

April 25, 2019

ACG Job No. I1612-1202

Rhine LP & Morro 94
2304 W. Shaw Avenue, Suite 102
Fresno, CA 93711
Attn: Mr. Chris Mathys

Subject: Post-removal Inspection – Former Hose-shed Locations

Site: Former US Navy Jet Fuel Storage Site, 3300 Panorama Road, Morro Bay, California

INTRODUCTION

At the request of the City of Morro Bay, Analytical Consulting Group, Inc. (ACG) has conducted an inspection of the former locations of fire-hose sheds that were removed from the subject property. The sheds were removed by the property owner following completion of the demolition and removal of the aboveground fuel storage tank system. The hose sheds are shown on the original construction drawings for the DFSP. The sheds were constructed of steel framing with galvanized-steel siding and roofs bolted to concrete slab foundations. The galvanized steel was coated with asbestos felt and lead-based paint, similar to a product called Galbestos but lacking the asphalt impregnation of Galbestos. The purpose of the inspection was to identify whether asbestos or lead-based paint (LBP) is present in soil or debris surrounding the areas where the sheds formerly stood.

The scope of work was as follows:

- Conduct a visual inspection of former hose shed locations and collect bulk samples of suspect asbestos-containing materials (ACM), paint, and soil.
- Submit bulk samples of suspect ACM, paint, and soil to an accredited laboratory for analysis.
- Prepare report with sampling locations, analytical results, and recommendations.

METHODOLOGY

Ben Register, Certified Lead Inspector/Risk Assessor No. 24997 and CSST No. 17-5994, under the supervision of Michael Tiffany, CIH, CAC, performed the inspection and sampling of paint, debris, and soil. Visual inspection of the shed areas showed vegetation growing up to the edge of each concrete slab. The northern area had a small amount of paint flakes and debris, up to about three inches in maximum size, within about two feet of the slab. The middle shed area had one large paint flake adjacent to the slab that was collected as a sample. No other paint or debris was found near the middle shed, but the area is completely covered with tall grasses and vegetation making visual identification of debris difficult. Soil surrounding the middle shed area appears to be gravel fill with a small amount of topsoil. The southern shed area also had considerable vegetation growth adjacent to the slab. No paint or debris was observed near the southern shed location.

Bulk asbestos and paint chip samples were collected by placing visible debris from around the shed areas into 60mL digestion vials. Soil samples were collected from around each of the three former hose shed areas. Multiple surface soil samples were collected and composited from the area surrounding each shed slab. Composited soil samples were placed in 60mL digestion vials. Samples were sent to Forensic Analytical Laboratories in Hayward, California for analysis. Soil and paint samples were analyzed for lead by EPA method 6010B. Debris samples were analyzed for asbestos by EPA method 600/R-93-116. Forensic Analytical Laboratories is accredited for bulk asbestos analysis by NIST/NVLAP and for lead analysis by AIHA-ELLAP. The laboratory sample reports and chains of custody are attached.

SAMPLE RESULTS

ASBESTOS-CONTAINING MATERIALS

The sample of debris from the northern shed location contained 5% chrysotile asbestos. This is likely a residual from the original siding material of the shed. Visible debris consisted of various small pieces generally less than three inches in length.

LEAD-BASED PAINT

Bulk samples were taken of paint debris around the northern and middle hose shed slabs. Two paint samples were collected. Analysis showed lead levels in paint of 9,000 ppm and 7,600 ppm (0.9% and 0.76% by weight) respectively.

The EPA/HUD criterion for lead-based paint is 5,000 ppm (0.5% by weight). The Cal/OSHA criterion for lead-containing paint is 600 ppm (0.06% by weight). Any work that disturbs paint containing more than 600 ppm lead and could result in employee exposure to lead dust is considered lead-related work. Trained personnel, safe work practices, engineering controls, respiratory protection, and air sampling are required when removing such paints or preparing the surface for repainting.

TABLE 2
LEAD IN PAINT – BULK PAINT SAMPLES

Sample No	Location	Lead Content (ppm)
328-N Paint	North Shed	9,000
328-Mid Paint	Middle Shed	7,600

LEAD IN SOIL

Composite soil samples from around the former shed locations showed lead levels between 91 and 170 ppm. All samples exceeded the residential lead in soil standard for the state of California of 80 ppm.

TABLE 3
LEAD IN SOIL – COMPOSITE SOIL SAMPLES

Sample No	Location	Lead Content (ppm)
328-N1	North Shed	170
328-Mid 1	Middle Shed	91
328-S1	South Shed	110



CONCLUSIONS AND RECOMMENDATIONS

Bulk samples of debris material in the area of the northern hose shed contained 5% chrysotile asbestos. No other suspect asbestos containing debris was visible at the middle or southern hose shed locations. Paint samples showed lead content up to 9,000 ppm. The paint debris from the former hose sheds exceeds the Cal/OSHA lead paint criterion of 600 ppm. Soil samples from around each of the former hose sheds all exceeded the California residential lead in soil standard of 80 ppm.

The subject property is a former U.S. Navy facility constructed in the 1960s. One structure still located on the site, the electrical switchroom and garage building in the northwest part of the site, has asbestos- and lead-containing siding material similar to that on the former hose sheds. The recently demolished aboveground storage tanks and pumping equipment had lead-based paint on them. Lead-based paint on exterior surfaces normally weathers and sheds paint flakes and lead dust into the soil surrounding the structures over time. It is likely that some paint debris, asbestos, and lead dust was present in the soil around the hose sheds prior to their removal, due to more than 50 years of weathering. Lead contamination is suspected in surface soil in other portions of the site for the same reason. Additionally, the native soils and fill soils at the site contain naturally-occurring asbestos (NOA) due to the presence of serpentine rock, the source rock for asbestos.

A comprehensive site assessment is planned for the property, as required by the San Luis Obispo County Department of Environmental Health Services following the tank demolition project. This site assessment will include sampling for lead contamination in surface soils, and will contain recommendations for abatement if appropriate. Accordingly, no further investigation or cleanup action is recommended at this time, pending the site assessment.

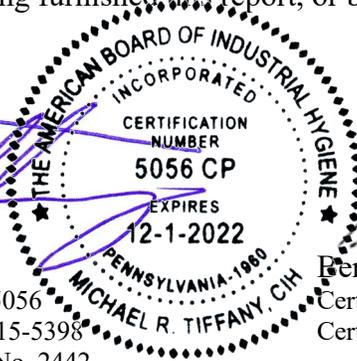


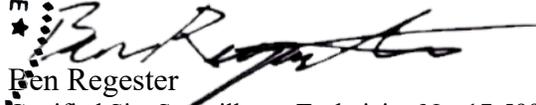
LIMITATIONS

The observations and conclusions given above are the professional opinions of Analytical Consulting Group, Inc. based on our observations and on reasonably ascertainable information supplied by government agencies, laboratories, other records sources, and the client. This report was prepared in accordance with the standards of practice commonly used by environmental professionals in this area. No other warranty, expressed or implied, of any kind is made or intended in connection with this report, or by the fact that you are being furnished this report, or by any other oral or written statement.

Respectfully submitted,

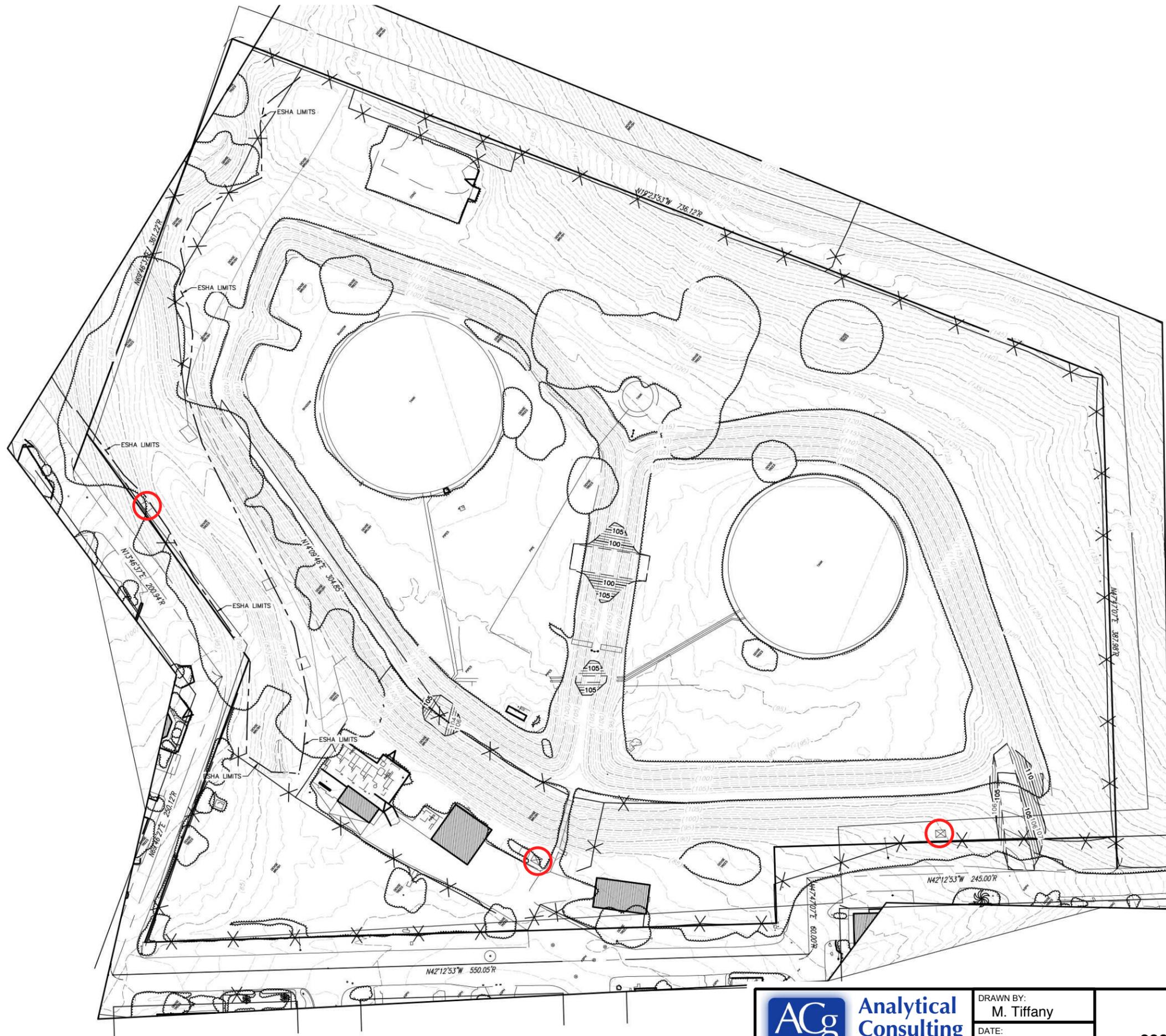

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Certified Industrial Hygienist No. 5056
Certified Asbestos Consultant No. 15-5398
Certified Lead Inspector/Assessor No. 2442




Ben Register
Certified Site Surveillance Technician No. 17-5994
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ATTACHMENTS:

- Figure: Hose Shed Locations
- Forensic Analytical Laboratory Reports



LEGEND
 Locations of Fire Hose Sheds



Bulk Asbestos Analysis

(EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)
NVLAP Lab Code: 101459-0

Analytical Consulting Group
Michael Tiffany
1746F S. Victoria Ave.
Suite #366
Ventura, CA 93003

Client ID: 6979
Report Number: B275426
Date Received: 04/04/19
Date Analyzed: 04/08/19
Date Printed: 04/08/19
First Reported: 04/08/19

Job ID/Site: I202, 3300 Panorama Road, Morro Bay

FALI Job ID: 6979-1
Total Samples Submitted: 1
Total Samples Analyzed: 1

Date(s) Collected: 03/28/2019

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
328-Nab1	12148286						
Layer: Brown Semi-Fibrous Material		Chrysotile	5 %				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (5%)					
Cellulose (Trace)							

Tad Thrower, Laboratory Supervisor, Hayward Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'.

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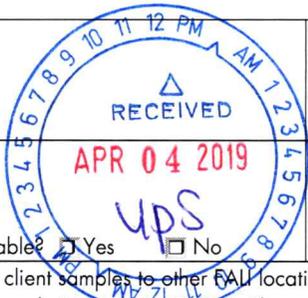


Client Name & Address: Analytical Consulting Group 1746 F South Victoria Ave #366 Ventura, CA 93003		Client No.:	PO / Job#: 11202 Panorama Rd	Date: 3/29/19
Contact: M. Tiffany		Phone: (805) 676-0187	Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
E-mail: info@analyticalconsultinggroup.com		<input type="checkbox"/> PCM: <input type="checkbox"/> NIOSH 7400A / <input type="checkbox"/> NIOSH 7400B <input type="checkbox"/> Rotometer <input checked="" type="checkbox"/> PLM: <input checked="" type="checkbox"/> Standard / <input type="checkbox"/> Point Count 400-1000 / <input type="checkbox"/> CARB 435		
Site Name: 3300 Panorama Road		<input type="checkbox"/> TEM Air: <input type="checkbox"/> AHERA / <input type="checkbox"/> Yamate2 / <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> TEM Bulk: <input type="checkbox"/> Quantitative / <input type="checkbox"/> Qualitative / <input type="checkbox"/> Chatfield <input type="checkbox"/> TEM Water: <input type="checkbox"/> Potable / <input type="checkbox"/> Non-Potable / <input type="checkbox"/> Weight % <input type="checkbox"/> TEM Microvac: <input type="checkbox"/> Qual / <input type="checkbox"/> D5755(str/area) / <input type="checkbox"/> D5756(str/mass)		
Site Location: Morro Bay		<input type="checkbox"/> IAQ Particle Identification (PLM LAB) <input type="checkbox"/> PLM Opaques/Soot <input type="checkbox"/> Particle Identification (TEM LAB) <input type="checkbox"/> Special Project <input type="checkbox"/> Metals Analysis Matrix: Method: Analytes:		

Comments: Silica in Air w/Gravimetry Quartz Only

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
328-Nab1	3/28/19	North shed area	A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				
			A P C				

Sampled By: B. Register	Date/Time: 3/28/19	Shipped Via: <input type="checkbox"/> Fed Ex <input checked="" type="checkbox"/> UPS <input type="checkbox"/> US Mail <input type="checkbox"/> Courier <input type="checkbox"/> Drop Off <input type="checkbox"/> Other:
Relinquished By: B. Register	Date / Time: 3/29/19 1300	Relinquished By: Date / Time:
Received By:	Date / Time:	Received By: Date / Time:
Condition Acceptable? <input type="checkbox"/> Yes <input type="checkbox"/> No	Condition Acceptable? <input type="checkbox"/> Yes <input type="checkbox"/> No	Condition Acceptable? <input type="checkbox"/> Yes <input type="checkbox"/> No





Metals Analysis of Paints

(AIHA-LAP, LLC Accreditation, Lab ID #101762)

Analytical Consulting Group
Michael Tiffany
1746F S. Victoria Ave.
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Client ID: 6979
Report Number: M209388
Date Received: 04/04/19
Date Analyzed: 04/08/19
Date Printed: 04/08/19
First Reported: 04/08/19

Job ID / Site: I1202, 3300 Panorama Road, Morro Bay
Date(s) Collected: 3/28/19

FALI Job ID: 6979-1
Total Samples Submitted: 2
Total Samples Analyzed: 2

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
328-N PAINT	30831457	Pb	0.90	wt%	0.007	EPA 3050B/6010B
328-MID PAINT	30831458	Pb	0.76	wt%	0.007	EPA 3050B/6010B

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

Daniele Siu

Daniele Siu, Laboratory Supervisor, Hayward Laboratory

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Metals Analysis of Soils - TTLC

(AIHA-LAP, LLC Accreditation, Lab ID #101762)

Analytical Consulting Group
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Ventura, CA 93003

Client ID: 6979
Report Number: M209387
Date Received: 04/04/19
Date Analyzed: 04/05/19
Date Printed: 04/08/19
First Reported: 04/08/19

Job ID / Site: I1202, 3300 Panorama Road, Morro Bay
Date(s) Collected: 3/28/19

FALI Job ID: 6979-1
Total Samples Submitted: 3
Total Samples Analyzed: 3

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
328-N1	30831454	Pb	170	mg/kg	5	EPA 3050B/6010B
328-MID1	30831455	Pb	91	mg/kg	5	EPA 3050B/6010B
328-S1	30831456	Pb	110	mg/kg	5	EPA 3050B/6010B

* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

Daniele Siu

Daniele Siu, Laboratory Supervisor, Hayward Laboratory

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Client Name & Address: Analytical Consulting Group 1746 F South Victoria Ave #366 Ventura, CA 93003		Client No.:	PO / Job#: 11202 Panorama Rd	Date: 03/29/19
Contact: Michael Tiffany		Phone: 8056760187	Turn Around Time: Same Day / 1Day / 2Day / 3Day / 4Day / 5Day	
E-mail: lab@analyticalconsultinggroup.com		<input type="checkbox"/> PCM: <input type="checkbox"/> NIOSH 7400A / <input type="checkbox"/> NIOSH 7400B <input type="checkbox"/> Rotometer <input type="checkbox"/> PLM: <input type="checkbox"/> Standard / <input type="checkbox"/> Point Count 400-1000 / <input type="checkbox"/> CARB 435 <input type="checkbox"/> TEM Air: <input type="checkbox"/> AHERA / <input type="checkbox"/> Yamate2 / <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> TEM Bulk: <input type="checkbox"/> Quantitative / <input type="checkbox"/> Qualitative / <input type="checkbox"/> Chatfield <input type="checkbox"/> TEM Water: <input type="checkbox"/> Potable / <input type="checkbox"/> Non-Potable / <input type="checkbox"/> Weight % <input type="checkbox"/> TEM Microvac: <input type="checkbox"/> Qual / <input type="checkbox"/> D5755(str/area) / <input type="checkbox"/> D5756(str/mass)		
Site Name: 3300 Panorama Road		<input type="checkbox"/> IAQ Particle Identification (PLM LAB) <input type="checkbox"/> PLM Opaques/Soot <input type="checkbox"/> Particle Identification (TEM LAB) <input type="checkbox"/> Special Project		
Site Location: Morro Bay		<input checked="" type="checkbox"/> Metals Analysis Matrix: Soil and Paint Method: ICP - 6010B Analytes: Lead		

Comments: Silica in Air w/Gravimetry Quartz Only

Sample ID	Date / Time	Sample Location / Description	FOR AIR SAMPLES ONLY				Sample Area / Air Volume
			Type	Time On/Off	Avg LPM	Total Time	
328-N1	3/28/19	North Shed	A P C				
328-Mid1	3/28/19	Middle Shed	A P C				
328-S1	3/28/19	South Shed	A P C				
			A P C				
328-N paint	3/28/19	North Shed Paint	A P C				
328-Mid paint	3/28/19	Middle Shed Paint	A P C				
			A P C				
			A P C				
			A P C				

Sampled By: B. Register Date/Time: 3/28/19 Shipped Via: Fed Ex UPS US Mail Courier Drop Off Other:

Relinquished By: B. Register	Relinquished By:	Relinquished By:
Date / Time: 3/29/19 1300	Date / Time:	Date / Time:
Received By:	Received By:	Received By:
Date / Time:	Date / Time:	Date / Time:
Condition Acceptable? <input type="checkbox"/> Yes <input type="checkbox"/> No	Condition Acceptable? <input type="checkbox"/> Yes <input type="checkbox"/> No	Condition Acceptable? <input type="checkbox"/> Yes <input type="checkbox"/> No

