Appendix M-1 Limited Phase II ESA (May 2013)

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LIMITED PHASE II ENVIRONMENTAL SITE ASSESSMENT
661 BEAR VALLEY PARKWAY
ESCONDIDO, CALIFORNIA

ASSESSORS PARCEL NO. 237-131-01 & -02

Prepared For:

Spieth & Wohlford, Inc.
c/o Henthorn & Associates
P.O. Box 237
Carlsbad, California 92018

Prepared By:

Vinje & Middleton Engineering, Inc.
2450 Auto Park Way
Escondido, California 92029

Job # 13-118-H_2

May 24, 2013

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Purpose

This Limited Phase II Environmental Site Assessment (ESA) is performed in response to identified environmental concerns associated with the Sites past land uses, as identified in Vinje & Middleton Engineering, Inc. (Vinje & Middleton) ***Phase I Environmental Site Assessment, 661 Bear Valley Parkway, Escondido, CA 92025***, dated February 14, 2013. Subject property is located in north San Diego County within the incorporated City of Escondido, State of California. Regional depiction of the Sites location in San Diego County is presented on the attached **Figure 1**.

Subject property consists of 42.12 acres of land occupied by one 3-bedroom, 1-bath, single story residence with a detached single car garage. Access is provided off Bear Valley Parkway. Subject property is further identified by Assessors parcel Numbers (APN's) 237-131-01 and -02.

Focus of this limited Phase II ESA is the condition of near surface soil potentially impacted by past land use activities. Vinje & Middleton performed the below described work under contract with the property owner, Spieth & Wohlford, Inc., executed April 18, 2013.

1.2 Limiting Conditions

The basis for this work was specifically identified in above referenced Phase I ESA. Determination of groundwater quality and depth below the surface was not addressed in the above referenced report. Determination of the depth and quality of groundwater was not within the scope of this Limited Phase II ESA investigation.

Sample locations, collection depths, and chosen laboratory analyses were based on our experience and knowledge of contaminants of concern associated with agricultural property within San Diego County and testimony by interviewed persons familiar with historical land use (please see Phase I ESA Report).

2.0 BACKGROUND

2.1 Site History/Development/Usage

Above referenced Phase I Environmental Site Assessment (ESA) report identified the Site was viewed as a citrus/avocado grove between the years 1947 - 1990. Specific information about the land use was not disclosed. According to interviews and historical research of land in the near vicinity, the subject property was evaluated near the turn of the 20th century for gold and silver potential due to its close proximity to actively mined properties on west side of Bear Valley Parkway in late 1800's. Several mine shafts and adit locations were identified on the Subject Property.

The site has not been farmed since approximately 1995. This time period was confirmed by interview responses from ownership representatives and review of historical aerial photographs.

The agricultural land use in addition to the storage of oil and diesel fuels in above ground storage tanks (ASTs) represent potential environmental concerns. No evidence of mining activity was seen in the historical photographs reviewed. Historically, all mining activity in Escondido was discontinued by 1926 and occurred on west side of Bear Valley Parkway. Earliest historical photography covering the Site was 1946.

Services provided to the Site include: water by the City of Escondido; electricity provided by San Diego Gas & Electric; gas provided by a 250-gallon propane storage tank on the southwest corner of the residence, and sewage is processed in an on-site septic system.

Site configuration illustrating project boundaries, and street orientation is shown on the attached Site Plan Map attached as **Figure 2**.

Easements on, over, under, and bordering the project was not identified to represent any recognized environmental concerns.

2.2 Proposed Use/Legal Description

Property owner plans to convert the former agricultural property into a residential subdivision.

Legal Description: Parcel 1, A.P.N.: 237-131-01

Lots 2, 3 and 4 in Block 257 of Rancho Rincon Del Diablo, according to Map thereof No. 648, filed on November 20, 1890, in the City of Escondido, County of San Diego, Sate of California, in the office of the County Recorder of Said County.

Legal Description: Parcel 2, A.P.N.: 237-131-02

Those portions of Lots 3 and 4 in Block 257 of Rancho Rincon Del Diablo, according to Map thereof No. 648, filed on November 20, 1890, in the Office of the County Recorder of said County, and the unnamed street lying between said Lots 3 and 4, vacated and abandoned to public use May 29, 1939, by the board of supervisors of San Diego County.

2.3 Physical Setting

2.3.1 Topography

Topographically, the site is marked by a northeast/southwest trending ridge dissected by southwest trending erosional gullies/ravines cut into the gentle to moderate sloping hillside terrain (14% - 31% gradient). Significant surface erosion has occurred in the southeast corner of the property resulting in a steep drainage channel (up to 45% gradient). Site elevations range between 516 - 678 feet above sea level (Figure 2).

Subject property is equal in elevation to west adjacent property, lower in elevation than north and east adjacent properties, and higher than the south adjacent properties.

2.3.2 Geology

Regionally, San Diego County is located within the Peninsula Range Geomorphic Province of California. Typified by prominent northwest-trending mountains which include from north to south, the Santa Ana, Agua Tibia, Palomar, Volcan, Cuyamaca and Laguna mountains. The region exhibits gently sloping dissected western surfaces and a steep eastern slope separated from the Colorado River area by abrupt fault scarps.

The San Diego Region is divided into a coastal plain area, a central mountain-valley area, and an eastern mountain valley area. The western edge of the Peninsular Ranges province corresponds with the gently sloping dissected western hills and mountains (Site locale).

Subject property is underlain by late Cretaceous undifferentiated granodiorite with minor tonalite locally intruded by quartz rich pegmatite veins (1999, Tan & Kennedy). This igneous basement complex weathers into top soils identified as the Fallbrook and Ramona Loams, both sandy loams are well draining with fine to coarse grains.

Stream and low elevation drainage are mapped as Quaternary young Holocene colluvial and alluvial stream deposits consisting of silty sand with clay and gravel.

2.3.3 Hydrology

The Site is located within the Las Lomas Muertas Hydrologic Sub-Area (905.32), within the San Pasqual Hydrologic Area (905.30), within the San Dieguito Hydrologic Unit (905.00). Groundwater within the Las Lomas Muertas Hydrologic Sub-Area currently has existing beneficial uses designated for municipal, agricultural, and industrial supply purposes.

Surface waters within the 5.32 Hydrologic Sub-Area also have beneficial use designations for municipal, agricultural, industrial process supply, recreation 2, warm fresh water habitat, wildlife habitat, and rare species habitats.

A south trending flow line exists in the southwest corner of the Site and is marked by dense foliage (Figure 2). Three water wells, and a water weir were observed during the site reconnaissance of the west/southwest property boundary.

Depth to groundwater below the Site was not determined within this scope of work; however, it is estimated to be shallow in the lower elevations of the Site.

2.4 Adjacent Land Use

Adjacent land use was viewed as residential to the north, northeast, south and west. Vacant land exists adjacent the southeast property boundary line.

3.0 PHASE II ACTIVITIES

On May 1, 2013, Vinje & Middleton conducted limited field sampling of surficial soils at twenty-eight (28) locations on the referenced site. Weather conditions were sunny, and mild. Soil sample locations are illustrated on the attached Site Plan Map (**Figure 2**).

3.1 Sample Collection and Handling

All soil samples were collected from depths ranging between 0.5 feet to 1 foot below the surface. All hand tools were cleaned prior to use. Precautionary measures were taken to preserve sample integrity. A description of steps involved in sampling, equipment decontamination, documentation, preservation, and laboratory delivery are described in 'Field Procedures' provided herein as **Appendix A**.

3.2 Chemical Analyses

Ten (10) soil samples were collected for analysis of organochlorine pesticides (OCPs) using Environmental Protection Agency (EPA) Method 8081A in former grove areas of the property. Ten (10) samples were collected and analyzed for Arsenic metals content using EPA Method 6010B in the former grove areas. A total of five (5) soil samples were collected and analyzed for total petroleum hydrocarbons in the diesel and oil ranges using EPA Method 8015B adjacent to two former above ground storage tanks (ASTs) locations, and three former smudge pot locations in the grove. And three (3) soil samples were collected and analyzed for Mercury using method7471A and Cyanide using Method 9014, in areas of former mine shafts. Tests were performed by State Certified Analytical Laboratory, Test America, Inc., in their Irvine, California facility.

The organochlorine pesticides (OCPs) were evaluated due to this category of pesticides persistence in the environment, long half-life, and water insolubility. Other classes of pesticide (i.e. Carbamates, and Organophosphorus) break down quickly to inert compounds in the environment, and were eliminated from consideration as potential environmental concerns due to their short toxic duration. Often found in agricultural soils in San Diego County, several OCPs have been banned from use in the United States since the 1970's and are suspected human carcinogens.

Arsenic is both a naturally occurring metal and used in herbicide formulations. Naturally occurring arsenic concentrations in southern California typically exceed the low California Human Health Screening Level (CHHSL) for soil in a residential setting (0.07 mg/kg).

Petroleum hydrocarbons were evaluated in the soil due to known former AST locations and surface stains in areas of former smudge pot locations in grove areas.

No recorded evidence nor interview testimony by property owner(s) could verify whether gold/silver production was ever conducted on the subject property. **A total of six (6) shafts of unknown depth and length were identified in a Preliminary Geotechnical report by this firm.** Based on this information, Vinje & Middleton collected soil samples within close proximity of three former shaft locations for analysis of hazardous chemicals (Mercury and Cyanide) used in precious metals amalgamation and separation.

4.0 EVALUATION OF RESULTS

Soil samples, SS-1 through SS-10, were collected in native soil within former grove areas and analyzed for Organochlorine Pesticides (OCPs). **Table 4-1** provides sample ID, sample depth, sample result, and/or equipment detection limits. All soil sample results were below the laboratory reporting limit or non-detectable. OCPs do not represent a human exposure concern at the subject property based on this limited assessment of former grove soil.

Soil samples, SS-11 through SS-20, were collected in native soil within former grove areas and analyzed for Arsenic. **Table 4-2** provides the Arsenic results. Arsenic concentrations ranged between non-detectable and 3.5 ug/kg which exceed the California Human Health Screening Level (CHHSL) for the metal (0.07 ug/kg).

However, a Department of Toxic Substance Control (DTSC) evaluation of potential school sites in southern California (Los Angeles County, Orange County, Riverside County and San Diego County) determined the upper range of average Arsenic in soil is 12 mg/kg and the study suggests this concentration be used as the screening level for soil in southern California where residential land use is planned. The on-site soil concentrations are well below this DTSC screening level and deemed to be within the naturally occurring concentrations in soil and not the result of a spill or the result of legally applied herbicides. Arsenic concentrations are within the natural background range for southern California soil and mitigation is not warranted.

Results of soil samples analyzed for Petroleum Hydrocarbons (SS-21 through SS-25) are posted in **Table 4-3**. Diesel concentrations ranged between less than equipment detection limits (<5.0 mg/kg) to 260 mg/kg. Oil concentrations ranged between <5.0 and 91 mg/kg. In San Diego County it is recommended that mitigation efforts be implemented if diesel and/or oil concentrations exceeding 1,000 mg/kg in soil. It is our judgement these representative samples indicate that spills surrounding former smudge pot locations do not represent either a human or environmental concern and represent a weathered fuel occurrence at concentrations that do not warrant mitigation efforts. In addition, they occur within 9-inches of the surface and have not migrated vertically in the soil horizon to an extent that would threaten groundwater.

Results of soil samples analyzed for Mercury and Cyanide (SS-26 through SS-28) are posted on **Table 4-4**. Mercury concentrations ranged between non-detectable and 0.039 mg/kg. The CHHSL for Mercury in residential soil is 18 mg/kg. Cyanide was not detected in the three soil samples analyzed. Neither Mercury nor Cyanide was found at the Site in sufficient quantity to represent a human exposure concern. Test America, Inc. official laboratory report is attached as **Appendix B**.

Table 4-1

Organochlorine Pesticide Results
661 Bear Valley Parkway
Escondido, CA

Sample No.	SS-1	SS-2	SS-3	SS-4	SS-5	SS-6	SS-7	SS-8	SS-9	SS-10
Depth (Ft.)	1.0	0.75	0.5	1.0	0.75	0.5	1.0	0.75	0.5	1.0
OCP Compound	Units: ug/kg									
Aldrin	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
alpha-BHC	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
beta-BHC	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlordane	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0
4,4'-DDD	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4,4'-DDE	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4,4'-DDT	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
delta-BHC	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dieldrin	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Endosulfan I	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Endosulfan II	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Endosulfan sulfate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Endrin	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Endrin aldehyde	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Endrin ketone	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
gamma-BHC (Lindane)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Heptachlor	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Heptachlor epoxide	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methoxychlor	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toxaphene	<200.	<200.	<200.	<200.	<200.	<200.	<200.	<200.	<200.	<200.

Notes: <5, <10, <50, <200, indicates the laboratory results are less than the posted equipment detection limit. Otherwise, not detectable (ND).

Table 4-2

Arsenic Metals Content
661 Bear Valley Parkway
Escondido, CA

Sample ID	Depth (ft.)	Arsenic Conc. (ug/kg)	CHHSL (ug/kg)
SS-11	1.0	<2.0	0.07
SS-12	0.75	<2.0	0.07
SS-13	0.5	<2.0	0.07
SS-14	1.0	**2.0**	0.07
SS-15	0.75	<2.0	0.07
SS-16	0.5	<2.0	0.07
SS-17	1.0	**3.5**	0.07
SS-18	0.75	<2.0	0.07
SS-19	0.5	<2.0	0.07
SS-20	1.0	<2.0	0.07

Notes: <2.0, indicates the laboratory results are less than the posted equipment detection limit. Otherwise, not detectable (ND).

Table 4-3

Petroleum Hydrocarbons C13 - C40 Results
661 Bear Valley Parkway
Escondido, CA
Units: mg/kg

Sample I.D.	Depth (ft.)	EFH (C13 - C40)	DRO (C13 - C22)	ORO (C23 - C32)	ORO (C33 - C40)
SS-21	1.0	<5.0	<5.0	<5.0	<5.0
SS-22	0.5	<5.0	<5.0	<5.0	<5.0
SS-23	0.75	<5.0	<5.0	<5.0	<5.0
SS-24	1.0	**370**	**260**	**91**	<25
SS-25	0.75	**9.0**	<5.0	<5.0	<5.0

Notes: Indicates the laboratory results are less than the equipment detection limit (<5.0 mg/kg, <25 mg/kg). C13 - C40 is Extractable Fuel Hydrocarbons (EFH); DRO (C13 - C22) Diesel Range Organics; ORO (C23 - C32)Light Oil Range Organics; ORO (C33 - C40) Heavy Oil Range Organics

Table 4-4

Mercury and Cyanide Results
661 Bear Valley Parkway
Escondido, CA

Sample ID	Depth (ft.)	Mercury (mg/kg)	Cyanide (mg/kg)
SS-26		<0.020	<0.50
SS-27		<0.020	<0.50
SS-28		**0.039**	<0.50
CHHSL	----	18.0*	22.0 **

Notes: <0.020, <0.50, indicates the laboratory results are less than the respective equipment detection limit. Otherwise, not detectable (ND). * - from CHHSL Table. ** - from Regional Screening Levels Residential Soil Table November 2012.

5.0 CONCLUSIONS

This limited Phase II Environmental Site Assessment has been performed in response to recognized environmental concerns identified in Vinje & Middleton Engineering, Inc. ***Phase I Environmental Site Assessment, 661 Bear Valley Parkway, Escondido, California 92025***, dated February 14, 2013, and was deemed necessary due to the properties' past land uses and proposed conversion to a residential subdivision.

Vinje & Middleton has completed a limited Phase II Environmental Site Assessment of near surface soil for the presence of chlorinated pesticides, Arsenic, petroleum hydrocarbons, Mercury and Cyanide at 661 Bear Valley Parkway, Escondido, California. The findings and opinions presented in this report result from review of our referenced Phase I ESA report, and collection/analysis of twenty-eight near surface soil samples. This limited Phase II environmental assessment has revealed no evidence of recognized environmental concerns associated with the properties past land use. In our professional opinion, further assessment of this property is not warranted.

6.0 LIMITATIONS

This report was prepared for the exclusive use by our client, Spieth & Wohlford, Inc., and their designated representative(s) and only for the purposes stated within a reasonable time from its issuance, *but in no event later than 1 year from the date of the report.* It should be noted that changes within the condition of a site can occur with time due to natural or man created conditions, either on-site or from adjacent properties. In addition, changes in the standard-of-practice and/or government codes and regulations may occur. Findings and opinions can be considered valid only as of the date of the Site visit.

In performance of our professional services, we comply with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions. The client recognizes that conditions often change and that our conclusions are based upon observations and available information. We will not be liable for conditions or consequences arising from relevant facts of information either incorrect, concealed, withheld or not fully disclosed from other sources.

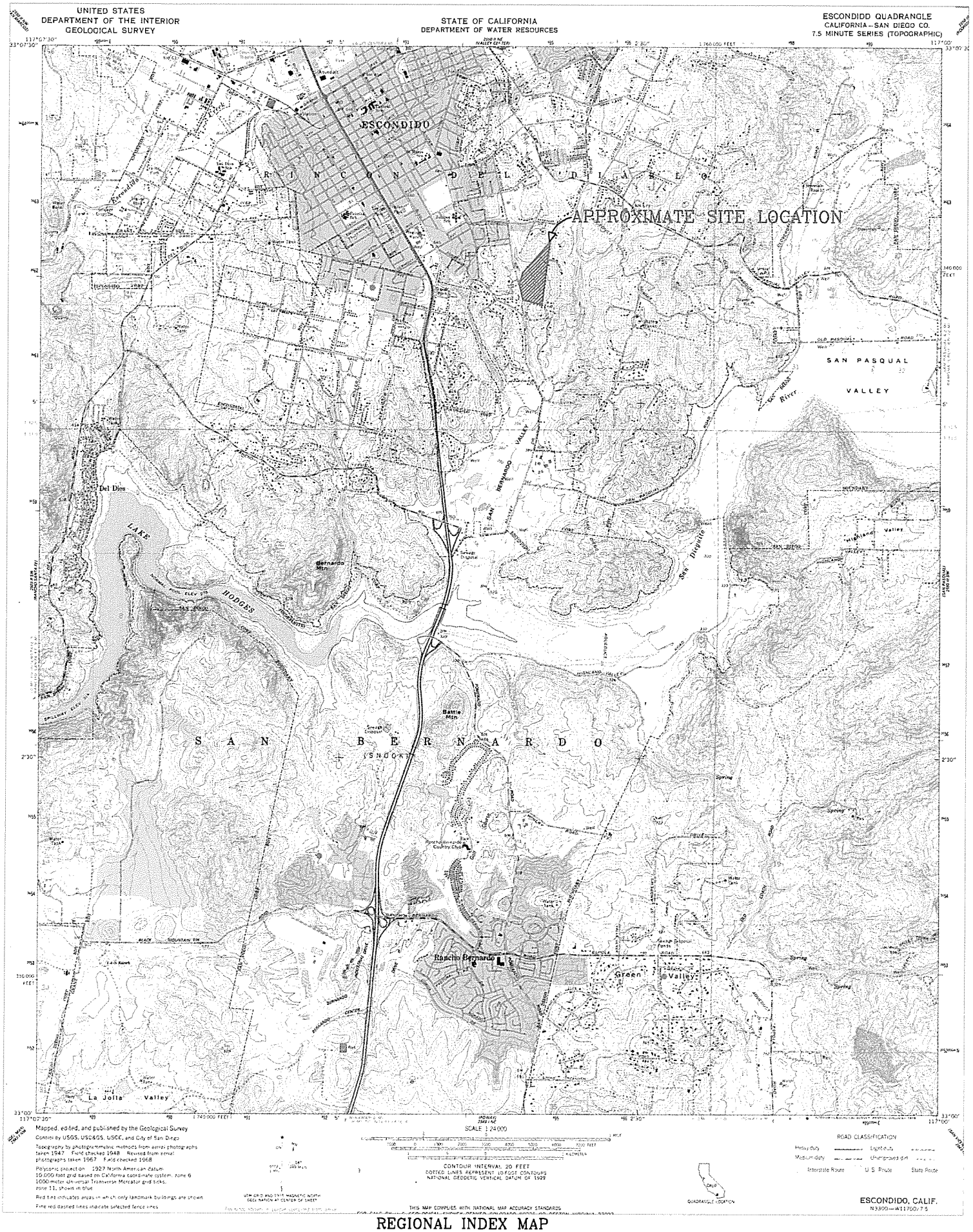
We appreciate your choosing Vinje & Middleton for your environmental needs. If we may be of further assistance on this or any other project, please contact us at (760) 743-1214.

VINJE & MIDDLETON ENGINEERING, INC.

Ralph M. Vinje
Principal Engineer
RCE #25115

Bradley W. Crawshaw Jr.
Project Manager
PG #7888

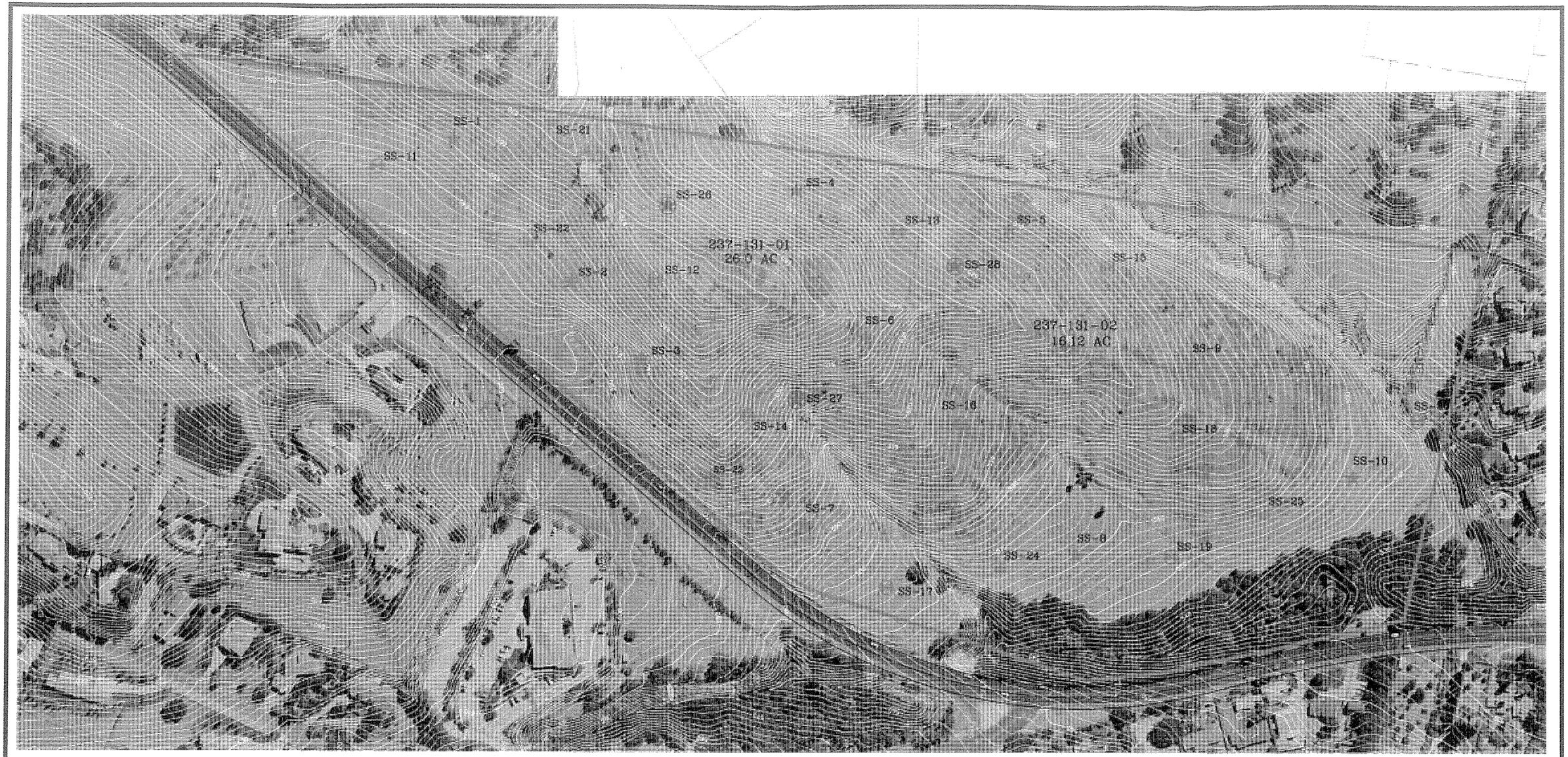
Distribution: Addressee (3)



REGIONAL INDEX MAP

SPIETH & WOHLFORD, INC.
661 BEAR VALLEY PARKWAY
ESCONDIDO, CALIFORNIA 92025

FIGURE 1



SITE PLAN MAP

VINJE & MIDDLETON ENGINEERING, INC.
2450 Auto Park Way
Escondido, CA 92029-1229
760-743-1214

LEGEND

- Property Boundary Line
- Parcel Line
- SS-1 thru SS-10 — Organochlorine Pesticide Sample Location with ID
- SS-11 thru SS-20 — Arsenic Sample Location with ID
- SS-21 thru SS-25 — TPH Salmple Location with ID
- SS-26 thru SS-28 — Mercury & Cyanide Sample Location with ID

Spieth & Wohlford, Inc.
661 Bear Valley Parkway
Escondido, California 92025

VME Job # 13-118-H

0 100 200 300 400
GRAPHIC SCALE

FIGURE 2

ORGANOCHLORINE PESTICIDE SAMPLE LOCATION WITH RESULTS

VINJE & MIDDLETON ENGINEERING, INC.
2450 Auto Park Way
Escondido, CA 92029-1229
760-743-1214

LEGEND

Property Boundary Line

Parcel Line

SS-3 Organochlorine Pesticide (OCP) Sample Location with ID

OCP Analyte	Depth (ft.)	Result (ug/kg)
All	0.5	ND

OCP Aalytes = 20 total, see lab results for individual compound names
ND = Not Detected within equipment reporting limit.

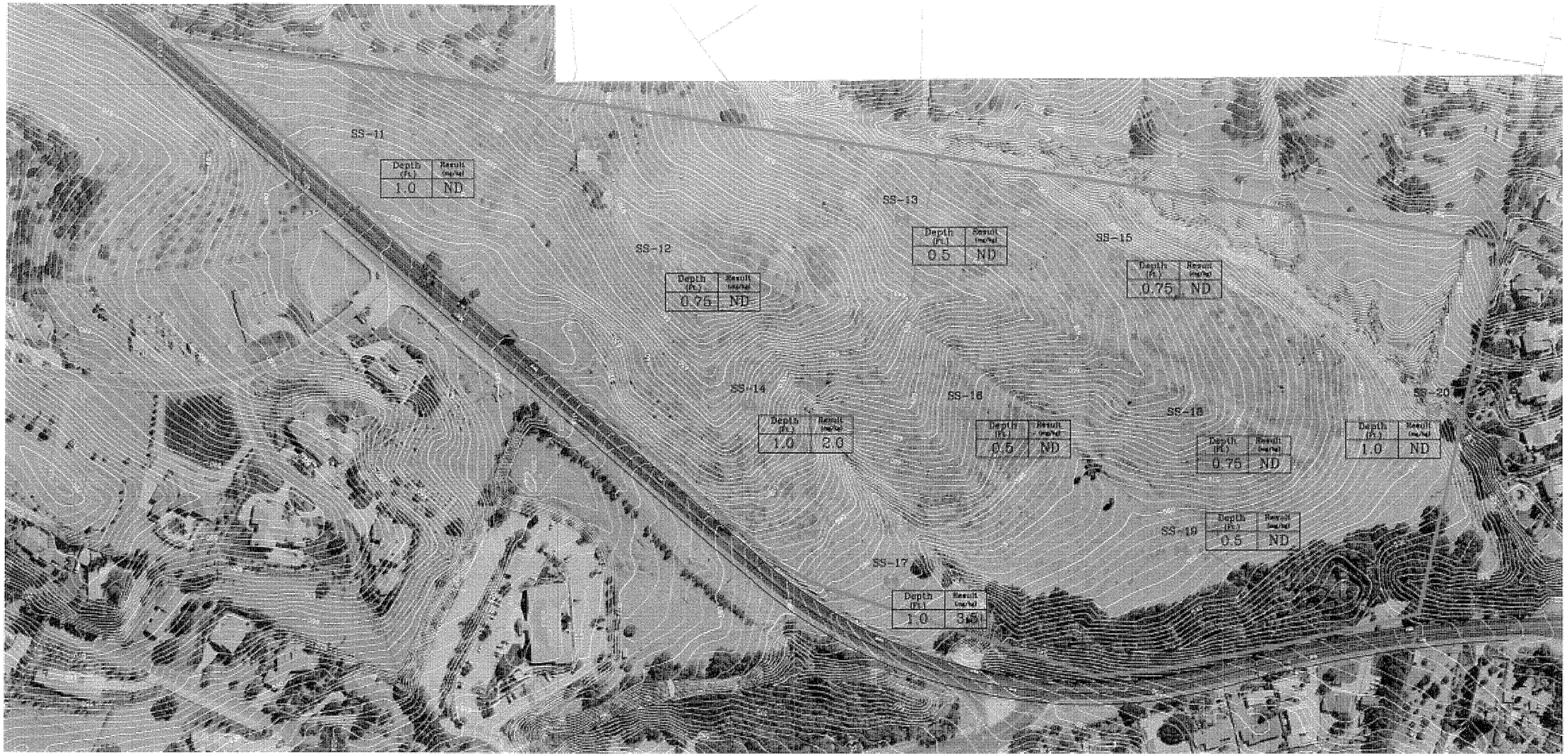
Spieth & Wohlford, Inc.
661 Bear Valley Parkway
Escondido, California 92025

VME Job # 13-118-H

0 100 200 300 400

GRAPHIC SCALE

FIGURE 3



ARSENIC SAMPLE LOCATION WITH RESULTS

VINJE & MIDDLETON ENGINEERING, INC.
2450 Auto Park Way
Escondido, CA 92029-1229
760-743-1214

LEGEND

Property Boundary Line

Parcel Line

SS-12 Arsenic Sample Location with ID

Depth (Ft.)	Result (mg/kg)
0.75	ND

Arsenic results reported in milligrams arsenic per kilogram soil
ND - Not Detected at equipment reporting limit.

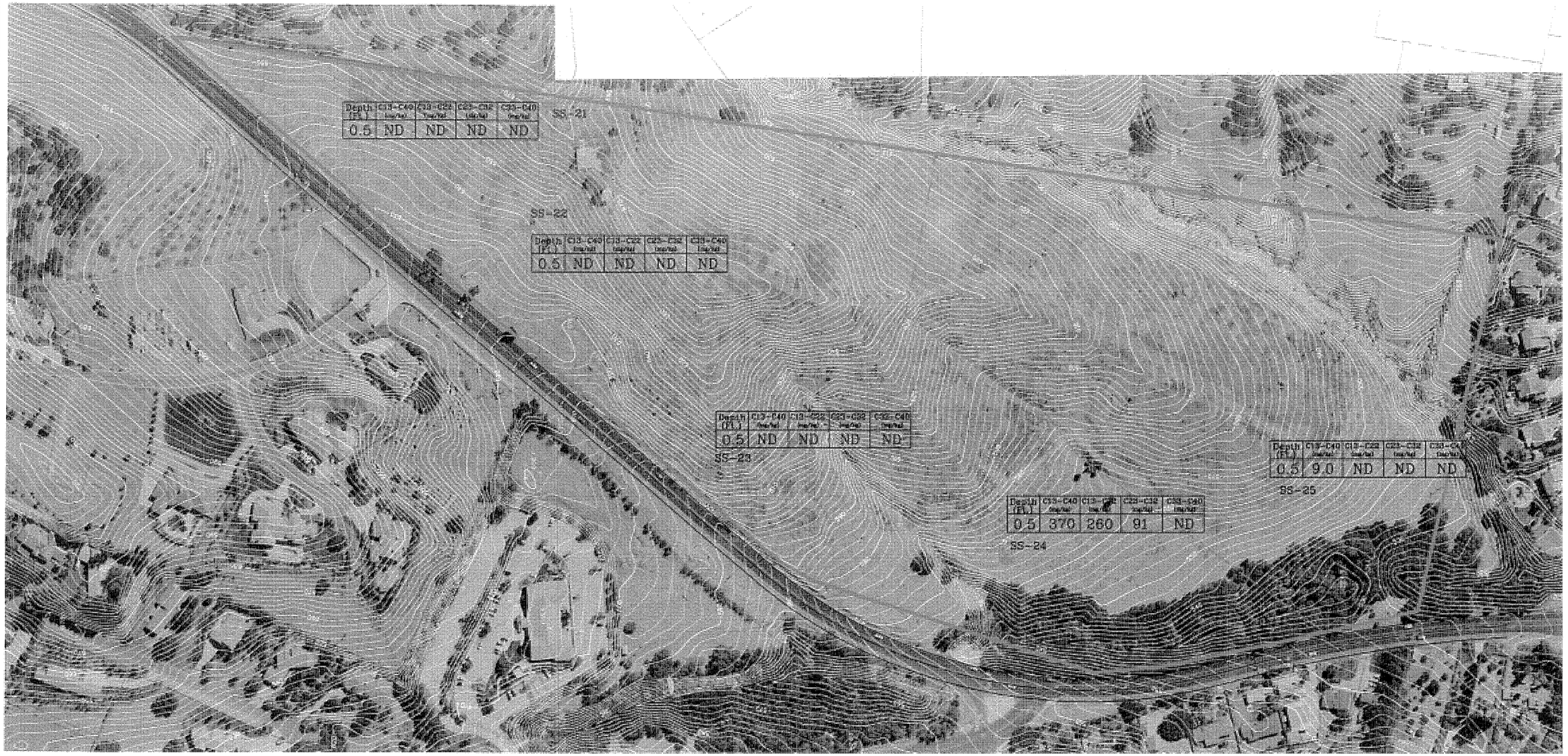
Spieth & Wohlford, Inc.
661 Bear Valley Parkway
Escondido, California 92025

VME Job # 13-118-H

0 100 200 300 400

GRAPHIC SCALE

FIGURE 4



TOTAL PETROLEUM HYDROCARBON SAMPLE LOCATION WITH RESULTS

VINJE & MIDDLETON ENGINEERING, INC.
2450 Auto Park Way
Escondido, CA 92029-1229
760-743-1214

SS-22

Depth (Ft.)	C13-C40 (mg/kg)	C13-C22 (mg/kg)	C23-C32 (mg/kg)	C33-C40 (mg/kg)
0.5	ND	ND	ND	ND

LEGEND

Property Boundary Line

Parcel Line

TPH Salmple Location with ID

ND - Not Detected at equipment reporting limit.

C13-C40 - Total Extractable Fuel Hydrocarbons,

C13-C22 - Diesel Range Organics

C23-C32 - Light Oil Range Organics

C33-C40 - Heavy Oil Range Organics

Spieth & Wohlford, Inc.
661 Bear Valley Parkway
Escondido, California 92025

VME Job # 13-118-H

0 100 200 300 400

GRAPHIC SCALE

FIGURE 5

MERCURY & CYANIDE SAMPLE LOCATION WITH RESULTS

VINJE & MIDDLETON ENGINEERING, INC.
2450 Auto Park Way
Escondido, CA 92029-1229
760-743-1214

LEGEND

Property Boundary Line

Parcel Line

SS-27 Mercury & Cyanide Sample Location with ID

Depth (Ft.)	Mercury (mg/kg)	Cyanide (mg/kg)
0.5	ND	ND

ND - Not Detected at equipment reporting limit.
mg/kg - milligram of contaminant per kilogram of soil or parts per million.

Spieth & Wohlford, Inc.
661 Bear Valley Parkway
Escondido, California 92025

VME Job # 13-118-H

0 100 200 300 400
GRAPHIC SCALE

FIGURE 6

APPENDIX A

FIELD PROCEDURES

Vinje & Middleton conducted field sampling at the on May 1, 2013. The following procedures were used in sample collection, sample documentation, sample preservation, and documentation until delivery to receiving laboratory.

- All hand tools used in sample collection (i.e. shovel, digging bar, hand trowel) were washed before and after each sampling event in a soapy water solution, tap water rinsed, followed by a second rinse in de-ionized water. This procedure commonly referred to as the 'triple bucket method' is used to assure no cross-contamination between sample sites and preserves sample integrity.

- Representative soil samples were transferred into laboratory provided 4 oz. glass jars, sealed with a Teflon lined lid and custody seal with date sampled and samplers signature, a label applied to the jar indicating project no., sample I.D., time and date sample was collected, analysis to be performed, and samplers name.

- Individual sample jars were placed in sealable plastic bags, bubble wrapped, and placed in a cooler on ice during transport under required chain-of-custody documentation by a laboratory provided courier service. A copy of the chain-of-custody is provided in the analytical report.

- All soils were properly disposed of by the analytical laboratory.

- Sample results issued in this report were provided by e-mail correspondence to the Consultant and included in this report as Appendix B.

APPENDIX B

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-45387-1
Client Project/Site: 13-118-H2

For:
Vinje & Middleton Engineering Inc
2450 Auto Park Way #102
Escondido, California 92029

Attn: Mr. Brad Crawshaw

Authorized for release by:
5/16/2013 8:17:47 PM

Sushmitha Reddy, Project Manager I
sushmitha.reddy@testamericainc.com

Table of Contents

Sample Summary

Client: Vinje & Middleton Engineering Inc
Project/Site: 13-118-H2

TestAmerica Job ID: 440-45387-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-45387-1	SS-1	Solid	05/01/13 12:10	05/02/13 17:45
440-45387-2	SS-2	Solid	05/01/13 12:41	05/02/13 17:45
440-45387-3	SS-3	Solid	05/01/13 12:47	05/02/13 17:45
440-45387-4	SS-4	Solid	05/01/13 13:12	05/02/13 17:45
440-45387-5	SS-5	Solid	05/01/13 16:02	05/02/13 17:45
440-45387-6	SS-6	Solid	05/01/13 13:30	05/02/13 17:45
440-45387-7	SS-7	Solid	05/01/13 14:08	05/02/13 17:45
440-45387-8	SS-8	Solid	05/01/13 14:36	05/02/13 17:45
440-45387-9	SS-9	Solid	05/01/13 15:27	05/02/13 17:45
440-45387-10	SS-10	Solid	05/01/13 15:02	05/02/13 17:45
440-45387-11	SS-11	Solid	05/01/13 12:20	05/02/13 17:45
440-45387-12	SS-12	Solid	05/01/13 13:02	05/02/13 17:45
440-45387-13	SS-13	Solid	05/01/13 16:08	05/02/13 17:45
440-45387-14	SS-14	Solid	05/01/13 14:00	05/02/13 17:45
440-45387-15	SS-15	Solid	05/01/13 15:38	05/02/13 17:45
440-45387-16	SS-16	Solid	05/01/13 15:48	05/02/13 17:45
440-45387-17	SS-17	Solid	05/01/13 14:18	05/02/13 17:45
440-45387-18	SS-18	Solid	05/01/13 15:20	05/02/13 17:45
440-45387-19	SS-19	Solid	05/01/13 14:42	05/02/13 17:45
440-45387-20	SS-20	Solid	05/01/13 15:10	05/02/13 17:45
440-45387-21	SS-21	Solid	05/01/13 12:00	05/02/13 17:45
440-45387-22	SS-22	Solid	05/01/13 12:32	05/02/13 17:45
440-45387-23	SS-23	Solid	05/01/13 13:53	05/02/13 17:45
440-45387-24	SS-24	Solid	05/01/13 14:27	05/02/13 17:45
440-45387-25	SS-25	Solid	05/01/13 14:52	05/02/13 17:45
440-45387-26	SS-26	Solid	05/01/13 00:01	05/02/13 17:45
440-45387-27	SS-27	Solid	05/01/13 00:01	05/02/13 17:45
440-45387-28	SS-28	Solid	05/01/13 00:01	05/02/13 17:45

Job ID: 440-45387-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-45387-1

Comments
No additional comments.

Receipt
The samples were received on 5/2/2013 5:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.4° C.

GC Semi VOA
Method(s) 8015B: The matrix spike percent recovery was outside control limits and the matrix spike / matrix spike duplicate (MS/MSD) precision for batch 103032 was outside control limits. Non-homogeneity of the sample matrix is suspected. The associated laboratory control sample (LCS) met acceptance criteria.

Method(s) 8015B: The following samples required a dilution due to the nature of the sample matrix: SS-24 (440-45387-24). Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

Method(s) 8081A: The continuing calibration verification (CCV) associated with batch 103185 recovered above the upper control limit for endosulfan sulfate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (CCV 440-103185/20), SS-10 (440-45387-10), SS-7 (440-45387-7), SS-8 (440-45387-8), SS-9 (440-45387-9), TimberSIL GlassWood (440-45434-1).

Method(s) 8081A: The continuing calibration verification (CCV) associated with batch 103273 recovered above the upper control limit for delta BHC, 4,4 DDE, and endosulfan sulfate. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: (440-45387-5 MS), (440-45387-5 MSD), (CCV 440-103273/36), SS-1 (440-45387-1), SS-2 (440-45387-2), SS-3 (440-45387-3), SS-4 (440-45387-4), SS-5 (440-45387-5), SS-6 (440-45387-6).

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Client Sample ID: SS-1
Date Collected: 05/01/13 12:10
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-1
Matrix: Solid

5

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
alpha-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
beta-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Chlordane (technical)	ND		50		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
4,4'-DDD	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
4,4'-DDE	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
4,4'-DDT	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
delta-BHC	ND		10		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Dieldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Endosulfan I	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Endosulfan II	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Endosulfan sulfate	ND		10		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Endrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Endrin aldehyde	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Endrin ketone	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Heptachlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Methoxychlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:49	1
Toxaphene	ND		200		ug/Kg		05/09/13 08:54	05/09/13 19:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*64*		*45 - 120*	*05/09/13 08:54*	*05/09/13 19:49*	*1*
Tetrachloro-m-xylene	*61*		*35 - 115*	*05/09/13 08:54*	*05/09/13 19:49*	*1*

Client Sample ID: SS-2
Date Collected: 05/01/13 12:41
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-2
Matrix: Solid

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
alpha-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
beta-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
Chlordane (technical)	ND		50		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
4,4'-DDD	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
4,4'-DDE	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
4,4'-DDT	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
delta-BHC	ND		10		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
Dieldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
Endosulfan I	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
Endosulfan II	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
Endosulfan sulfate	ND		10		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
Endrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
Endrin aldehyde	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
Endrin ketone	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
Heptachlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1
Methoxychlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:04	1

Client Sample ID: SS-2

Lab Sample ID: 440-45387-2

Date Collected: 05/01/13 12:41

Matrix: Solid

Date Received: 05/02/13 17:45

5

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		200		ug/Kg		05/09/13 08:54	05/09/13 20:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*75*		*45 - 120*	*05/09/13 08:54*	*05/09/13 20:04*	*1*
Tetrachloro-m-xylene	*75*		*35 - 115*	*05/09/13 08:54*	*05/09/13 20:04*	*1*

Client Sample ID: SS-3

Lab Sample ID: 440-45387-3

Date Collected: 05/01/13 12:47

Matrix: Solid

Date Received: 05/02/13 17:45

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
alpha-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
beta-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Chlordane (technical)	ND		50		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
4,4'-DDD	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
4,4'-DDE	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
4,4'-DDT	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
delta-BHC	ND		10		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Dieldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Endosulfan I	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Endosulfan II	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Endosulfan sulfate	ND		10		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Endrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Endrin aldehyde	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Endrin ketone	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Heptachlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Methoxychlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:18	1
Toxaphene	ND		200		ug/Kg		05/09/13 08:54	05/09/13 20:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*59*		*45 - 120*	*05/09/13 08:54*	*05/09/13 20:18*	*1*
Tetrachloro-m-xylene	*57*		*35 - 115*	*05/09/13 08:54*	*05/09/13 20:18*	*1*

Client Sample ID: SS-4

Lab Sample ID: 440-45387-4

Date Collected: 05/01/13 13:12

Matrix: Solid

Date Received: 05/02/13 17:45

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
alpha-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
beta-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Chlordane (technical)	ND		50		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
4,4'-DDD	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
4,4'-DDE	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
4,4'-DDT	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1

Client Sample ID: SS-4
Date Collected: 05/01/13 13:12
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-4
Matrix: Solid

5

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		10		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Dieldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Endosulfan I	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Endosulfan II	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Endosulfan sulfate	ND		10		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Endrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Endrin aldehyde	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Endrin ketone	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Heptachlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Methoxychlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:33	1
Toxaphene	ND		200		ug/Kg		05/09/13 08:54	05/09/13 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*70*		*45 - 120*	*05/09/13 08:54*	*05/09/13 20:33*	*1*
Tetrachloro-m-xylene	*66*		*35 - 115*	*05/09/13 08:54*	*05/09/13 20:33*	*1*

Client Sample ID: SS-5
Date Collected: 05/01/13 16:02
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-5
Matrix: Solid

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
alpha-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
beta-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Chlordane (technical)	ND		50		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
4,4'-DDD	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
4,4'-DDE	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
4,4'-DDT	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
delta-BHC	ND		10		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Dieldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Endosulfan I	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Endosulfan II	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Endosulfan sulfate	ND		10		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Endrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Endrin aldehyde	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Endrin ketone	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Heptachlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Methoxychlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 20:48	1
Toxaphene	ND		200		ug/Kg		05/09/13 08:54	05/09/13 20:48	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*72*		*45 - 120*	*05/09/13 08:54*	*05/09/13 20:48*	*1*
Tetrachloro-m-xylene	*69*		*35 - 115*	*05/09/13 08:54*	*05/09/13 20:48*	*1*

Client Sample ID: SS-6
Date Collected: 05/01/13 13:30
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-6
Matrix: Solid

5

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
alpha-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
beta-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Chlordane (technical)	ND		50		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
4,4'-DDD	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
4,4'-DDE	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
4,4'-DDT	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
delta-BHC	ND		10		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Dieldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Endosulfan I	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Endosulfan II	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Endosulfan sulfate	ND		10		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Endrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Endrin aldehyde	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Endrin ketone	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Heptachlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Methoxychlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 21:32	1
Toxaphene	ND		200		ug/Kg		05/09/13 08:54	05/09/13 21:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*67*		*45 - 120*	*05/09/13 08:54*	*05/09/13 21:32*	*1*
Tetrachloro-m-xylene	*66*		*35 - 115*	*05/09/13 08:54*	*05/09/13 21:32*	*1*

Client Sample ID: SS-7
Date Collected: 05/01/13 14:08
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-7
Matrix: Solid

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
alpha-BHC	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
beta-BHC	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
Chlordane (technical)	ND		50		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
4,4'-DDD	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
4,4'-DDE	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
4,4'-DDT	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
delta-BHC	ND		10		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
Dieldrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
Endosulfan I	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
Endosulfan II	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
Endosulfan sulfate	ND		10		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
Endrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
Endrin aldehyde	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
Endrin ketone	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
Heptachlor	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1
Methoxychlor	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 22:51	1

Client Sample ID: SS-7
Date Collected: 05/01/13 14:08
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-7
Matrix: Solid

5

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toxaphene	ND		200		ug/Kg		05/08/13 11:54	05/08/13 22:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*57*		*45 - 120*	*05/08/13 11:54*	*05/08/13 22:51*	*1*
Tetrachloro-m-xylene	*45*		*35 - 115*	*05/08/13 11:54*	*05/08/13 22:51*	*1*

Client Sample ID: SS-8
Date Collected: 05/01/13 14:36
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-8
Matrix: Solid

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
alpha-BHC	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
beta-BHC	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Chlordane (technical)	ND		50		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
4,4'-DDD	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
4,4'-DDE	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
4,4'-DDT	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
delta-BHC	ND		10		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Dieldrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Endosulfan I	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Endosulfan II	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Endosulfan sulfate	ND		10		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Endrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Endrin aldehyde	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Endrin ketone	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Heptachlor	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Methoxychlor	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:06	1
Toxaphene	ND		200		ug/Kg		05/08/13 11:54	05/08/13 23:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*84*		*45 - 120*	*05/08/13 11:54*	*05/08/13 23:06*	*1*
Tetrachloro-m-xylene	*66*		*35 - 115*	*05/08/13 11:54*	*05/08/13 23:06*	*1*

Client Sample ID: SS-9
Date Collected: 05/01/13 15:27
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-9
Matrix: Solid

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
alpha-BHC	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
beta-BHC	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Chlordane (technical)	ND		50		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
4,4'-DDD	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
4,4'-DDE	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
4,4'-DDT	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1

5

Client Sample ID: SS-9

Date Collected: 05/01/13 15:27
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-9
Matrix: Solid

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	ND		10		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Dieldrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Endosulfan I	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Endosulfan II	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Endosulfan sulfate	ND		10		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Endrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Endrin aldehyde	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Endrin ketone	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Heptachlor	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Methoxychlor	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:20	1
Toxaphene	ND		200		ug/Kg		05/08/13 11:54	05/08/13 23:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*76*		*45 - 120*	*05/08/13 11:54*	*05/08/13 23:20*	*1*
Tetrachloro-m-xylene	*60*		*35 - 115*	*05/08/13 11:54*	*05/08/13 23:20*	*1*

Client Sample ID: SS-10

Date Collected: 05/01/13 15:02
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-10
Matrix: Solid

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
alpha-BHC	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
beta-BHC	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Chlordane (technical)	ND		50		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
4,4'-DDD	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
4,4'-DDE	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
4,4'-DDT	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
delta-BHC	ND		10		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Dieldrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Endosulfan I	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Endosulfan II	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Endosulfan sulfate	ND		10		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Endrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Endrin aldehyde	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Endrin ketone	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Heptachlor	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Methoxychlor	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 23:35	1
Toxaphene	ND		200		ug/Kg		05/08/13 11:54	05/08/13 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*67*		*45 - 120*	*05/08/13 11:54*	*05/08/13 23:35*	*1*
Tetrachloro-m-xylene	*60*		*35 - 115*	*05/08/13 11:54*	*05/08/13 23:35*	*1*

Client Sample ID: SS-11 — **Lab Sample ID: 440-45387-11**
Date Collected: 05/01/13 12:20 — Matrix: Solid
Date Received: 05/02/13 17:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		05/07/13 09:07	05/08/13 14:10	5

Client Sample ID: SS-12 — **Lab Sample ID: 440-45387-12**
Date Collected: 05/01/13 13:02 — Matrix: Solid
Date Received: 05/02/13 17:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		05/07/13 09:07	05/08/13 14:12	5

Client Sample ID: SS-13 — **Lab Sample ID: 440-45387-13**
Date Collected: 05/01/13 16:08 — Matrix: Solid
Date Received: 05/02/13 17:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		05/07/13 09:07	05/08/13 14:14	5

Client Sample ID: SS-14 — **Lab Sample ID: 440-45387-14**
Date Collected: 05/01/13 14:00 — Matrix: Solid
Date Received: 05/02/13 17:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.0		2.0		mg/Kg		05/07/13 09:07	05/08/13 14:16	5

Client Sample ID: SS-15 — **Lab Sample ID: 440-45387-15**
Date Collected: 05/01/13 15:38 — Matrix: Solid
Date Received: 05/02/13 17:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		05/07/13 09:07	05/08/13 14:18	5

Client Sample ID: SS-16 — **Lab Sample ID: 440-45387-16**
Date Collected: 05/01/13 15:48 — Matrix: Solid
Date Received: 05/02/13 17:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		05/07/13 09:07	05/08/13 14:40	5

Client Sample ID: SS-17 — **Lab Sample ID: 440-45387-17**
Date Collected: 05/01/13 14:18 — Matrix: Solid
Date Received: 05/02/13 17:45

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.5		2.0		mg/Kg		05/07/13 09:07	05/08/13 14:42	5

Client Sample ID: SS-18
Date Collected: 05/01/13 15:20
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-18
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		05/07/13 09:07	05/08/13 14:44	5

Client Sample ID: SS-19
Date Collected: 05/01/13 14:42
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-19
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		05/07/13 09:07	05/08/13 14:45	5

Client Sample ID: SS-20
Date Collected: 05/01/13 15:10
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-20
Matrix: Solid

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		05/07/13 09:07	05/08/13 14:47	5

Client Sample ID: SS-21
Date Collected: 05/01/13 12:00
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-21
Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13 - C40	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 01:20	1
DRO (C13-C22)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 01:20	1
ORO (C23-C32)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 01:20	1
ORO (C33-C40)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 01:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*74*		*40 - 140*	*05/08/13 11:18*	*05/09/13 01:20*	*1*

Client Sample ID: SS-22
Date Collected: 05/01/13 12:32
Date Received: 05/02/13 17:45

Lab Sample ID: 440-45387-22
Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13 - C40	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 01:42	1
DRO (C13-C22)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 01:42	1
ORO (C23-C32)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 01:42	1
ORO (C33-C40)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 01:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*78*		*40 - 140*	*05/08/13 11:18*	*05/09/13 01:42*	*1*

5

Client Sample ID: SS-23

Lab Sample ID: 440-45387-23

Date Collected: 05/01/13 13:53
Date Received: 05/02/13 17:45

Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13 - C40	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 02:05	1
DRO (C13-C22)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 02:05	1
ORO (C23-C32)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 02:05	1
ORO (C33-C40)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 02:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*80*		*40 - 140*	*05/08/13 11:18*	*05/09/13 02:05*	*1*

Client Sample ID: SS-24

Lab Sample ID: 440-45387-24

Date Collected: 05/01/13 14:27
Date Received: 05/02/13 17:45

Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13 - C40	**370**		25		mg/Kg		05/08/13 11:18	05/10/13 00:44	5
DRO (C13-C22)	**260**		25		mg/Kg		05/08/13 11:18	05/10/13 00:44	5
ORO (C23-C32)	**91**		25		mg/Kg		05/08/13 11:18	05/10/13 00:44	5
ORO (C33-C40)	ND		25		mg/Kg		05/08/13 11:18	05/10/13 00:44	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*80*		*40 - 140*	*05/08/13 11:18*	*05/10/13 00:44*	*5*

Client Sample ID: SS-25

Lab Sample ID: 440-45387-25

Date Collected: 05/01/13 14:52
Date Received: 05/02/13 17:45

Matrix: Solid

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13 - C40	**9.0**		5.0		mg/Kg		05/08/13 11:18	05/09/13 02:27	1
DRO (C13-C22)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 02:27	1
ORO (C23-C32)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 02:27	1
ORO (C33-C40)	ND		5.0		mg/Kg		05/08/13 11:18	05/09/13 02:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*74*		*40 - 140*	*05/08/13 11:18*	*05/09/13 02:27*	*1*

Client Sample ID: SS-26

Lab Sample ID: 440-45387-26

Date Collected: 05/01/13 00:01
Date Received: 05/02/13 17:45

Matrix: Solid

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		05/13/13 17:57	05/13/13 19:48	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.50		mg/Kg		05/14/13 15:16	05/14/13 19:27	1

Client Sample ID: SS-27 — **Lab Sample ID: 440-45387-27**
Date Collected: 05/01/13 00:01 — Matrix: Solid
Date Received: 05/02/13 17:45

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		05/13/13 17:57	05/13/13 19:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.50		mg/Kg		05/14/13 15:16	05/14/13 19:27	1

Client Sample ID: SS-28 — **Lab Sample ID: 440-45387-28**
Date Collected: 05/01/13 00:01 — Matrix: Solid
Date Received: 05/02/13 17:45

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.039		0.020		mg/Kg		05/13/13 17:57	05/13/13 19:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.50		mg/Kg		05/14/13 15:16	05/14/13 19:27	1

Method Summary

Client: Vinje & Middleton Engineering Inc
Project/Site: 13-118-H2

TestAmerica Job ID: 440-45387-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
8081A	Organochlorine Pesticides (GC)	SW846	TAL IRV
6010B	Metals (ICP)	SW846	TAL IRV
7471A	Mercury (CVAA)	SW846	TAL IRV
9014	Cyanide	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Client Sample ID: SS-1 — **Lab Sample ID: 440-45387-1**
Date Collected: 05/01/13 12:10 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.02 g	2 mL	103267	05/09/13 08:54		TAL IRV
Total/NA	Analysis	8081A		1			103273	05/09/13 19:49	KS	TAL IRV

Client Sample ID: SS-2 — **Lab Sample ID: 440-45387-2**
Date Collected: 05/01/13 12:41 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.00 g	2 mL	103267	05/09/13 08:54		TAL IRV
Total/NA	Analysis	8081A		1			103273	05/09/13 20:04	KS	TAL IRV

Client Sample ID: SS-3 — **Lab Sample ID: 440-45387-3**
Date Collected: 05/01/13 12:47 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.00 g	2 mL	103267	05/09/13 08:54		TAL IRV
Total/NA	Analysis	8081A		1			103273	05/09/13 20:18	KS	TAL IRV

Client Sample ID: SS-4 — **Lab Sample ID: 440-45387-4**
Date Collected: 05/01/13 13:12 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.01 g	2 mL	103267	05/09/13 08:54		TAL IRV
Total/NA	Analysis	8081A		1			103273	05/09/13 20:33	KS	TAL IRV

Client Sample ID: SS-5 — **Lab Sample ID: 440-45387-5**
Date Collected: 05/01/13 16:02 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.03 g	2 mL	103267	05/09/13 08:54		TAL IRV
Total/NA	Analysis	8081A		1			103273	05/09/13 20:48	KS	TAL IRV

Client Sample ID: SS-6 — **Lab Sample ID: 440-45387-6**
Date Collected: 05/01/13 13:30 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.02 g	2 mL	103267	05/09/13 08:54		TAL IRV
Total/NA	Analysis	8081A		1			103273	05/09/13 21:32	KS	TAL IRV

Client Sample ID: SS-7 — **Lab Sample ID: 440-45387-7**
Date Collected: 05/01/13 14:08 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.00 g	2 mL	103040	05/08/13 11:54	AB	TAL IRV
Total/NA	Analysis	8081A		1			103185	05/08/13 22:51	KS	TAL IRV

Client Sample ID: SS-8 — **Lab Sample ID: 440-45387-8**
Date Collected: 05/01/13 14:36 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.03 g	2 mL	103040	05/08/13 11:54	AB	TAL IRV
Total/NA	Analysis	8081A		1			103185	05/08/13 23:06	KS	TAL IRV

Client Sample ID: SS-9 — **Lab Sample ID: 440-45387-9**
Date Collected: 05/01/13 15:27 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.06 g	2 mL	103040	05/08/13 11:54	AB	TAL IRV
Total/NA	Analysis	8081A		1			103185	05/08/13 23:20	KS	TAL IRV

Client Sample ID: SS-10 — **Lab Sample ID: 440-45387-10**
Date Collected: 05/01/13 15:02 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3546			15.01 g	2 mL	103040	05/08/13 11:54	AB	TAL IRV
Total/NA	Analysis	8081A		1			103185	05/08/13 23:35	KS	TAL IRV

Client Sample ID: SS-11 — **Lab Sample ID: 440-45387-11**
Date Collected: 05/01/13 12:20 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	102693	05/07/13 09:07	DT	TAL IRV
Total/NA	Analysis	6010B		5			103112	05/08/13 14:10	TK	TAL IRV

Client Sample ID: SS-12 — **Lab Sample ID: 440-45387-12**
Date Collected: 05/01/13 13:02 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	102693	05/07/13 09:07	DT	TAL IRV
Total/NA	Analysis	6010B		5			103112	05/08/13 14:12	TK	TAL IRV

Client Sample ID: SS-13 — **Lab Sample ID: 440-45387-13**
Date Collected: 05/01/13 16:08 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	102693	05/07/13 09:07	DT	TAL IRV
Total/NA	Analysis	6010B		5			103112	05/08/13 14:14	TK	TAL IRV

Client Sample ID: SS-14 — **Lab Sample ID: 440-45387-14**
Date Collected: 05/01/13 14:00 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	102693	05/07/13 09:07	DT	TAL IRV
Total/NA	Analysis	6010B		5			103112	05/08/13 14:16	TK	TAL IRV

Client Sample ID: SS-15 — **Lab Sample ID: 440-45387-15**
Date Collected: 05/01/13 15:38 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	102693	05/07/13 09:07	DT	TAL IRV
Total/NA	Analysis	6010B		5			103112	05/08/13 14:18	TK	TAL IRV

Client Sample ID: SS-16 — **Lab Sample ID: 440-45387-16**
Date Collected: 05/01/13 15:48 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.02 g	50 mL	102693	05/07/13 09:07	DT	TAL IRV
Total/NA	Analysis	6010B		5			103112	05/08/13 14:40	TK	TAL IRV

Client Sample ID: SS-17 — **Lab Sample ID: 440-45387-17**
Date Collected: 05/01/13 14:18 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.03 g	50 mL	102693	05/07/13 09:07	DT	TAL IRV
Total/NA	Analysis	6010B		5			103112	05/08/13 14:42	TK	TAL IRV

Client Sample ID: SS-18 — **Lab Sample ID: 440-45387-18**
Date Collected: 05/01/13 15:20 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	102693	05/07/13 09:07	DT	TAL IRV
Total/NA	Analysis	6010B		5			103112	05/08/13 14:44	TK	TAL IRV

Client Sample ID: SS-19 — **Lab Sample ID: 440-45387-19**
Date Collected: 05/01/13 14:42 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	102693	05/07/13 09:07	DT	TAL IRV
Total/NA	Analysis	6010B		5			103112	05/08/13 14:45	TK	TAL IRV

Client Sample ID: SS-20 — **Lab Sample ID: 440-45387-20**
Date Collected: 05/01/13 15:10 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			2.01 g	50 mL	102693	05/07/13 09:07	DT	TAL IRV
Total/NA	Analysis	6010B		5			103112	05/08/13 14:47	TK	TAL IRV

Client Sample ID: SS-21 — **Lab Sample ID: 440-45387-21**
Date Collected: 05/01/13 12:00 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	CA LUFT			30.01 g	1 mL	103032	05/08/13 11:18	A1L	TAL IRV
Total/NA	Analysis	8015B		1			103012	05/09/13 01:20	JR	TAL IRV

Client Sample ID: SS-22 — **Lab Sample ID: 440-45387-22**
Date Collected: 05/01/13 12:32 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	CA LUFT			29.99 g	1 mL	103032	05/08/13 11:18	A1L	TAL IRV
Total/NA	Analysis	8015B		1			103012	05/09/13 01:42	JR	TAL IRV

Client Sample ID: SS-23 — **Lab Sample ID: 440-45387-23**
Date Collected: 05/01/13 13:53 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	CA LUFT			30.00 g	1 mL	103032	05/08/13 11:18	A1L	TAL IRV
Total/NA	Analysis	8015B		1			103012	05/09/13 02:05	JR	TAL IRV

Client Sample ID: SS-24 — **Lab Sample ID: 440-45387-24**
Date Collected: 05/01/13 14:27 — Matrix: Solid
Date Received: 05/02/13 17:45

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	CA LUFT			29.96 g	1 mL	103032	05/08/13 11:18	A1L	TAL IRV
Total/NA	Analysis	8015B		5			103502	05/10/13 00:44	CN	TAL IRV

Lab Chronicle

Client: Vinje & Middleton Engineering Inc
Project/Site: 13-118-H2

TestAmerica Job ID: 440-45387-1

Client Sample ID: SS-25

Lab Sample ID: 440-45387-25

Date Collected: 05/01/13 14:52
Date Received: 05/02/13 17:45

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	CA LUFT			30.06 g	1 mL	103032	05/08/13 11:18	A1L	TAL IRV
Total/NA	Analysis	8015B		1			103012	05/09/13 02:27	JR	TAL IRV

Client Sample ID: SS-26

Lab Sample ID: 440-45387-26

Date Collected: 05/01/13 00:01
Date Received: 05/02/13 17:45

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.49 g	50 mL	104174	05/13/13 17:57	MM	TAL IRV
Total/NA	Analysis	7471A		1			104222	05/13/13 19:48	DB	TAL IRV
Total/NA	Prep	9010C			2.00 g	50 mL	104439	05/14/13 15:16	BS	TAL IRV
Total/NA	Analysis	9014		1			104531	05/14/13 19:27	BT	TAL IRV

Client Sample ID: SS-27

Lab Sample ID: 440-45387-27

Date Collected: 05/01/13 00:01
Date Received: 05/02/13 17:45

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.51 g	50 mL	104174	05/13/13 17:57	MM	TAL IRV
Total/NA	Analysis	7471A		1			104222	05/13/13 19:51	DB	TAL IRV
Total/NA	Prep	9010C			1.99 g	50 mL	104439	05/14/13 15:16	BS	TAL IRV
Total/NA	Analysis	9014		1			104531	05/14/13 19:27	BT	TAL IRV

Client Sample ID: SS-28

Lab Sample ID: 440-45387-28

Date Collected: 05/01/13 00:01
Date Received: 05/02/13 17:45

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			0.50 g	50 mL	104174	05/13/13 17:57	MM	TAL IRV
Total/NA	Analysis	7471A		1			104222	05/13/13 19:53	DB	TAL IRV
Total/NA	Prep	9010C			1.99 g	50 mL	104439	05/14/13 15:16	BS	TAL IRV
Total/NA	Analysis	9014		1			104531	05/14/13 19:27	BT	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-103032/1-A
Matrix: Solid
Analysis Batch: 103012

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 103032

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C13 - C40	ND		5.0		mg/Kg		05/08/13 11:18	05/08/13 19:22	1
DRO (C13-C22)	ND		5.0		mg/Kg		05/08/13 11:18	05/08/13 19:22	1
ORO (C23-C32)	ND		5.0		mg/Kg		05/08/13 11:18	05/08/13 19:22	1
ORO (C33-C40)	ND		5.0		mg/Kg		05/08/13 11:18	05/08/13 19:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*75*		*40 - 140*	*05/08/13 11:18*	*05/08/13 19:22*	*1*

Lab Sample ID: LCS 440-103032/2-A
Matrix: Solid
Analysis Batch: 103012

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 103032

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C10-C28)	33.3	28.6		mg/Kg		86	45 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*78*		*40 - 140*

Lab Sample ID: 440-45425-A-1-A MS
Matrix: Solid
Analysis Batch: 103012

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 103032

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
EFH (C10-C28)	8.3		33.3	20.8	F	mg/Kg		37	40 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
n-Octacosane	*55*		*40 - 140*

Lab Sample ID: 440-45425-A-1-B MSD
Matrix: Solid
Analysis Batch: 103012

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 103032

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
EFH (C10-C28)	8.3		33.4	33.9	F	mg/Kg		77	40 - 120	48	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
n-Octacosane	*82*		*40 - 140*

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 440-103040/1-A
Matrix: Solid
Analysis Batch: 103185

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 103040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
alpha-BHC	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 440-103040/1-A
Matrix: Solid
Analysis Batch: 103185

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 103040

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
beta-BHC	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Chlordane (technical)	ND		50		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
4,4'-DDD	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
4,4'-DDE	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
4,4'-DDT	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
delta-BHC	ND		10		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Dieldrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Endosulfan I	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Endosulfan II	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Endosulfan sulfate	ND		10		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Endrin	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Endrin aldehyde	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Endrin ketone	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Heptachlor	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Methoxychlor	ND		5.0		ug/Kg		05/08/13 11:54	05/08/13 21:52	1
Toxaphene	ND		200		ug/Kg		05/08/13 11:54	05/08/13 21:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*79*		*45 - 120*	*05/08/13 11:54*	*05/08/13 21:52*	*1*
Tetrachloro-m-xylene	*57*		*35 - 115*	*05/08/13 11:54*	*05/08/13 21:52*	*1*

Lab Sample ID: LCS 440-103040/2-A
Matrix: Solid
Analysis Batch: 103185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 103040

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	33.3	27.7		ug/Kg		83	50 - 115
alpha-BHC	33.3	28.6		ug/Kg		86	60 - 115
beta-BHC	33.3	28.3		ug/Kg		85	60 - 115
4,4'-DDD	33.3	30.9		ug/Kg		93	60 - 120
4,4'-DDE	33.3	32.1		ug/Kg		96	60 - 120
4,4'-DDT	33.3	34.2		ug/Kg		103	65 - 120
delta-BHC	33.3	30.6		ug/Kg		92	60 - 115
Dieldrin	33.3	31.4		ug/Kg		94	65 - 115
Endosulfan I	33.3	30.4		ug/Kg		91	40 - 120
Endosulfan II	33.3	30.5		ug/Kg		91	55 - 120
Endosulfan sulfate	33.3	29.1		ug/Kg		87	65 - 115
Endrin	33.3	30.7		ug/Kg		92	55 - 120
Endrin aldehyde	33.3	28.6		ug/Kg		86	55 - 115
Endrin ketone	33.3	32.2		ug/Kg		97	65 - 115
gamma-BHC (Lindane)	33.3	28.8		ug/Kg		87	55 - 115
Heptachlor	33.3	28.8		ug/Kg		86	55 - 115
Heptachlor epoxide	33.3	29.6		ug/Kg		89	55 - 115
Methoxychlor	33.3	30.4		ug/Kg		91	65 - 120

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 440-103040/2-A
Matrix: Solid
Analysis Batch: 103185

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 103040

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	87		45 - 120
Tetrachloro-m-xylene	70		35 - 115

Lab Sample ID: 440-45434-A-1-F MS
Matrix: Solid
Analysis Batch: 103185

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 103040

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	ND		250	215		ug/Kg		86	40 - 115
alpha-BHC	ND		250	224		ug/Kg		90	40 - 115
beta-BHC	ND		250	203		ug/Kg		81	40 - 120
4,4'-DDD	ND		250	201		ug/Kg		80	40 - 130
4,4'-DDE	ND		250	221		ug/Kg		88	35 - 130
4,4'-DDT	ND		250	231		ug/Kg		92	35 - 130
delta-BHC	ND		250	200		ug/Kg		80	45 - 120
Dieldrin	ND		250	212		ug/Kg		85	40 - 125
Endosulfan I	ND		250	218		ug/Kg		87	40 - 120
Endosulfan II	ND		250	214		ug/Kg		86	40 - 125
Endosulfan sulfate	ND		250	216		ug/Kg		87	45 - 120
Endrin	ND		250	236		ug/Kg		94	45 - 125
Endrin aldehyde	ND		250	179		ug/Kg		71	30 - 120
Endrin ketone	ND		250	234		ug/Kg		93	40 - 120
gamma-BHC (Lindane)	ND		250	215		ug/Kg		86	40 - 120
Heptachlor	ND		250	222		ug/Kg		89	40 - 115
Heptachlor epoxide	ND		250	211		ug/Kg		85	45 - 115
Methoxychlor	ND		250	241		ug/Kg		96	40 - 135

Surrogate	MS %Recovery	MS Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	87		45 - 120
Tetrachloro-m-xylene	75		35 - 115

Lab Sample ID: 440-45434-A-1-G MSD
Matrix: Solid
Analysis Batch: 103185

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 103040

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	ND		249	210		ug/Kg		84	40 - 115	NC	30
alpha-BHC	ND		249	216		ug/Kg		87	40 - 115	4	30
beta-BHC	ND		249	191		ug/Kg		77	40 - 120	6	30
4,4'-DDD	ND		249	191		ug/Kg		77	40 - 130	5	30
4,4'-DDE	ND		249	215		ug/Kg		87	35 - 130	9	30
4,4'-DDT	ND		249	225		ug/Kg		90	35 - 130	4	30
delta-BHC	ND		249	192		ug/Kg		77	45 - 120	4	30
Dieldrin	ND		249	202		ug/Kg		81	40 - 125	8	30
Endosulfan I	ND		249	212		ug/Kg		85	40 - 120	8	30
Endosulfan II	ND		249	199		ug/Kg		80	40 - 125	8	30
Endosulfan sulfate	ND		249	226		ug/Kg		91	45 - 120	5	30
Endrin	ND		249	227		ug/Kg		91	45 - 125	4	30

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 440-45434-A-1-G MSD
Matrix: Solid
Analysis Batch: 103185

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 103040

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Endrin aldehyde	ND		249	176		ug/Kg		71	30 - 120	1	30
Endrin ketone	ND		249	232		ug/Kg		93	40 - 120	14	30
gamma-BHC (Lindane)	ND		249	208		ug/Kg		84	40 - 120	9	30
Heptachlor	ND		249	219		ug/Kg		88	40 - 115	2	30
Heptachlor epoxide	ND		249	204		ug/Kg		82	45 - 115	11	30
Methoxychlor	ND		249	242		ug/Kg		97	40 - 135	NC	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*84*		*45 - 120*
Tetrachloro-m-xylene	*74*		*35 - 115*

Lab Sample ID: MB 440-103267/1-A
Matrix: Solid
Analysis Batch: 103273

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 103267

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
alpha-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
beta-BHC	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Chlordane (technical)	ND		50		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
4,4'-DDD	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
4,4'-DDE	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
4,4'-DDT	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
delta-BHC	ND		10		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Dieldrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Endosulfan I	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Endosulfan II	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Endosulfan sulfate	ND		10		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Endrin	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Endrin aldehyde	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Endrin ketone	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
gamma-BHC (Lindane)	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Heptachlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Heptachlor epoxide	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Methoxychlor	ND		5.0		ug/Kg		05/09/13 08:54	05/09/13 19:20	1
Toxaphene	ND		200		ug/Kg		05/09/13 08:54	05/09/13 19:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl (Surr)	*85*		*45 - 120*	*05/09/13 08:54*	*05/09/13 19:20*	*1*
Tetrachloro-m-xylene	*74*		*35 - 115*	*05/09/13 08:54*	*05/09/13 19:20*	*1*

Lab Sample ID: LCS 440-103267/2-A
Matrix: Solid
Analysis Batch: 103273

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 103267

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	33.3	28.0		ug/Kg		84	50 - 115
alpha-BHC	33.3	29.4		ug/Kg		88	60 - 115

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 440-103267/2-A
Matrix: Solid
Analysis Batch: 103273

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 103267

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
beta-BHC	33.3	30.3		ug/Kg		91	60 - 115
4,4'-DDD	33.3	29.5		ug/Kg		89	60 - 120
4,4'-DDE	33.3	30.3		ug/Kg		91	60 - 120
4,4'-DDT	33.3	31.7		ug/Kg		95	65 - 120
delta-BHC	33.3	31.6		ug/Kg		95	60 - 115
Dieldrin	33.3	30.2		ug/Kg		91	65 - 115
Endosulfan I	33.3	28.8		ug/Kg		86	40 - 120
Endosulfan II	33.3	29.0		ug/Kg		87	55 - 120
Endosulfan sulfate	33.3	32.7		ug/Kg		98	65 - 115
Endrin	33.3	31.0		ug/Kg		93	55 - 120
Endrin aldehyde	33.3	26.2		ug/Kg		79	55 - 115
Endrin ketone	33.3	29.6		ug/Kg		89	65 - 115
gamma-BHC (Lindane)	33.3	29.5		ug/Kg		89	55 - 115
Heptachlor	33.3	30.9		ug/Kg		93	55 - 115
Heptachlor epoxide	33.3	28.7		ug/Kg		86	55 - 115
Methoxychlor	33.3	29.4		ug/Kg		88	65 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*86*		*45 - 120*
Tetrachloro-m-xylene	*86*		*35 - 115*

Lab Sample ID: 440-45387-5 MS
Matrix: Solid
Analysis Batch: 103273

Client Sample ID: SS-5
Prep Type: Total/NA
Prep Batch: 103267

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	ND		33.3	25.8		ug/Kg		77	40 - 115
alpha-BHC	ND		33.3	25.7		ug/Kg		77	40 - 115
beta-BHC	ND		33.3	27.0		ug/Kg		81	40 - 120
4,4'-DDD	ND		33.3	26.5		ug/Kg		80	40 - 130
4,4'-DDE	ND		33.3	28.1		ug/Kg		85	35 - 130
4,4'-DDT	ND		33.3	29.6		ug/Kg		89	35 - 130
delta-BHC	ND		33.3	27.9		ug/Kg		84	45 - 120
Dieldrin	ND		33.3	26.8		ug/Kg		81	40 - 125
Endosulfan I	ND		33.3	26.3		ug/Kg		79	40 - 120
Endosulfan II	ND		33.3	26.2		ug/Kg		79	40 - 125
Endosulfan sulfate	ND		33.3	29.4		ug/Kg		88	45 - 120
Endrin	ND		33.3	28.0		ug/Kg		84	45 - 125
Endrin aldehyde	ND		33.3	23.2		ug/Kg		70	30 - 120
Endrin ketone	ND		33.3	26.6		ug/Kg		80	40 - 120
gamma-BHC (Lindane)	ND		33.3	25.9		ug/Kg		78	40 - 120
Heptachlor	ND		33.3	27.3		ug/Kg		82	40 - 115
Heptachlor epoxide	ND		33.3	26.4		ug/Kg		79	45 - 115
Methoxychlor	ND		33.3	27.0		ug/Kg		81	40 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl (Surr)	*79*		*45 - 120*

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 440-45387-5 MS
Matrix: Solid
Analysis Batch: 103273

Client Sample ID: SS-5
Prep Type: Total/NA
Prep Batch: 103267

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	77		35 - 115

Lab Sample ID: 440-45387-5 MSD
Matrix: Solid
Analysis Batch: 103273

Client Sample ID: SS-5
Prep Type: Total/NA
Prep Batch: 103267

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	ND		33.3	25.1		ug/Kg		75	40 - 115	3	30
alpha-BHC	ND		33.3	24.8		ug/Kg		75	40 - 115	3	30
beta-BHC	ND		33.3	26.6		ug/Kg		80	40 - 120	1	30
4,4'-DDD	ND		33.3	26.6		ug/Kg		80	40 - 130	0	30
4,4'-DDE	ND		33.3	28.4		ug/Kg		85	35 - 130	1	30
4,4'-DDT	ND		33.3	29.8		ug/Kg		89	35 - 130	1	30
delta-BHC	ND		33.3	26.7		ug/Kg		80	45 - 120	5	30
Dieldrin	ND		33.3	26.8		ug/Kg		80	40 - 125	0	30
Endosulfan I	ND		33.3	26.4		ug/Kg		79	40 - 120	0	30
Endosulfan II	ND		33.3	23.5		ug/Kg		71	40 - 125	11	30
Endosulfan sulfate	ND		33.3	25.9		ug/Kg		78	45 - 120	13	30
Endrin	ND		33.3	28.5		ug/Kg		86	45 - 125	2	30
Endrin aldehyde	ND		33.3	22.2		ug/Kg		67	30 - 120	4	30
Endrin ketone	ND		33.3	23.8		ug/Kg		71	40 - 120	11	30
gamma-BHC (Lindane)	ND		33.3	25.2		ug/Kg		76	40 - 120	3	30
Heptachlor	ND		33.3	26.3		ug/Kg		79	40 - 115	3	30
Heptachlor epoxide	ND		33.3	26.1		ug/Kg		78	45 - 115	1	30
Methoxychlor	ND		33.3	25.3		ug/Kg		76	40 - 135	7	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
DCB Decachlorobiphenyl (Surr)	80		45 - 120
Tetrachloro-m-xylene	73		35 - 115

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 440-102693/1-A ^5
Matrix: Solid
Analysis Batch: 103112

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 102693

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.0		mg/Kg		05/07/13 09:07	05/08/13 14:00	5

Lab Sample ID: LCS 440-102693/2-A ^5
Matrix: Solid
Analysis Batch: 103112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 102693

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	49.5	45.9		mg/Kg		93	80 - 120

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 440-45437-A-1-B MS ^5
Matrix: Solid
Analysis Batch: 103112

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 102693

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	3.8		50.0	51.7		mg/Kg		96	75 - 125

Lab Sample ID: 440-45437-A-1-C MSD ^5
Matrix: Solid
Analysis Batch: 103112

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 102693

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	3.8		49.5	47.1		mg/Kg		87	75 - 125	9	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 440-104174/1-A
Matrix: Solid
Analysis Batch: 104222

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 104174

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg		05/13/13 17:57	05/13/13 19:10	1

Lab Sample ID: LCS 440-104174/2-A
Matrix: Solid
Analysis Batch: 104222

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104174

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.800	0.677		mg/Kg		85	80 - 120

Lab Sample ID: 440-46080-A-1-E MS
Matrix: Solid
Analysis Batch: 104222

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 104174

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.19		0.800	0.838		mg/Kg		81	70 - 130

Lab Sample ID: 440-46080-A-1-F MSD
Matrix: Solid
Analysis Batch: 104222

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 104174

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.19		0.816	0.973		mg/Kg		96	70 - 130	15	20

Method: 9014 - Cyanide

Lab Sample ID: MB 440-104439/1-A
Matrix: Solid
Analysis Batch: 104531

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 104439

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.020		mg/Kg		05/14/13 15:16	05/14/13 19:26	1

Method: 9014 - Cyanide (Continued)

Lab Sample ID: LCS 440-104439/2-A
Matrix: Solid
Analysis Batch: 104531

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 104439

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.200	0.185		mg/Kg		93	90 - 110

Lab Sample ID: 440-45387-27 MS
Matrix: Solid
Analysis Batch: 104531

Client Sample ID: SS-27
Prep Type: Total/NA
Prep Batch: 104439

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	ND		5.03	4.36		mg/Kg		87	70 - 115

Lab Sample ID: 440-45387-27 MSD
Matrix: Solid
Analysis Batch: 104531

Client Sample ID: SS-27
Prep Type: Total/NA
Prep Batch: 104439

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Total	ND		5.00	4.22		mg/Kg		84	70 - 115	3	15

GC Semi VOA

Analysis Batch: 103012

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-21	SS-21	Total/NA	Solid	8015B	103032
440-45387-22	SS-22	Total/NA	Solid	8015B	103032
440-45387-23	SS-23	Total/NA	Solid	8015B	103032
440-45387-25	SS-25	Total/NA	Solid	8015B	103032
440-45425-A-1-A MS	Matrix Spike	Total/NA	Solid	8015B	103032
440-45425-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B	103032
LCS 440-103032/2-A	Lab Control Sample	Total/NA	Solid	8015B	103032
MB 440-103032/1-A	Method Blank	Total/NA	Solid	8015B	103032

Prep Batch: 103032

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-21	SS-21	Total/NA	Solid	CA LUFT	
440-45387-22	SS-22	Total/NA	Solid	CA LUFT	
440-45387-23	SS-23	Total/NA	Solid	CA LUFT	
440-45387-24	SS-24	Total/NA	Solid	CA LUFT	
440-45387-25	SS-25	Total/NA	Solid	CA LUFT	
440-45425-A-1-A MS	Matrix Spike	Total/NA	Solid	CA LUFT	
440-45425-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	CA LUFT	
LCS 440-103032/2-A	Lab Control Sample	Total/NA	Solid	CA LUFT	
MB 440-103032/1-A	Method Blank	Total/NA	Solid	CA LUFT	

Prep Batch: 103040

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-7	SS-7	Total/NA	Solid	3546	
440-45387-8	SS-8	Total/NA	Solid	3546	
440-45387-9	SS-9	Total/NA	Solid	3546	
440-45387-10	SS-10	Total/NA	Solid	3546	
440-45434-A-1-F MS	Matrix Spike	Total/NA	Solid	3546	
440-45434-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	
LCS 440-103040/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 440-103040/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 103185

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-7	SS-7	Total/NA	Solid	8081A	103040
440-45387-8	SS-8	Total/NA	Solid	8081A	103040
440-45387-9	SS-9	Total/NA	Solid	8081A	103040
440-45387-10	SS-10	Total/NA	Solid	8081A	103040
440-45434-A-1-F MS	Matrix Spike	Total/NA	Solid	8081A	103040
440-45434-A-1-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8081A	103040
LCS 440-103040/2-A	Lab Control Sample	Total/NA	Solid	8081A	103040
MB 440-103040/1-A	Method Blank	Total/NA	Solid	8081A	103040

Prep Batch: 103267

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-1	SS-1	Total/NA	Solid	3546	
440-45387-2	SS-2	Total/NA	Solid	3546	
440-45387-3	SS-3	Total/NA	Solid	3546	
440-45387-4	SS-4	Total/NA	Solid	3546	
440-45387-5	SS-5	Total/NA	Solid	3546	
440-45387-5 MS	SS-5	Total/NA	Solid	3546	

GC Semi VOA (Continued)

Prep Batch: 103267 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-5 MSD	SS-5	Total/NA	Solid	3546	
440-45387-6	SS-6	Total/NA	Solid	3546	
LCS 440-103267/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 440-103267/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 103273

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-1	SS-1	Total/NA	Solid	8081A	103267
440-45387-2	SS-2	Total/NA	Solid	8081A	103267
440-45387-3	SS-3	Total/NA	Solid	8081A	103267
440-45387-4	SS-4	Total/NA	Solid	8081A	103267
440-45387-5	SS-5	Total/NA	Solid	8081A	103267
440-45387-5 MS	SS-5	Total/NA	Solid	8081A	103267
440-45387-5 MSD	SS-5	Total/NA	Solid	8081A	103267
440-45387-6	SS-6	Total/NA	Solid	8081A	103267
LCS 440-103267/2-A	Lab Control Sample	Total/NA	Solid	8081A	103267
MB 440-103267/1-A	Method Blank	Total/NA	Solid	8081A	103267

Analysis Batch: 103502

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-24	SS-24	Total/NA	Solid	8015B	103032

Metals

Prep Batch: 102693

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-11	SS-11	Total/NA	Solid	3050B	
440-45387-12	SS-12	Total/NA	Solid	3050B	
440-45387-13	SS-13	Total/NA	Solid	3050B	
440-45387-14	SS-14	Total/NA	Solid	3050B	
440-45387-15	SS-15	Total/NA	Solid	3050B	
440-45387-16	SS-16	Total/NA	Solid	3050B	
440-45387-17	SS-17	Total/NA	Solid	3050B	
440-45387-18	SS-18	Total/NA	Solid	3050B	
440-45387-19	SS-19	Total/NA	Solid	3050B	
440-45387-20	SS-20	Total/NA	Solid	3050B	
440-45437-A-1-B MS ^5	Matrix Spike	Total/NA	Solid	3050B	
440-45437-A-1-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3050B	
LCS 440-102693/2-A ^5	Lab Control Sample	Total/NA	Solid	3050B	
MB 440-102693/1-A ^5	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 103112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-11	SS-11	Total/NA	Solid	6010B	102693
440-45387-12	SS-12	Total/NA	Solid	6010B	102693
440-45387-13	SS-13	Total/NA	Solid	6010B	102693
440-45387-14	SS-14	Total/NA	Solid	6010B	102693
440-45387-15	SS-15	Total/NA	Solid	6010B	102693
440-45387-16	SS-16	Total/NA	Solid	6010B	102693
440-45387-17	SS-17	Total/NA	Solid	6010B	102693

Metals (Continued)

Analysis Batch: 103112 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-18	SS-18	Total/NA	Solid	6010B	102693
440-45387-19	SS-19	Total/NA	Solid	6010B	102693
440-45387-20	SS-20	Total/NA	Solid	6010B	102693
440-45437-A-1-B MS ^5	Matrix Spike	Total/NA	Solid	6010B	102693
440-45437-A-1-C MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6010B	102693
LCS 440-102693/2-A ^5	Lab Control Sample	Total/NA	Solid	6010B	102693
MB 440-102693/1-A ^5	Method Blank	Total/NA	Solid	6010B	102693

Prep Batch: 104174

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-26	SS-26	Total/NA	Solid	7471A	
440-45387-27	SS-27	Total/NA	Solid	7471A	
440-45387-28	SS-28	Total/NA	Solid	7471A	
440-46080-A-1-E MS	Matrix Spike	Total/NA	Solid	7471A	
440-46080-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	
LCS 440-104174/2-A	Lab Control Sample	Total/NA	Solid	7471A	
MB 440-104174/1-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 104222

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-26	SS-26	Total/NA	Solid	7471A	104174
440-45387-27	SS-27	Total/NA	Solid	7471A	104174
440-45387-28	SS-28	Total/NA	Solid	7471A	104174
440-46080-A-1-E MS	Matrix Spike	Total/NA	Solid	7471A	104174
440-46080-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	7471A	104174
LCS 440-104174/2-A	Lab Control Sample	Total/NA	Solid	7471A	104174
MB 440-104174/1-A	Method Blank	Total/NA	Solid	7471A	104174

General Chemistry

Prep Batch: 104439

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-26	SS-26	Total/NA	Solid	9010C	
440-45387-27	SS-27	Total/NA	Solid	9010C	
440-45387-27 MS	SS-27	Total/NA	Solid	9010C	
440-45387-27 MSD	SS-27	Total/NA	Solid	9010C	
440-45387-28	SS-28	Total/NA	Solid	9010C	
LCS 440-104439/2-A	Lab Control Sample	Total/NA	Solid	9010C	
MB 440-104439/1-A	Method Blank	Total/NA	Solid	9010C	

Analysis Batch: 104531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-45387-26	SS-26	Total/NA	Solid	9014	104439
440-45387-27	SS-27	Total/NA	Solid	9014	104439
440-45387-27 MS	SS-27	Total/NA	Solid	9014	104439
440-45387-27 MSD	SS-27	Total/NA	Solid	9014	104439
440-45387-28	SS-28	Total/NA	Solid	9014	104439
LCS 440-104439/2-A	Lab Control Sample	Total/NA	Solid	9014	104439
MB 440-104439/1-A	Method Blank	Total/NA	Solid	9014	104439

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Vinje & Middleton Engineering Inc
Project/Site: 13-118-H2

TestAmerica Job ID: 440-45387-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-13
Arizona	State Program	9	AZ0671	10-13-13
California	LA Cty Sanitation Districts	9	10256	01-31-14
California	NELAP	9	1108CA	01-31-14
California	State Program	9	2706	06-30-14
Guam	State Program	9	Cert. No. 12.002r	03-28-13 *
Hawaii	State Program	9	N/A	01-31-14
Nevada	State Program	9	CA015312007A	07-31-13
Northern Mariana Islands	State Program	9	MP0002	01-31-14
Oregon	NELAP	10	4005	09-12-13
USDA	Federal		P330-09-00080	06-06-14
USEPA UCMR	Federal	1	CA01531	01-31-15

* Expired certification is currently pending renewal and is considered valid.

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CHAIN OF CUSTODY FORM

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1022 FAX (949) 260-3297
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

TAL-0018(1007)

Client Name/Address:
Vinje + Middleton Engineering Inc
2450 Auto Park Way
Escondido CA 92029

Project/PO Number:
13-118-H2

Project Manager:
B. Crawshaw

Phone Number:
(760) 743-1214

Sampler:
M. Aller

Fax Number:
(760) 739-0343

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required: TEST, 8081A	Arsenic 6010	Special Instructions
SS-1	Soil	GL	1	5-1-13	12:10	—	X		
SS-2					12:41	—	X		
SS-3					12:47	—	X		
SS-4					13:12	—	X		
SS-5					16:02	—	X		
SS-6					13:30	—	X		
SS-7					14:08	—	X		
SS-8					1436	—	X		
SS-9					1527	—	X		
SS-10					1502	—	X		
SS-11					1220	—		X	
SS-12					1302	—		X	
SS-13					1608	—		X	
SS-14					1400	—		X	

Relinquished By: Valene Stenerodden Date/Time: 5/2/13 2:35 PM
Received By: Date/Time: 5/2/13 1435

Relinquished By: Date/Time: 5/2/13 1745
Received By: Date/Time:

Relinquished By: Date/Time:
Received in Lab By: Date/Time: 5/2/13 17:45

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓

8.7/2.4°C

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

TestAmerica
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CHAIN OF CUSTODY FORM

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2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

TAL-0013(1007)

Client Name/Address:
Vinje + Middleton Engineering Inc.
2450 Auto Park Way
Escondido, CA 92029

Project/PO Number:
13-118-H2

Project Manager:
B. Crawsham

Phone Number:
(760) 743-1214

Sampler:
M. Alles

Fax Number:
(760) 739-0343

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required: Arsenic 6010	TPH d+o 8015M	Mercury	Cyanide	Special Instructions
SS-15	Soil	GL	1	5-1-13	1538	—	X				
SS-16					1548	—	X				
SS-17					1418	—	X				
SS-18					1520	—	X				
SS-19					1442	—	X				
SS-20					1510	—	X				
SS-21					1200	—		X			Run highest TPH d/o
SS-22					1232	—		X			
SS-23					1353	—		X			For BTEX 8260 and PAH 8270C
SS-24					1427	—		X			
SS-25					1452	—		X			
SS-26						—			X	X	
SS-27						—			X	X	
SS-28						—			X	X	

Relinquished By: Valerie Stenerodden Date/Time: 5/2/13 2:35 PM
Received By: [signature] Date/Time: 5/2/13 1735
Relinquished By: [signature] Date/Time: 5/2/13 1745
Received By: Date/Time:
Relinquished By: Date/Time:
Received in Lab By: Vin Band Date/Time: 5/2/13 12:45

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓

Note: By relinquishing samples to TestAmerica, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

2.7/2.4 °C

Login Sample Receipt Checklist

Client: Vinje & Middleton Engineering Inc

Job Number: 440-45387-1

Login Number: 45387
List Number: 1
Creator: Perez, Angel

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	N/A	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	M. Alles
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	

APPENDIX C

REFERENCES

American Society for Testing and Materials ASTM Designation E1903-97; Standard Guide for Environmental Site Assessments: Phase II Process, 1997.

California Division of Mines and Geology, Geologic Map of the Escondido 7.5' Quadrangle, San Diego County, California, Siang S. Tan and Michael P. Kennedy, 1999.

California Environmental Protection Agency, San Diego Regional Water Quality Control Board, San Diego-Basin Plan, April 4, 2011.

California Environmental Protection Agency, Use of California Human Health Screening Levels (CHHSLs) In Evaluation of Contaminated Properties, January 2005.

Test America, Analytical Report, Job ID: 440-45387-1, May 16, 2013.

The Gold Mining Days of Escondido and San Diego County, Escondido Historical Society, Frank Lorey III, 2000.

Vinje & Middleton Engineering, Inc., Phase I Environmental Site Assessment, 661 Bear Valley Parkway, Escondido, California 92025; Assessors Parcel Numbers: 237-131-01 & -02, February 14, 2013.