Vinyard & Associates, Inc.

8916-A Adams Street, NE
Albuquerque, New Mexico 87113
(505) 797-9743 • Fax: (505) 797-9749
vinyardandassociates@comcast.net

Geotechnical Engineering • Materials Testing • Environmental Engineering

CHARACTERIZATION OF DEBRIS FOR DISPOSAL SACRAMENTO LANDFILL 5500 HOLLY AVENUE, NE ALBUQUERQUE, NEW MEXICO

Prepared for:

Mr. Alex Hudson
c/o Grubb & Ellis | New Mexico
2400 Louisiana Boulevard, NE
Albuquerque, New Mexico 87110

Prepared by:

Vinyard & Associates, Inc.
8916-A Adams Street NE
Albuquerque, New Mexico 87113

Project No.: 09-1-074

Date:

June 2, 2009

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1.0 INTRODUCTION AND BACKGROUND

1.1 SCOPE OF PROJECT

Vinyard & Associates was retained by Mr. Alex Hudson to collect representative samples of debris from the Sacramento Landfill and have them analyzed for potential contaminants. The subject property consists of a 5.4-acre parcel that is identified as Lot 8A1 of Block 18, Tract A, Unit B of North Albuquerque Acres. The site has an address of 5500 Holly Avenue, NE, Albuquerque, New Mexico (Figure 1).

The Sacramento Landfill covers approximately 4.6 acres of Lot 8A1. Mr. Hudson is the owner of the property and he is considering excavating and removing the landfill. Characterization sampling of the subsurface debris was accomplished in an effort to support that goal.

The site is further described as being located within the south-central portion of the southwest quarter of Section 13 within Township 11 North, Range 3 East, New Mexico Principal Meridian (Zone Atlas page C-18). According to the City of Albuquerque Geographic Information System (AGIS) website, the site is zoned "SU-2 / M-1," a special use designation for manufacturing. Site elevation varies from approximately 5,212 feet above mean sea level at the southeast corner of the site to approximately 5,200 feet above mean sea level along the west side of the site. The horizontal extent of the Sacramento Landfill is not well defined. It may extend west into the I-25 right-of-way, south into the Paseo del Norte right-of-way, north into the Holly Avenue right-of-way, and east into the adjacent property.

The New Mexico Department of Transportation (NMDOT) is considering condemnation (eminent domain) of the parcel and will require excavation of the landfill to construct a parking lot and access ramps at Paseo del Norte and Interstate 25. Excavation and removal of debris at the site is subject to the New Mexico Environment Department (NMED) Solid Waste Bureau (SWB) regulations. Although development with buildings is not proposed, the project may also be subject to the City of Albuquerque Environmental Health Department (AEHD) *Interim*

Guidelines for Development within City Designated Landfill Buffer Zones (Interim Guidelines). Vinyard & Associates was retained to provide the following environmental services:

- Collect existing information regarding historical investigations at the Sacramento Landfill;
- Collect new samples of landfill debris and have them analyzed at an independent laboratory for potentially hazardous constituents; and
- Prepare this report.

Underground utilities were not encountered during field operations.

1.2 SACRAMENTO LANDFILL

According to the literature reviewed, an historical arroyo was located in this area and the site was utilized as a sand and gravel borrow pit. The City of Albuquerque backfilled the pit with household and commercial refuse in approximately 1962. Therefore, methane generation from degradation of debris should have peaked in approximately 1963. The maximum reported depth of trash is approximately 28 feet (thickest to the northwest).

Fox & Associates of New Mexico performed an investigation at the landfill in 1985 and a methane survey at the landfill in 1991 or 1992. Methane concentrations were as high as 10% by volume at that time.

Fluor Daniel performed a site risk investigation at the landfill in 1993 for the U.S. Environmental Protection Agency (EPA). Minor concentrations of pesticides (dieldrin, DDE, alpha-chlordane, and gamma chlordane), polychlorinated biphenyls (PCBs, Aroclor 1248 and Aroclor 1260), and lead were identified as contaminants. The landfill was subsequently classified as a CERCLIS NFRAP site; however, no further investigation was mandated at the federal level.

Atlantic Geoscience, Inc. performed an investigation at the site in 1994 (eighteen boreholes). Contaminants detected included acetone, methoxychlor, and PCBs (Aroclor 1260).

Terracon Consultants Western, Inc. drilled approximately 63 boreholes at the site in 1995. PCBs were detected again. VOCs, pesticides, herbicides, reactive cyanide, and reactive sulfide were not detected. They concluded that the site is unregulated under TSCA since the landfill was operated in 1962 and the PCB concentrations were relatively minor.

Daniel B. Stevens & Associates, Inc. (DBS&A) performed a landfill gas study at the Sacramento Landfill in 2002 (nine sample points). Methane was detected at five of the sample points and the maximum concentration detected was 4.2%. Hydrogen sulfide was detected in two boreholes at 2.0 parts per million (ppm) and 7.0 ppm. Volatile organics that were detected included trimethylbenzene, dichlorobenzene, propanol, chloroform, ethylbenzene, Freon 114, Freon 12, xylenes, tetrachloroethene, toluene, and trichloroethane.

In an effort to investigate groundwater contamination from the Coronado and Nazareth landfills, the City of Albuquerque installed one monitoring well (NCLF-9) within the Holly Avenue right-of-way adjacent to the subject property. Perchloroethylene (PCE) was detected in that well in 1999. The depth to groundwater is approximately 250 feet. The City of Albuquerque has also installed seven vapor monitoring wells around the perimeter of the landfill, which are monitored quarterly.

2.0 CHARACTERIZATION FOR DISPOSAL

2.1 SAMPLE LOCATIONS

Vinyard & Associates mobilized to the subject property on April 29, 2009, at the request of the client. Mr. LeRoy Cordova had a backhoe at the property and was in the process of excavating seven observation test pits. The approximate test pit locations are indicated on Figure 2. Bulk samples were collected from six of the backhoe test pits in an effort to assist in characterizing the debris for disposal.

2.2 LABORATORY ANALYSES

Composite samples were collected from the debris pile at each pit location. The bottom of trash was not visible except at test pit number 7 (northwest corner of the site). In addition, the approximately volume of debris relative to soil was visually estimated. The percentage estimates are indicated on the site photographs (Figures 3 and 4). The samples were placed on ice in a cooler and hand-delivered to Hall Environmental Analysis Laboratory (HEAL) with a chain-of-custody. Bulk samples were analyzed for:

- Total petroleum hydrocarbons (TPH) using EPA Method 8015B. This TPH method differentiates between gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO).
- RCRA eight metals that have been banned from landfill disposal (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver).
- Organochlorine pesticides using EPA Method 8081.
- Polychlorinated biphenyls using EPA Method 8082.
- Volatile organic aromatics using EPA Method 8260.
- Phenoxy herbicides using EPA Method 8150.
- Polynuclear aromatic hydrocarbons (PAHs) using EPA Method 8310.

A copy of the laboratory analytical report is provided as Appendix A. The following table is a summary of analytes that were detected. The sample number corresponds to the test pit from which the composite sample was collected.

Table 1. Bulk Samples – Laboratory Analytical Summary

Sample	Concentration	Analytes Detected
074-S1	21 mg/Kg	Diesel Range Organics (DRO)
	97 mg/Kg	Motor Oil Range Organics (MRO)
	0.083 mg/Kg	Benzene
	0.20 mg/Kg	Methylene chloride
074-S2	52 mg/Kg	Diesel Range Organics
	170 mg/Kg	Motor Oil Range Organics
	0.057 mg/Kg	Mercury
	91 mg/Kg	Barium
	7.6 mg/Kg	Chromium
	170 mg/Kg	Lead
074-S3	73 mg/Kg	DRO
	270 mg/Kg	MRO
	0.036	Aroclor 1254 (PCB)
074-S4	0.060 mg/Kg	Mercury
	57 mg/Kg	Barium
	2.4 mg/Kg	Chromium
	9.4 mg/Kg	Lead
074-S5	0.011 mg/Kg	4,4'-DDD
	0.014 mg/Kg	4,4'-DDE
	0.020 mg/Kg	4,4'-DDT
	0.039 mg/Kg	Dieldrin
	0.0095 mg/Kg	Heptachlor epoxide
	0.0082 mg/Kg	Methoxychlor
	10 mg/Kg	DRO
	96 mg/Kg	MRO
074-S6	120 mg/Kg	DRO
	200 mg/Kg	MRO
	0.16 mg/Kg	Aroclor 1254 (PCB)
	0.11 mg/Kg	Mercury
	130 mg/Kg	Barium
	5.0 mg/Kg	Chromium
	17 mg/Kg	Lead

In addition, two samples of sheetrock were collected and analyzed for asbestos fibers from Observation Test Pits 3 and 5. These samples were placed in zip lock bags and hand-delivered to Assaigai Analytical Laboratories, Inc. Asbestos fibers were not detected in either sample (Appendix B).

3.0 CONCLUSIONS AND RECOMMENDATIONS

The subject property (Lot 8A1 of Block 18, Tract A, Unit B of North Albuquerque Acres) contains approximately 5.4 acres of land and is located at 5500 Holly Avenue in northeast Albuquerque, New Mexico. The Sacramento Landfill occupies approximately 4.6 acres of Lot 8A1. Seven observation test pits were excavated with a backhoe on April 29, 2009. Six bulk samples were collected and analyzed for organic and inorganic contaminants. Two bulk samples were collected and analyzed for asbestos fibers. Based on the information obtained to date, the following conclusions and recommendations can be made:

1. Five composite samples were analyzed for TPH. TPH as DRO/MRO was detected in each of the five samples. The concentrations ranged from 118 mg/Kg to 343 mg/Kg. This indicates that minor concentrations of TPH are likely present throughout the landfill and reflects the historic practice of dumping waste oil in landfills. The concentrations detected did not exceed the 1,000 mg/Kg TPH Solid Waste Bureau limit for proper disposal at a licensed landfill.

2. One composite sample was analyzed for polynuclear aromatic hydrocarbons (074-S2) and those constituents were not detected.

3. Three composite samples were analyzed for RCRA 8 metals that have been banned from landfill disposal (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver). Mercury, barium, chromium, and lead were detected in each of those samples. The lead concentration in sample 074-S2 was 170 mg/Kg, which is elevated and may warrant TCLP (toxicity characteristic leaching procedure) analysis. TCLP is a method that approximates the amount of a metal that is likely to leach out of the debris in the landfill environment. Metal concentrations above specified TCLP limits are banned from disposal at municipal landfills. Lead has historically been identified as a contaminant of concern at this site. Minor concentrations of various metals may be naturally occurring and do not appear to present an environmental concern.

4. Two composite samples were analyzed for VOCs using EPA Method 8260B. Minor concentrations of benzene and methylene chloride were detected in one of those samples. VOC contaminants were in relatively minor concentrations and should present minor issues for disposal.

5. One composite sample was analyzed for organochlorine pesticides. Minor concentrations of six pesticides were identified. Additional pesticide analyses are warranted. Pesticides have historically been identified as contaminants at this landfill.

6. Two composite samples were analyzed for PCBs. Minor concentrations of PCBs were identified in both samples. PCBs have historically been identified as contaminants at this landfill.

7. Asbestos fibers were not detected in the two samples collected.

In general, characterization sampling has identified the presence of TPH, metals, VOCs, pesticides, and PCBs in the landfill. Most of the analytes were in relatively minor concentrations.

Characterization sampling in conjunction with a review of historical data provides some focus for sampling during excavation and removal of the Sacramento Landfill. This information should be provided to the NMED SWB and to whichever landfill is selected for receiving the wastes.

A Waste Excavation Plan should be prepared and approved by SWB prior to excavation at the site.

The Health and Safety Plan (HASP) for construction workers at the site should incorporate risks for exposure to subsurface hazards and landfill gases.

4.0 QUALITY ASSURANCE / QUALITY CONTROL

Sampling personnel wore appropriate personal protection equipment such as disposable latex gloves during the sampling and decontamination tasks. Disposable equipment was properly disposed and other equipment appropriately decontaminated to reduce the potential for cross-contamination of the samples. Equipment was cleaned of gross contamination by wiping with paper towels and rinsing with distilled water. A solution of distilled water and tri-sodium phosphate detergent was prepared in a clean plastic bucket. Equipment was immersed in this solution and scrubbed. Equipment was removed from the detergent solution and rinsed with distilled water. Decontaminated equipment was stored in a plastic bucket filled with distilled water.

Composite samples were collected by collecting bits of sample for four to seven locations at each debris pile. The debris was thoroughly mixed in a plastic bowl with a plastic spoon. Sample jars were filled with the mixed debris for laboratory analyses. The mixing bowl and sample scoop were decontaminated as described in the previous paragraph prior to collecting each sample. Composite samples were collected to reduce laboratory costs during this preliminary effort. While compositing samples increases the likelihood of detecting a contaminant, it also effectively reduces the maximum contamination that could be present at a discrete location.

No duplicate, split, or background samples were collected during this preliminary project. Historical information correlates well with results from the current sampling program.

The project that was performed is an assessment of representative subsurface conditions at a specific time and at discrete locations and depths. Subsurface conditions will vary significantly in a landfill.

5.0 LIMITATIONS AND CLOSURE

This report has been prepared for the use of Mr. Alex Hudson and his assigned parties to assist in their evaluation of subsurface debris at the subject property. Any other use of this report may be inappropriate. If this report is submitted to the AEHD or NMED SWB, then information contained in this report will become public domain.

Project tasks were performed in accordance with generally accepted environmental investigation and assessment practices within New Mexico. This report's conclusions and recommendations are based on field screening results, independent laboratory analyses, the observations of the investigator at the time of the site visit, on reviews of publicly available information, from independent laboratory analyses, and on information provided by persons familiar with the property. The information has been accepted at face value. The information and conclusions in this report are subject to the accuracy, completeness, and availability of the information obtained during the project. This report is specific to the locations, depths, and times of sample points collected during this project. This information is not appropriate for assessing conditions at other locations or for assessing subsurface conditions at the subject property at a different time.

Contaminant concentrations may vary significantly between data points and with time. If conditions are encountered during development of this property which differ from those presented herein, this office should be contacted for additional evaluation and recommendations. The staff of Vinyard & Associates, Inc. is available for additional consultation as necessary.

Vinyard & Associates, Inc.

Prepared by:

Ken Hunter

Kenneth E. Hunter
Environmental Projects Manager

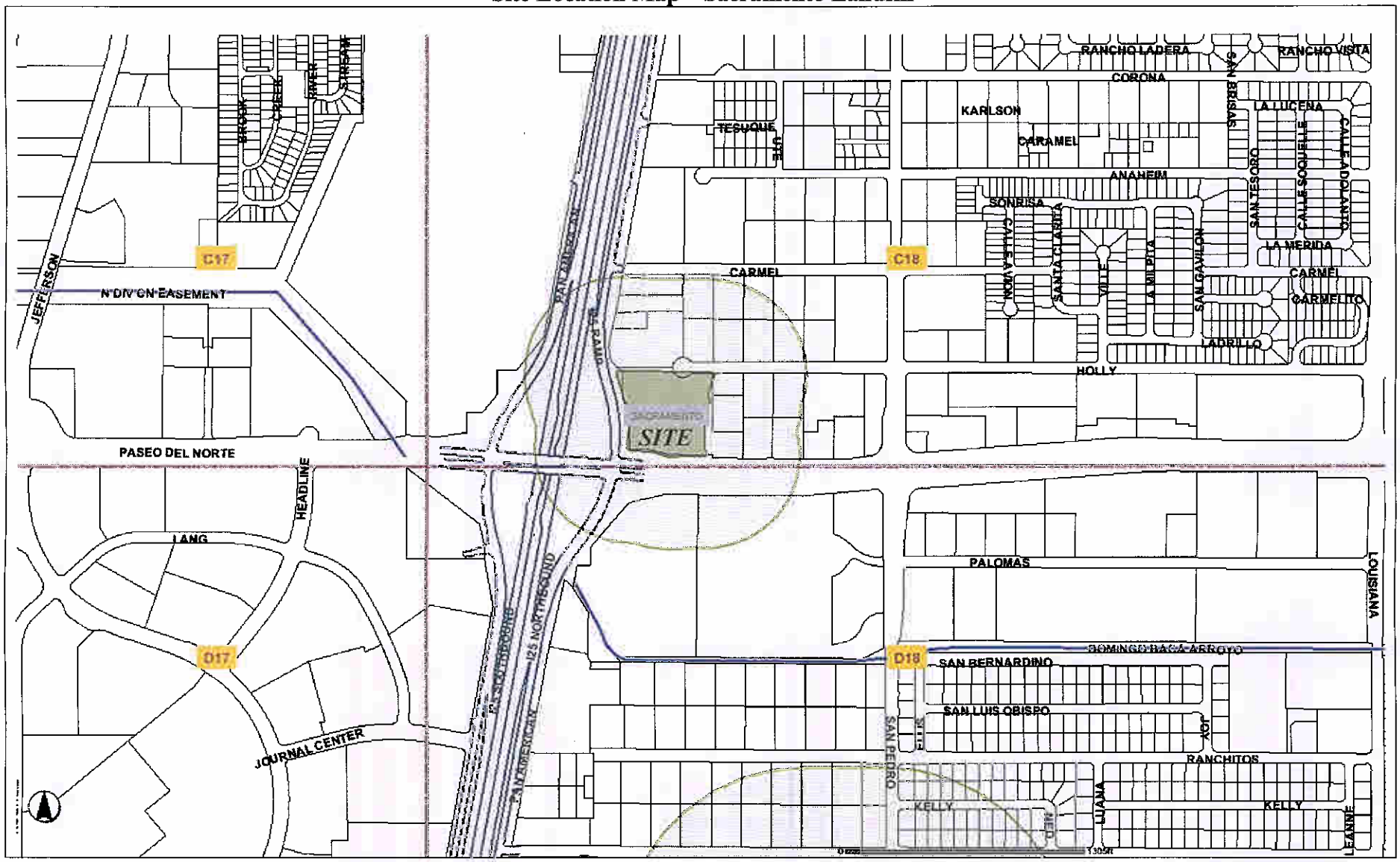
Reviewed and Approved by:

Robert Abeyta

KEH/er

FIGURES AND PHOTOGRAPHS

Site Location Map – Sacramento Landfill



Phase II Environmental Site Assessment
Characterization for Disposal
Site: 5500 Holly Avenue, NE
Albuquerque, New Mexico
Source: AGIS Website (2008 Aerial Photograph)

N

Client: Mr. Alex Hudson
V&A Project No. 09-1-074
Approximate Scale: 1" : 780'

Figure 1

Test Pit Locations – Sacramento Landfill

Phase II Environmental Site Assessment
Characterization for Disposal
Site: 5500 Holly Avenue, NE -
Albuquerque, New Mexico
Source: AGIS Website (2008 Aerial Photograph)

Client: Mr. Alex Hudson
V&A Project No. 09-1-074
Approximate Scale: 1" : 110'

Figure 2

V & A Project No. 09-1-074

Pit 1

About 20% trash – mostly plastic and glass

Analysis: 8260 for VOCs and 8015E for TPH

Pit 2

About 95% trash – mostly glass, plastic, tires, concrete, ash, wood, and paper

Analysis: 8310 for PAH, 8150 for herbicides, RCRA 8 metals, and 8015 for TPH

Pit 3

About 70% trash – mostly tires, glass, plastic and paper

Analysis: 8015 for TPH, 8082 for PCBs

Figure 3

V & A Project No. 09-1-074

Pit 4

About 50% trash – mostly tires, wood, cloth, glass, sheetrock, paper, cardboard, and yard waste

Analysis: 8260 for VOCs and RCRA metals

Pit 5

About 70% trash – mostly plastic, wood, sheetrock, paper, and carpe

Analysis: 8081 for pesticides and 8015 for TPH

Pit 6

About 80% trash – mostly paper, metal, cardboard, plastic and wooc

Analysis: 8015 for TPH, 8082 for PCBs, and RCRA 8 metals

Figure 4

APPENDIX A

HALL ENVIRONMENTAL ANALYSIS LABORATORY REPORT

HALL
ENVIRONMENTAL
ANALYSIS
LABORATORY

COVER LETTER

Thursday, May 28, 2009

Ken Hunter
Vinyard & Associates
8916 Adams St NE Ste. A
Albuquerque, NM 87113

TEL: (505) 797-9743
FAX (505) 797-9749

RE: Star/Sacramento

Order No.: 0904448

Dear Ken Hunter:

Hall Environmental Analysis Laboratory, Inc. received 6 sample(s) on 4/29/2009 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freenian, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001
Texas Lab# T104704424-08-TX

Hall Environmental Analysis Laboratory, Inc. **Date:** *28-May-09*

CLIENT: Vinyard & Associates
Project: Star/Sacramento
Lab Order: 0904448

CASE NARRATIVE

Analytical Comments for METHOD 8260_S, SAMPLE 0904448-01a: DCM is lab contamination. Prep Comments for 8081_S_PREP, Sample 0904448-05A: The prep HoldTime was exceeded by 0.0381 days. Prep Comments for 8082_S_PREP, Sample 0904448-03A: The prep HoldTime was exceeded by 0.0406 days. Prep Comments for 8082_S_PREP, Sample 0904448-06A: The prep HoldTime was exceeded by 0.0330 days.

Hall Environmental Analysis Laboratory, Inc.

Date: *28-May-09*

CLIENT:	Vinyard & Associates	**Client Sample ID:**	074-S1
Lab Order:	0904448	**Collection Date:**	4/29/2009 8:52:00 AM
Project:	Star/Sacramento	**Date Received:**	4/29/2009
Lab ID:	0904448-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	21	10		mg/Kg	1	5/3/2009
Motor Oil Range Organics (MRO)	97	50		mg/Kg	1	5/3/2009
Surr: DNOP	94.1	61.7-135		%REC	1	5/3/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/6/2009 12:18:37 AM
Surr: BFB	104	58.8-123		%REC	1	5/6/2009 12:18:37 AM
EPA METHOD 8260B: VOLATILES						Analyst: **NSB**
Benzene	0.083	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Toluene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Ethylbenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Naphthalene	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/30/2009 12:41:24 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/30/2009 12:41:24 PM
Acetone	ND	0.75		mg/Kg	1	4/30/2009 12:41:24 PM
Bromobenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Bromoform	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Bromomethane	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
2-Butanone	ND	0.50		mg/Kg	1	4/30/2009 12:41:24 PM
Carbon disulfide	ND	0.50		mg/Kg	1	4/30/2009 12:41:24 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
Chlorobenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Chloroethane	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
Chloroform	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Chloromethane	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Dibromomethane	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *28-May-09*

CLIENT:	Vinyard & Associates	**Client Sample ID:**	074-S1
Lab Order:	0904448	**Collection Date:**	4/29/2009 8:52:00 AM
Project:	Star/Sacramento	**Date Received:**	4/29/2009
Lab ID:	0904448-01	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **NSB**
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
2-Hexanone	ND	0.50		mg/Kg	1	4/30/2009 12:41:24 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	4/30/2009 12:41:24 PM
Methylene chloride	0.20	0.15		mg/Kg	1	4/30/2009 12:41:24 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Styrene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
Vinyl chloride	ND	0.050		mg/Kg	1	4/30/2009 12:41:24 PM
Xylenes, Total	ND	0.10		mg/Kg	1	4/30/2009 12:41:24 PM
Surr: 1,2-Dichloroethane-d4	88.4	81.6-105		%REC	1	4/30/2009 12:41:24 PM
Surr: 4-Bromofluorobenzene	98.4	84.7-111		%REC	1	4/30/2009 12:41:24 PM
Surr: Dibromofluoromethane	96.9	77.4-105		%REC	1	4/30/2009 12:41:24 PM
Surr: Toluene-d8	100	88.2-113		%REC	1	4/30/2009 12:41:24 PM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *28-May-09*

CLIENT:	Vinyard & Associates	**Client Sample ID:**	074-S2
Lab Order:	0904448	**Collection Date:**	4/29/2009 9:02:00 AM
Project:	Star/Sacramento	**Date Received:**	4/29/2009
Lab ID:	0904448-02	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	52	10		mg/Kg	1	5/3/2009
Motor Oil Range Organics (MRO)	170	50		mg/Kg	1	5/3/2009
Surr: DNOP	98.8	61.7-135		%REC	1	5/3/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/6/2009 12:49:07 AM
Surr: BFB	97.9	58.8-123		%REC	1	5/6/2009 12:49:07 AM
EPA METHOD 8310: PAHS						Analyst: **JMP**
Naphthalene	ND	2.5		mg/Kg	10	5/13/2009 1:48:01 AM
1-Methylnaphthalene	ND	2.5		mg/Kg	10	5/13/2009 1:48:01 AM
2-Methylnaphthalene	ND	2.5		mg/Kg	10	5/13/2009 1:48:01 AM
Acenaphthylene	ND	2.5		mg/Kg	10	5/13/2009 1:48:01 AM
Acenaphthene	ND	2.5		mg/Kg	10	5/13/2009 1:48:01 AM
Fluorene	ND	0.30		mg/Kg	10	5/13/2009 1:48:01 AM
Phenanthrene	ND	0.15		mg/Kg	10	5/13/2009 1:48:01 AM
Anthracene	ND	0.15		mg/Kg	10	5/13/2009 1:48:01 AM
Fluoranthene	ND	0.20		mg/Kg	10	5/13/2009 1:48:01 AM
Pyrene	ND	0.25		mg/Kg	10	5/13/2009 1:48:01 AM
Benz(a)anthracene	ND	0.10		mg/Kg	10	5/13/2009 1:48:01 AM
Chrysene	ND	0.11		mg/Kg	10	5/13/2009 1:48:01 AM
Benzo(b)fluoranthene	ND	0.10		mg/Kg	10	5/13/2009 1:48:01 AM
Benzo(k)fluoranthene	ND	0.10		mg/Kg	10	5/13/2009 1:48:01 AM
Benzo(a)pyrene	ND	0.10		mg/Kg	10	5/13/2009 1:48:01 AM
Dibenz(a,h)anthracene	ND	0.10		mg/Kg	10	5/13/2009 1:48:01 AM
Benzo(g,h,i)perylene	ND	0.10		mg/Kg	10	5/13/2009 1:48:01 AM
Indeno(1,2,3-cd)pyrene	ND	1.0		mg/Kg	10	5/13/2009 1:48:01 AM
Surr: Benzo(e)pyrene	32.0	31.5-75.9		%REC	10	5/13/2009 1:48:01 AM
EPA METHOD 7471: MERCURY						Analyst: **MMS**
Mercury	0.057	0.033		mg/Kg	1	5/14/2009 5:22:51 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Arsenic	ND	13		mg/Kg	5	5/18/2009 11:25:42 AM
Barium	91	0.50		mg/Kg	5	5/18/2009 11:25:42 AM
Cadmium	ND	0.50		mg/Kg	5	5/18/2009 11:25:42 AM
Chromium	7.6	1.5		mg/Kg	5	5/18/2009 11:25:42 AM
Lead	170	1.3		mg/Kg	5	5/18/2009 11:25:42 AM
Selenium	ND	13		mg/Kg	5	5/18/2009 3:59:40 PM
Silver	ND	1.3		mg/Kg	5	5/18/2009 11:25:42 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *28-May-09*

CLIENT:	Vinyard & Associates	**Client Sample ID:**	074-S3
Lab Order:	0904448	**Collection Date:**	4/29/2009 9:11:00 AM
Project:	Star/Sacramento	**Date Received:**	4/29/2009
Lab ID:	0904448-03	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8082: PCB'S						Analyst: **JMP**
Aroclor 1016	ND	0.020		mg/Kg	1	5/15/2009 6:12:37 PM
Aroclor 1221	ND	0.020		mg/Kg	1	5/15/2009 6:12:37 PM
Aroclor 1232	ND	0.020		mg/Kg	1	5/15/2009 6:12:37 PM
Aroclor 1242	ND	0.020		mg/Kg	1	5/15/2009 6:12:37 PM
Aroclor 1248	ND	0.020		mg/Kg	1	5/15/2009 6:12:37 PM
Aroclor 1254	0.036	0.020		mg/Kg	1	5/15/2009 6:12:37 PM
Aroclor 1260	ND	0.020		mg/Kg	1	5/15/2009 6:12:37 PM
Surr: Decachlorobiphenyl	82.8	15.8-133		%REC	1	5/15/2009 6:12:37 PM
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	73	10		mg/Kg	1	5/3/2009
Motor Oil Range Organics (MRO)	270	50		mg/Kg	1	5/3/2009
Surr: DNOP	98.8	61.7-135		%REC	1	5/3/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/6/2009 1:19:30 AM
Surr: BFB	96.3	58.8-123		%REC	1	5/6/2009 1:19:30 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *28-May-09*

CLIENT:	Vinyard & Associates	**Client Sample ID:**	074-S4
Lab Order:	0904448	**Collection Date:**	4/29/2009 8:57:00 AM
Project:	Star/Sacramento	**Date Received:**	4/29/2009
Lab ID:	0904448-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 7471: MERCURY						Analyst: **MMS**
Mercury	0.060	0.033		mg/Kg	1	5/14/2009 5:24:29 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Arsenic	ND	13		mg/Kg	5	5/18/2009 11:28:18 AM
Barium	57	0.50		mg/Kg	5	5/18/2009 11:28:18 AM
Cadmium	ND	0.50		mg/Kg	5	5/18/2009 11:28:18 AM
Chromium	2.4	1.5		mg/Kg	5	5/18/2009 11:28:18 AM
Lead	9.4	1.3		mg/Kg	5	5/18/2009 11:28:18 AM
Selenium	ND	13		mg/Kg	5	5/18/2009 6:22:40 PM
Silver	ND	1.3		mg/Kg	5	5/18/2009 11:28:18 AM
EPA METHOD 8260B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Toluene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Ethylbenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Methyl tert-butyl ether (MTBE)	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,2,4-Trimethylbenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,3,5-Trimethylbenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,2-Dichloroethane (EDC)	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,2-Dibromoethane (EDB)	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Naphthalene	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
1-Methylnaphthalene	ND	0.20		mg/Kg	1	4/30/2009 1:11:08 PM
2-Methylnaphthalene	ND	0.20		mg/Kg	1	4/30/2009 1:11:08 PM
Acetone	ND	0.75		mg/Kg	1	4/30/2009 1:11:08 PM
Bromobenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Bromodichloromethane	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Bromoform	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Bromomethane	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
2-Butanone	ND	0.50		mg/Kg	1	4/30/2009 1:11:08 PM
Carbon disulfide	ND	0.50		mg/Kg	1	4/30/2009 1:11:08 PM
Carbon tetrachloride	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
Chlorobenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Chloroethane	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
Chloroform	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Chloromethane	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
2-Chlorotoluene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
4-Chlorotoluene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
cis-1,2-DCE	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
cis-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,2-Dibromo-3-chloropropane	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
Dibromochloromethane	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Dibromomethane	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM

Qualifiers:

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E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *28-May-09*

CLIENT:	Vinyard & Associates	**Client Sample ID:**	074-S4
Lab Order:	0904448	**Collection Date:**	4/29/2009 8:57:00 AM
Project:	Star/Sacramento	**Date Received:**	4/29/2009
Lab ID:	0904448-04	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8260B: VOLATILES						Analyst: **NSB**
1,2-Dichlorobenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,3-Dichlorobenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,4-Dichlorobenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Dichlorodifluoromethane	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,1-Dichloroethane	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
1,1-Dichloroethene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,2-Dichloropropane	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,3-Dichloropropane	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
2,2-Dichloropropane	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
1,1-Dichloropropene	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
Hexachlorobutadiene	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
2-Hexanone	ND	0.50		mg/Kg	1	4/30/2009 1:11:08 PM
Isopropylbenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
4-Isopropyltoluene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
4-Methyl-2-pentanone	ND	0.50		mg/Kg	1	4/30/2009 1:11:08 PM
Methylene chloride	ND	0.15		mg/Kg	1	4/30/2009 1:11:08 PM
n-Butylbenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
n-Propylbenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
sec-Butylbenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Styrene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
tert-Butylbenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,1,1,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,1,2,2-Tetrachloroethane	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Tetrachloroethene (PCE)	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
trans-1,2-DCE	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
trans-1,3-Dichloropropene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,2,3-Trichlorobenzene	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
1,2,4-Trichlorobenzene	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,1,1-Trichloroethane	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,1,2-Trichloroethane	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Trichloroethene (TCE)	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Trichlorofluoromethane	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
1,2,3-Trichloropropane	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
Vinyl chloride	ND	0.050		mg/Kg	1	4/30/2009 1:11:08 PM
Xylenes, Total	ND	0.10		mg/Kg	1	4/30/2009 1:11:08 PM
Surr: 1,2-Dichloroethane-d4	93.7	81.6-105		%REC	1	4/30/2009 1:11:08 PM
Surr: 4-Bromofluorobenzene	97.3	84.7-111		%REC	1	4/30/2009 1:11:08 PM
Surr: Dibromofluoromethane	103	77.4-105		%REC	1	4/30/2009 1:11:08 PM
Surr: Toluene-d8	95.4	88.2-113		%REC	1	4/30/2009 1:11:08 PM

Qualifiers:

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E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *28-May-09*

CLIENT:	Vinyard & Associates	**Client Sample ID:**	074-S5
Lab Order:	0904448	**Collection Date:**	4/29/2009 9:16:00 AM
Project:	Star/Sacramento	**Date Received:**	4/29/2009
Lab ID:	0904448-05	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8081: PESTICIDES						Analyst: **JDC**
4,4'-DDD	0.011	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
4,4'-DDE	0.014	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
4,4'-DDT	0.020	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Aldrin	ND	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
alpha-BHC	ND	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
beta-BHC	ND	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Chlordane	ND	0.25		mg/Kg	1	5/14/2009 5:59:13 PM
delta-BHC	ND	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Dieldrin	0.039	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Endosulfan I	ND	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Endosulfan II	ND	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Endosulfan sulfate	ND	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Endrin	ND	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Endrin aldehyde	ND	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
gamma-BHC	ND	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Heptachlor	ND	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Heptachlor epoxide	0.0095	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Methoxychlor	0.0082	0.0020		mg/Kg	1	5/14/2009 5:59:13 PM
Toxaphene	ND	0.25		mg/Kg	1	5/14/2009 5:59:13 PM
Surr: Decachlorobiphenyl	71.0	31-151		%REC	1	5/14/2009 5:59:13 PM
Surr: Tetrachloro-m-xylene	58.9	1.62-143		%REC	1	5/14/2009 5:59:13 PM
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	10	10		mg/Kg	1	5/3/2009
Motor Oil Range Organics (MRO)	96	50		mg/Kg	1	5/3/2009
Surr: DNOP	93.6	61.7-135		%REC	1	5/3/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/6/2009 1:49:58 AM
Surr: BFB	92.6	58.8-123		%REC	1	5/6/2009 1:49:58 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Hall Environmental Analysis Laboratory, Inc.

Date: *28-May-09*

CLIENT:	Vinyard & Associates	**Client Sample ID:**	074-S6
Lab Order:	0904448	**Collection Date:**	4/29/2009 9:22:00 AM
Project:	Star/Sacramento	**Date Received:**	4/29/2009
Lab ID:	0904448-06	**Matrix:**	SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8082: PCB'S						Analyst: **JMP**
Aroclor 1016	ND	0.020		mg/Kg	1	5/15/2009 6:57:05 PM
Aroclor 1221	ND	0.020		mg/Kg	1	5/15/2009 6:57:05 PM
Aroclor 1232	ND	0.020		mg/Kg	1	5/15/2009 6:57:05 PM
Aroclor 1242	ND	0.020		mg/Kg	1	5/15/2009 6:57:05 PM
Aroclor 1248	ND	0.020		mg/Kg	1	5/15/2009 6:57:05 PM
Aroclor 1254	0.16	0.020		mg/Kg	1	5/15/2009 6:57:05 PM
Aroclor 1260	ND	0.020		mg/Kg	1	5/15/2009 6:57:05 PM
Surr: Decachlorobiphenyl	54.8	15.8-133		%REC	1	5/15/2009 6:57:05 PM
EPA METHOD 8015B: DIESEL RANGE ORGANICS						Analyst: **SCC**
Diesel Range Organics (DRO)	120	10		mg/Kg	1	5/3/2009
Motor Oil Range Organics (MRO)	200	50		mg/Kg	1	5/3/2009
Surr: DNOP	109	61.7-135		%REC	1	5/3/2009
EPA METHOD 8015B: GASOLINE RANGE						Analyst: **DAM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/6/2009 2:20:35 AM
Surr: BFB	99.7	58.8-123		%REC	1	5/6/2009 2:20:35 AM
EPA METHOD 7471: MERCURY						Analyst: **MMS**
Mercury	0.11	0.033		mg/Kg	1	5/14/2009 5:36:05 PM
EPA METHOD 6010B: SOIL METALS						Analyst: **SNV**
Arsenic	ND	13		mg/Kg	5	5/18/2009 11:30:51 AM
Barium	130	0.50		mg/Kg	5	5/18/2009 11:30:51 AM
Cadmium	ND	0.50		mg/Kg	5	5/18/2009 11:30:51 AM
Chromium	5.0	1.5		mg/Kg	5	5/18/2009 11:30:51 AM
Lead	17	1.3		mg/Kg	5	5/18/2009 11:30:51 AM
Selenium	ND	13		mg/Kg	5	5/18/2009 6:25:12 PM
Silver	ND	1.3		mg/Kg	5	5/18/2009 11:30:51 AM

Qualifiers:

*	Value exceeds Maximum Contaminant Level	B	Analyte detected in the associated Method Blank
E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	MCL	Maximum Contaminant Level
ND	Not Detected at the Reporting Limit	RL	Reporting Limit
S	Spike recovery outside accepted recovery limits		

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client:	HALL ENVIRONMENTAL ANALYSIS LAB	**Batch #:**	090430030
Address:	4901 HAWKINS NE SUITE D ALBUQUERQUE, NM 87109	**Project Name:**	0904448
Attn:	ANDY FREEMAN		

Analytical Results Report

Sample Number	090430030-001	**Sampling Date**	4/29/2009	**Date/Time Received**	4/30/2009	10:30 AM
Client Sample ID	090448-02C / 074-S2	**Sampling Time**	9:02 AM	**Extraction Date**	5/4/2009	
Matrix	Soil	**Sample Location**				
Comments						

Parameter	Result	Units	PQL	Analysis Date	Analyst	Method	Qualifier
2,4,5-T	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
2,4,5-TP (Silvex)	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
2,4-D	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
2,4-DB	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
Dacthal	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
Dalapon	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
Dicamba	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
Dichloroprop	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
Dinoseb	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
MCPA	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
Pentachlorophenol	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
Picloram	ND	mg/Kg	0.01	5/11/2009	EMP	EPA 8151A	
%moisture	9	Percent				%moisture	

Surrogate Data

Sample Number 090430030-001

Surrogate Standard	Method	Percent Recovery	Control Limits
3,5-Dichlorobenzoic Acid	EPA 8151A	99.8	35-145

Authorized Signature John W. Cobb

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

Anatek Labs, Inc.

1282 Alturas Drive • Moscow, ID 83843 • (208) 883-2839 • Fax (208) 882-9246 • email moscow@anateklabs.com
504 E Sprague Ste. D • Spokane WA 99202 • (509) 838-3999 • Fax (509) 838-4433 • email spokane@anateklabs.com

Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 090430030
Project Name: 0904448

Analytical Results Report

Quality Control Data

Lab Control Sample

Parameter	LCS Result	Units	LCS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
Picloram	0.505	mg/kg	0.5	101.0	62-145	5/4/2009	5/10/2009
Pentachlorophenol	0.136	mg/kg	0.125	108.8	55-135	5/4/2009	5/10/2009
Dinoseb	0.433	mg/kg	0.5	86.6	45-125	5/4/2009	5/10/2009
Dicamba	0.494	mg/kg	0.5	98.8	45-125	5/4/2009	5/10/2009
Dalapon	0.254	mg/kg	0.5	50.8	22-90	5/4/2009	5/10/2009
Dacthal	0.800	mg/kg	0.5	160.0	30-175	5/4/2009	5/10/2009
2,4-D	0.575	mg/kg	0.5	115.0	30-140	5/4/2009	5/10/2009
2,4,5-TP (Silvex)	0.648	mg/kg	0.5	129.6	65-150	5/4/2009	5/10/2009
2,4,5-T	0.623	mg/kg	0.5	124.6	45-136	5/4/2009	5/10/2009

Matrix Spike

Sample Number	Parameter	Sample Result	MS Result	Units	MS Spike	%Rec	AR %Rec	Prep Date	Analysis Date
090501009-001	Picloram	ND	0.526	mg/kg	0.5	105.2	45-145	5/4/2009	5/10/2009
090501009-001	Pentachlorophenol	ND	0.137	mg/kg	0.125	109.6	55-135	5/4/2009	5/10/2009
090501009-001	Dinoseb	ND	0.520	mg/kg	0.5	104.0	45-125	5/4/2009	5/10/2009
090501009-001	Dicamba	ND	0.570	mg/kg	0.5	114.0	45-125	5/4/2009	5/10/2009
090501009-001	Dalapon	ND	0.278	mg/kg	0.5	55.6	10-90	5/4/2009	5/10/2009
090501009-001	Dacthal	ND	0.965	mg/kg	0.5	193.0	30-120	5/4/2009	5/10/2009
090501009-001	2,4-D	ND	0.638	mg/kg	0.5	127.6	30-140	5/4/2009	5/10/2009
090501009-001	2,4,5-TP (Silvex)	ND	0.795	mg/kg	0.5	159.0	65-150	5/4/2009	5/10/2009
090501009-001	2,4,5-T	ND	0.732	mg/kg	0.5	146.4	45-125	5/4/2009	5/10/2009

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
Picloram	0.541	mg/kg	0.5	108.2	2.8	0-50	5/4/2009	5/10/2009
Pentachlorophenol	0.148	mg/kg	0.125	118.4	7.7	0-50	5/4/2009	5/10/2009
Dinoseb	0.517	mg/kg	0.5	103.4	0.6	0-50	5/4/2009	5/10/2009
Dicamba	0.589	mg/kg	0.5	117.8	3.3	0-50	5/4/2009	5/10/2009
Dalapon	0.264	mg/kg	0.5	52.8	5.2	0-50	5/4/2009	5/10/2009
Dacthal	1.02	mg/kg	0.5	204.0	5.5	0-50	5/4/2009	5/10/2009
2,4-D	0.664	mg/kg	0.5	132.8	4.0	0-50	5/4/2009	5/10/2009
2,4,5-TP (Silvex)	0.834	mg/kg	0.5	166.8	4.8	0-50	5/4/2009	5/10/2009

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C1320
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C1287

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Client: HALL ENVIRONMENTAL ANALYSIS LAB
Address: 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
Attn: ANDY FREEMAN

Batch #: 090430030
Project Name: 0904448

Analytical Results Report

Quality Control Data

Matrix Spike Duplicate

Parameter	MSD Result	Units	MSD Spike	%Rec	%RPD	AR %RPD	Prep Date	Analysis Date
2,4,5-T	0.767	mg/kg	0.5	153.4	4.7	0-50	5/4/2009	5/10/2009

Method Blank

Parameter	Result	Units	PQL	Prep Date	Analysis Date
2,4,5-T	ND	mg/Kg	0.01	5/4/2009	5/10/2009
2,4,5-TP (Silvex)	ND	mg/Kg	0.01	5/4/2009	5/10/2009
2,4-D	ND	mg/Kg	0.01	5/4/2009	5/10/2009
2,4-DB	ND	mg/Kg	0.01	5/4/2009	5/10/2009
Dacthal	ND	mg/Kg	0.01	5/4/2009	5/10/2009
Dalapon	ND	mg/Kg	0.01	5/4/2009	5/10/2009
Dicamba	ND	mg/Kg	0.01	5/4/2009	5/10/2009
Dichloroprop	ND	mg/Kg	0.01	5/4/2009	5/10/2009
Dinoseb	ND	mg/Kg	0.01	5/4/2009	5/10/2009
MCPA	ND	mg/Kg	0.01	5/4/2009	5/10/2009
Pentachlorophenol	ND	mg/Kg	0.01	5/4/2009	5/10/2009
Picloram	ND	mg/Kg	0.01	5/4/2009	5/10/2009

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

Comments:

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C1320
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C1287

QA/QC SUMMARY REPORT

Client: Vinyard & Associates
Project: Star/Sacramento **Work Order:** 0904448

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8015B: Diesel Range Organics									
Sample ID: MB-19004		*MBLK*			Batch ID:	**19004**	Analysis Date:		5/3/2009
Diesel Range Organics (DRO)	ND	mg/Kg	10						
Motor Oil Range Organics (MRO)	ND	mg/Kg	50						
Sample ID: LCS-19004		*LCS*			Batch ID:	**19004**	Analysis Date:		5/3/2009
Diesel Range Organics (DRO)	45.59	mg/Kg	10	91.2	64.6	116			
Sample ID: LCSD-19004		*LCSD*			Batch ID:	**19004**	Analysis Date:		5/3/2009
Diesel Range Organics (DRO)	38.78	mg/Kg	10	77.6	64.6	116	16.1	17.4	
Method: EPA Method 8015B: Gasoline Range									
Sample ID: MB-18986		*MBLK*			Batch ID:	**18986**	Analysis Date:		5/5/2009 9:43:57 PM
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-18986		*LCS*			Batch ID:	**18986**	Analysis Date:		5/5/2009 7:41:27 PM
Gasoline Range Organics (GRO)	28.53	mg/Kg	5.0	109	64.4	133			
Sample ID: LCSD-18986		*LCSD*			Batch ID:	**18986**	Analysis Date:		5/5/2009 8:11:59 PM
Gasoline Range Organics (GRO)	30.04	mg/Kg	5.0	115	69.5	120	5.16	11.6	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Vinyard & Associates
Project: Star/Sacramento **Work Order:** 0904448

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8081: PESTICIDES									
Sample ID: MB-19093		*MBLK*			Batch ID:	**19093**	Analysis Date:		5/14/2009 5:07:54 PM
4,4'-DDD	ND	mg/Kg	0.0020						
4,4'-DDE	ND	mg/Kg	0.0020						
4,4'-DDT	ND	mg/Kg	0.0020						
Aldrin	ND	mg/Kg	0.0020						
alpha-BHC	ND	mg/Kg	0.0020						
beta-BHC	ND	mg/Kg	0.0020						
Chlordane	ND	mg/Kg	0.25						
delta-BHC	ND	mg/Kg	0.0020						
Dieldrin	ND	mg/Kg	0.0020						
Endosulfan I	ND	mg/Kg	0.0020						
Endosulfan II	ND	mg/Kg	0.0020						
Endosulfan sulfate	ND	mg/Kg	0.0020						
Endrin	ND	mg/Kg	0.0020						
Endrin aldehyde	ND	mg/Kg	0.0020						
gamma-BHC	ND	mg/Kg	0.0020						
Heptachlor	ND	mg/Kg	0.0020						
Heptachlor epoxide	ND	mg/Kg	0.0020						
Methoxychlor	ND	mg/Kg	0.0020						
Toxaphene	ND	mg/Kg	0.25						
Sample ID: LCS-19093		*LCS*			Batch ID:	**19093**	Analysis Date:		5/14/2009 5:24:59 PM
4,4'-DDD	0.01070	mg/Kg	0.0020	85.6	44.4	156			
4,4'-DDE	0.01028	mg/Kg	0.0020	82.2	28.2	172			
4,4'-DDT	0.009625	mg/Kg	0.0020	77.0	24.9	167			
Aldrin	0.01038	mg/Kg	0.0020	83.0	30.6	136			
alpha-BHC	0.009175	mg/Kg	0.0020	73.4	36.3	126			
beta-BHC	0.009875	mg/Kg	0.0020	79.0	36.8	147			
delta-BHC	0.009600	mg/Kg	0.0020	76.8	37.8	144			
Dieldrin	0.01013	mg/Kg	0.0020	81.0	27.3	141			
Endosulfan I	0.009625	mg/Kg	0.0020	77.0	26.8	149			
Endosulfan II	0.01070	mg/Kg	0.0020	85.6	30.6	154			
Endosulfan sulfate	0.01090	mg/Kg	0.0020	87.2	23.2	172			
Endrin	0.008750	mg/Kg	0.0020	70.0	29.7	159			
Endrin aldehyde	0.01060	mg/Kg	0.0020	84.8	26.5	154			
gamma-BHC	0.009425	mg/Kg	0.0020	75.4	40.9	130			
Heptachlor	0.009325	mg/Kg	0.0020	74.6	30.9	143			
Heptachlor epoxide	0.009250	mg/Kg	0.0020	74.0	32.4	144			
Methoxychlor	0.009125	mg/Kg	0.0020	73.0	40.3	157			
Sample ID: LCSD-19093		*LCSD*			Batch ID:	**19093**	Analysis Date:		5/14/2009 5:42:07 PM
4,4'-DDD	0.01148	mg/Kg	0.0020	91.8	44.4	156	6.99	20	
4,4'-DDE	0.01103	mg/Kg	0.0020	88.2	28.2	172	7.04	20	
4,4'-DDT	0.01083	mg/Kg	0.0020	86.6	24.9	167	11.7	20	
Aldrin	0.009075	mg/Kg	0.0020	72.6	30.6	136	13.4	20	
alpha-BHC	0.009725	mg/Kg	0.0020	77.8	36.3	126	5.82	20	
beta-BHC	0.01015	mg/Kg	0.0020	81.2	36.8	147	2.75	20	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Vinyard & Associates
Project: Star/Sacramento **Work Order:** 0904448

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8081: PESTICIDES									
Sample ID: LCSD-19093		*LCSD*			Batch ID:	**19093**	Analysis Date:		5/14/2009 5:42:07 PM
delta-BHC	0.01000	mg/Kg	0.0020	80.0	37.8	144	4.08	20	
Dieldrin	0.01098	mg/Kg	0.0020	87.8	27.3	141	8.06	20	
Endosulfan I	0.009875	mg/Kg	0.0020	79.0	26.8	149	2.56	20	
Endosulfan II	0.01123	mg/Kg	0.0020	89.8	30.6	154	4.79	20	
Endosulfan sulfate	0.01178	mg/Kg	0.0020	94.2	23.2	172	7.72	20	
Endrin	0.008025	mg/Kg	0.0020	64.2	29.7	159	8.64	20	
Endrin aldehyde	0.01200	mg/Kg	0.0020	96.0	26.5	154	12.4	20	
gamma-BHC	0.009875	mg/Kg	0.0020	79.0	40.9	130	4.66	20	
Heptachlor	0.009325	mg/Kg	0.0020	74.6	30.9	143	0	20	
Heptachlor epoxide	0.01000	mg/Kg	0.0020	80.0	32.4	144	7.79	20	
Methoxychlor	0.01070	mg/Kg	0.0020	85.6	40.3	157	15.9	20	
Method: EPA Method 8082: PCB's									
Sample ID: MB-19092		*MBLK*			Batch ID:	**19092**	Analysis Date:		5/15/2009 3:57:49 PM
Aroclor 1016	ND	mg/Kg	0.020						
Aroclor 1221	ND	mg/Kg	0.020						
Aroclor 1232	ND	mg/Kg	0.020						
Aroclor 1242	ND	mg/Kg	0.020						
Aroclor 1248	ND	mg/Kg	0.020						
Aroclor 1254	ND	mg/Kg	0.020						
Aroclor 1260	ND	mg/Kg	0.020						
Sample ID: LCS-19092		*LCS*			Batch ID:	**19092**	Analysis Date:		5/15/2009 4:42:21 PM
Aroclor 1260	0.08310	mg/Kg	0.020	66.5	30.3	119			
Sample ID: LCSD-19092		*LCSD*			Batch ID:	**19092**	Analysis Date:		5/15/2009 5:27:21 PM
Aroclor 1260	0.1077	mg/Kg	0.020	86.2	30.3	119	25.8	33.4	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Vinyard & Associates
Project: Star/Sacramento **Work Order:** 0904448

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: mb-18986		*MBLK*			Batch ID: **18986**		Analysis Date: 4/30/2009 4:09:12 PM		
Benzene	ND	mg/Kg	0.050						
Toluene	ND	mg/Kg	0.050						
Ethylbenzene	ND	mg/Kg	0.050						
Methyl tert-butyl ether (MTBE)	ND	mg/Kg	0.050						
1,2,4-Trimethylbenzene	ND	mg/Kg	0.050						
1,3,5-Trimethylbenzene	ND	mg/Kg	0.050						
1,2-Dichloroethane (EDC)	ND	mg/Kg	0.050						
1,2-Dibromoethane (EDB)	ND	mg/Kg	0.050						
Naphthalene	ND	mg/Kg	0.10						
1-Methylnaphthalene	ND	mg/Kg	0.20						
2-Methylnaphthalene	ND	mg/Kg	0.20						
Acetone	ND	mg/Kg	0.75						
Bromobenzene	ND	mg/Kg	0.050						
Bromodichloromethane	ND	mg/Kg	0.050						
Bromoform	ND	mg/Kg	0.050						
Bromomethane	ND	mg/Kg	0.10						
2-Butanone	ND	mg/Kg	0.50						
Carbon disulfide	ND	mg/Kg	0.50						
Carbon tetrachloride	ND	mg/Kg	0.10						
Chlorobenzene	ND	mg/Kg	0.050						
Chloroethane	ND	mg/Kg	0.10						
Chloroform	ND	mg/Kg	0.050						
Chloromethane	ND	mg/Kg	0.050						
2-Chlorotoluene	ND	mg/Kg	0.050						
4-Chlorotoluene	ND	mg/Kg	0.050						
cis-1,2-DCE	ND	mg/Kg	0.050						
cis-1,3-Dichloropropene	ND	mg/Kg	0.050						
1,2-Dibromo-3-chloropropane	ND	mg/Kg	0.10						
Dibromochloromethane	ND	mg/Kg	0.050						
Dibromomethane	ND	mg/Kg	0.10						
1,2-Dichlorobenzene	ND	mg/Kg	0.050						
1,3-Dichlorobenzene	ND	mg/Kg	0.050						
1,4-Dichlorobenzene	ND	mg/Kg	0.050						
Dichlorodifluoromethane	ND	mg/Kg	0.050						
1,1-Dichloroethane	ND	mg/Kg	0.10						
1,1-Dichloroethene	ND	mg/Kg	0.050						
1,2-Dichloropropane	ND	mg/Kg	0.050						
1,3-Dichloropropane	ND	mg/Kg	0.050						
2,2-Dichloropropane	ND	mg/Kg	0.10						
1,1-Dichloropropene	ND	mg/Kg	0.10						
Hexachlorobutadiene	ND	mg/Kg	0.10						
2-Hexanone	ND	mg/Kg	0.50						
Isopropylbenzene	ND	mg/Kg	0.050						
4-Isopropyltoluene	ND	mg/Kg	0.050						

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Vinyard & Associates
Project: Star/Sacramento **Work Order:** 0904448

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8260B: VOLATILES									
Sample ID: mb-18986		*MBLK*			Batch ID:	**18986**	Analysis Date:		4/30/2009 4:09:12 PM
4-Methyl-2-pentanone	ND	mg/Kg	0.50						
Methylene chloride	ND	mg/Kg	0.15						
n-Butylbenzene	ND	mg/Kg	0.050						
n-Propylbenzene	ND	mg/Kg	0.050						
sec-Butylbenzene	ND	mg/Kg	0.050						
Styrene	ND	mg/Kg	0.050						
tert-Butylbenzene	ND	mg/Kg	0.050						
1,1,1,2-Tetrachloroethane	ND	mg/Kg	0.050						
1,1,2,2-Tetrachloroethane	ND	mg/Kg	0.050						
Tetrachloroethene (PCE)	ND	mg/Kg	0.050						
trans-1,2-DCE	ND	mg/Kg	0.050						
trans-1,3-Dichloropropene	ND	mg/Kg	0.050						
1,2,3-Trichlorobenzene	ND	mg/Kg	0.10						
1,2,4-Trichlorobenzene	ND	mg/Kg	0.050						
1,1,1-Trichloroethane	ND	mg/Kg	0.050						
1,1,2-Trichloroethane	ND	mg/Kg	0.050						
Trichloroethene (TCE)	ND	mg/Kg	0.050						
Trichlorofluoromethane	ND	mg/Kg	0.050						
1,2,3-Trichloropropane	ND	mg/Kg	0.10						
Vinyl chloride	ND	mg/Kg	0.050						
Xylenes, Total	ND	mg/Kg	0.10						
Sample ID: lcs-18986		*LCS*			Batch ID:	**18986**	Analysis Date:		4/30/2009 3:09:50 PM
Benzene	1.076	mg/Kg	0.050	108	87.8	132			
Toluene	0.9598	mg/Kg	0.050	96.0	64.9	140			
Chlorobenzene	0.9806	mg/Kg	0.050	98.1	77.6	128			
1,1-Dichloroethene	1.064	mg/Kg	0.050	106	64.6	163			
Trichloroethene (TCE)	1.016	mg/Kg	0.050	102	47	115			
Sample ID: lcsd-18986		*LCSD*			Batch ID:	**18986**	Analysis Date:		4/30/2009 3:39:27 PM
Benzene	1.044	mg/Kg	0.050	104	87.8	132	3.02	20	
Toluene	1.107	mg/Kg	0.050	111	64.9	140	14.2	20	
Chlorobenzene	1.068	mg/Kg	0.050	107	77.6	128	8.49	20	
1,1-Dichloroethene	1.096	mg/Kg	0.050	110	64.6	163	2.96	20	
Trichloroethene (TCE)	1.065	mg/Kg	0.050	106	47	115	4.66	20	

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Vinyard & Associates
Project: Star/Sacramento **Work Order:** 0904448

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 8310: PAHs									
Sample ID: MB-19014		*MBLK*			Batch ID:	**19014**	Analysis Date:	5/12/2009 9:04:35 PM	
Naphthalene	ND	mg/Kg	0.25						
1-Methylnaphthalene	ND	mg/Kg	0.25						
2-Methylnaphthalene	ND	mg/Kg	0.25						
Acenaphthylene	ND	mg/Kg	0.25						
Acenaphthene	ND	mg/Kg	0.25						
Fluorene	ND	mg/Kg	0.030						
Phenanthrene	ND	mg/Kg	0.015						
Anthracene	ND	mg/Kg	0.015						
Fluoranthene	ND	mg/Kg	0.020						
Pyrene	ND	mg/Kg	0.025						
Benz(a)anthracene	ND	mg/Kg	0.010						
Chrysene	ND	mg/Kg	0.011						
Benzo(b)fluoranthene	ND	mg/Kg	0.010						
Benzo(k)fluoranthene	ND	mg/Kg	0.010						
Benzo(a)pyrene	ND	mg/Kg	0.010						
Dibenz(a,h)anthracene	ND	mg/Kg	0.010						
Benzo(g,h,i)perylene	ND	mg/Kg	0.010						
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.10						
Sample ID: LCS-19014		*LCS*			Batch ID:	**19014**	Analysis Date:	5/12/2009 3:40:31 PM	
Naphthalene	1.084	mg/Kg	0.25	54.2	35.4	86.1			
1-Methylnaphthalene	1.132	mg/Kg	0.25	56.6	38.4	90.1			
2-Methylnaphthalene	1.146	mg/Kg	0.25	57.3	36.2	91.9			
Acenaphthylene	1.198	mg/Kg	0.25	59.9	39.6	88.1			
Acenaphthene	1.216	mg/Kg	0.25	60.8	38.8	91.6			
Fluorene	0.1295	mg/Kg	0.030	61.4	19.9	102			
Phenanthrene	0.07175	mg/Kg	0.015	63.6	26.2	103			
Anthracene	0.06950	mg/Kg	0.015	62.6	31	95.3			
Fluoranthene	0.1510	mg/Kg	0.020	75.3	37.2	90.5			
Pyrene	0.1428	mg/Kg	0.025	71.4	29.2	92.4			
Benz(a)anthracene	0.01525	mg/Kg	0.010	38.8	34.6	97.5			
Chrysene	0.06850	mg/Kg	0.011	62.6	35.6	94.3			
Benzo(b)fluoranthene	0.01200	mg/Kg	0.010	40.0	29.9	97.4			
Benzo(k)fluoranthene	0.01075	mg/Kg	0.010	86.0	36.9	95.7			
Benzo(a)pyrene	0.01200	mg/Kg	0.010	47.8	35.3	97			
Dibenz(a,h)anthracene	0.01800	mg/Kg	0.010	53.0	37.7	90.7			
Benzo(g,h,i)perylene	0.01775	mg/Kg	0.010	53.0	35.1	94.1			
Indeno(1,2,3-cd)pyrene	ND	mg/Kg	0.10	67.7	34.6	89.2			
Method: EPA Method 7471: Mercury									
Sample ID: MB-19098		*MBLK*			Batch ID:	**19098**	Analysis Date:	5/14/2009 4:34:18 PM	
Mercury	ND	mg/Kg	0.033						
Sample ID: LCS-19098		*LCS*			Batch ID:	**19098**	Analysis Date:	5/14/2009 4:35:57 PM	
Mercury	0.1671	mg/Kg	0.033	100	80	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

QA/QC SUMMARY REPORT

Client: Vinyard & Associates
Project: Star/Sacramento **Work Order:** 0904448

Analyte	Result	Units	PQL	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Method: EPA Method 6010B: Soil Metals									
Sample ID: MBLK-19089		*MBLK*			Batch ID:	**19089**	Analysis Date:	5/18/2009 9:52:57 AM	
Arsenic	ND	mg/Kg	2.5						
Barium	ND	mg/Kg	0.10						
Cadmium	ND	mg/Kg	0.10						
Chromium	ND	mg/Kg	0.30						
Lead	ND	mg/Kg	0.25						
Silver	ND	mg/Kg	0.25						
Sample ID: MBLK-19089		*MBLK*			Batch ID:	**19089**	Analysis Date:	5/18/2009 3:01:53 PM	
Selenium	ND	mg/Kg	2.5						
Sample ID: LCS1-19089		*LCS*			Batch ID:	**19089**	Analysis Date:	5/18/2009 9:55:33 AM	
Arsenic	25.47	mg/Kg	2.5	102	80	120			
Barium	24.71	mg/Kg	0.10	98.7	80	120			
Cadmium	25.39	mg/Kg	0.10	102	80	120			
Chromium	25.56	mg/Kg	0.30	102	80	120			
Lead	24.61	mg/Kg	0.25	98.4	80	120			
Silver	24.78	mg/Kg	0.25	99.0	80	120			
Sample ID: LCS1-19089		*LCS*			Batch ID:	**19089**	Analysis Date:	5/18/2009 3:04:26 PM	
Selenium	23.11	mg/Kg	2.5	92.4	80	120			

Qualifiers:

E	Estimated value	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
R	RPD outside accepted recovery limits	S	Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Sample Receipt Checklist

Client Name VINYARD ASSOC | Date Received: 4/29/2009

Work Order Number 0904448 | Received by: AMF

Checklist completed by: _____ 4/29/09 | Sample ID labels checked by: _____

Signature | Date | Initials

Matrix: | Carrier name: Client drop-off

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐	
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☐	Not Shipped ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	N/A ☑	
Chain of custody present?	Yes ☑	No ☐		
Chain of custody signed when relinquished and received?	Yes ☑	No ☐		
Chain of custody agrees with sample labels?	Yes ☑	No ☐		
Samples in proper container/bottle?	Yes ☑	No ☐		
Sample containers intact?	Yes ☑	No ☐		
Sufficient sample volume for indicated test?	Yes ☑	No ☐		
All samples received within holding time?	Yes ☑	No ☐		
Water - VOA vials have zero headspace?	No VOA vials submitted ☑	Yes ☐	No ☐	
Water - Preservation labels on bottle and cap match?	Yes ☐	No ☐	N/A ☑	
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑	

Container/Temp Blank temperature? **8°** *<6° C Acceptable* If given sufficient time to cool.

COMMENTS:

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Chain-of-Custody Record

Client: Vinyard & Assoc

Mailing Address: 8916-A Adams St. NE
Alb. NM 87113

Phone #: 797-9743

email or Fax#: 797-9749

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: Star/Sacramento

Project #: 09-1-074

Project Manager: Ken Hunter

Sampler: Ken Hunter

On Ice: ☒ Yes ☐ No

Sample Temperature: 8°C

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 0904448
4/29	08:52	Soil	074-S1	1 4oz		1
"	09:02	"	074-S2	3 4oz		2
"	09:11	"	074-S3	1 4oz		3
"	08:57	"	074-S4	1 4oz		4
"	09:16	"	074-S5	1 4oz		5
"	09:22	"	074-S6	1 4oz		6

Analysis Request

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / [illegible]	8260B (VOA)	8270 (Semi-VOA)	8151 Herbicides	8082 PCBs			Air Bubbles (Y or N)
		X							X						
		X			X	X					X				
		X										X			
						X			X						
		X						X							
		X				X		[illegible]				X			
		[illegible]													

Remarks:

Date	Time	Relinquished by:	Received by:	Date	Time
4/29	09:42	Ken Hunter	[signature]	4/29/09	09:41

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

APPENDIX B

ASSAIGAI ANALYTICAL LABORATORIES REPORT

ASSAIGAI
ANALYTICAL LABORATORIES, INC. • 4301 Masthead NE • Albuquerque, New Mexico 87109

BULK ASBESTOS ANALYSIS REPORT

To: VINYARD & ASSOCIATES
8916-A ADAMS ST NE
ALBUQUERQUE, NM 87113
Fax: 505-797-9749

Attn: KEN HUNTER

Date Received: 4/29/2009
Date Completed: 4/29/2009
Workorder: BB28783
No. of Analyses: 02
No. of Samples: 02

Methods: EPA Interim Method of the Determination of Asbestos in Bulk Insulation Samples (EPA-600/M4-82-020) And as cited in 40 CFR Part 763, Subp. F, Appendix A, Section 1, visual estimate comparing the quantity of non-asbestos material to asbestos fibers. The EPA Preferred Method is the Determination of Asbestos in Bulk Building Materials (EPA-600/R-93/116 July 1993). Detection Limit: 1% of the portion of the sample examined. Analyses completed at 4301 Masthead NE, Albuquerque, NM.

Sampling Site **09-1-074**

Sample ID	Description	Asbestos Type	Percent Asbestos	Other Fibers	Percent Content	Matrix
074-S3	White-Brown Sheetrock	NAD	----	Plant	10 - 30	Gypsum Clay
074-S5	White-Brown Sheetrock	NAD	----	Plant	10 - 30	Gypsum Clay

NAD = NO ASBESTOS DETECTED

Pursuant to the Asbestos NESHAP Clarification Regarding Analysis of Multi-layered Systems (Federal Register/Vol. 50, No. 3, Wednesday, January 5, 1994), each layer, in a sample containing one or more distinct layers, has been individually analyzed and reported. These results relate only to the above samples as submitted unless otherwise noted. Reproduction of this report in less than full requires the written consent of AAL.

Analyst: Andrew A. Roark

We Appreciate the opportunity to perform analytical work for you. If you have any questions, please call.

Respectfully submitted, William P. Biava, Asbestos Laboratory Manager

NVLAP LAB CODE 101457-0

Chain of Custody Record

ASSAIGAI ANALYTICAL LABORATORIES, INC.

4301 Masthead N.E.
ALBUQUERQUE, NEW MEXICO 87109
(505) 345-8964

3332 WEDGEWOOD
EL PASO, TEXAS 79925
(915) 593-6000

127 EASTGATE DRIVE, 212-C
LOS ALAMOS, NEW MEXICO 87544
(505) 662-2558

Lab Job No.: _____ Date _____

Page 1 of 1

Client: Vineyard

Address: 8916 A Adams St NE

City / State / Zip: Albuquerque NM 87113

Project Name / Number: 09-1-074

Contract / Purchase Order / Quote: _____

Project Manager / Contact: Ken Hunter

Telephone No.: 797-9743

Fax No.: 797-9749

Samplers : (signature) Ken Hunter

AALI Fraction Number	Field Sample Number / Location	Date	Time	Sample Type	Type / Size of Container	Preservation: Temp.	Preservation: Chemical	No. of Containers	Analysis Required: PCB	Analysis Required	Remarks
	074-S3	11/29	09:11	Bulk	2 x 4 Jar			1	X		
	074-S5	11/29	09:16	Bulk	2 x 4 Jar			1	X		

OFFICE USE ONLY

Relinquished by:
Signature: Ken Hunter
Printed: Ken Hunter
Company: Vineyard Analytical Lab
Reason: _____

Date: 11/29/09
Time: 0952

Received by:
Signature: [illegible]
Printed: DAVIS
Company: EPA
Reason: ANALYSIS

Relinquished by:
Signature: _____
Printed: _____
Company: _____
Reason: _____

Date: _____
Time: _____

Received by:
Signature: _____
Printed: _____
Company: _____
Reason: _____

Method of Shipment: Hand Delivery
Shipment No.: _____
Special Instructions: _____

Comments: Standard TAT

After analysis, samples are to be:
- ☐ Disposed of (additional fee)
- ☐ Stored (30 days max)
- ☐ Stored over 30 days (additional fee)
- ☐ Returned to customer

CARRIER