

Appendix E2

Asbestos Building Inspection, Lead-Based Paint Testing, and
Bulk Sampling of Treated Wood



**Asbestos Building Inspection,
Lead-Based Paint Testing, and
Bulk Sampling of Treated Wood**

For

**Vista Water District
Edgehill Road Reservoir
Vista, CA**

Prepared For:

**Dudek
604 Third Street
Encinitas, CA 92024**

Prepared By:

**Aurora Industrial Hygiene
San Diego, CA**

Karen G Shockley

Prepared By:

Karen G. Shockley, CIH #6766

Date: March 22, 2019

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USE OF THIS REPORT

This report is intended to provide an understanding of the potential hazards that the property evaluated in this report may pose to human health due to asbestos-containing building materials and lead-based paint. This report is based primarily upon data and information obtained during a single site visit by Aurora Industrial Hygiene, Inc. (Aurora) to the property identified herein on February 5, 2019, and is based solely upon the condition of the property on the date of such assessment.

Aurora has performed the work, made the findings, and proposed recommendations described in this report in accordance with generally accepted industrial hygiene and environmental science practices for asbestos and lead assessments in California at the time the work was performed. This warrantee stands in lieu of all other warranties, expressed or implied. While this report can be used as a guide by the client, it must be understood that changing circumstances in the environment and in property usage can alter radically the conclusions and information contained in this report.

1.0 Introduction

Rick Shockley, a California Certified Asbestos Consultant (#15-5581) and Lead Inspector/Risk Assessor (#9755) and Certified Industrial Hygienist Karen Shockley (CIH #6766), also Certified Asbestos Consultant (#97-2146), Lead Inspector/Risk Assessor/Project Monitor (#2664). visited the Edgehill Road Reservoir in Vista, CA on February 5, 2019. They met with Greg Keppler, Vista Irrigation District, and Neil Harper, Dudek.

The purposes of the survey were to determine the presence of asbestos or lead-based paint on the accessible building components, and to test the treated wood on and near the above-ground water storage tank that may be impacted by upcoming renovations. The tank was emptied prior to the inspection. It was locked out so it could not be filled during the inspection and a confined space permit was completed prior to entry into the tank.

This report documents the findings from asbestos bulk sampling, treated wood bulk sampling, and x-ray fluorescence (XRF) instrumentation direct reading measurements conducted by Aurora at Vista Irrigation District's Edgehill Road Reservoir in Vista.

The Edgehill Road Reservoir in Vista is owned by the Vista Irrigation District, located at 1391 Engineer Street, in Vista, CA 92081. Contact person is Greg Keppler, (760) 390-8444.

Asbestos was not detected in any of the samples collected during this survey.

None of the components tested during this survey were found to have greater than 1.0 mg/cm² of lead.

Treated wood contained varying levels of semi-volatile organic compounds, creosote, chromium, and copper.

2.0 Sampling Methodology

2.1 Asbestos Sampling

On February 5, 2019, Mr. Shockley collected seven bulk samples of building materials that were all analyzed by polarized light microscopy (PLM) at EMLab P & K. EMLab P & K is an EPA accredited laboratory located at 8304 Clairemont Mesa Boulevard, Suite 103, San Diego, CA, 92123, (866) 465-6653.

Samples approximately one cubic centimeter (cc) in size were obtained using appropriate sampling equipment. The sampling area was misted with water to minimize the potential for the release of airborne fibers. Collected samples were placed in sealed plastic bags and labeled. They were transported under chain of custody to EMLab by Mr. Shockley.

2.2 Lead-Based Paint Testing

X-ray fluorescence (XRF) instrumentation was utilized to determine if lead-based paint was present. Painted surfaces were tested using x-ray fluorescence (XRF) analysis with a NITON model XLp 300A instrument, serial number 10129. A reading of 1.0 mg/cm² was considered positive for lead-based paint, in accordance with Chapter 7 (revised, 1997) of the Housing and Urban Development Guidelines for Lead Based Paint Inspection¹.

2.3 Treated Wood Sampling

On February 5, 2019, Mr. Shockley collected three bulk samples of treated wood that were analyzed for arsenic, chromium, copper, creosote, pentachlorophenol (SVOC panel) and PCBs at American Scientific Laboratories. American Scientific Laboratories is an EPA accredited laboratory located at 2520 N. San Fernando Road, LA, CA, 90065, (323) 223-9700.

Samples approximately four ounces in size were obtained using appropriate sampling equipment. Collected samples were placed in sealed plastic bags and labeled. They were transported under chain of custody to American Scientific Laboratories by Federal Express.

¹ The California-OSHA standard for lead applies at any potential exposure to lead, even at levels below the HUD Guidelines. See discussion of XRF sampling results.

3.0 Data – Laboratory and Direct Reading Results

3.1 Laboratory Results for Asbestos Sampling

Table 1 summarizes the laboratory results from the asbestos bulk sampling. A satellite photograph identifying the Edgehill Road Reservoir as well as photographs of the materials sampled are included in Appendix One. A sample location diagram is included in Appendix Two. Laboratory reports of analysis and chains of custody are included in Appendix Three.

Table 1. Bulk Asbestos Sampling Results – February 5, 2019

Sample #	Sample Location	Description	Cond ²	Asbestos Content
VID-0205-01A	Bottom of steps	Concrete steps	G	None Detected
VID-0205-02A	Bottom of steps	Speed-crete concrete sealant	G	None Detected
VID-0205-03A	Bottom of steps	Concrete column	G	None Detected
VID-0205-04A	Inlet pipe near steps	Concrete pipe coating	G	None Detected
VID-0205-05A	Near access hatch	Gunnite coating on floor and sides of tank	G	None Detected
VID-0205-06A	Exterior on south side of tank	Caulk near plywood	G	None Detected
VID-0205-07A	Bottom of steps	Aquatipoxy crack sealant	G	None Detected

² G = Good condition. D = Damaged condition with damage to less than 10% (distributed) or 25% (localized) of the surface area. SD = Significantly damaged condition with damage to greater than 10% (distributed) or 25% (localized) of the surface area.

3.2 Lead-Based Paint Testing Results

The following data table summarizes the XRF testing data. The table columns are identified below:

Area	Identifies the location of the tested component. (See diagram in Appendix Two for locations of areas).
Location	Side of the tank sampled (Side A is North and then moves clockwise).
Component	Identifies the actual component tested.
Substrate	The material of the tested component.
Color	The visible color of the upper coatings.
Condition	The condition of the paint was determined, as defined in the <i>Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing</i> : <i>Intact</i> – the entire surface is intact. <i>Fair</i> – less than or equal to ten percent of the total surface area of the component is deteriorated. <i>Poor</i> – more than ten percent of the total surface area of the component is deteriorated.
Replications	The number of like components found. Field is left blank if tested surface is the only like component.
Results	Whether lead was found at greater than 1.0 mg/cm ² (Positive or Negative).
PbC	The reading displayed by the XRF (lead concentration) in milligrams per square centimeter.

California law requires that CDPH Form 8552, Lead Hazard Evaluation Report, be sent to the Department of Public Health following a lead-based paint inspection or risk assessment in a public or residential area. Because the tank is not accessible to the public, a form 8552 was not required or completed.

Table 2. XRF Readings – Edgehill Road Reservoir

Area	Location	Component	Substrate	Color	Condition	Replications	Results	PbC
Other	Other	Other	Other	Other	Calibration	3	Positive	1.0
Other	Other	Other	Other	Other	Calibration	3	Positive	1.0
Other	Other	Other	Other	Other	Calibration	3	Positive	1.1
Exterior	A	Wall on top of tank	Wood	Beige	Fair		Negative	0.02
	B	Wall on top of tank	Wood	Beige	Fair		Negative	0.01
	C	Wall on top of tank	Wood	Beige	Fair		Negative	0.01
	D	Wall on top of tank	Wood	Beige	Fair		Negative	0.05
	A	Base of tank	Concrete	Beige	Fair		Negative	0.0
	B	Base of tank	Concrete	Beige	Fair		Negative	0.07
	C	Base of tank	Concrete	Beige	Fair		Negative	0.06
	D	Base of tank	Concrete	Beige	Fair		Negative	0.04
	A	Plywood over screens	Wood	Beige	Fair		Negative	0.02
	B	Plywood over screens	Wood	Beige	Fair		Negative	0.0
	C	Plywood over screens	Wood	Beige	Fair		Negative	0.01
	D	Plywood over screens	Wood	Beige	Fair		Negative	0.0

Area	Location	Component	Substrate	Color	Condition	Replications	Results	PbC
Roof	B	Top layer of roof	Metal	Beige	Intact		Negative	0.0
	B	Bottom layer of roof	Metal	Beige	Intact		Negative	0.07
	C	Top layer of roof	Metal	Beige	Intact		Negative	0.0
	C	Bottom layer of roof	Metal	Beige	Fair		Negative	0.27
	D	Top layer of roof	Metal	Beige	Intact		Negative	0.0
	D	Bottom layer of roof	Metal	Beige	Intact		Negative	0.12
	A	Siding on center area on roof	Wood	Beige	Intact		Negative	0.0
	C	Siding on center area on roof	Wood	Beige	Intact		Negative	0.0
	A	Louver on center area on roof	Metal	Beige	Intact		Negative	0.0
	C	Louver on center area on roof	Metal	Beige	Intact		Negative	0.0
	C	Access hatch frame	Metal	Silver	Intact		Negative	0.0
	C	Access hatch door	Metal	Silver	Intact		Negative	0.0
Interior	Center	Inlet pipe	Metal	Black	Poor		Negative	0.0
	Center	Ceiling	Metal	Beige	Fair		Negative	0.15
	C	Handrail	Metal	Lt. Blue	Fair		Negative	0.8
	C	Riser	Metal	Lt. Blue	Fair		Negative	0.0
	C	Steps	Metal	Silver	Intact		Negative	0.0
Other	Other	Other	Other	Other	Calibration	3	Positive	1.0
Other	Other	Other	Other	Other	Calibration	3	Positive	0.9
Other	Other	Other	Other	Other	Calibration	3	Positive	1.2

3.3 Treated Wood Sampling Results

Bulk samples were collected of the following treated woods:

- VID-0205-W01: Wood framing above concrete columns inside the tank;
- VID-0205-W02: Wood framing below the perimeter top wall on the inside the tank; and
- VID-0205-W03: Wood railroad ties outside of the tank within the fenced tank area.

The samples of treated wood that were all analyzed for arsenic, chromium, copper, creosote, pentachlorophenol (as part of semi-volatile organic compound (SVOC) panel) and polychlorinated biphenyls (PCBs). The following materials were detected in the samples in varying quantities. The quantities detected and a complete list of all analytes can be found in the laboratory report of analysis in Appendix Three.

VID-0102-W01, Wood framing above concrete columns inside the tank:

- SVOCs: Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (g,h,i) perylene, Benzo (k) fluoranthene, Benzyl alcohol, Chrysene, Fluoranthene, Indeno (1,2,3-cd) pyrene, Phenanthrene, and Pyrene; and
- Creosote

VID-0102-W02, Wood framing below the perimeter top wall on the inside the tank:

- SVOC – Bis(2-ethylhexyl) phthalate; and
- Creosote

VID-0102-W03, Wood railroad ties outside of the tank within the fenced tank area:

- Chromium
- Copper
- SVOCs – Acenaphthene, Acenaphthylene, Anthracene, Benzo (a) pyrene, Benzo (b) fluoranthene, Benzo (k) fluoranthene, Chrysene, Dibenzofuran, Fluoranthene, Fluorene, 1-Methyl Naphthylene, 2-Methylnaphthalene, Naphthalene, Phenanthrene, and Pyrene; and
- Creosote

A satellite photograph identifying the Edgehill Road Reservoir as well as photographs of the materials sampled are included in Appendix One. Sample location diagram is included in Appendix Two. Laboratory reports of analysis and chains of custody are included in Appendix Three.

4.0 Discussion and Recommendations

4.1 Asbestos Sampling Discussion

The Environmental Protection Agency (EPA) defines asbestos-containing material (ACM) as containing asbestos in an amount greater than 1%. In the State of California, the CalOSHA has determined that building materials containing asbestos at “trace” levels can still pose a health risk. CalOSHA has very stringent requirements regarding asbestos-containing building materials (defined as 0.1% or greater) and it is a property owner’s overall responsibility to ensure that all work involving the disturbance or removal of asbestos is conducted in such a manner as to ensure that employees and occupants are not exposed. The use of a registered asbestos removal contractor is required when removing more than 100 feet of asbestos containing construction material (ACCM, >0.1%).

In addition, a property owner has the responsibility for ensuring that occupants are informed, and that the asbestos-containing material is maintained in good condition. Custodial or maintenance staff must be trained regarding proper handling of the material as part of an ongoing operations and maintenance program. Prior to demolition or remodeling activities, asbestos-containing building materials which may be damaged and become friable must be removed from the building by a licensed asbestos removal contractor and transferred to a waste facility that will accept asbestos waste. A California certified asbestos removal contractor should be utilized for the removal work and proper removal methodology as outlined in CalOSHA 8CCR1529, and all other applicable federal, state, and local regulations regarding the removal, transport and disposal of ACM should be applied.

Asbestos was not detected in any of the samples collected during this survey.

The following materials were not sampled and should be presumed to contain asbestos:

- ✓ **Any suspect hidden materials (i.e. behind walls, in any crawl spaces, etc.).**

Prior to renovation or demolition activities, ACM and ACCM that may be disturbed should be removed by a California certified asbestos removal contractor.

4.2 Lead-Based Paint Testing Discussion

An XRF reading of 1.0 mg/cm² is considered positive for lead-based paint.

None of the components tested during this survey were found to have greater than 1.0 mg/cm² of lead.

Worker Protection

California regulations (8 CCR 1532.1) define lead-related construction work as, “Construction, alteration, painting, demolition, salvage, renovation, repair, or maintenance of any residential, public or commercial building, including preparation and clean-up, that, by using or disturbing lead containing material or soil, may result in significant exposure of individuals to lead”. As such, Cal/OSHA does not distinguish between lead-based paint as defined by HUD (1.0 mg/cm²) and paint which contains lead at a lower concentration. The presence of lead *at any level* requires compliance with the OSHA standard if that paint is disturbed. There are many other materials which may contain lead in the average building. When conducting construction activities which disturb lead in any amount or create an exposure to workers, the employer is required to provide training, worker protection, and conduct exposure assessments. Other provisions of 8 CCR 1532.1 may apply, based on the results of the exposure assessments. These include, but are not limited to additional training, notification, medical evaluations, and personal protective equipment. All employers should consult Federal OSHA Regulations at 29 CFR 1926.62 and Cal-OSHA Regulations at Title 8, 1532.1, “Lead in Construction” standards for complete requirements.

4.3 Treated Wood Discussion

Treated wood is wood which has been treated with a chemical preservative for protection against pests and environmental conditions. Typically, wood is treated when contact with water or the ground is likely.

Treated wood can be tested prior to disposal to determine whether it is hazardous waste. Alternatively, the California Department of Toxic Substances Control (DTSC) has developed alternative management standards (AMS) for treated wood waste. These standards lessen the storage, accumulation period, shipment, disposal, and testing requirements and allow treated wood waste to be disposed of in a solid waste landfill which has been approved for treated wood waste by the Regional Water Quality Control Board.

A summary of the California requirements for the management of treated wood waste can be found at <https://www.dtsc.ca.gov/hazardouswaste/upload/Treated-Wood-Waste-Generators-Fact-Sheet.pdf>. A list of landfills approved for treated wood waste is available at <https://www.dtsc.ca.gov/hazardouswaste/upload/lanfillapr11PDATED1.pdf>.

The treated wood analytical results are included in Appendix Three.

Limitations

The data and observations collected during this work have been gathered to provide the Client with information pertaining to the areas of the subject property identified in this report. Although Aurora believes that the findings and conclusions provided in this report are reasonable, the assessment is limited to the conditions observed and to the information available at the time of the work. Due to the nature of the work, there is a possibility that conditions may exist which could not be identified within the scope of the assessment or which were not apparent at the time of our site work. The assessment is also limited to information available from the client at the time it was conducted. It is also possible that the testing methods employed at the time of the report may later be superseded by other methods. Aurora does not accept responsibility for changes in the state of the art.

We hope that this information is helpful. Please feel free to contact us at (619) 276-5901 if you have any questions.

Appendix One – Photographs



Photo One: Satellite photo of the area around the Edgell Road reservoir (red box) located near 2342 Edgell Road.



Photo Two: Close-up satellite photo of the reservoir.



Photo Three: Ground level photo of Edgehill Road Reservoir. The blue arrows point to the plywood over the screens around the perimeter of the tank and the louvers on the center area of roof. The black arrow points toward the access hatch used to enter the tank.



Photo Four: The stairs inside the tank looking towards the access hatch. The arrows point to the inlet pipe and the gunnite on the interior walls,



Photo Five: The blue arrows point to the wood framing on the interior of the tank above the concrete columns.

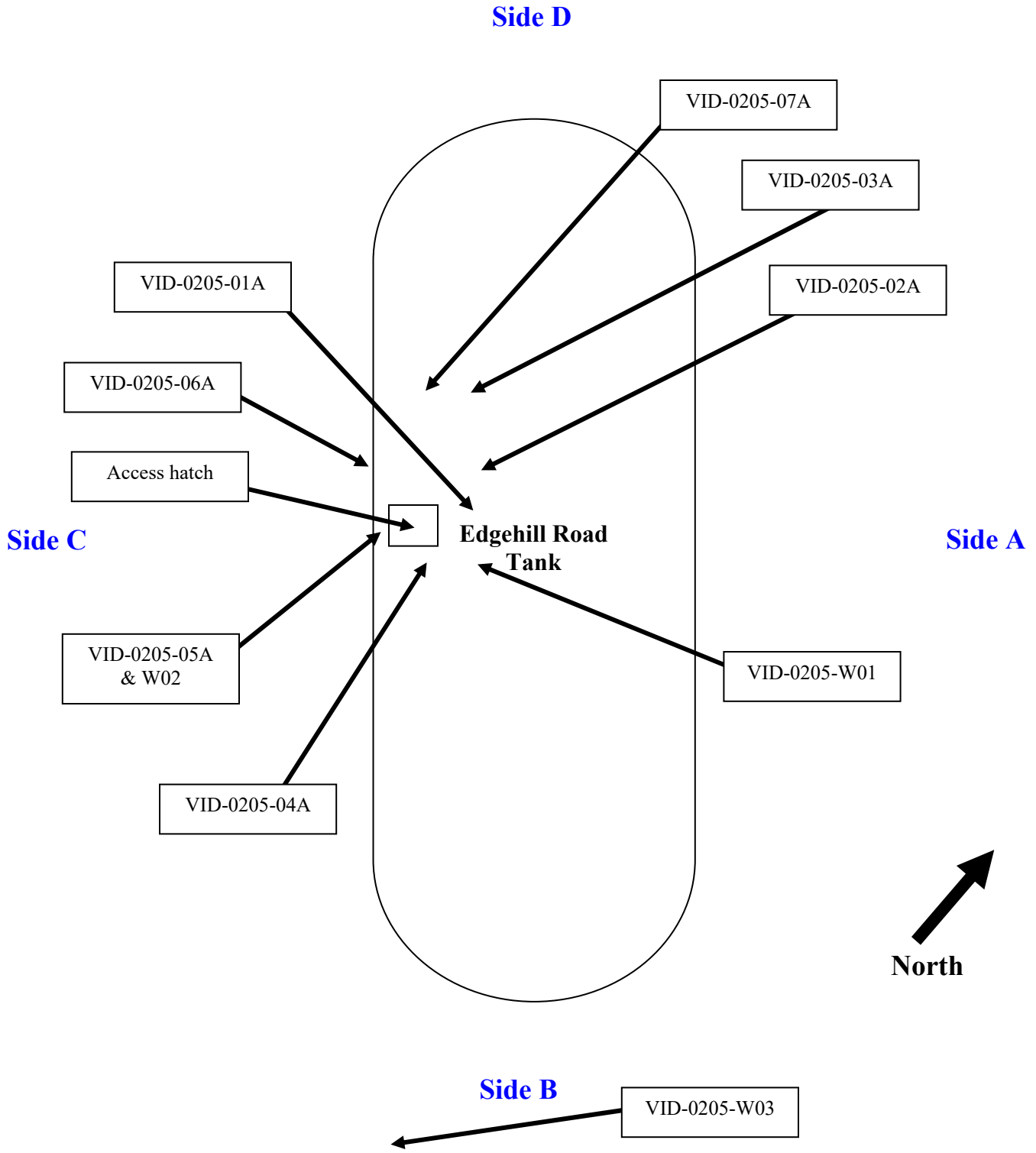


Photo Six: The bottom plate on wall around the perimeter of the tank.



Photo Seven: The arrow points to the railroad ties that were tested on the outside of the tank.

Appendix Two – Diagrams



Appendix Three – Laboratory Reports of Analysis and Chains of Custody



Report for:

Ms. Karen Shockley
Aurora Industrial Hygiene, Inc.
9666 Businesspark Ave, Suite 102
San Diego, CA 92131

Regarding: Project: 58153-VID Reservoir Inspection; Asbestos Sampling
EML ID: 2091551

Approved by:

Approved Signatory
Diane Green

Dates of Analysis:
Asbestos PLM: 02-07-2019

Service SOPs: Asbestos PLM (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

Client: Aurora Industrial Hygiene, Inc.
 C/O: Ms. Karen Shockley
 Re: 58153-VID Reservoir Inspection; Asbestos Sampling

Date of Sampling: 02-05-2019
 Date of Receipt: 02-06-2019
 Date of Report: 02-08-2019

ASBESTOS PLM REPORT

Total Samples Submitted: 7

Total Samples Analyzed: 7

Total Samples with Layer Asbestos Content > 1%: 0

Location: VID-0205-01A, Concrete and coating

Lab ID-Version‡: 9888145-1

Sample Layers	Asbestos Content
Gray Concrete	ND
Sample Composite Homogeneity: Good	

Location: VID-0205-02A, Speedcrete patch

Lab ID-Version‡: 9888146-1

Sample Layers	Asbestos Content
Gray Non-Fibrous Material	ND
Sample Composite Homogeneity: Good	

Location: VID-0205-03A, Concrete column

Lab ID-Version‡: 9888147-1

Sample Layers	Asbestos Content
Gray Concrete	ND
Sample Composite Homogeneity: Good	

Location: VID-0205-04A, Pipe coating

Lab ID-Version‡: 9888148-1

Sample Layers	Asbestos Content
Gray Coating	ND
Sample Composite Homogeneity: Good	

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

‡ A "Version" indicated by "-x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

Client: Aurora Industrial Hygiene, Inc.
C/O: Ms. Karen Shockley
Re: 58153-VID Reservoir Inspection; Asbestos Sampling

Date of Sampling: 02-05-2019
Date of Receipt: 02-06-2019
Date of Report: 02-08-2019

ASBESTOS PLM REPORT

Location: VID-0205-05A, Texture coating

Lab ID-Version‡: 9888149-1

Sample Layers	Asbestos Content
Gray Coating	ND
Sample Composite Homogeneity: Good	

Location: VID-0205-06A, Caulk near plywood

Lab ID-Version‡: 9888150-1

Sample Layers	Asbestos Content
White Caulk	ND
Sample Composite Homogeneity: Good	

Location: VID-0205-07A, Aquatipoxy sealant

Lab ID-Version‡: 9888151-1

Sample Layers	Asbestos Content
White Sealant with Gray Compound	ND
Sample Composite Homogeneity: Good	

Comments: Sample layers inseparable without cross contamination.

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

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‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

New Jersey: 3000 Lincoln Drive East, Suite A, Marlton, NJ 08053 * (856) 871-1984
Phoenix, AZ: 1501 West Kautzman Drive, Phoenix, AZ 85027 * (602) 651-4802
SSF, CA: 6000 Shoreline Court, Suite 205, South San Francisco, CA 94080 * (866) 888-6653

Weather	Fog	Rain	Snow	Wind	Clear
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Level	Light	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Moderate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heavy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

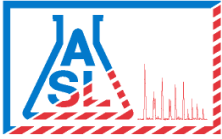
REQUESTED
(Use check) 2091551

CONTACT INFORMATION					
Company:	Aurora IH		Address: 9606 Businesspark Ave #102		
Contact:	Karen Shackley		Special Instructions:		
Phone:	619-276-5001				
PROJECT INFORMATION			TURN AROUND TIME CODES (TAT)		
Project ID:	58153 - VID Reservoir Inspection		STD - Standard (DEFAULT)		
Project Description:	Asbestos Sampling		ND - Next Business Day		
Project Zip Code:	Sampling Date & Time:	2/5/19	SD - Same Business Day Rush		
PO Number:	Sampled By:	R. Shackley	WH - Weekend / Holiday		
Notes:	Rushes received after 2pm or on weekends, will be considered received the next business day. Please alert us in advance of weekend analysis needs.				
Sample ID	Description	Sample Type (Below)	TAT (Above)	Total Volume / Area (as applicable)	Notes (Time of day, Temp, RH, etc.)
VID-0205-01A	Concrete + coating	B	STD	n/a	n/a
-02A	Speedcrete patch				
-03A	Concrete column				
-04A	Pipe Coating				
-05A	Texture Coating				
-06A	Caulk near plywood				
-07A	Aqua epoxy sealant				

Spore Trap	Non-Culturable		Cultured													
	Tape Swab Bulk	BioCassette™, Andersen, SAS, Swab, Water, Bulk, Dust, Soil, Contact Plates	Other Requests													
Fungi - Spore Trap Analysis	Spore Trap Analysis - Other particles	Direct Microscopic Exam (Qualitative)	Quantitative Spore Count Direct Exam	1-Media Surface Fungi (Genus ID + Asp. spp.)	2-Media Surface Fungi (Genus ID + Asp. spp.)	3-Media Surface Fungi (Genus ID + Asp. spp.)	Culturable Air Fungi (Genus ID + Asp. spp.)	Gram Stain & Counts (Culturable Air & Surface Bacteria)	Legionella culture	Total Coliform, E. coli (Presence/Absence)	Membrane Filtration (specify organism):	MPN Bacteria (specify organism):	Quant. tray - Salvage Screen	Asbestos Analysis - PCM Airborne Fiber Count (NIOSH 7400)	Asbestos Analysis - PLM (EPA method 600/4-93-116)	PCR (specify test):
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAMPLE TYPE CODES				RELINQUISHED BY	DATE & TIME	RECEIVED BY	DATE & TIME
BC - BioCassette™	ST - Spore Trap: Zefon, Allergenco, Burkard...	T - Tape	D - Dust	Neil Murray	2/5/19/1745	AH	2-6-19 245
AIS - Anderson	P - Potable Water	SW - Swab	SO - Soil				
SAS - Surface Air Sampler	B - Bulk						
CP - Contact Plate	NP - Non-Potable Water	O - Other:					

By submitting this Chain of Custody, you agree to be bound by the terms and conditions set forth at <http://www.emlab.com/eng/service/terms.htm>



AMERICAN SCIENTIFIC LABORATORIES, LLC

Environmental Testing Services

2520 N. San Fernando Road, LA CA 90065 Tel: (323) 223-9700 • Fax: (323) 223-9500

25 February 2019

Karen Shockley

Aurora Industrial Hygiene - SD

9666 Business Park Ave. Suite 102

San Diego, CA 92131

Work Order #: 1902098

Project Name: VID Reservoir

Project ID: 58153

Site Address: Edgehill Rd. Vista, CA

Enclosed are the results of analyses for samples received by the laboratory on February 11, 2019. If you have any questions concerning this report, please feel free to contact us.

Wendy Lu

Laboratory Supervisor

Rojert G. Araghi

Laboratory Director

American Scientific Laboratories, LLC (ASL) accepts sample materials from clients for analysis with the assumption that all of the information provided to ASL verbally or in writing by our clients (and/or their agents), regarding samples being submitted to ASL, is complete and accurate. ASL accepts all samples subject to the following conditions:

- 1) ASL is not responsible for verifying any client-provided information regarding any samples submitted to the laboratory.
- 2) ASL is not responsible for any consequences resulting from any inaccuracies, omissions, or misrepresentations contained in client-provided information regarding samples submitted to the laboratory.



AMERICAN SCIENTIFIC LABORATORIES, LLC
Environmental Testing Services

2520 N. San Fernando Road, LA, CA 90065 Tel: (323) 223-9700 • Fax: (323) 223-9500

COC# _____ GLOBAL ID _____ E REPORT: PDF EDF EDD ASL JOB# 1902098

Company: <u>Aurora IH</u>		Report To: <u>Karen Shockley</u>		ANALYSIS REQUESTED			
Address: <u>9666 Businesspark Ave #102</u>		Address: <u>Same</u>					
San Diego CA 92131		Project Name: <u>VID Reservoir</u>		Arsenic, Chromium, Copper, Cresote, Pentachloropheno (SVOC Panel) PCBs			
Telephone: <u>619-276-5501</u>		Site Address: <u>Edgehill Rd. / Vista, CA</u>					
Fax: <u>619-276-5504</u>		Invoice To: <u>Karen Shockley</u>					
Special Instruction:		Address: <u>Same</u>					
Project ID: <u>58153</u>		P.C.#:					
E-mail: <u>kshockley@auroraih.com</u>		Project Manager: <u>Karen Shockley</u>					

ITEM	LAB USE ONLY		SAMPLE DESCRIPTION				Container(s)		Matrix	Preservation						Remarks
	Lab ID	Sample ID	Date	Time	#	Type										
	<u>1902098-01</u>	<u>VID-0205-W01</u>	<u>2/5/19</u>	<u>1300</u>	<u>1</u>	<u>Bag</u>	<u>Wood</u>	<u>1/4</u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
	<u>1902098-02</u>	<u> -W02</u>	<u> </u>	<u>1310</u>	<u>1</u>	<u> </u>	<u> </u>	<u> </u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	
	<u>1902098-03</u>	<u> -W03</u>	<u> </u>	<u>1320</u>	<u>1</u>	<u> </u>	<u> </u>	<u> </u>			<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	

Collected By: <u>Rich Murphy</u>	Date: <u>2/5/19</u> Time: <u>1300</u>	Relinquished By: <u>Rich Murphy</u>	Date: <u>2/5/19</u> Time: <u>1630</u>	TAT
Relinquished By:	Date: _____ Time: _____	Received For Laboratory: <u>Janet Chun</u>	Date: <u>2-11-19</u> Time: <u>17:45</u>	<input checked="" type="checkbox"/> Normal
Received By:	Date: _____ Time: _____	Condition of Sample: <u>Via FedEx</u>		<input type="checkbox"/> Rush

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Job# 1902098

ASL Sample Receipt Form

Client: Aurora Industrial Hygiene - SD

Date: 2-11-19

Sample Information:

Temperature: 5.8 °C

Blank Sample

Custody Seal:

Yes No Not Available

Received Within Holding Time:

Yes No

Container:

Proper Containers and Sufficient Volume:

Yes No

Soil: 4oz 8oz Sleeve VOA Plastic Bag

Water: 500AG 1AG 125PB 250PB 500PB VOA Other _____

Air: Tedlar®

Sample Containers Intact:

Yes No

Trip Blank

Yes No

Chain-of-Custody (COC):

Received:

Yes No

Samplers Name:

Yes No

Container Labels match COC:

Yes No

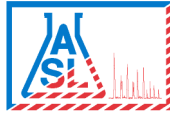
COC documents received complete:

Yes No

Proper Preservation Noted:

Yes No

Completed By: Janet Chin



AMERICAN SCIENTIFIC LABORATORIES, LLC

Environmental Testing Services

2520 N. San Fernando Road, LA CA 90065 Tel: (323) 223-9700 • Fax: (323) 223-9500

Aurora Industrial Hygiene - SD
9666 Business Park Ave. Suite 102
San Diego CA, 92131

Project: VID Reservoir
Project Number: 58153
Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
02/25/2019 12:34

ANALYTICAL SUMMARY REPORT

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
VID-0205-W01	1902098-01	Solid	02/05/2019 13:00	02/11/2019 12:15
VID-0205-W02	1902098-02	Solid	02/05/2019 13:10	02/11/2019 12:15
VID-0205-W03	1902098-03	Solid	02/05/2019 13:20	02/11/2019 12:15

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Wendy Lu, Laboratory Supervisor



Aurora Industrial Hygiene - SD
 9666 Business Park Ave. Suite 102
 San Diego CA, 92131

Project: VID Reservoir
 Project Number: 58153
 Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
 02/25/2019 12:34

Analytical Results

Client Sample ID: VID-0205-W01

Laboratory Sample ID: 1902098-01 (Solid)

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
Total ICP Metals					Batch ID: BB90637	Prepared: 02/21/2019 12:38			
Arsenic	ND		0.250	mg/kg	1	3050B	02/21/2019 15:48	LVE	SW846 6010B
Chromium	ND		0.500	mg/kg	1	3050B	02/21/2019 15:48	LVE	SW846 6010B
Copper	ND		0.500	mg/kg	1	3050B	02/21/2019 15:48	LVE	SW846 6010B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography					Batch ID: BB90383	Prepared: 02/13/2019 14:39			
Aroclor 1016	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:39	AY	8082
Aroclor 1221	ND		67.0	ug/kg	1	3550 SV	02/13/2019 14:39	AY	8082
Aroclor 1232	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:39	AY	8082
Aroclor 1242	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:39	AY	8082
Aroclor 1248	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:39	AY	8082
Aroclor 1254	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:39	AY	8082
Aroclor 1260	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:39	AY	8082
<i>Surrogate: Decachlorobiphenyl</i>			124 %		43-169	3550 SV	02/13/2019 14:39	AY	8082
Semivolatile Organic Compounds					Batch ID: BB90382	Prepared: 02/13/2019 09:48 R-01			
Acenaphthene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Acenaphthylene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Anthracene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Benz(a)anthracene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Benzo (a) pyrene	7370		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Benzo (b) fluoranthene	18900		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Benzo (g,h,i) perylene	1520		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Benzo (k) fluoranthene	5080		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Benzoic acid	ND		7650	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Benzyl alcohol	3160		2970	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Bis(2-chloroethoxy)methane	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Bis(2-chloroethyl) ether	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Bis(2-chloroisopropyl) ether	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Bis(2-ethylhexyl) phthalate	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
4-Bromophenyl phenyl ether	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Butyl benzyl phthalate	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
4-Chloro-3-methylphenol	ND		2970	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
4-Chloroaniline	ND		2970	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2-Chloronaphthalene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2-Chlorophenol	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
4-Chlorophenyl phenyl ether	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Chrysene	11300		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Di-n-butyl phthalate	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Di-n-octyl phthalate	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Dibenz (a,h) anthracene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C

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Aurora Industrial Hygiene - SD
9666 Business Park Ave. Suite 102
San Diego CA, 92131

Project: VID Reservoir
Project Number: 58153
Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
02/25/2019 12:34

Analytical Results

Client Sample ID: VID-0205-W01

Laboratory Sample ID: 1902098-01 (Solid)

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
Semivolatile Organic Compounds			Batch ID: BB90382		Prepared: 02/13/2019 09:48		R-01		
Dibenzofuran	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
1,3-Dichlorobenzene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
1,2-Dichlorobenzene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
1,4-Dichlorobenzene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
3,3'-Dichlorobenzidine	ND		2970	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2,4-Dichlorophenol	ND		7650	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Diethyl phthalate	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2,4-Dimethylphenol	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Dimethyl phthalate	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2,4-Dinitrophenol	ND		7650	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2,4-Dinitrotoluene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2,6-Dinitrotoluene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Fluoranthene	12600		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Fluorene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Hexachlorobenzene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Hexachlorobutadiene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Hexachlorocyclopentadiene	ND		2970	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Hexachloroethane	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Indeno (1,2,3-cd) pyrene	2140		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Isophorone	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2-Methyl-4,6-dinitrophenol	ND		7650	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
1-Methyl Naphthylene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2-Methylnaphthalene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2-Methylphenol	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
3/4-Methylphenol	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
N-Nitroso-di-n-propylamine	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
N-Nitrosodiphenylamine	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Naphthalene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2-Nitroaniline	ND		7650	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
3-Nitroaniline	ND		7650	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
4-Nitroaniline	ND		7650	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Nitrobenzene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2-Nitrophenol	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
4-Nitrophenol	ND		7650	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Pentachlorophenol	ND		7650	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Phenanthrene	4740		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Phenol	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Pyrene	15000		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
1,2,4-Trichlorobenzene	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
2,4,5-Trichlorophenol	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C

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Aurora Industrial Hygiene - SD
9666 Business Park Ave. Suite 102
San Diego CA, 92131

Project: VID Reservoir
Project Number: 58153
Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
02/25/2019 12:34

Analytical Results

Client Sample ID: VID-0205-W01

Laboratory Sample ID: 1902098-01 (Solid)

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
Semivolatile Organic Compounds			Batch ID: BB90382		Prepared: 02/13/2019 09:48 R-01				
2,4,6-Trichlorophenol	ND		1480	ug/kg	3	3550 SV	02/13/2019 21:00	AY	8270C
Surrogate: 2-Fluorophenol			85.1 %		21-105	3550 SV	02/13/2019 21:00	AY	8270C
Surrogate: Phenol-d6			94.2 %		10-107	3550 SV	02/13/2019 21:00	AY	8270C
Surrogate: 2,4,6-Tribromophenol			108 %		10-123	3550 SV	02/13/2019 21:00	AY	8270C
Surrogate: Nitrobenzene-d5			91.3 %		35-114	3550 SV	02/13/2019 21:00	AY	8270C
Surrogate: 2-Fluorobiphenyl			108 %		18-116	3550 SV	02/13/2019 21:00	AY	8270C
Surrogate: Terphenyl-d14			109 %		33-141	3550 SV	02/13/2019 21:00	AY	8270C

TPH Creosote

Batch ID: BB90577

Prepared: 02/13/2019 09:00 **A-01a**

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
Creosote	880		50.0	mg/kg	1	3550B	02/18/2019 23:22	JOI	LUFT GC
Surrogate: Chlorobenzene		A-01	56.7 %		75-115	3550B	02/18/2019 23:22	JOI	LUFT GC

Analytical Results

Client Sample ID: VID-0205-W02

Laboratory Sample ID: 1902098-02 (Solid)

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
Total ICP Metals			Batch ID: BB90637		Prepared: 02/21/2019 12:38				
Arsenic	ND		0.250	mg/kg	1	3050B	02/21/2019 15:48	LVE	SW846 6010B
Chromium	ND		0.500	mg/kg	1	3050B	02/21/2019 15:48	LVE	SW846 6010B
Copper	ND		0.500	mg/kg	1	3050B	02/21/2019 15:48	LVE	SW846 6010B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography			Batch ID: BB90383		Prepared: 02/13/2019 14:39				
Aroclor 1016	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:54	AY	8082
Aroclor 1221	ND		67.0	ug/kg	1	3550 SV	02/13/2019 14:54	AY	8082
Aroclor 1232	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:54	AY	8082
Aroclor 1242	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:54	AY	8082
Aroclor 1248	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:54	AY	8082
Aroclor 1254	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:54	AY	8082
Aroclor 1260	ND		33.0	ug/kg	1	3550 SV	02/13/2019 14:54	AY	8082
Surrogate: Decachlorobiphenyl			86.5 %		43-169	3550 SV	02/13/2019 14:54	AY	8082

Semivolatile Organic Compounds

Batch ID: BB90382

Prepared: 02/13/2019 09:48 **R-01**

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
Acenaphthene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Acenaphthylene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Anthracene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Benz(a)anthracene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Benzo (a) pyrene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Benzo (b) fluoranthene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Benzo (g,h,i) perylene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C

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Wendy Lu



Aurora Industrial Hygiene - SD
 9666 Business Park Ave. Suite 102
 San Diego CA, 92131

Project: VID Reservoir
 Project Number: 58153
 Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
 02/25/2019 12:34

Analytical Results

Client Sample ID: VID-0205-W02

Laboratory Sample ID: 1902098-02 (Solid)

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
Semivolatile Organic Compounds				Batch ID: BB90382		Prepared: 02/13/2019 09:48 R-01			
Benzo (k) fluoranthene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Benzoic acid	ND		10200	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Benzyl alcohol	ND		3960	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Bis(2-chloroethoxy)methane	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Bis(2-chloroethyl) ether	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Bis(2-chloroisopropyl) ether	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Bis(2-ethylhexyl) phthalate	4530		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
4-Bromophenyl phenyl ether	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Butyl benzyl phthalate	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
4-Chloro-3-methylphenol	ND		3960	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
4-Chloroaniline	ND		3960	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2-Chloronaphthalene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2-Chlorophenol	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
4-Chlorophenyl phenyl ether	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Chrysene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Di-n-butyl phthalate	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Di-n-octyl phthalate	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Dibenz (a,h) anthracene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Dibenzofuran	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
1,3-Dichlorobenzene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
1,2-Dichlorobenzene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
1,4-Dichlorobenzene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
3,3'-Dichlorobenzidine	ND		3960	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2,4-Dichlorophenol	ND		10200	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Diethyl phthalate	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2,4-Dimethylphenol	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Dimethyl phthalate	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2,4-Dinitrophenol	ND		10200	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2,4-Dinitrotoluene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2,6-Dinitrotoluene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Fluoranthene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Fluorene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Hexachlorobenzene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Hexachlorobutadiene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Hexachlorocyclopentadiene	ND		3960	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Hexachloroethane	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Indeno (1,2,3-cd) pyrene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Isophorone	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2-Methyl-4,6-dinitrophenol	ND		10200	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
1-Methyl Naphthylene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C

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Aurora Industrial Hygiene - SD
 9666 Business Park Ave. Suite 102
 San Diego CA, 92131

Project: VID Reservoir
 Project Number: 58153
 Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
 02/25/2019 12:34

Analytical Results

Client Sample ID: VID-0205-W02

Laboratory Sample ID: 1902098-02 (Solid)

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
Semivolatile Organic Compounds			Batch ID: BB90382		Prepared: 02/13/2019 09:48		R-01		
2-Methylnaphthalene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2-Methylphenol	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
3/4-Methylphenol	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
N-Nitroso-di-n-propylamine	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
N-Nitrosodiphenylamine	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Naphthalene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2-Nitroaniline	ND		10200	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
3-Nitroaniline	ND		10200	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
4-Nitroaniline	ND		10200	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Nitrobenzene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2-Nitrophenol	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
4-Nitrophenol	ND		10200	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Pentachlorophenol	ND		10200	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Phenanthrene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Phenol	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Pyrene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
1,2,4-Trichlorobenzene	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2,4,5-Trichlorophenol	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
2,4,6-Trichlorophenol	ND		1980	ug/kg	3	3550 SV	02/13/2019 21:35	AY	8270C
Surrogate: 2-Fluorophenol			77.6 %		21-105	3550 SV	02/13/2019 21:35	AY	8270C
Surrogate: Phenol-d6			88.0 %		10-107	3550 SV	02/13/2019 21:35	AY	8270C
Surrogate: 2,4,6-Tribromophenol			100 %		10-123	3550 SV	02/13/2019 21:35	AY	8270C
Surrogate: Nitrobenzene-d5			70.2 %		35-114	3550 SV	02/13/2019 21:35	AY	8270C
Surrogate: 2-Fluorobiphenyl			102 %		18-116	3550 SV	02/13/2019 21:35	AY	8270C
Surrogate: Terphenyl-d14			79.0 %		33-141	3550 SV	02/13/2019 21:35	AY	8270C

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Wendy Lu, Laboratory Supervisor



Aurora Industrial Hygiene - SD
 9666 Business Park Ave. Suite 102
 San Diego CA, 92131

Project: VID Reservoir
 Project Number: 58153
 Project Manager: Karen Shockley

Work Order No: 1902098
 Reported:
 02/25/2019 12:34

Analytical Results

Client Sample ID: VID-0205-W02

Laboratory Sample ID: 1902098-02 (Solid)

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
TPH Creosote						Batch ID: BB90577	Prepared: 02/13/2019 09:00		
Creosote	55.5		50.0	mg/kg	1	3550B	02/18/2019 21:57	JOI	LUFT GC
<i>Surrogate: Chlorobenzene</i>		A-01	51.8 %		75-115	3550B	02/18/2019 21:57	JOI	LUFT GC

Analytical Results

Client Sample ID: VID-0205-W03

Laboratory Sample ID: 1902098-03 (Solid)

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
Total ICP Metals						Batch ID: BB90637	Prepared: 02/21/2019 12:38		
Arsenic	ND		0.250	mg/kg	1	3050B	02/21/2019 15:48	LVE	SW846 6010B
Chromium	1.47		0.500	mg/kg	1	3050B	02/21/2019 15:48	LVE	SW846 6010B
Copper	3.10		0.500	mg/kg	1	3050B	02/21/2019 15:48	LVE	SW846 6010B
Polychlorinated Biphenyls (PCBs) by Gas Chromatography						Batch ID: BB90383	Prepared: 02/13/2019 14:39		
Aroclor 1016	ND		33.0	ug/kg	1	3550 SV	02/13/2019 15:30	AY	8082
Aroclor 1221	ND		67.0	ug/kg	1	3550 SV	02/13/2019 15:30	AY	8082
Aroclor 1232	ND		33.0	ug/kg	1	3550 SV	02/13/2019 15:30	AY	8082
Aroclor 1242	ND		33.0	ug/kg	1	3550 SV	02/13/2019 15:30	AY	8082
Aroclor 1248	ND		33.0	ug/kg	1	3550 SV	02/13/2019 15:30	AY	8082
Aroclor 1254	ND		33.0	ug/kg	1	3550 SV	02/13/2019 15:30	AY	8082
Aroclor 1260	ND		33.0	ug/kg	1	3550 SV	02/13/2019 15:30	AY	8082
<i>Surrogate: Decachlorobiphenyl</i>			105 %		43-169	3550 SV	02/13/2019 15:30	AY	8082

Semivolatile Organic Compounds						Batch ID: BB90382	Prepared: 02/13/2019 09:48 R-01		
Acenaphthene	23600		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Acenaphthylene	5660		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Anthracene	81500		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Benz(a)anthracene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Benzo (a) pyrene	10800		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Benzo (b) fluoranthene	31900		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Benzo (g,h,i) perylene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Benzo (k) fluoranthene	7060		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Benzoic acid	ND		17000	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Benzyl alcohol	ND		6600	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Bis(2-chloroethoxy)methane	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Bis(2-chloroethyl) ether	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Bis(2-chloroisopropyl) ether	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Bis(2-ethylhexyl) phthalate	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
4-Bromophenyl phenyl ether	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Butyl benzyl phthalate	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C

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Aurora Industrial Hygiene - SD
9666 Business Park Ave. Suite 102
San Diego CA, 92131

Project: VID Reservoir
Project Number: 58153
Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
02/25/2019 12:34

Analytical Results

Client Sample ID: VID-0205-W03

Laboratory Sample ID: 1902098-03 (Solid)

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
Semivolatile Organic Compounds					Batch ID: BB90382		Prepared: 02/13/2019 09:48	R-01	
4-Chloro-3-methylphenol	ND		6600	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
4-Chloroaniline	ND		6600	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2-Chloronaphthalene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2-Chlorophenol	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
4-Chlorophenyl phenyl ether	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Chrysene	29300		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Di-n-butyl phthalate	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Di-n-octyl phthalate	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Dibenz (a,h) anthracene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Dibenzofuran	22300		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
1,3-Dichlorobenzene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
1,2-Dichlorobenzene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
1,4-Dichlorobenzene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
3,3'-Dichlorobenzidine	ND		6600	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2,4-Dichlorophenol	ND		17000	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Diethyl phthalate	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2,4-Dimethylphenol	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Dimethyl phthalate	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2,4-Dinitrophenol	ND		17000	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2,4-Dinitrotoluene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2,6-Dinitrotoluene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Fluoranthene	101000		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Fluorene	31500		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Hexachlorobenzene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Hexachlorobutadiene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Hexachlorocyclopentadiene	ND		6600	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Hexachloroethane	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Indeno (1,2,3-cd) pyrene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Isophorone	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2-Methyl-4,6-dinitrophenol	ND		17000	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
1-Methyl Naphthylene	7820		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2-Methylnaphthalene	8330		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2-Methylphenol	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
3/4-Methylphenol	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
N-Nitroso-di-n-propylamine	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
N-Nitrosodiphenylamine	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Naphthalene	5270		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2-Nitroaniline	ND		17000	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
3-Nitroaniline	ND		17000	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
4-Nitroaniline	ND		17000	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C

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Aurora Industrial Hygiene - SD
 9666 Business Park Ave. Suite 102
 San Diego CA, 92131

Project: VID Reservoir
 Project Number: 58153
 Project Manager: Karen Shockley

Work Order No: 1902098
 Reported:
 02/25/2019 12:34

Analytical Results

Client Sample ID: VID-0205-W03

Laboratory Sample ID: 1902098-03 (Solid)

Analyte	Result	Notes	PQL	Units	Dilution	Prep Method	Analyzed	Analyst	Method
Semivolatile Organic Compounds			Batch ID: BB90382		Prepared: 02/13/2019 09:48		R-01		
Nitrobenzene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2-Nitrophenol	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
4-Nitrophenol	ND		17000	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Pentachlorophenol	ND		17000	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Phenanthrene	130000		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Phenol	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Pyrene	71200		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
1,2,4-Trichlorobenzene	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2,4,5-Trichlorophenol	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
2,4,6-Trichlorophenol	ND		3300	ug/kg	10	3550 SV	02/13/2019 22:11	AY	8270C
Surrogate: 2-Fluorophenol			37.3 %		21-105	3550 SV	02/13/2019 22:11	AY	8270C
Surrogate: Phenol-d6			45.0 %		10-107	3550 SV	02/13/2019 22:11	AY	8270C
Surrogate: 2,4,6-Tribromophenol			50.8 %		10-123	3550 SV	02/13/2019 22:11	AY	8270C
Surrogate: Nitrobenzene-d5		S-01	33.4 %		35-114	3550 SV	02/13/2019 22:11	AY	8270C
Surrogate: 2-Fluorobiphenyl			41.8 %		18-116	3550 SV	02/13/2019 22:11	AY	8270C
Surrogate: Terphenyl-d14			52.4 %		33-141	3550 SV	02/13/2019 22:11	AY	8270C
TPH Creosote			Batch ID: BB90585		Prepared: 02/17/2019 09:00		A-01b		
Creosote	7290		1100	mg/kg	22	3550B	02/19/2019 15:24	JOI	LUFT GC
Surrogate: Chlorobenzene			103 %		75-115	3550B	02/19/2019 15:24	JOI	LUFT GC

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Project: VID Reservoir
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Reported:
 02/25/2019 12:34

Total ICP Metals - Quality Control Report

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BB90637 - 3050B - SW846 6010B

Blank (BB90637-BLK1)

Prepared & Analyzed: 02/21/201

Arsenic	ND	0.250	mg/kg							
Chromium	ND	0.500	"							
Copper	ND	0.500	"							

LCS (BB90637-BS1)

Prepared & Analyzed: 02/21/201

Arsenic	103	0.500	mg/kg	100		103	80-120			
Chromium	105	1.00	"	100		105	80-120			
Copper	105	1.00	"	100		105	80-120			

LCS Dup (BB90637-BSD1)

Prepared & Analyzed: 02/21/201

Arsenic	104	0.500	mg/kg	100		104	80-120	0.208	30	
Chromium	102	1.00	"	100		102	80-120	2.17	30	
Copper	104	1.00	"	100		104	80-120	1.57	20	

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 Project Number: 58153
 Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
 02/25/2019 12:34

Polychlorinated Biphenyls (PCBs) by Gas Chromatography - Quality Control Report

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BB90383 - 3550 SV - 8082

Blank (BB90383-BLK1)

Prepared & Analyzed: 02/13/201

Aroclor 1016	ND	33.0	ug/kg							
Aroclor 1221	ND	67.0	"							
Aroclor 1232	ND	33.0	"							
Aroclor 1242	ND	33.0	"							
Aroclor 1248	ND	33.0	"							
Aroclor 1254	ND	33.0	"							
Aroclor 1260	ND	33.0	"							
<i>Surrogate: Decachlorobiphenyl</i>	<i>18.1</i>		<i>"</i>	<i>16.7</i>		<i>108</i>	<i>43-169</i>			

LCS (BB90383-BS1)

Prepared & Analyzed: 02/13/201

Aroclor 1260	156	33.0	ug/kg	167		93.8	39-150			
<i>Surrogate: Decachlorobiphenyl</i>	<i>15.1</i>		<i>"</i>	<i>16.7</i>		<i>90.6</i>	<i>43-169</i>			

LCS Dup (BB90383-BSD1)

Prepared & Analyzed: 02/13/201

Aroclor 1260	157	33.0	ug/kg	167		94.2	39-150	0.469	30	
<i>Surrogate: Decachlorobiphenyl</i>	<i>14.5</i>		<i>"</i>	<i>16.7</i>		<i>87.0</i>	<i>43-169</i>			

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Project: VID Reservoir
 Project Number: 58153
 Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
 02/25/2019 12:34

Semivolatile Organic Compounds - Quality Control Report

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BB90382 - 3550 SV - 8270C

Blank (BB90382-BLK1)

Prepared & Analyzed: 02/13/201

Acenaphthene	ND	330	ug/kg
Acenaphthylene	ND	330	"
Anthracene	ND	330	"
Benz(a)anthracene	ND	330	"
Benzo (a) pyrene	ND	330	"
Benzo (b) fluoranthene	ND	330	"
Benzo (g,h,i) perylene	ND	330	"
Benzo (k) fluoranthene	ND	330	"
Benzoic acid	ND	1700	"
Benzyl alcohol	ND	660	"
Bis(2-chloroethoxy)methane	ND	330	"
Bis(2-chloroethyl) ether	ND	330	"
Bis(2-chloroisopropyl) ether	ND	330	"
Bis(2-ethylhexyl) phthalate	ND	330	"
4-Bromophenyl phenyl ether	ND	330	"
Butyl benzyl phthalate	ND	330	"
4-Chloro-3-methylphenol	ND	660	"
4-Chloroaniline	ND	660	"
2-Chloronaphthalene	ND	330	"
2-Chlorophenol	ND	330	"
4-Chlorophenyl phenyl ether	ND	330	"
Chrysene	ND	330	"
Di-n-butyl phthalate	ND	330	"
Di-n-octyl phthalate	ND	330	"
Dibenz (a,h) anthracene	ND	330	"
Dibenzofuran	ND	330	"
1,3-Dichlorobenzene	ND	330	"
1,2-Dichlorobenzene	ND	330	"
1,4-Dichlorobenzene	ND	330	"
3,3'-Dichlorobenzidine	ND	660	"
2,4-Dichlorophenol	ND	1700	"
Diethyl phthalate	ND	330	"
2,4-Dimethylphenol	ND	330	"
Dimethyl phthalate	ND	330	"
2,4-Dinitrophenol	ND	1700	"
2,4-Dinitrotoluene	ND	330	"
2,6-Dinitrotoluene	ND	330	"
Fluoranthene	ND	330	"
Fluorene	ND	330	"
Hexachlorobenzene	ND	330	"
Hexachlorobutadiene	ND	330	"

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Wendy Lu, Laboratory Supervisor



Aurora Industrial Hygiene - SD
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 San Diego CA, 92131

Project: VID Reservoir
 Project Number: 58153
 Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
 02/25/2019 12:34

Semivolatile Organic Compounds - Quality Control Report

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BB90382 - 3550 SV - 8270C

Blank (BB90382-BLK1)

Prepared & Analyzed: 02/13/201

Hexachlorocyclopentadiene	ND	660	ug/kg							
Hexachloroethane	ND	330	"							
Indeno (1,2,3-cd) pyrene	ND	330	"							
Isophorone	ND	330	"							
2-Methyl-4,6-dinitrophenol	ND	1700	"							
1-Methyl Naphthylene	ND	330	"							
2-Methylnaphthalene	ND	330	"							
2-Methylphenol	ND	330	"							
3/4-Methylphenol	ND	330	"							
N-Nitroso-di-n-propylamine	ND	330	"							
N-Nitrosodiphenylamine	ND	330	"							
Naphthalene	ND	330	"							
2-Nitroaniline	ND	1700	"							
3-Nitroaniline	ND	1700	"							
4-Nitroaniline	ND	1700	"							
Nitrobenzene	ND	330	"							
2-Nitrophenol	ND	330	"							
4-Nitrophenol	ND	1700	"							
Pentachlorophenol	ND	1700	"							
Phenanthrene	ND	330	"							
Phenol	ND	330	"							
Pyrene	ND	330	"							
1,2,4-Trichlorobenzene	ND	330	"							
2,4,5-Trichlorophenol	ND	330	"							
2,4,6-Trichlorophenol	ND	330	"							
Surrogate: 2-Fluorophenol	1150		"	3330		34.6	21-105			
Surrogate: Phenol-d6	1480		"	3330		44.4	10-107			
Surrogate: 2,4,6-Tribromophenol	2670		"	3330		80.0	10-123			
Surrogate: Nitrobenzene-d5	796		"	1670		47.8	35-114			
Surrogate: 2-Fluorobiphenyl	1290		"	1670		77.3	18-116			
Surrogate: Terphenyl-d14	1400		"	1670		83.9	33-141			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Wendy Lu, Laboratory Supervisor



Aurora Industrial Hygiene - SD
9666 Business Park Ave. Suite 102
San Diego CA, 92131

Project: VID Reservoir
Project Number: 58153
Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
02/25/2019 12:34

Semivolatile Organic Compounds - Quality Control Report

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BB90382 - 3550 SV - 8270C

LCS (BB90382-BS1)

Prepared & Analyzed: 02/13/201

Acenaphthene	1090	330	ug/kg	1330		82.1	43-118			
4-Chloro-3-methylphenol	1770	660	"	2670		66.3	23-117			
2-Chlorophenol	1320	330	"	2670		49.6	27-113			
1,4-Dichlorobenzene	799	330	"	1330		60.0	36-105			
2,4-Dinitrotoluene	1350	330	"	1330		102	24-120			
N-Nitroso-di-n-propylamine	995	330	"	1330		74.6	41-116			
4-Nitrophenol	1860	1700	"	2670		69.9	10-133			
Pentachlorophenol	2420	1700	"	2670		90.9	9-118			
Phenol	1660	330	"	2670		62.4	12-110			
Pyrene	1370	330	"	1330		103	26-127			
1,2,4-Trichlorobenzene	972	330	"	1330		72.9	39-98			
Surrogate: 2-Fluorophenol	1300		"	3330		39.1	21-105			
Surrogate: Phenol-d6	2470		"	3330		74.0	10-107			
Surrogate: 2,4,6-Tribromophenol	3390		"	3330		102	10-123			
Surrogate: Nitrobenzene-d5	1090		"	1670		65.3	35-114			
Surrogate: 2-Fluorobiphenyl	1530		"	1670		91.7	18-116			
Surrogate: Terphenyl-d14	1480		"	1670		88.7	33-141			

LCS Dup (BB90382-BSD1)

Prepared & Analyzed: 02/13/201

Acenaphthene	1060	330	ug/kg	1330		79.5	43-118	3.19	30	
4-Chloro-3-methylphenol	1700	660	"	2670		63.7	23-117	4.11	30	
2-Chlorophenol	1270	330	"	2670		47.8	27-113	3.70	30	
1,4-Dichlorobenzene	771	330	"	1330		57.8	36-105	3.61	30	
2,4-Dinitrotoluene	1300	330	"	1330		97.8	24-120	3.76	30	
N-Nitroso-di-n-propylamine	931	330	"	1330		69.8	41-116	6.68	30	
4-Nitrophenol	1870	1700	"	2670		70.2	10-133	0.321	30	
Pentachlorophenol	2240	1700	"	2670		83.9	9-118	7.99	30	
Phenol	1740	330	"	2670		65.4	12-110	4.56	30	
Pyrene	1370	330	"	1330		102	26-127	0.195	30	
1,2,4-Trichlorobenzene	1010	330	"	1330		75.8	39-98	3.93	30	
Surrogate: 2-Fluorophenol	1500		"	3330		44.9	21-105			
Surrogate: Phenol-d6	1770		"	3330		53.0	10-107			
Surrogate: 2,4,6-Tribromophenol	3450		"	3330		103	10-123			
Surrogate: Nitrobenzene-d5	1020		"	1670		61.3	35-114			
Surrogate: 2-Fluorobiphenyl	1510		"	1670		90.7	18-116			
Surrogate: Terphenyl-d14	1440		"	1670		86.5	33-141			

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Aurora Industrial Hygiene - SD
9666 Business Park Ave. Suite 102
San Diego CA, 92131

Project: VID Reservoir
Project Number: 58153
Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
02/25/2019 12:34

TPH Creosote - Quality Control Report

Analyte	Result	PQL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch BB90577 - 3550B - LUFT GC

Blank (BB90577-BLK1)

Prepared & Analyzed: 02/18/201

Creosote	ND	50.0	mg/kg							
Surrogate: Chlorobenzene	106		"	100		106	75-115			

LCS (BB90577-BS1)

Prepared & Analyzed: 02/18/201

Diesel range organics	307		mg/kg	300		102	75-120			
Surrogate: Chlorobenzene	85.0		"	100		85.0	75-115			

Batch BB90585 - 3550B - LUFT GC

Blank (BB90585-BLK1)

Prepared & Analyzed: 02/19/201

Creosote	ND	50.0	mg/kg							
Surrogate: Chlorobenzene	104		"	100		104	75-115			

LCS (BB90585-BS1)

Prepared & Analyzed: 02/19/201

Diesel range organics	350		mg/kg	300		117	75-120			
Surrogate: Chlorobenzene	95.7		"	100		95.7	75-115			

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Wendy Lu, Laboratory Supervisor



AMERICAN SCIENTIFIC LABORATORIES, LLC
Environmental Testing Services

2520 N. San Fernando Road, LA CA 90065 Tel: (323) 223-9700 • Fax: (323) 223-9500

Aurora Industrial Hygiene - SD
9666 Business Park Ave. Suite 102
San Diego CA, 92131

Project: VID Reservoir
Project Number: 58153
Project Manager: Karen Shockley

Work Order No: 1902098
Reported:
02/25/2019 12:34

Notes and Definitions

- S-01 The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference's.
- R-01 The Reporting Limit for this analyte has been raised to account for matrix interference.
- J Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- A-01b ORO detected: 34400mg/kg
- A-01a ORO detected: 1470mg/kg
- A-01 No surrogate recovery due to limited sample
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the practical quantitation limit (PQL)
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

Appendix Four – Asbestos and Lead Inspector Certification

State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant

Milton R Shockley, Jr.



Name

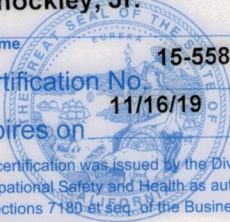
15-5581

Certification No.

11/16/19

Expires on

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.



State of California Department of Public Health

Lead-Related
Construction
Certificate

Certificate
Type

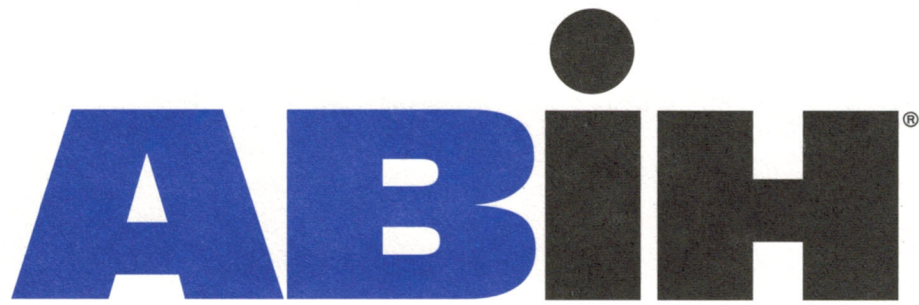
Expiration
Date



Inspector Assessor	09/10/2019
Project Monitor	09/10/2019



Milton R. Shockley, Jr ID #: 9755



american board of industrial hygiene®

organized to improve the practice of industrial hygiene
proclaims that

Karen G. Shockley

having met all requirements of
education, experience and examination, and
ongoing maintenance,
is hereby certified in the

**COMPREHENSIVE PRACTICE
of
INDUSTRIAL HYGIENE**

and has the right to use the designations

CERTIFIED INDUSTRIAL HYGIENIST

CIH

Certificate Number	6766 CP
Awarded:	July 21, 1995
Expiration Date:	December 1, 2021



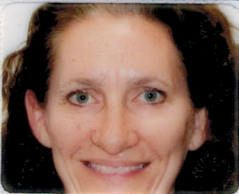
Susan Ripple
Chair, ABIH

Allen H. Oliver
Chief Executive Officer, ABIH

State of California
Division of Occupational Safety and Health
Certified Asbestos Consultant

Karen G Shockley

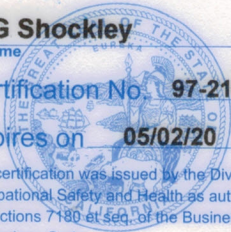
Name



Certification No. **97-2146**

Expires on **05/02/20**

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.



State of California Department of Public Health

Lead-Related
Construction
Certificate

Certificate
Type

Expiration
Date



Inspector/Assessor

05/29/2019

★
Project Monitor

05/29/2019



Karen G. Shockley

ID #: 2664

