4,4'-DDE [2C]	14.6703	2.0	16.6667		88.0	65 - 99		
4,4'-DDT	14.9777	2.0	16.6667		89.9	39 - 116		
4,4'-DDT [2C]	12.2370	2.0	16.6667		73.4	39 - 116		
Aldrin	14.8965	1.0	16.6667		89.4	57 - 94		
Aldrin [2C]	14.3182	1.0	16.6667		85.9	57 - 94		
alpha-BHC	13.8955	1.0	16.6667		83.4	58 - 84		
alpha-BHC [2C]	13.6848	1.0	16.6667		82.1	58 - 84		
alpha-Chlordane	15.3258	1.0	16.6667		92.0	58 - 96		
alpha-Chlordane [2C]	14.5482	1.0	16.6667		87.3	58 - 96		
beta-BHC	13.7703	1.0	16.6667		82.6	58 - 87		
beta-BHC [2C]	13.5632	1.0	16.6667		81.4	58 - 87		
delta-BHC	14.6052	1.0	16.6667		87.6	18 - 75		L3
delta-BHC [2C]	14.3170	1.0	16.6667		85.9	18 - 75		L3
Dieldrin	15.7950	2.0	16.6667		94.8	62 - 94		L3
Dieldrin [2C]	14.3442	2.0	16.6667		86.1	62 - 94		
Endosulfan I	14.7443	1.0	16.6667		88.5	58 - 90		
Endosulfan I [2C]	13.8208	1.0	16.6667		82.9	58 - 90		
Endosulfan II	15.5343	2.0	16.6667		93.2	63 - 95		
Endosulfan II [2C]	14.4023	2.0	16.6667		86.4	63 - 95		
Endosulfan sulfate	17.3488	2.0	16.6667		104	59 - 89		L3
Endosulfan Sulfate [2C]	14.7455	2.0	16.6667		88.5	59 - 89		
Endrin	15.7538	2.0	16.6667		94.5	64 - 96		
Endrin [2C]	14.5993	2.0	16.6667		87.6	64 - 96		
Endrin aldehyde	17.5317	2.0	16.6667		105	65 - 95		L3
Endrin aldehyde [2C]	13.9527	2.0	16.6667		83.7	65 - 95		
Endrin ketone	17.4383	2.0	16.6667		105	59 - 101		L3
Endrin ketone [2C]	13.9535	2.0	16.6667		83.7	59 - 101		
gamma-BHC	14.4757	1.0	16.6667		86.9	63 - 89		
gamma-BHC [2C]	14.5253	1.0	16.6667		87.2	63 - 89		



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec Limits	RPD RPD	RPD Limit	Notes
Batch B5J0211 - GCSEMI_PCB/PEST_S (continued)								
LCS (B5J0211-BSI) - Continued				Prepared: 10/8/2015 Analyzed: 10/9/2015				
gamma-Chlordane	15.6078	1.0	16.6667		93.6	61 - 95		
gamma-Chlordane [2C]	14.3853	1.0	16.6667		86.3	61 - 95		
Heptachlor	14.7343	1.0	16.6667		88.4	65 - 102		
Heptachlor [2C]	14.6747	1.0	16.6667		88.0	65 - 102		
Heptachlor epoxide	15.2543	1.0	16.6667		91.5	61 - 95		
Heptachlor epoxide [2C]	14.6288	1.0	16.6667		87.8	61 - 95		
Methoxychlor	14.5598	5.0	16.6667		87.4	29 - 128		
Methoxychlor [2C]	12.4020	5.0	16.6667		74.4	29 - 128		
Surrogate: Decachlorobiphenyl	13.09		16.6667		78.5	16 - 137		
Surrogate: Decachlorobiphenyl [2C]	10.98		16.6667		65.9	16 - 137		
Surrogate: Tetrachloro-m-xylene	13.47		16.6667		80.8	16 - 105		
Surrogate: Tetrachloro-m-xylene [2C]	12.52		16.6667		75.1	16 - 105		
Duplicate (B5J0211-DUP1)				Source: 1503436-01	Prepared: 10/8/2015 Analyzed: 10/9/2015			
4,4'-DDD	ND	2.0		ND	NR		20	
4,4'-DDD [2C]	ND	2.0		ND	NR		20	
4,4'-DDE	ND	2.0		ND	NR		20	
4,4'-DDE [2C]	ND	2.0		ND	NR		20	
4,4'-DDT	ND	2.0		ND	NR		20	
4,4'-DDT [2C]	ND	2.0		ND	NR		20	
Aldrin	ND	1.0		ND	NR		20	
Aldrin [2C]	ND	1.0		ND	NR		20	
alpha-BHC	ND	1.0		ND	NR		20	
alpha-BHC [2C]	ND	1.0		ND	NR		20	
alpha-Chlordane	ND	1.0		ND	NR		20	
alpha-Chlordane [2C]	ND	1.0		ND	NR		20	
beta-BHC	ND	1.0		ND	NR		20	
beta-BHC [2C]	ND	1.0		ND	NR		20	
delta-BHC	ND	1.0		ND	NR		20	
delta-BHC [2C]	ND	1.0		ND	NR		20	
Dieldrin	ND	2.0		ND	NR		20	
Dieldrin [2C]	ND	2.0		ND	NR		20	
Endosulfan I	ND	1.0		ND	NR		20	
Endosulfan I [2C]	ND	1.0		ND	NR		20	
Endosulfan II	ND	2.0		ND	NR		20	
Endosulfan II [2C]	ND	2.0		ND	NR		20	
Endosulfan sulfate	ND	2.0		ND	NR		20	
Endosulfan Sulfate [2C]	ND	2.0		ND	NR		20	
Endrin	ND	2.0		ND	NR		20	
Endrin [2C]	ND	2.0		ND	NR		20	
Endrin aldehyde	ND	2.0		ND	NR		20	



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5J0211 - GCSEMI_PCB/PEST_S (continued)									
Duplicate (B5J0211-DUP1) - Continued		Source: 1503436-01		Prepared: 10/8/2015 Analyzed: 10/9/2015					
Endrin aldehyde [2C]	ND	2.0		ND	NR			20	
Endrin ketone	ND	2.0		ND	NR			20	
Endrin ketone [2C]	ND	2.0		ND	NR			20	
gamma-BHC	ND	1.0		ND	NR			20	
gamma-BHC [2C]	ND	1.0		ND	NR			20	
gamma-Chlordane	ND	1.0		ND	NR			20	
gamma-Chlordane [2C]	ND	1.0		ND	NR			20	
Heptachlor	ND	1.0		ND	NR			20	
Heptachlor [2C]	ND	1.0		ND	NR			20	
Heptachlor epoxide	ND	1.0		ND	NR			20	
Heptachlor epoxide [2C]	ND	1.0		ND	NR			20	
Methoxychlor	ND	5.0		ND	NR			20	
Methoxychlor [2C]	ND	5.0		ND	NR			20	
Surrogate: Decachlorobiphenyl	25.08		33.3333		75.2	16 - 137			
Surrogate: Decachlorobiphenyl [2C]	21.50		33.3333		64.5	16 - 137			
Surrogate: Tetrachloro-m-xylene	24.60		33.3333		73.8	16 - 103			
Surrogate: Tetrachloro-m-xylene [2C]	23.79		33.3333		71.4	16 - 103			
Matrix Spike (B5J0211-MS1)		Source: 1503436-03		Prepared: 10/8/2015 Analyzed: 10/9/2015					
4,4'-DDD	11.1578	2.0	16.6667	ND	66.9	27 - 123			
4,4'-DDD [2C]	9.99083	2.0	16.6667	ND	59.9	27 - 123			
4,4'-DDE	11.4818	2.0	16.6667	ND	68.9	28 - 126			
4,4'-DDE [2C]	10.1080	2.0	16.6667	ND	60.6	28 - 126			
4,4'-DDT	10.7643	2.0	16.6667	ND	64.6	12 - 149			
4,4'-DDT [2C]	8.63483	2.0	16.6667	ND	51.8	12 - 149			
Aldrin	10.6487	1.0	16.6667	ND	63.9	29 - 116			
Aldrin [2C]	9.70450	1.0	16.6667	ND	58.2	29 - 116			
alpha-BHC	11.8690	1.0	16.6667	ND	71.2	27 - 104			
alpha-BHC [2C]	11.1467	1.0	16.6667	ND	66.9	27 - 104			
alpha-Chlordane	11.4383	1.0	16.6667	ND	68.6	14 - 130			
alpha-Chlordane [2C]	10.1975	1.0	16.6667	ND	61.2	14 - 130			
beta-BHC	12.0897	1.0	16.6667	ND	72.5	20 - 115			
beta-BHC [2C]	11.1273	1.0	16.6667	ND	66.8	20 - 115			
delta-BHC	12.4552	1.0	16.6667	ND	74.7	8 - 78			
delta-BHC [2C]	11.4795	1.0	16.6667	ND	68.9	8 - 78			
Dieldrin	12.1270	2.0	16.6667	ND	72.8	20 - 134			
Dieldrin [2C]	10.1800	2.0	16.6667	ND	61.1	20 - 134			
Endosulfan I	11.4665	1.0	16.6667	ND	68.8	27 - 114			
Endosulfan I [2C]	10.0962	1.0	16.6667	ND	60.6	27 - 114			
Endosulfan II	11.8425	2.0	16.6667	ND	71.1	16 - 125			
Endosulfan II [2C]	10.5613	2.0	16.6667	ND	63.4	16 - 125			



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Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD RPD	RPD Limit	Notes
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Batch B5J0211 - GCSEMI_PCB/PEST_S (continued)

Matrix Spike (B5J0211-MS1) - Continued

Source: 1503436-03

Prepared: 10/8/2015 Analyzed: 10/9/2015

Endosulfan sulfate	10.5362	2.0	16.6667	ND	63.2	1 - 126			
Endosulfan Sulfate [2C]	8.07883	2.0	16.6667	ND	48.5	1 - 126			
Endrin	12.3535	2.0	16.6667	ND	74.1	33 - 122			
Endrin [2C]	10.7183	2.0	16.6667	ND	64.3	33 - 122			
Endrin aldehyde	8.90483	2.0	16.6667	ND	53.4	0 - 137			
Endrin aldehyde [2C]	6.77900	2.0	16.6667	ND	40.7	0 - 137			
Endrin ketone	11.0962	2.0	16.6667	ND	66.6	10 - 126			
Endrin ketone [2C]	8.83350	2.0	16.6667	ND	53.0	10 - 126			
gamma-BHC	12.3952	1.0	16.6667	ND	74.4	30 - 111			
gamma-BHC [2C]	11.8512	1.0	16.6667	ND	71.1	30 - 111			
gamma-Chlordane	11.5038	1.0	16.6667	ND	69.0	16 - 130			
gamma-Chlordane [2C]	10.0578	1.0	16.6667	ND	60.3	16 - 130			
Heptachlor	10.9380	1.0	16.6667	ND	65.6	34 - 127			
Heptachlor [2C]	10.0850	1.0	16.6667	ND	60.5	34 - 127			
Heptachlor epoxide	11.7283	1.0	16.6667	ND	70.4	19 - 130			
Heptachlor epoxide [2C]	10.7312	1.0	16.6667	ND	64.4	19 - 130			
Methoxychlor	11.2308	5.0	16.6667	ND	67.4	16 - 153			
Methoxychlor [2C]	7.71383	5.0	16.6667	ND	46.3	16 - 153			
Surrogate: Decachlorobiphenyl	10.02		16.6667		60.1	16 - 137			
Surrogate: Decachlorobiphenyl [2C]	7.926		16.6667		47.6	16 - 137			
Surrogate: Tetrachloro-m-xylene	9.041		16.6667		54.2	16 - 105			
Surrogate: Tetrachloro-m-xylene [2C]	8.660		16.6667		52.0	16 - 105			

Matrix Spike Dup (B5J0211-MSD1)

Source: 1503436-03

Prepared: 10/8/2015 Analyzed: 10/9/2015

4,4'-DDD	12.8540	2.0	16.6667	ND	77.1	27 - 123	14.1	20	
4,4'-DDD [2C]	12.5418	2.0	16.6667	ND	75.3	27 - 123	22.6	20	R2
4,4'-DDE	13.9667	2.0	16.6667	ND	83.8	28 - 126	19.5	20	
4,4'-DDE [2C]	13.7978	2.0	16.6667	ND	82.8	28 - 126	30.9	20	R2
4,4'-DDT	14.0413	2.0	16.6667	ND	84.2	12 - 149	26.4	20	R2
4,4'-DDT [2C]	11.5353	2.0	16.6667	ND	69.2	12 - 149	28.8	20	R2
Aldrin	13.8758	1.0	16.6667	ND	83.3	29 - 116	26.3	20	R2
Aldrin [2C]	13.1333	1.0	16.6667	ND	78.8	29 - 116	30.0	20	R2
alpha-BHC	13.1953	1.0	16.6667	ND	79.2	27 - 104	10.6	20	
alpha-BHC [2C]	12.3950	1.0	16.6667	ND	74.4	27 - 104	10.6	20	
alpha-Chlordane	13.0675	1.0	16.6667	ND	78.4	14 - 130	13.3	20	
alpha-Chlordane [2C]	13.1912	1.0	16.6667	ND	79.1	14 - 130	25.6	20	R2
beta-BHC	12.5165	1.0	16.6667	ND	75.1	20 - 115	3.47	20	
beta-BHC [2C]	11.8987	1.0	16.6667	ND	71.4	20 - 115	6.70	20	
delta-BHC	12.9203	1.0	16.6667	ND	77.5	8 - 78	3.67	20	
delta-BHC [2C]	12.0905	1.0	16.6667	ND	72.5	8 - 78	5.18	20	
Dieldrin	13.0845	2.0	16.6667	ND	78.5	20 - 134	7.60	20	



Certificate of Analysis

Geocon, Inc.
6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Organochlorine Pesticides by EPA 8081 - Quality Control (cont'd)

Analyte	Result (ug/kg)	PQL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5J0211 - GCSEMI_PCB/PEST_S (continued)									
Matrix Spike Dup (B5J0211-MSD1) - Continued Source: 1503436-03 Prepared: 10/8/2015 Analyzed: 10/9/2015									
Dieldrin [2C]	12.2922	2.0	16.6667	ND	73.8	20 - 134	18.8	20	
Endosulfan I	12.5190	1.0	16.6667	ND	75.1	27 - 114	8.78	20	
Endosulfan I [2C]	12.2640	1.0	16.6667	ND	73.6	27 - 114	19.4	20	
Endosulfan II	12.5883	2.0	16.6667	ND	75.3	16 - 125	6.11	20	
Endosulfan II [2C]	11.9235	2.0	16.6667	ND	71.5	16 - 125	12.1	20	
Endosulfan sulfate	12.2840	2.0	16.6667	ND	73.7	1 - 126	15.3	20	
Endosulfan Sulfate [2C]	9.33583	2.0	16.6667	ND	56.0	1 - 126	14.4	20	
Endrin	13.3202	2.0	16.6667	ND	79.9	33 - 122	7.53	20	
Endrin [2C]	12.9077	2.0	16.6667	ND	77.4	33 - 122	18.5	20	
Endrin aldehyde	9.56700	2.0	16.6667	ND	57.4	0 - 137	7.17	20	
Endrin aldehyde [2C]	7.21600	2.0	16.6667	ND	43.3	0 - 137	6.25	20	
Endrin ketone	12.4093	2.0	16.6667	ND	74.5	10 - 126	11.2	20	
Endrin ketone [2C]	9.94550	2.0	16.6667	ND	59.7	10 - 126	11.8	20	
gamma-BHC	13.5343	1.0	16.6667	ND	81.2	30 - 111	8.79	20	
gamma-BHC [2C]	12.9143	1.0	16.6667	ND	77.5	30 - 111	8.59	20	
gamma-Chlordane	13.4607	1.0	16.6667	ND	80.8	16 - 130	15.7	20	
gamma-Chlordane [2C]	12.7807	1.0	16.6667	ND	76.7	16 - 130	23.8	20	R2
Heptachlor	14.2420	1.0	16.6667	ND	85.5	34 - 127	26.2	20	R2
Heptachlor [2C]	13.3222	1.0	16.6667	ND	79.9	34 - 127	27.7	20	R2
Heptachlor epoxide	13.4010	1.0	16.6667	ND	80.4	19 - 130	13.3	20	
Heptachlor epoxide [2C]	12.8513	1.0	16.6667	ND	77.1	19 - 130	18.0	20	
Methoxychlor	13.6425	5.0	16.6667	ND	81.9	16 - 153	19.4	20	
Methoxychlor [2C]	9.38083	5.0	16.6667	ND	56.3	16 - 153	19.5	20	
Surrogate: Decachlorobiphenyl	12.58		16.6667		75.5	16 - 137			
Surrogate: Decachlorobiphenyl [2C]	10.76		16.6667		64.6	16 - 137			
Surrogate: Tetrachloro-m-xylene	11.38		16.6667		68.3	16 - 105			
Surrogate: Tetrachloro-m-xylene [2C]	11.08		16.6667		66.5	16 - 105			



Certificate of Analysis

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6960 Flanders Drive
San Diego, CA 92121

Project Number : Harmony Grove Village South, 9412-06-C
Report To : Elizabeth Miller
Reported : 10/09/2015

Notes and Definitions

R2	RPD value outside acceptance criteria due to possible matrix interference.
R	RPD value outside acceptance criteria. Calculation is based on raw values.
M7	Matrix spike was high biased. Sample result/s was non-detect (ND) for the target analyte; therefore reanalysis was not necessary.
L3	Laboratory control sample outside in-house established limits but within method criteria.
D5	Sample diluted due to failing internal standard in the original run.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Pg 3 of 5



**Advanced Technology
Laboratories**

3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____

Logged By: _____

Date: _____

Method of Transport

Client ☐
ATL ☒
CA OverN ☐
FEDEX ☐
Other: _____

Sample Condition Upon Receipt

1. CHILLED Y ☒ N ☐ 4. SEALED Y ☐ N ☒
2. HEADSPACE (VOA) Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☐ N ☐
3. CONTAINER INTACT Y ☒ N ☐ 6. PRESERVED Y ☐ N ☒

Client: Geacoin Inc. Address: 6960 Flinders Dr. TEL: 650 558-6900
Attn: Elizabeth Miller City: San Diego State: CA Zip Code: 92121 FAX: ()

Project Name: Harmony Grove Village South Project #: 9412-0604 Sampler: (Printed Name) E. Miller (Signature) Elizabeth Miller
Relinquished by: (Signature and Printed Name) Elizabeth Miller Date: 10/2/15 Time: 1100 Received by: (Signature and Printed Name) Elizabeth Miller Date: 10/2/15 Time: 1100
Relinquished by: (Signature and Printed Name) Elizabeth Miller Date: 10/2/15 Time: 1308 Received by: (Signature and Printed Name) Elizabeth Miller Date: 10/2/15 Time: 1308
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____ Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr / Submitter: E. Miller 10/1
Send Report To: _____
Attn: _____
Co: _____
Address: _____
City: _____ State: _____ Zip: _____
Bill To: _____
Attn: _____
Co: _____
Address: _____
City: _____ State: _____ Zip: _____
Special Instructions/Comments: _____

Sample Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.
Storage Fees (applies when storage is requested):
• Sample : \$2.00 / sample / mo (after 45 days)
• Records : \$1.00 / ATL workorder / mo (after 1 year)

ITEM	LAB USE ONLY:		Sample Description			SPECIFY APPROPRIATE MATRIX										PRESERVATION	REMARKS
	Batch #:	Lab No.	Sample I.D. / Location	Date	Time	SW1A (Perchloride)	SW1B (PCB)	SW1C (Nileal)	SW1D (Nileal)	SW1E (Nileal)	SW1F (Nileal)	SW1G (Nileal)	SW1H (Nileal)	SW1I (Nileal)	SW1J (Nileal)		
		1503387 -21	B11-0.5	10/1	1148	/	/	/	/	/	/	/	/	/	/	E	ITGC
		-22	B11-2.0	10/1	1152	/	/	/	/	/	/	/	/	/	/		
		-23	B12-0.5	10/1	1211	/	/	/	/	/	/	/	/	/	/		
		-24	B12-2.0	10/1	1225	/	/	/	/	/	/	/	/	/	/		
		-25	B13-0.5	10/1	0931	/	/	/	/	/	/	/	/	/	/		
		-26	B13-2.0	10/1	0948	/	/	/	/	/	/	/	/	/	/		
		-27	B14-0.5	10/1	0950	/	/	/	/	/	/	/	/	/	/		
		-28	B14-2.0	10/1	0957	/	/	/	/	/	/	/	/	/	/		
		-29	B15-0.5	10/1	1150	/	/	/	/	/	/	/	/	/	/		
		-30	B15-1.75	10/1	1155	/	/	/	/	/	/	/	/	/	/		

* TAT starts 8 a.m. following day if samples received after 3 p.m.
TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays
Preservatives: H=HCl N=HNO₃ S=H₂SO₄ C=4°C Z=Zn(Ac)₂ O=NaOH T=Na₂S₂O₃
Container Types: T=Tube V=VOA L=Liter P=Pin J=Jar B=Tedlar G=Glass P=Plastic M=Metal

CHAIN OF CUSTODY RECORD

Pg 4 of 5



**Advanced Technology
Laboratories**

3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#: _____	Method of Transport Client ☐ ATL ☒ CA OverN ☐ FEDEX ☐ Other: _____	Sample Condition Upon Receipt 1. CHILLED Y ☒ N ☐ 4. SEALED Y ☐ N ☒ 2. HEADSPACE (VOA) Y ☐ N ☐ 5. # OF SPLS MATCH COC Y ☒ N ☐ 3. CONTAINER INTACT Y ☒ N ☐ 6. PRESERVED Y ☐ N ☒
Logged By: _____ Date: _____		

Client: Geaccon Inc. Address: 6960 Flanders Dr. TEL: (858) 558-6900
Attn: Elizabeth Miller City: San Diego State: CA Zip Code: 92124 FAX: ()

Project Name: Harmony Grove Village South Project #: 9412-06-04 Sampler: (Printed Name) E. Miller (Signature) Elizabeth Miller
Relinquished by: (Signature and Printed Name) Elizabeth Miller Date: 10/2/15 Time: 1100 Received by: (Signature and Printed Name) Proctor Date: 10/2/15 Time: 1100
Relinquished by: (Signature and Printed Name) Proctor Date: 10/2/15 Time: 1308 Received by: (Signature and Printed Name) Proctor Date: 10/2/15 Time: 1308
Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____ Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

I hereby authorize ATL to perform the work indicated below:
Project Mgr./Submitter: Emiller 10/1
Elizabeth Miller (Signature) Date: _____
Send Report To: Attn: _____
City: _____ State: _____ Zip: _____
Bill To: Attn: _____
City: _____ State: _____ Zip: _____
Special Instructions/Comments: _____

Sample/Records - Archival & Disposal
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.
Storage Fees (applies when storage is requested):
• Sample : \$2.00 / sample / mo (after 45 days)
• Records : \$1.00 / ATL workorder / mo (after 1 year)

ITEM	LAB USE ONLY:		Sample Description			SPECIFY APPROPRIATE MATRIX										Container(s)		Logbook					
	Batch #:	Lab No.	Sample I.D. / Location	Date	Time	8011A (Pesticides)	8011B (PCBs)	8011C (VOCs)	8011D (BTEX)	8011E (Total Metals)	8011F (Gases) / 8011G (BTEX)	8011H (DRO)	8011I (TSS / CAM 17 (8010 / 7009))	8011J (SOIL)	8011K (WATER)	8011L (GROUND WATER)	8011M (WASTEWATER)	TAT	#	Type	PRESERVE	OTHER	REMARKS
		1507387 - 31	B16-0.5		1245	/													E	156C			
		- 32	B16-2.0		1255																		
		- 33	B17-0.5		1101	/																	
		- 34	B17-2.0		1109																		
		- 35	B18-0.5		1006	/																	
		- 36	B18-2.0		1015																		
		- 37	B19-0.5		1008	/																	
		- 38	B19-2.0		1022																		
		- 39	B20-0.5		1210	/																	
		- 40	B20-1.75		1230																		

* TAT starts 8 a.m. following day if samples received after 3 p.m.
TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays
Container Types: T=Tube V=VOA L=Liter P=Pin J=Jar B=Tedlar G=Glass P=Plastic M=Metal
Preservatives: H=HCl N=HNO₃ S=H₂SO₄ C=4°C Z=Zn(AC)₂ O=NaOH T=Na₂S₂O₃

NOTIFICATION: White with report Yellow to folder Pink to submitter.

CHAIN OF CUSTODY RECORD

Pg 5 of 5



**Advanced Technology
Laboratories**

3275 Walnut Avenue
Signal Hill, CA 90755
(562) 989-4045 • Fax (562) 989-4040

FOR LABORATORY USE ONLY:

P.O.#:

Logged By:

Date:

Method of Transport

Client ☐

ATL ☒

CA OverN ☐

FEDEX ☐

Other:

Sample Condition Upon Receipt

1. CHILLED Y ☒ N ☐ 4. SEALED Y ☐ N ☒

2. HEADSPACE (VOA) Y ☐ N ☐ 5. # OF SPLS MATCH DOC Y ☒ N ☐

3. CONTAINER INTACT Y ☒ N ☐ 6. PRESERVED Y ☐ N ☒

Client: Geocon Inc.
Attn: Elizabeth Miller

Address: 69100 Flanders Dr.
City: San Diego State: CA Zip Code: 92121

TEL: (858) 558-6900
FAX: ()

Project Name: Flammy Grove Village South Project #: 9412-06-04 Sampler: E Miller Elizabeth Miller

Relinquished by: Elizabeth Miller Date: 10/2/15 Time: 1100 Received by: Frank P Date: 10/2/15 Time: 1100

Relinquished by: Frank P Date: 10/2/15 Time: 1308 Received by: Frank P Date: 10/2/15 Time: 1308

Relinquished by: Frank P Date: 10/2/15 Time: 1308 Received by: Frank P Date: 10/2/15 Time: 1308

I hereby authorize ATL to perform the work indicated below:

Project Mgr./Submitter:
E Miller 10/1
Elizabeth Miller

Send Report To:

Attn:

Co:

Address:

City:

State:

Zip:

Bill To:

Attn:

Co:

Address:

City:

State:

Zip:

Special Instructions/Comments:

Sample/Records - Archival & Disposal

Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

Storage Fees (applies when storage is requested):

- Sample : \$2.00 / sample / mo (after 45 days)
- Records : \$1.00 / ATL workorder / mo (after 1 year)

Circle or Add
Analysis(es)
Requested

801A (Pesticides)
802 (PCB)
803 (Niletoes)
804 (BVA)
805 (Total Metals)
806 (Cadmium)
807 (Lead)
808 (Mercury)
809 (Copper)
810 (Zinc)
811 (Manganese)
812 (Nickel)
813 (Selenium)
814 (Silver)
815 (Vanadium)
816 (Molybdenum)
817 (Cobalt)
818 (Chromium)
819 (Iron)
820 (Aluminum)
821 (Calcium)
822 (Magnesium)
823 (Sulfur)
824 (Phosphorus)
825 (Carbon)
826 (Nitrogen)
827 (Oxygen)
828 (Hydrogen)
829 (Chlorine)
830 (Fluorine)
831 (Bromine)
832 (Iodine)
833 (Selenium)
834 (Tellurium)
835 (Antimony)
836 (Bismuth)
837 (Copper)
838 (Zinc)
839 (Nickel)
840 (Cadmium)
841 (Lead)
842 (Mercury)
843 (Silver)
844 (Gold)
845 (Platinum)
846 (Palladium)
847 (Rhodium)
848 (Ruthenium)
849 (Iridium)
850 (Osmium)
851 (Iridium)
852 (Ruthenium)
853 (Rhodium)
854 (Palladium)
855 (Platinum)
856 (Gold)
857 (Silver)
858 (Copper)
859 (Zinc)
860 (Nickel)
861 (Cadmium)
862 (Lead)
863 (Mercury)
864 (Bismuth)
865 (Antimony)
866 (Tellurium)
867 (Selenium)
868 (Manganese)
869 (Cobalt)
870 (Chromium)
871 (Iron)
872 (Aluminum)
873 (Calcium)
874 (Magnesium)
875 (Sulfur)
876 (Phosphorus)
877 (Carbon)
878 (Nitrogen)
879 (Oxygen)
880 (Hydrogen)
881 (Chlorine)
882 (Fluorine)
883 (Bromine)
884 (Iodine)
885 (Selenium)
886 (Tellurium)
887 (Antimony)
888 (Bismuth)
889 (Copper)
890 (Zinc)
891 (Nickel)
892 (Cadmium)
893 (Lead)
894 (Mercury)
895 (Silver)
896 (Gold)
897 (Platinum)
898 (Palladium)
899 (Rhodium)
900 (Ruthenium)

SPECIFY APPROPRIATE MATRIX

SOIL
WATER
GROUND WATER
WASTEWATER

Container(s)

TAT # Type

E 1 JGC

1 JGC

QA/QC

RTNE ☐
CT ☐

SWRCB ☐
Logcode

OTHER

REMARKS

ITEM	LAB USE ONLY:		Sample Description		
	Batch #:	Lab No.	Sample I.D. / Location	Date	Time
	1503387 - 41		B21-0.5	10/1	1038
	1 - 41		B21-0.75	10/1	1050

Container(s)	TAT	#	Type	PRESERVATION	REMARKS
E	1	JGC			
1	JGC				

* TAT starts 8 a.m. following day if samples received after 3 p.m.

TAT: A= Overnight ≤ 24 hr B= Emergency Next workday C= Critical 2 Workdays D= Urgent 3 Workdays E= Routine 7 Workdays

Preservatives: H=HCl N=HNO₃ S=H₂SO₄ C=4°C Z=Zn(Ac)₂ O=NaOH T=Na₂S₂O₃

DISTRIBUTION: White with report. Yellow to folder. Pink to submitter.