

## Appendix A – Laboratory Reports



# EMSL Analytical, Inc.

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EMSL Order: 041804485

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.09 Upper Area (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/11/2018 9:15 AM

Analysis Date: 02/12/2018 - 02/13/2018

Collected Date: 02/09/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5μ	≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0209-OFD-PMT-01 041804485-0001	WP246 AM Intake Yard	1935.90	0.2030	0	Actinolite	1	0	0.0010	4.90	0.00098
0209-OFD-PMT-02 041804485-0002	WP247 AM Upper Overlook Entry	1938.60	0.2030	0	None Detected			0.0010	<4.90	<0.0010
0209-OFD-PMT-03 041804485-0003	WP248 AM Upper Overlook	1943.10	0.2030	0	None Detected			0.0010	<4.90	<0.0010
0209-OFD-PMT-04 041804485-0004	WP249 AM Canyon Drive	1934.10	0.2030	0	None Detected			0.0010	<4.90	<0.0010
0209-OFD-PMT-05 041804485-0005	WP246 PM Intake Yard	1942.20	0.2030	0	None Detected			0.0010	<4.90	<0.0010
0209-OFD-PMT-06 041804485-0006	WP247 PM Upper Overlook Entry	1939.50	0.2030	0	None Detected			0.0010	<4.90	<0.0010
0209-OFD-PMT-07 041804485-0007	WP248 PM Upper Overlook	1942.20	0.2030	0	None Detected			0.0010	<4.90	<0.0010
0209-OFD-PMT-08 041804485-0008	WP249 PM Canyon Drive	1936.80	0.2030	0	None Detected			0.0010	<4.90	<0.0010
0209-OFD-PMT-FB 1 041804485-0009	Field Blank 1	0.00	0.1270	0	None Detected			N/A	<7.90	N/A
0209-OFD-PMT-FB 2 041804485-0010	Field Blank 2	0.00	0.1270	0	None Detected			N/A	<7.90	N/A

Analyst(s)

Matthew Dare (10)

Benjamin Ellis, Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMSL is not responsible for data reported in structures/cc, which is dependent on volume collected by non-laboratory personnel. Samples received in good condition unless otherwise noted. The test results meet the requirements of NELAC unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.

Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from: 02/14/2018 08:44:43



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com / cinnaslab@EMSL.com>

EMSL Order: 041804484

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.09 Burma Road (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/11/2018 9:15 AM

Analysis Date: 02/12/2018

Collected Date: 02/09/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥0.5μ < 5	≥5μ		(S/mm <sup>2</sup> )	(S/cc)
0209-OFD-BPT-01	WP017A AM Burma Road 01	1979.10	0.2030	0	Actinolite	0	1	0.0010	4.90	0.00096
041804484-0001										
0209-OFD-BPT-02	WP017A PM Burma Road 01	1951.20	0.2030	0	None Detected			0.0010	<4.90	<0.0010
041804484-0002										
0209-OFD-BPT-FB 1	Field Blank 1	0.00	0.1270	0	None Detected			N/A	<7.90	N/A
041804484-0003										
0209-OFD-BPT-FB 2	Field Blank 2	0.00	0.1270	0	None Detected			N/A	<7.90	N/A
041804484-0004										

Analyst(s)

Matthew Dare (4)

Benjamin Ellis, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial Report From: 02/13/2018 11:34:59



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com / cinnasblab@EMSL.com>

EMSL Order: 041804483

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.82.09 Launch Ramp (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/11/2018 9:15 AM

Analysis Date: 02/12/2018 - 02/13/2018

Collected Date: 02/09/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5	≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0209-OFD-LRP-01	WP009A AM Launch Ramp Parking	1930.50	0.2030	9	Actinolite	30	9	0.0010	190.00	0.0380
041804483-0001										
Non-asbestos structures reported include a contribution from non-regulated amphiboles.										
0209-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1927.80	0.2030	0	Chrysotile	0	1	0.0010	4.90	0.00098
041804483-0002										
0209-OFD-LRP-03	WP009A PM Launch Ramp Parking	1949.40	0.2030	0	None Detected			0.0010	<4.90	<0.0010
041804483-0003										
0209-OFD-LRP-04	WP010a PM Launch Ramp Turnaround	1952.10	0.2030	0	None Detected			0.0010	<4.90	<0.0010
041804483-0004										
0209-OFD-LRP-FB 1	Field Blank 1	0.00	0.1270	0	None Detected			N/A	<7.90	N/A
041804483-0005										
0209-OFD-LRP-FB 2	Field Blank 2	0.00	0.1270	0	None Detected			N/A	<7.90	N/A
041804483-0006										

Analyst(s)

Matthew Dare (6)

Benjamin Ellis, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial report from: 02/14/2018 10:26:03



# EMSL Analytical, Inc.

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EMSL Order: 141800726

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.10 Upper Area (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/11/2018 1:15 PM

Analysis Date: 02/14/2018

Collected Date: 02/10/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0210-OFD-PMT-01 141800726-0001	WP246 AM Intake Yard	1933.20	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0210-OFD-PMT-02 141800726-0002	WP247 AM Upper Overlook Entry	1930.50	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0210-OFD-PMT-03 141800726-0003	WP248 AM Upper Overlook	1940.40	0.2100	0	None Detected		0.0009	<4.80	<0.0010
0210-OFD-PMT-04 141800726-0004	WP249 AM Canyon Drive	1935.90	0.2100	0	None Detected		0.0009	<4.80	<0.0010
0210-OFD-PMT-05 141800726-0005	WP246 PM Intake Yard	1958.30	0.2100	0	None Detected		0.0009	<4.80	<0.0009
0210-OFD-PMT-06 141800726-0006	WP247 PM Upper Overlook Entry	1955.60	0.2100	0	None Detected		0.0009	<4.80	<0.0009
0210-OFD-PMT-07 141800726-0007	WP248 PM Upper Overlook	1962.90	0.1970	0	None Detected		0.0010	<5.10	<0.0010
0210-OFD-PMT-08 141800726-0008	WP249 PM Canyon Drive	1942.20	0.2100	0	None Detected		0.0009	<4.80	<0.0010
0210-OFD-PMT-FB 1 141800726-0009	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
0210-OFD-PMT-FB 2 141800726-0010	Field Blank 2	0.00	0.1310	0	None Detected		N/A	<7.60	N/A

Analyst(s)

Mark Tate (10)

*Rhonda McGee*

Rhonda McGee, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Depew, NY NYS ELAP 11606, NVLAP Lab Code 200056-0

Initial report from: 02/14/2018 14:18:27



# EMSL Analytical, Inc.

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EMSL Order: 141800728

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.10 Burma Rd (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/11/2018 1:15 PM

Analysis Date: 02/15/2018

Collected Date: 02/10/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0210-OFD-BPT-01	WP017A AM Burma Road 01	1944.00	0.2100	0	None Detected		0.0009	<4.80	<0.0010
141800728-0001									
0210-OFD-BPT-02	WP017A PM Burma Road 01	1955.70	0.2100	0	None Detected		0.0009	<4.80	<0.0009
141800728-0002									
0210-OFD-BPT-FB 1	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
141800728-0003									
0210-OFD-BPT-FB 2	Field Blank	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
141800728-0004									

Analyst(s)

Mark Tate (4)

*Rhonda McGee*

Rhonda McGee, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Depew, NY NYS ELAP 11606, NVLAP Lab Code 200056-0

Initial report from: 02/15/2018 11:08:24



# EMSL Analytical, Inc.

490 Rowley Road Depew, NY 14043

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<http://www.EMSL.com> / [buffalolab@emsl.com](mailto:buffalolab@emsl.com)

EMSL Order: 141800727

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.10 Launch Ramp (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/11/2018 1:15 PM

Analysis Date: 02/14/2018

Collected Date: 02/10/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0210-OFD-LRP-01	WP009A AM Launch Ramp Parking	1927.80	0.2100	0	None Detected		0.0010	<4.80	<0.0010
141800727-0001									
0210-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1937.70	0.2100	0	None Detected		0.0009	<4.80	<0.0010
141800727-0002									
0210-OFD-LRP-03	WP009A PM Launch Ramp Parking	1971.00	0.1970	0	None Detected		0.0010	<5.10	<0.0010
141800727-0003									
0210-OFD-LRP-04	WP010A PM Launch Ramp Turnaround	1971.00	0.1970	0	None Detected		0.0010	<5.10	<0.0010
141800727-0004									
0210-OFD-LRP-FB 1	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
141800727-0005									
0210-OFD-LRP-FB 2	Field Blank 2	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
141800727-0006									

Analyst(s)

Mark Tate (6)

*Rhonda McGee*

Rhonda McGee, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Depew, NY NYS ELAP 11606, NVLAP Lab Code 200056-0

Initial report from: 02/14/2018 15:46:01



# EMSL Analytical, Inc.

3303 PARKWAY CENTER COURT Orlando, FL 32808

Tel/Fax: (407) 599-5887 / (407) 599-9063

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EMSL Order: 341802194

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: Oroville EM OP -2018.02.11 Upper Area (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/13/2018 10:25 AM

Analysis Date: 02/14/2018

Collected Date: 02/11/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0211-OFD-PMT-01 341802194-0001	WP246 AM Intake Yard	1937.70	0.2040	1	None Detected		0.0010	<4.90	<0.0010
0211-OFD-PMT-02 341802194-0002	WP247 AM Upper Overlook Entry	1930.50	0.2310	0	None Detected		0.0009	<4.30	<0.0009
0211-OFD-PMT-03 341802194-0003	WP248 AM Upper Overlook	1927.80	0.2040	1	None Detected		0.0010	<4.90	<0.0010
0211-OFD-PMT-04 341802194-0004	WP249 AM Canyon Drive	1931.40	0.2040	0	None Detected		0.0010	<4.90	<0.0010
0211-OFD-PMT-05 341802194-0005	WP246 PM Intake Yard	1939.50	0.2040	1	None Detected		0.0010	<4.90	<0.0010
0211-OFD-PMT-06 341802194-0006	WP247 PM Upper Overlook Entry	1939.50	0.2040	1	None Detected		0.0010	<4.90	<0.0010
0211-OFD-PMT-07 341802194-0007	WP248 PM Upper Overlook	1929.60	0.2040	0	None Detected		0.0010	<4.90	<0.0010
0211-OFD-PMT-08 341802194-0008	WP249 PM Canyon Drive	1926.90	0.2040	0	None Detected		0.0010	<4.90	<0.0010
0211-OFD-FB1 341802194-0009	Field Blank 1	0.00	0.1360	1	None Detected		N/A	<7.40	N/A
0211-OFD-FB2 341802194-0010	Field Blank 2	0.00	0.1360	0	None Detected		N/A	<7.40	N/A

Analyst(s)

Gerald Iannuzzi (10)

Carlos Rivadeneyra, Laboratory Director  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Orlando, FL NVLAP Lab Code 101151-0

Initial report from: 02/14/2018 12:06:20





# EMSL Analytical, Inc.

3303 PARKWAY CENTER COURT Orlando, FL 32808

Tel/Fax: (407) 599-5887 / (407) 599-9063

<http://www.EMSL.com> / [orlandolab@emsl.com](mailto:orlandolab@emsl.com)

EMSL Order: 341802191

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: Oroville EM OP-2018.02.11 Burma Rd (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/13/2018 10:25 AM

Analysis Date: 02/13/2018

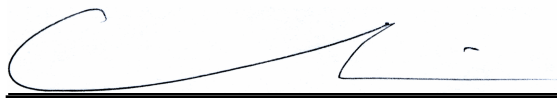
Collected Date: 02/11/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥0.5μ < 5	≥5μ		(S/mm <sup>2</sup> )	(S/cc)
0211-OFD-BPT-01	WP017A AM Burma Road 01	1924.20	0.2040	0	Actinolite	0	2	0.0010	9.80	0.0020
341802191-0001										
0211-OFD-BPT-02	WP017A PM Burma Road 01	1943.10	0.2040	6	Actinolite	0	2	0.0010	9.80	0.0019
341802191-0002										
Non-asbestos structures reported include a contribution from non-regulated amphiboles.										
0211-OFD-BPT-FB 1	Field Blank 1	0.00	0.1360	0	None Detected			N/A	<7.40	N/A
341802191-0003										
0211-OFD-BPT-FB 2	Field Blank 2	0.00	0.1360	0	None Detected			N/A	<7.40	N/A
341802191-0004										

Analyst(s)

Gerald Iannuzzi (4)

  
Carlos Rivadeneyra, Laboratory Director  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Orlando, FL NVLAP Lab Code 101151-0

Initial report from: 02/13/2018 14:57:48



# EMSL Analytical, Inc.

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EMSL Order: 341802185

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: Oroville EM OP-2018, 0211 Launch Ramp (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/13/2018 10:25 AM

Analysis Date: 02/13/2018

Collected Date: 02/11/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	#Structures ≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	Asbestos Concentration (S/cc)
0211-OFD-LRP-01	WP009A AM Launch Ramp Parking	1939.40	0.2040	1	None Detected			0.0010	<4.90	<0.0010
341802185-0001										
0211-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1918.00	0.2040	3	None Detected			0.0010	<4.90	<0.0010
341802185-0002										
0211-OFD-LRP-03	WP009A PM Launch Ramp Parking	1942.20	0.2040	1	Tremolite	1	0	0.0010	4.90	0.00097
341802185-0003										
0211-OFD-LRP-04	WP010A PM Launch Ramp Turnaround	1949.40	0.2040	0	None Detected			0.0010	<4.90	<0.0010
341802185-0004										
0211-OFD-LRP-FB 1	Field Blank 1	0.00	0.1360	0	None Detected			N/A	<7.40	N/A
341802185-0005										
0211-OFD-LRP-FB 2	Field Blank 2	0.00	0.1360	0	None Detected			N/A	<7.40	N/A
341802185-0006										

Analyst(s)

Gerald Iannuzzi (6)

Carlos Rivadeneyra, Laboratory Director  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Orlando, FL NVLAP Lab Code 101151-0

Initial report from: 02/13/2018 18:31:51



# EMSL Analytical, Inc.

2975 Brighton Henrietta Town Line Rd ,100 Ste 130 Rochester, NY 14623

Tel/Fax: (585) 957-9436 / (585) 957-9437

<http://www.EMSL.com / rochesterlab@EMSL.com>

EMSL Order: 531800023

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.12 Upper Area (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/14/2018 10:10 AM

Analysis Date: 02/15/2018

Collected Date: 02/12/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0212-OFD-PMT-01 531800023-0001	WP246 AM Intake Yard	1920.70	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0212-OFD-PMT-02 531800023-0002	WP247 AM Upper Overlook Entry	1927.80	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0212-OFD-PMT-03 531800023-0003	WP248 AM Upper Overlook	1949.20	0.2100	0	None Detected		0.0009	<4.80	<0.0009
0212-OFD-PMT-04 531800023-0004	WP249 AM Canyon Drive	1930.50	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0212-OFD-PMT-05 531800023-0005	WP246 PM Intake Yard	1936.80	0.2100	0	None Detected		0.0009	<4.80	<0.0010
0212-OFD-PMT-06 531800023-0006	WP247 PM Upper Overlook Entry	1922.40	0.2100	1	None Detected		0.0010	<4.80	<0.0010
0212-OFD-PMT-07 531800023-0007	WP248 PM Upper Overlook	1926.60	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0212-OFD-PMT-08 531800023-0008	WP249 PM Canyon Drive	1931.40	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0212-OFD-PMT-FB 1 531800023-0009	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
0212-OFD-PMT-FB 2 531800023-0010	Field Blank 2	0.00	0.1310	0	None Detected		N/A	<7.60	N/A

Analyst(s)

Peter Donato (10)

Peter Donato Asbestos Laboratory Manager  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. Results reported in both structures/cm3 and structures/mm2 are dependent on the volume of Airsampled and measured by non-laboratory personnel are not the responsibility of EMSL and are not covered by the laboratory's NVLAP accreditation. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.

Samples analyzed by EMSL Analytical, Inc. Rochester, NY NVLAP Lab Code 600183-0.

Initial Report From: 02/15/2018 16:29:19



# EMSL Analytical, Inc.

2975 Brighton Henrietta Town Line Rd ,100 Ste 130 Rochester, NY 14623

Tel/Fax: (585) 957-9436 / (585) 957-9437

<http://www.EMSL.com / rochesterlab@EMSL.com>

EMSL Order: 531800021

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.12 Burma Rd (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/14/2018 9:51 AM

Analysis Date: 02/14/2018

Collected Date: 02/12/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥0.5μ	< 5 ≥5μ		(S/mm <sup>2</sup> )	(S/cc)
0212-OFD-BPT-01	WP017A AM Burma Road 01	1965.60	0.1970	1	None Detected			0.0010	<5.10	<0.0010
531800021-0001										
0212-OFD-BPT-02	WP017A PM Burma Road 01	1955.70	0.2100	3	None Detected			0.0009	<4.80	<0.0009
531800021-0002										
Non-asbestos structures reported includes a contribution from non-regulated amphiboles.										
0212-OFD-BPT-FB 1	Field Blank	0.00	0.1310	0	None Detected			N/A	<7.60	N/A
531800021-0003										
0212-OFD-BPT-FB 2	Field Blank	0.00	0.1310	0	None Detected			N/A	<7.60	N/A
531800021-0004										

Analyst(s)

Peter Donato (4)

Peter Donato Asbestos Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Rochester, NY NVLAP Lab Code 600183-0.

Initial Report From: 02/15/2018 16:17:08



# EMSL Analytical, Inc.

2975 Brighton Henrietta Town Line Rd ,100 Ste 130 Rochester, NY 14623

Tel/Fax: (585) 957-9436 / (585) 957-9437

<http://www.EMSL.com / rochesterlab@EMSL.com>

EMSL Order: 531800022

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.12 Launch Ramp (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/14/2018 10:00 AM

Analysis Date: 02/14/2018 - 02/15/2018

Collected Date: 02/12/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0212-OFD-LRP-01	WP009A AM Launch Ramp Parking	1940.40	0.2100	2	None Detected		0.0009	<4.80	<0.0010
531800022-0001 Non-asbestos structures reported includes a contribution from non-regulated amphiboles.									
0212-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1937.70	0.2100	1	None Detected		0.0009	<4.80	<0.0010
531800022-0002 Non-asbestos structures reported includes a contribution from non-regulated amphiboles.									
0212-OFD-LRP-03	WP009A PM Launch Ramp Parking	1938.60	0.2100	1	Actinolite	0	1	0.0009	4.80
531800022-0003 Non-asbestos structures reported includes a contribution from non-regulated amphiboles.									
0212-OFD-LRP-04	WP010A PM Launch Ramp Turnaround	1944.00	0.2100	0	None Detected		0.0009	<4.80	<0.0010
531800022-0004									
0212-OFD-LRP-FB 1	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
531800022-0005									
0212-OFD-LRP-FB 2	Field Blank 2	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
531800022-0006									

Analyst(s)

Peter Donato (6)

Peter Donato Asbestos Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Rochester, NY NVLAP Lab Code 600183-0.

Initial report from: 02/15/2018 16:23:50



# LA Testing

520 Mission Street South Pasadena, CA 91030

Tel/Fax: (323) 254-9960 / (323) 254-9982

<http://www.LATesting.com> / [pasadenalab@latesting.com](mailto:pasadenalab@latesting.com)

LA Testing Order: 321803740

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

**Attention:** Dave Beadle, CIH  
Safety Management Systems  
1001 Brad Freeman Trail  
Trailer #2 / Safety Mgmt Systems  
Oroville, CA 95965

**Project:** 2018.02.13 Upper Area (Oroville EM OP)

**Phone:** (661) 699-9375

**Fax:**

**Received Date:** 2/15/2018 9:35 AM

**Analysis Date:** 02/16/2018

**Collected Date:** 02/13/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0213-OFD-PMT-01 321803740-0001	WP246 AM Intake Yard	1931.40	0.2060	0	None Detected		0.0010	<4.80	<0.0010
0213-OFD-PMT-02 321803740-0002	WP247 AM Upper Overlook Entry	1928.70	0.2060	2	None Detected		0.0010	<4.80	<0.0010
0213-OFD-PMT-03 321803740-0003	WP248 AM Upper Overlook	1955.70	0.2060	1	None Detected		0.0010	<4.80	<0.0010
0213-OFD-PMT-04 321803740-0004	WP249 AM Canyon Drive	1939.50	0.2060	2	None Detected		0.0010	<4.80	<0.0010
0213-OFD-PMT-05 321803740-0005	WP246 PM Intake Yard	1936.80	0.2060	2	None Detected		0.0010	<4.80	<0.0010
0213-OFD-PMT-06 321803740-0006	WP247 PM Upper Overlook Entry	1936.80	0.2060	0	None Detected		0.0010	<4.80	<0.0010
0213-OFD-PMT-07 321803740-0007	WP248 PM Upper Overlook	1934.10	0.2060	1	None Detected		0.0010	<4.80	<0.0010
0213-OFD-PMT-08 321803740-0008	WP249 PM Canyon Drive	1926.90	0.2060	5	None Detected		0.0010	<4.80	<0.0010
0213-OFD-PMT-FB 1 321803740-0009	Field blank 1	0.00	0.1290	0	None Detected		N/A	<7.80	N/A
0213-OFD-PMT-FB 2 321803740-0010	Field blank 2	0.00	0.1290	0	None Detected		N/A	<7.80	N/A

Analyst(s)

Kyeong Corbin (10)

Jerry Drapala Ph.D, Laboratory Manager  
or other approved signatory

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Samples analyzed by LA Testing South Pasadena, CA NVLAP Lab Code 200232-0

Initial Report From: 02/16/2018 15:21:23



# LA Testing

520 Mission Street South Pasadena, CA 91030  
 Tel/Fax: (323) 254-9960 / (323) 254-9982  
<http://www.LATesting.com / pasadenalab@latesting.com>

**LA Testing Order:** 321803737  
**Customer ID:** SMGS78B  
**Customer PO:**  
**Project ID:** Oroville EM OP


**Attention:** Dave Beadle, CIH  
 Safety Management Systems  
 1001 Brad Freeman Trail  
 Trailer #2 / Safety Mgmt Systems  
 Oroville, CA 95965  
**Project:** 2018.02.13 Burma Rd (Oroville EM OP)

**Phone:** (661) 699-9375  
**Fax:**  
**Received Date:** 2/15/2018 9:35 AM  
**Analysis Date:** 02/16/2018  
**Collected Date:** 02/13/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5	≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0213-OFD-BPT-01	WP017A AM Burma Road 01	1807.20	0.2190	4	Actinolite	1	0	0.0010	4.60	0.00097
321803737-0001 Non-asbestos structures reported includes a contribution from non-regulated amphiboles.										
0213-OFD-BPT-02	WP017A PM Burma Road 01	1937.70	0.2060	8	Actinolite	1	0	0.0010	4.80	0.00096
321803737-0002 Non-asbestos structures reported includes a contribution from non-regulated amphiboles.										
0213-OFD-BPT-FB 1	Field blank 1	0.00	0.1290	0	None Detected			N/A	<7.80	N/A
321803737-0003										
0213-OFD-BPT-FB 2	Field blank 2	0.00	0.1290	0	None Detected			N/A	<7.80	N/A
321803737-0004										

Analyst(s)  
 Kyeong Corbin (4)

  
 Jerry Drapala Ph.D, Laboratory Manager  
 or other approved signatory

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Samples analyzed by LA Testing South Pasadena, CA NVLAP Lab Code 200232-0

Initial Report From: 02/16/2018 11:47:52



# LA Testing

520 Mission Street South Pasadena, CA 91030

Tel/Fax: (323) 254-9960 / (323) 254-9982

<http://www.LATesting.com/pasadenalab@latesting.com>

LA Testing Order: 321803736

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.13 Launch Ramp (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/15/2018 9:35 AM

Analysis Date: 02/15/2018

Collected Date: 02/13/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 ≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0213-OFD-LRP-01	WP009A AM Launch Ramp Parking	1926.00	0.2060	12	None Detected		0.0010	<4.80	<0.0010
321803736-0001 Non-asbestos structures reported includes a contribution from non-regulated amphiboles.									
0213-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1933.20	0.2060	5	Actinolite	1 0	0.0010	4.80	0.00096
321803736-0002 Non-asbestos structures reported includes a contribution from non-regulated amphiboles.									
0213-OFD-LRP-03	WP009A PM Launch Ramp Parking	1948.50	0.2060	3	None Detected		0.0010	<4.80	<0.0010
321803736-0003 Non-asbestos structures reported includes a contribution from non-regulated amphiboles.									
0213-OFD-LRP-04	WP010A PM Launch Ramp Turnaround	1946.70	0.2060	0	None Detected		0.0010	<4.80	<0.0010
321803736-0004									
0213-OFD-LRP-FB 1	Field blank 1	0.00	0.1290	0	None Detected		N/A	<7.80	N/A
321803736-0005									
0213-OFD-LRP-FB 2	Field blank 2	0.00	0.1290	0	None Detected		N/A	<7.80	N/A
321803736-0006									

Analyst(s)

Feng Liang (5)

Kyeong Corbin (1)

Jerry Drapala Ph.D, Laboratory Manager  
or other approved signatory

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Samples analyzed by LA Testing South Pasadena, CA NVLAP Lab Code 200232-0

Initial Report From: 02/16/2018 08:29:17





# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492

Tel/Fax: (203) 284-5948 / (203) 284-5978

<http://www.EMSL.com / wallingfordlab@emsl.com>

EMSL Order: 241800952

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.14 Upper Area (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/16/2018 10:00 AM

Analysis Date: 02/20/2018

Collected Date: 02/14/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0214-OFD-PMT-01 241800952-0001	WP246 AM Intake Yard	1936.80	0.2100	1	None Detected		0.0009	<4.80	<0.0010
0214-OFD-PMT-02 241800952-0002	WP247 AM Upper Overlook Entry	1944.60	0.2100	3	None Detected		0.0009	<4.80	<0.0010
0214-OFD-PMT-03 241800952-0003	WP248 AM Upper Overlook	1945.80	0.2100	0	None Detected		0.0009	<4.80	<0.0009
0214-OFD-PMT-04 241800952-0004	WP249 AM Canyon Drive	1935.90	0.2100	1	None Detected		0.0009	<4.80	<0.0010
Non-asbestos structures reported include a contribution from non-regulated amphiboles.									
0214-OFD-PMT-05 241800952-0005	WP246 PM Intake Yard	1939.50	0.2100	0	None Detected		0.0009	<4.80	<0.0010
0214-OFD-PMT-06 241800952-0006	WP247 PM Upper Overlook Entry	1942.20	0.2100	0	None Detected		0.0009	<4.80	<0.0010
0214-OFD-PMT-07 241800952-0007	WP248 PM Upper Overlook	1935.00	0.2100	0	None Detected		0.0009	<4.80	<0.0010
0214-OFD-PMT-08 241800952-0008	WP249 PM Canyon Drive	1937.60	0.2100	0	None Detected		0.0009	<4.80	<0.0010
0214-OFD-PMT-FB 1 241800952-0009	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
0214-OFD-PMT-FB 2 241800952-0010	Field Blank 2	0.00	0.1310	0	None Detected		N/A	<7.60	N/A

Analyst(s)

Almedina Hodzic (10)

Lauren Brennan, Asbestos Lab Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Wallingford, CT NVLAP Lab Code 200700-0, CT PH-0322, MA AA000191, RI AAL-108T3, VT AL357101

Initial report from: 02/20/2018 14:32:57



# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492

Tel/Fax: (203) 284-5948 / (203) 284-5978

<http://www.EMSL.com> / [wallingfordlab@emsl.com](mailto:wallingfordlab@emsl.com)

EMSL Order: 241800955

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.14 Burma Rd (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/16/2018 10:00 AM

Analysis Date: 02/16/2018

Collected Date: 02/14/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5	≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0214-OFD-BPT-01	WP017A AM Burma Road 01	1956.60	0.2100	1	None Detected			0.0009	<4.80	<0.0009
241800955-0001										
Non-asbestos structures reported include a contribution from non-regulated amphiboles.										
0214-OFD-BPT-02	WP017A PM Burma Road 01	1953.00	0.2100	1	Actinolite	2	0	0.0009	9.50	0.0019
241800955-0002										
0214-OFD-BPT-FB 1	Field Blank 1	0.00	0.1310	0	None Detected			N/A	<7.60	N/A
241800955-0003										
0214-OFD-BPT-FB 2	Field Blank 2	0.00	0.1310	0	None Detected			N/A	<7.60	N/A
241800955-0004										

Analyst(s)

Almedina Hodzic (4)

Lauren Brennan, Asbestos Lab Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Wallingford, CT NVLAP Lab Code 200700-0, CT PH-0322, MA AA000191, RI AAL-108T3, VT AL357101

Initial report from: 02/16/2018 13:36:15



# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492

Tel/Fax: (203) 284-5948 / (203) 284-5978

<http://www.EMSL.com / wallingfordlab@emsl.com>

EMSL Order: 241800953

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.14 Launch Ramp (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/16/2018 10:00 AM

Analysis Date: 02/19/2018

Collected Date: 02/14/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0214-OFD-LRP-01	WP009A AM Launch Ramp Parking	1944.00	0.2100	6	None Detected		0.0009	<4.80	<0.0010
241800953-0001 Non-asbestos structures reported include a contribution from non-regulated amphiboles.									
0214-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1945.80	0.2100	5	None Detected		0.0009	<4.80	<0.0009
241800953-0002 Non-asbestos structures reported include a contribution from non-regulated amphiboles.									
0214-OFD-LRP-03	WP009A PM Launch Ramp Parking	1960.20	0.1970	1	None Detected		0.0010	<5.10	<0.0010
241800953-0003									
0214-OFD-LRP-04	WP010A PM Launch Ramp Turnaround	1947.60	0.2100	0	None Detected		0.0009	<4.80	<0.0009
241800953-0004									
0214-OFD-LRP-FB 1	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
241800953-0005									
0214-OFD-LRP-FB 2	Field Blank 2	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
241800953-0006									

Analyst(s)

Almedina Hodzic (6)

Lauren Brennan, Asbestos Lab Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Wallingford, CT NVLAP Lab Code 200700-0, CT PH-0322, MA AA000191, RI AAL-108T3, VT AL357101

Initial report from: 02/19/2018 12:14:18



# EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411801287

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.15 Upper Area (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/19/2018 8:30 AM

Analysis Date: 02/20/2018

Collected Date: 02/15/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0215-OFD-PMT-01 411801287-0001	WP246 AM Intake Yard	1935.90	0.2080	0	None Detected		0.0010	<4.80	<0.0010
0215-OFD-PMT-02 411801287-0002	WP247 AM Upper Overlook Entry	1940.40	0.2080	2	None Detected		0.0010	<4.80	<0.0010
0215-OFD-PMT-03 411801287-0003	WP248 AM Upper Overlook	1960.10	0.2080	2	None Detected		0.0009	<4.80	<0.0009
0215-OFD-PMT-04 411801287-0004	WP249 AM Canyon Drive	1933.20	0.2080	6	None Detected		0.0010	<4.80	<0.0010
Non-asbestos structures reported includes a contribution from non-regulated amphiboles									
0215-OFD-PMT-05 411801287-0005	WP246 PM Intake Yard	1913.50	0.2080	0	None Detected		0.0010	<4.80	<0.0010
0215-OFD-PMT-06 411801287-0006	WP247 PM Upper Overlook Entry	1916.20	0.2080	0	None Detected		0.0010	<4.80	<0.0010
0215-OFD-PMT-07 411801287-0007	WP248 PM Upper Overlook	1923.30	0.2080	0	None Detected		0.0010	<4.80	<0.0010
0215-OFD-PMT-08 411801287-0008	WP249 PM Canyon Drive	1918.90	0.2080	0	None Detected		0.0010	<4.80	<0.0010
0215-OFD-PMT-FB 1 411801287-0009	Field Blank 1	0.00	0.1300	0	None Detected		N/A	<7.70	N/A
0215-OFD-PMT-FB 2 411801287-0010	Field Blank 2	0.00	0.1300	0	None Detected		N/A	<7.70	N/A

Analyst(s)

Aaron Hartley (10)

Lee Plumley, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Pineville, NC NVLAP Lab Code 200841-0, VA 3333 00312

Initial Report From: 02/20/2018 12:56:06



# EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com / charlottelab@emsl.com>

EMSL Order: 411801289

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

**Attention:** Dave Beadle, CIH  
Safety Management Systems  
1001 Brad Freeman Trail  
Trailer #2 / Safety Mgmt Systems  
Oroville, CA 95965  
**Project:** 2018.02.15 Burma Rd. (Oroville EM OP)

**Phone:** (661) 699-9375  
**Fax:**  
**Received Date:** 2/19/2018 8:30 AM  
**Analysis Date:** 02/19/2018  
**Collected Date:** 02/15/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥0.5μ < 5	≥5μ		(S/mm <sup>2</sup> )	(S/cc)
0215-OFD-BPT-01	WP017A AM Burma Road 01	1972.80	0.2080	2	None Detected			0.0009	<4.80	<0.0009
411801289-0001 Non-asbestos structures reported includes a contribution from non-regulated amphiboles										
0215-OFD-BPT-02	WP017A PM Burma Road 01	1953.00	0.2080	1	None Detected			0.0009	<4.80	<0.0010
411801289-0002 Non-asbestos structures reported includes a contribution from non-regulated amphiboles										
0215-OFD-BPT-FB 1	Field Blank 1	0.00	0.1300	0	None Detected			N/A	<7.70	N/A
411801289-0003										
0215-OFD-BPT-FB 2	Field Blank 2	0.00	0.1300	0	None Detected			N/A	<7.70	N/A
411801289-0004										

Analyst(s)  
Derrick Young (4)

Lee Plumley, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Pineville, NC NVLAP Lab Code 200841-0, VA 3333 00312

Initial Report From: 02/20/2018 12:57:08



# EMSL Analytical, Inc.

10801 Southern Loop Blvd Pineville, NC 28134

Tel/Fax: (704) 525-2205 / (704) 525-2382

<http://www.EMSL.com> / [charlottelab@emsl.com](mailto:charlottelab@emsl.com)

EMSL Order: 411801288

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2015.02.15 Launch Ramp (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/19/2018 8:30 AM

Analysis Date: 02/19/2018

Collected Date: 02/15/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 ≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0215-OFD-LRP-01	WP009A AM Launch Ramp Parking	1922.40	0.2080	2	None Detected		0.0010	<4.80	<0.0010
411801288-0001									
0215-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1937.70	0.2080	0	None Detected		0.0010	<4.80	<0.0010
411801288-0002									
0215-OFD-LRP-03	WP009A PM Launch Ramp Parking	1934.10	0.2080	0	None Detected		0.0010	<4.80	<0.0010
411801288-0003									
0215-OFD-LRP-04	WP010A PM Launch Ramp Turnaround	1928.70	0.2080	0	None Detected		0.0010	<4.80	<0.0010
411801288-0004									
0215-OFD-LRP-FB 1	Field Blank 1	0.00	0.1300	0	None Detected		N/A	<7.70	N/A
411801288-0005									
0215-OFD-LRP-FB 2	Field Blank 2	0.00	0.1300	0	None Detected		N/A	<7.70	N/A
411801288-0006									

Analyst(s)

Derrick Young (6)

Lee Plumley, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Pineville, NC NVLAP Lab Code 200841-0, VA 3333 00312

Initial Report From: 02/20/2018 12:58:21



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

Tel/Fax: (800) 220-3675 / (856) 786-5974

<http://www.EMSL.com> / [cinnasblab@EMSL.com](mailto:cinnasblab@EMSL.com)

EMSL Order: 041805356

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.16 Upper Area (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/18/2018 8:00 AM

Analysis Date: 02/19/2018 - 02/20/2018

Collected Date: 02/16/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0216-OFD-PMT-01 041805356-0001	WP246 AM Intake Yard	1941.30	0.2030	0	None Detected		0.0010	<4.90	<0.0010
0216-OFD-PMT-02 041805356-0002	WP247 MA Upper Overlook Entry	1948.50	0.2030	0	None Detected		0.0010	<4.90	<0.0010
0216-OFD-PMT-03 041805356-0003	WP248 AM Upper Overlook	1945.80	0.2030	0	None Detected		0.0010	<4.90	<0.0010
0216-OFD-PMT-04 041805356-0004	WP249 AM Canyon Drive	1941.30	0.2030	0	None Detected		0.0010	<4.90	<0.0010
0216-OFD-PMT-05 041805356-0005	WP246 PM Intake Yard	1942.20	0.2030	0	None Detected		0.0010	<4.90	<0.0010
0216-OFD-PMT-06 041805356-0006	WP247 PM Upper Overlook Entry	1942.40	0.2030	0	None Detected		0.0010	<4.90	<0.0010
0216-OFD-PMT-07 041805356-0007	WP248 PM Upper Overlook	1947.60	0.2030	0	None Detected		0.0010	<4.90	<0.0010
0216-OFD-PMT-08 041805356-0008	WP249 PM Canyon Drive	1935.00	0.2030	0	None Detected		0.0010	<4.90	<0.0010
0216-OFD-PMT-FB 1 041805356-0009	Field Blank 1	0.00	0.1270	0	None Detected		N/A	<7.90	N/A
0216-OFD-PMT-FB 2 041805356-0010	Field Blank 2	0.00	0.1270	0	None Detected		N/A	<7.90	N/A

Analyst(s)

Matthew Dare (10)

Benjamin Ellis, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial Report From: 02/20/2018 13:24:31



# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077

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<http://www.EMSL.com / cinnaslab@EMSL.com>

EMSL Order: 041805355

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.16 Burma Road (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/18/2018 8:00 AM

Analysis Date: 02/19/2018

Collected Date: 02/16/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥0.5μ < 5	≥5μ		(S/mm <sup>2</sup> )	(S/cc)
0216-OFD-BPT-01	WP017A AM Burma Road 01	1953.00	0.2030	1	None Detected			0.0010	<4.90	<0.0010
041805355-0001										
Non-asbestos structures reported include a contribution from non-regulated amphiboles.										
0216-OFD-BPT-02	WP017A PM Burma Road 01	1962.90	0.2030	0	Actinolite	2	2	0.0010	20.00	0.0039
041805355-0002										
0216-OFD-BPT-FB 1	Field Blank 1	0.00	0.1270	0	None Detected			N/A	<7.90	N/A
041805355-0003										
0216-OFD-BPT-FB 2	Field Blank 2	0.00	0.0000	0	Filter Damaged					
041805355-0004										
Sample was not prepped because filter was damaged										

Analyst(s)

Matthew Dare (3)

Benjamin Ellis, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial Report From: 02/19/2018 17:11:54





# EMSL Analytical, Inc.

200 Route 130 North Cinnaminson, NJ 08077  
 Tel/Fax: (800) 220-3675 / (856) 786-5974  
<http://www.EMSL.com / cinnaslab@EMSL.com>

EMSL Order: 041805407  
 Customer ID: SMGS78B  
 Customer PO:  
 Project ID: Oroville EM OP

**Attention:** Dave Beadle, CIH  
 Safety Management Systems  
 1001 Brad Freeman Trail  
 Trailer #2 / Safety Mgmt Systems  
 Oroville, CA 95965  
**Project:** 2018.02.16 Launch Ramp (Oroville EM OP)

**Phone:** (661) 699-9375  
**Fax:**  
**Received Date:** 2/18/2018 8:00 AM  
**Analysis Date:** 02/19/2018  
**Collected Date:** 02/16/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0216-OFD-LRP-01	WP009A AM Launch Ramp Parking	1927.80	0.2030	0	None Detected		0.0010	<4.90	<0.0010
041805407-0001									
0216-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1933.20	0.2030	0	None Detected		0.0010	<4.90	<0.0010
041805407-0002									
0216-OFD-LRP-03	WP009A PM Launch Ramp Parking - Damaged in shipping	1947.60	0.0000	0	Filter Damaged				
041805407-0003									
Please note: Filters damaged in shipping									
0216-OFD-LRP-04	WP010A PM Launch Ramp Turnaround - Damaged in shipping	1954.80	0.0000	0	Filter Damaged				
041805407-0004									
Please note: Filters damaged in shipping									
0216-OFD-LRP-FB 1	Field Blank 1	0.00	0.1270	0	None Detected		N/A	<7.90	N/A
041805407-0005									
0216-OFD-LRP-FB 2	Field Blank 2	0.00	0.1270	0	None Detected		N/A	<7.90	N/A
041805407-0006									

Analyst(s)  
 Matthew Dare (4)

Benjamin Ellis, Laboratory Manager  
 or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Cinnaminson, NJ NVLAP Lab Code 101048-0, AIHA-LAP, LLC-IHLAP Lab 100194, NYS ELAP 10872, NJ DEP 03036, PA ID# 68-00367

Initial Report From: 02/20/2018 09:18:42



# EMSL Analytical, Inc.

464 McCormick Street San Leandro, CA 94577

Tel/Fax: (510) 895-3675 / (510) 895-3680

<http://www.EMSL.com> / [sanleandrolab@emsl.com](mailto:sanleandrolab@emsl.com)

EMSL Order: 091803665

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.17 UPPER AREA (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/18/2018 12:45 PM

Analysis Date: 02/21/2018

Collected Date: 02/17/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0217-OFD-PMT-01 091803665-0001	WP246 AM INTAKE YARD	1923.30	0.2110	0	None Detected		0.0010	<4.70	<0.0010
0217-OFD-PMT-02 091803665-0002	WP247 AM UPPER OVERLOOK ENTRY	1937.70	0.2110	0	None Detected		0.0009	<4.70	<0.0009
0217-OFD-PMT-03 091803665-0003	WP248 AM UPPER OVERLOOK	1930.50	0.2110	0	None Detected		0.0009	<4.70	<0.0010
0217-OFD-PMT-04 091803665-0004	WP249 AM CANYON DRIVE	1926.00	0.2110	0	None Detected		0.0009	<4.70	<0.0010
0217-OFD-PMT-05 091803665-0005	WP246 PM INTAKE YARD	1931.40	0.2110	0	None Detected		0.0009	<4.70	<0.0010
0217-OFD-PMT-06 091803665-0006	WP247 PM UPPER OVERLOOK ENTRY	1946.70	0.1980	0	None Detected		0.0010	<5.00	<0.0010
0217-OFD-PMT-07 091803665-0007	WP248 PM UPPER OVERLOOK	1944.00	0.1980	0	None Detected		0.0010	<5.00	<0.0010
0217-OFD-PMT-08 091803665-0008	WP249 PM CANYON DRIVE	1939.50	0.2110	0	None Detected		0.0009	<4.70	<0.0009
0217-OFD-PMT-FB 1 091803665-0009	FIELD BLANK 1	0.00	0.1240	0	None Detected		N/A	<8.10	N/A
0217-OFD-PMT-FB 2 091803665-0010	FIELD BLANK 2	0.00	0.1240	0	None Detected		N/A	<8.10	N/A

Analyst(s)

Matthew Batongbacal (10)

Matthew Batongbacal  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc San Leandro, CA NVLAP Lab Code 101048-3, WA C884

Initial Report From: 02/21/2018 17:50:54



# EMSL Analytical, Inc.

464 McCormick Street San Leandro, CA 94577

Tel/Fax: (510) 895-3675 / (510) 895-3680

<http://www.EMSL.com> / [sanleandrolab@emsl.com](mailto:sanleandrolab@emsl.com)

EMSL Order: 091803658

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.17 BURMA RD (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/18/2018 12:05 PM

Analysis Date: 02/20/2018

Collected Date: 02/17/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm ≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0217-OFD-BPT-01	WP017A AM BURMA ROAD 01	1960.10	0.1980	0	None Detected		0.0010	<5.00	<0.0010
091803658-0001									
0217-OFD-BPT-02	WP017A PM BURMA ROAD 01	1945.80	0.1980	0	None Detected		0.0010	<5.00	<0.0010
091803658-0002									
0217-OFD-BPT-FB 1	FIELD BLANK 1	0.00	0.1240	0	None Detected		N/A	<8.10	N/A
091803658-0003									
0217-OFD-BPT-FB 2	FIELD BLANK 2	0.00	0.1240	0	None Detected		N/A	<8.10	N/A
091803658-0004									

Analyst(s)

Matthew Batongbacal (4)

Matthew Batongbacal  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc San Leandro, CA NVLAP Lab Code 101048-3, WA C884

Initial Report From: 02/20/2018 14:26:05



# EMSL Analytical, Inc.

464 McCormick Street San Leandro, CA 94577

Tel/Fax: (510) 895-3675 / (510) 895-3680

<http://www.EMSL.com> / [sanleandrolab@emsl.com](mailto:sanleandrolab@emsl.com)

EMSL Order: 091803656

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.17 LAUNCH RAMP (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/18/2018 12:45 PM

Analysis Date: 02/20/2018

Collected Date: 02/17/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0217-OFD-LRP-01	WP009A AM LAUNCH RAMP PARKING	1915.30	0.2110	0	None Detected		0.0010	<4.70	<0.0010
091803656-0001									
0217-OFD-LRP-02	WP010A AM LAUNCH RAMP TURNAROUND	1932.20	0.2110	0	None Detected		0.0009	<4.70	<0.0010
091803656-0002									
0217-OFD-LRP-03	WP009A PM LAUNCH RAMP PARKING	1944.90	0.1980	0	None Detected		0.0010	<5.00	<0.0010
091803656-0003									
0217-OFD-LRP-04	WP010A PM LAUNCH RAMP TURNAROUND	1953.90	0.1980	0	None Detected		0.0010	<5.00	<0.0010
091803656-0004									
0217-OFD-LRP-FB 1	FIELD BLANK 1	0.00	0.1240	0	None Detected		N/A	<8.10	N/A
091803656-0005									
0217-OFD-LRP-FB 2	FIELD BLANK 2	0.00	0.1240	0	None Detected		N/A	<8.10	N/A
091803656-0006									

Analyst(s)

Matthew Batongbacal (6)

Matthew Batongbacal  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc San Leandro, CA NVLAP Lab Code 101048-3, WA C884

Initial Report From: 02/20/2018 16:19:36



# LA Testing

520 Mission Street South Pasadena, CA 91030

Tel/Fax: (323) 254-9960 / (323) 254-9982

<http://www.LATesting.com> / [pasadenalab@latesting.com](mailto:pasadenalab@latesting.com)

LA Testing Order: 321804138

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

**Attention:** Dave Beadle, CIH  
Safety Management Systems  
1001 Brad Freeman Trail  
Trailer #2 / Safety Mgmt Systems  
Oroville, CA 95965

**Project:** 2018.02.18 Upper Area (Oroville EM OP)

**Phone:** (661) 699-9375

**Fax:**

**Received Date:** 2/20/2018 9:25 AM

**Analysis Date:** 02/21/2018

**Collected Date:** 02/18/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0218-OFD-PMT-01 321804138-0001	WP246 AM Intake Yard	1989.90	0.1940	1	None Detected		0.0010	<5.20	<0.0010
Non-asbestos structures reported includes a contribution from non-regulated amphiboles.									
0218-OFD-PMT-02 321804138-0002	WP247 AM Upper Overlook Entry	1989.90	0.1940	1	None Detected		0.0010	<5.20	<0.0010
0218-OFD-PMT-03 321804138-0003	WP248 AM Upper Overlook	1992.60	0.1940	1	None Detected		0.0010	<5.20	<0.0010
0218-OFD-PMT-04 321804138-0004	WP249 AM Canyon Drive	1926.00	0.2060	0	None Detected		0.0010	<4.80	<0.0010
0218-OFD-PMT-05 321804138-0005	WP246 PM Intake Yard	1901.80	0.2060	1	None Detected		0.0010	<4.80	<0.0010
0218-OFD-PMT-06 321804138-0006	WP247 PM Upper Overlook Entry	1884.00	0.2060	0	None Detected		0.0010	<4.80	<0.0010
0218-OFD-PMT-07 321804138-0007	WP248 PM Upper Overlook	1891.10	0.2060	0	None Detected		0.0010	<4.80	<0.0010
0218-OFD-PMT-08 321804138-0008	WP249 PM Canyon Drive	1940.30	0.2060	0	None Detected		0.0010	<4.80	<0.0010
0218-OFD-PMT-FB 1 321804138-0009	Field blank 1	0.00	0.1290	0	None Detected		N/A	<7.80	N/A
0218-OFD-PMT-FB 2 321804138-0010	Field blank 2	0.00	0.1290	0	None Detected		N/A	<7.80	N/A

Analyst(s)

Kyeong Corbin (10)

Jerry Drapala Ph.D, Laboratory Manager  
or other approved signatory

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Samples analyzed by LA Testing South Pasadena, CA NVLAP Lab Code 200232-0

Initial Report From: 02/21/2018 14:57:46



# LA Testing

520 Mission Street South Pasadena, CA 91030  
Tel/Fax: (323) 254-9960 / (323) 254-9982  
<http://www.LATesting.com / pasadenalab@latesting.com>

LA Testing Order: 321804136  
Customer ID: SMGS78B  
Customer PO:  
Project ID: Oroville EM OP


**Attention:** Dave Beadle, CIH  
Safety Management Systems  
1001 Brad Freeman Trail  
Trailer #2 / Safety Mgmt Systems  
Oroville, CA 95965  
**Project:** 2018.02.18 Burma Rd (Oroville EM OP)

**Phone:** (661) 699-9375  
**Fax:**  
**Received Date:** 2/20/2018 9:25 AM  
**Analysis Date:** 02/20/2018  
**Collected Date:** 02/18/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥0.5μ	< 5 ≥5μ		(S/mm <sup>2</sup> )	(S/cc)
0218-OFD-BPT-01	WP017A AM Burma Road 01	1960.10	0.2060	5	None Detected			0.0010	<4.80	<0.0010
321804136-0001										
0218-OFD-BPT-02	WP017A PM Burma Road 01	1941.30	0.2060	2	None Detected			0.0010	<4.80	<0.0010
321804136-0002										
Non-asbestos structures reported includes a contribution from non-regulated amphiboles.										
0218-OFD-BPT-FB 1	Field blank 1	0.00	0.1290	0	None Detected			N/A	<7.80	N/A
321804136-0003										
0218-OFD-BPT-FB 2	Field blank 2	0.00	0.1290	0	None Detected			N/A	<7.80	N/A
321804136-0004										

Analyst(s)  
Kyeong Corbin (4)

  
Jerry Drapala Ph.D, Laboratory Manager  
or other approved signatory

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Samples analyzed by LA Testing South Pasadena, CA NVLAP Lab Code 200232-0

Initial Report From: 02/20/2018 14:42:06



# LA Testing

520 Mission Street South Pasadena, CA 91030

Tel/Fax: (323) 254-9960 / (323) 254-9982

<http://www.LATesting.com> / [pasadenalab@latesting.com](mailto:pasadenalab@latesting.com)

LA Testing Order: 321804133

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.18 Launch Ramp (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/20/2018 9:25 AM

Analysis Date: 02/20/2018 - 02/21/2018

Collected Date: 02/18/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0218-OFD-LRP-01	WP009A AM Launch Ramp Parking	1991.80	0.1940	14	None Detected		0.0010	<4.80	<0.0010
321804133-0001 Non-asbestos structures reported includes a contribution from non-regulated amphiboles.									
0218-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1979.80	0.2060	2	None Detected		0.0009	<4.80	<0.0009
321804133-0002 Non-asbestos structures reported includes a contribution from non-regulated amphiboles.									
0218-OFD-LRP-03	WP009A PM Launch Ramp Parking	1921.40	0.2060	1	None Detected		0.0010	<4.80	<0.0010
321804133-0003 Non-asbestos structures reported includes a contribution from non-regulated amphiboles.									
0218-OFD-LRP-04	WP010A PM Launch Ramp Turnaround	1914.30	0.2060	0	None Detected		0.0010	<4.80	<0.0010
321804133-0004									
0218-OFD-LRP-FB 1	Field blank 1	0.00	0.1290	0	None Detected		N/A	<7.80	N/A
321804133-0005									
0218-OFD-LRP-FB 2	Field blank 2	0.00	0.1290	0	None Detected		N/A	<7.80	N/A
321804133-0006									

Analyst(s)

Kyeong Corbin (6)

Jerry Drapala Ph.D, Laboratory Manager  
or other approved signatory

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Samples analyzed by LA Testing South Pasadena, CA NVLAP Lab Code 200232-0

Initial Report From: 02/21/2018 11:36:28



# EMSL Analytical, Inc.

6340 CastlePlace Dr. Indianapolis, IN 46250

Tel/Fax: (317) 803-2997 / (317) 803-3047

<http://www.EMSL.com> / [indianapolislabs@emsl.com](mailto:indianapolislabs@emsl.com)

EMSL Order: 161803031

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: Oroville EM OP - 2018.0219 Upper Area (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/21/2018 10:15 AM

Analysis Date: 02/22/2018

Collected Date: 02/19/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 ≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0219-OFD-PMT-01 161803031-0001	WP246 AM Intake Yard	1904.50	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0219-OFD-PMT-02 161803031-0002	WP247 AM Upper Overlook Entry	1920.70	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0219-OFD-PMT-03 161803031-0003	WP248 AM Upper Overlook	1934.90	0.2100	0	None Detected		0.0009	<4.80	<0.0010
0219-OFD-PMT-04 161803031-0004	WP249 AM Canyon Drive	1913.50	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0219-OFD-PMT-05 161803031-0005	WP246 PM Intake Yard	1955.60	0.2100	0	None Detected		0.0009	<4.80	<0.0009
0219-OFD-PMT-06 161803031-0006	WP247 PM Upper Overlook Entry	1950.30	0.2100	0	None Detected		0.0009	<4.80	<0.0009
0219-OFD-PMT-07 161803031-0007	WP248 PM Upper Overlook	1946.70	0.2100	1	None Detected		0.0009	<4.80	<0.0009
0219-OFD-PMT-08 161803031-0008	WP249 PM Canyon Drive	1942.20	0.2100	0	None Detected		0.0009	<4.80	<0.0010
0219-OFD-PMT-FB 1 161803031-0009	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
0219-OFD-PMT-FB 2 161803031-0010	Field Blank 2	0.00	0.1310	0	None Detected		N/A	<7.60	N/A

Analyst(s)

Craig Nixon (10)

Richard Harding, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN NVLAP Lab Code 200188-0, CO AL-15132, TX 300262

Initial report from: 02/22/2018 13:26:20





# EMSL Analytical, Inc.

6340 CastlePlace Dr. Indianapolis, IN 46250

Tel/Fax: (317) 803-2997 / (317) 803-3047

<http://www.EMSL.com> / [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161803025

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: Oroville EM OP / 2018.02.19 Burma Rd. (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/21/2018 10:15 AM

Analysis Date: 02/23/2018

Collected Date: 02/19/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0219-OFD-BPT-01	WP017A AM Burma Road 01	1930.50	0.2100	0	None Detected		0.0010	<4.80	<0.0010
161803025-0001									
0219-OFD-BPT-02	WP017A PM Burma Road 01	1940.40	0.2100	2	None Detected		0.0009	<4.80	<0.0010
161803025-0002									
Non-asbestos structures reported include a contribution from non-regulated amphiboles									
0219-OFD-BPT-FB 1	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
161803025-0003									
0219-OFD-BPT-FB 2	Field Blank 2	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
161803025-0004									

Analyst(s)

Craig Nixon (4)

Richard Harding, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN NVLAP Lab Code 200188-0, CO AL-15132, TX 300262

Initial report from: 02/23/2018 07:26:49



# EMSL Analytical, Inc.

6340 CastlePlace Dr. Indianapolis, IN 46250

Tel/Fax: (317) 803-2997 / (317) 803-3047

<http://www.EMSL.com> / [indianapolislab@emsl.com](mailto:indianapolislab@emsl.com)

EMSL Order: 161803029

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

**Attention:** Dave Beadle, CIH  
Safety Management Systems  
1001 Brad Freeman Trail  
Trailer #2 / Safety Mgmt Systems  
Oroville, CA 95965

**Project:** Oroville EM OP - 2018.02.19 Launch Ramp (Oroville EM OP)

**Phone:** (661) 699-9375

**Fax:**

**Received Date:** 2/21/2018 10:15 AM

**Analysis Date:** 02/23/2018

**Collected Date:** 02/19/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0219-OFD-LRP-01	WP009A AM Launch Ramp Parking	1889.40	0.2100	0	None Detected		0.0010	<4.80	<0.0010
161803029-0001									
0219-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1901.80	0.2100	1	None Detected		0.0010	<4.80	<0.0010
161803029-0002									
0219-OFD-LRP-03	WP009A PM Launch Ramp Parking	2001.90	0.1970	0	None Detected		0.0010	<5.10	<0.0010
161803029-0003									
0219-OFD-LRP-04	WP010A PM Launch Ramp Turnaround	1986.40	0.1970	0	None Detected		0.0010	<5.10	<0.0010
161803029-0004									
0219-OFD-LRP-FB 1	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
161803029-0005									
0219-OFD-LRP-FB 2	Field Blank 2	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
161803029-0006									

Analyst(s)

Craig Nixon (6)

Richard Harding, Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Indianapolis, IN NVLAP Lab Code 200188-0, CO AL-15132, TX 300262

Initial report from: 02/23/2018 10:08:02



# EMSL Analytical, Inc.

3303 PARKWAY CENTER COURT Orlando, FL 32808

Tel/Fax: (407) 599-5887 / (407) 599-9063

<http://www.EMSL.com> / [orlandolab@emsl.com](mailto:orlandolab@emsl.com)

EMSL Order: 341802664

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: Oroville EM OP -2018.02.20 Upper Area (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/22/2018 11:30 AM

Analysis Date: 02/26/2018

Collected Date: 02/20/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0220-OFD-PMT-01 341802664-0001	WP246 AM Intake Yard	1909.90	0.2040	0	None Detected		0.0010	<4.90	<0.0010
0220-OFD-PMT-02 341802664-0002	WP247 AM Upper Overlook Entry	1914.30	0.2040	0	None Detected		0.0010	<4.90	<0.0010
0220-OFD-PMT-03 341802664-0003	WP248 AM Upper Overlook	1924.10	0.2040	1	None Detected		0.0010	<4.90	<0.0010
Non-asbestos structures reported include a contribution from non-regulated amphiboles.									
0220-OFD-PMT-04 341802664-0004	WP249 AM Canyon Drive	1930.50	0.2040	2	None Detected		0.0010	<4.90	<0.0010
Non-asbestos structures reported include a contribution from non-regulated amphiboles.									
0220-OFD-PMT-05 341802664-0005	WP246 PM Intake Yard	1976.40	0.2040	0	None Detected		0.0010	<4.90	<0.0010
0220-OFD-PMT-06 341802664-0006	WP247 PM Upper Overlook Entry	1961.00	0.2040	0	None Detected		0.0010	<4.90	<0.0010
0220-OFD-PMT-07 341802664-0007	WP248 PM Upper Overlook	1970.20	0.2040	0	None Detected		0.0010	<4.90	<0.0010
0220-OFD-PMT-08 341802664-0008	WP249 PM Canyon Drive	1926.90	0.2040	0	None Detected		0.0010	<4.90	<0.0010
0220-OFD-PMT-FB 1 341802664-0009	Field Blank 1	0.00	0.1360	0	None Detected		N/A	<7.40	N/A
0220-OFD-PMT-FB 2 341802664-0010	Field Blank 2	0.00	0.1360	0	None Detected		N/A	<7.40	N/A

Analyst(s)

Gerald Iannuzzi (10)

Carlos Rivadeneyra, Laboratory Director  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. Results reported in both structures/cm3 and structures/mm2 are dependent on the volume of Airsampled and measured by non-laboratory personnel are not the responsibility of EMSL and are not covered by the laboratory's NVLAP accreditation. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL NVLAP Lab Code 101151-0

Initial report from: 02/26/2018 16:37:18



# EMSL Analytical, Inc.

3303 PARKWAY CENTER COURT Orlando, FL 32808

Tel/Fax: (407) 599-5887 / (407) 599-9063

<http://www.EMSL.com> / [orlandolab@emsl.com](mailto:orlandolab@emsl.com)

EMSL Order: 341802662

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: Oroville EM OP -2018.02.20 Burma Rd (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/22/2018 11:30 AM

Analysis Date: 02/26/2018

Collected Date: 02/20/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥0.5μ < 5	≥5μ		(S/mm <sup>2</sup> )	(S/cc)
0220-OFD-BPT-01	WP017A AM Burma Road 01	1967.50	0.2040	1	None Detected			0.0010	<4.90	<0.0010
341802662-0001										
Non-asbestos structures reported include a contribution from non-regulated amphiboles.										
0220-OFD-BPT-02	WP017A PM Burma Road 01	1922.40	0.2040	6	Actinolite	1	1	0.0010	9.80	0.0020
341802662-0002										
Non-asbestos structures reported include a contribution from non-regulated amphiboles.										
0220-OFD-BPT-FB 1	Field Blank 1	0.00	0.1360	0	None Detected			N/A	<7.40	N/A
341802662-0003										
0220-OFD-BPT-FB 2	Field Blank 2	0.00	0.1360	0	None Detected			N/A	<7.40	N/A
341802662-0004										

Analyst(s)

Gerald Iannuzzi (4)

Carlos Rivadeneyra, Laboratory Director  
or other approved signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. Results reported in both structures/cm<sup>3</sup> and structures/mm<sup>2</sup> are dependent on the volume of Airsampled and measured by non-laboratory personnel are not the responsibility of EMSL and are not covered by the laboratory's NVLAP accreditation. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL NVLAP Lab Code 101151-0

Initial report from: 02/26/2018 19:40:36



# EMSL Analytical, Inc.

3303 PARKWAY CENTER COURT Orlando, FL 32808

Tel/Fax: (407) 599-5887 / (407) 599-9063

<http://www.EMSL.com> / [orlandolab@emsl.com](mailto:orlandolab@emsl.com)

EMSL Order: 341802663

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: Oroville EM OP - 2018.02.20 Launch Ramp (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/22/2018 11:30 AM

Analysis Date: 02/26/2018

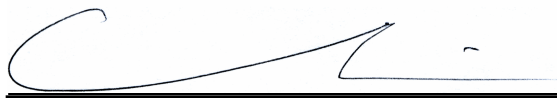
Collected Date: 02/20/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0220-OFD-LRP-01	WP009A AM Launch Ramp Parking	1924.10	0.2040	3	None Detected		0.0010	<4.90	<0.0010
341802663-0001									
Non-asbestos structures reported include a contribution from non-regulated amphiboles.									
0220-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1919.70	0.2040	1	None Detected		0.0010	<4.90	<0.0010
341802663-0002									
Non-asbestos structures reported include a contribution from non-regulated amphiboles.									
0220-OFD-LRP-03	WP009A PM Launch Ramp Parking	1991.00	0.2040	1	None Detected		0.0009	<4.90	<0.0010
341802663-0003									
Non-asbestos structures reported include a contribution from non-regulated amphiboles.									
0220-OFD-LRP-04	WP010A PM Launch Ramp Turnaround	1975.60	0.2040	1	None Detected		0.0010	<4.90	<0.0010
341802663-0004									
0220-OFD-LRP-FB 1	Field Blank 1	0.00	0.1360	0	None Detected		N/A	<7.40	N/A
341802663-0005									
0220-OFD-LRP-FB 2	Field Blank 2	0.00	0.1360	0	None Detected		N/A	<7.40	N/A
341802663-0006									

Analyst(s)

Gerald Iannuzzi (6)



Carlos Rivadeneyra, Laboratory Director  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Orlando, FL NVLAP Lab Code 101151-0

Initial report from: 02/26/2018 20:03:17



# EMSL Analytical, Inc.

2975 Brighton Henrietta Town Line Rd ,100 Ste 130 Rochester, NY 14623

Tel/Fax: (585) 957-9436 / (585) 957-9437

<http://www.EMSL.com / rochesterlab@EMSL.com>

EMSL Order: 531800031

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.21 Upper Area (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/23/2018 10:39 AM

Analysis Date: 02/26/2018

Collected Date: 02/21/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 ≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0221-OFD-PMT-01 531800031-0001	WP246 AM Intake Yard	1934.10	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0221-OFD-PMT-02 531800031-0002	WP247 AM Upper Overlook Entry	1939.50	0.2100	0	None Detected		0.0009	<4.80	<0.0010
0221-OFD-PMT-03 531800031-0003	WP248 AM Upper Overlook	1956.60	0.2100	0	None Detected		0.0009	<4.80	<0.0009
0221-OFD-PMT-04 531800031-0004	WP249 AM Canyon Drive	1952.10	0.2100	0	None Detected		0.0009	<4.80	<0.0009
0221-OFD-PMT-05 531800031-0005	WP246 PM Intake Yard	1945.80	0.2100	0	None Detected		0.0009	<4.80	<0.0009
0221-OFD-PMT-06 531800031-0006	WP247 PM Upper Overlook Entry	1935.90	0.2100	1	None Detected		0.0009	<4.80	<0.0010
0221-OFD-PMT-07 531800031-0007	WP248 PM Upper Overlook	1950.20	0.2100	0	None Detected		0.0009	<4.80	<0.0009
0221-OFD-PMT-08 531800031-0008	WP249 PM Canyon Drive	1934.10	0.2100	0	None Detected		0.0010	<4.80	<0.0010
0221-OFD-PMT-FB 1 531800031-0009	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
0221-OFD-PMT-FB 2 531800031-0010	Field Blank 2	0.00	0.1310	0	None Detected		N/A	<7.60	N/A

Analyst(s)

Peter Donato (10)

Peter Donato Asbestos Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Rochester, NY NVLAP Lab Code 600183-0.

Initial Report From: 02/26/2018 17:08:31



# EMSL Analytical, Inc.

2975 Brighton Henrietta Town Line Rd ,100 Ste 130 Rochester, NY 14623

Tel/Fax: (585) 957-9436 / (585) 957-9437

<http://www.EMSL.com / rochesterlab@EMSL.com>

EMSL Order: 531800029

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.21 Burma Rd (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/23/2018 10:23 AM

Analysis Date: 02/23/2018

Collected Date: 02/21/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥0.5μ < 5	≥5μ		(S/mm <sup>2</sup> )	(S/cc)
0221-OFD-BPT-01	WP017A AM Burma Road 01	1949.40	0.2100	0	None Detected			0.0009	<4.80	<0.0009
531800029-0001										
0221-OFD-BPT-02	WP017A PM Burma Road 01	1941.30	0.2100	0	None Detected			0.0009	<4.80	<0.0010
531800029-0002										
0221-OFD-BPT-FB 1	Field Blank 1	0.00	0.1310	0	None Detected			N/A	<7.60	N/A
531800029-0003										
0221-OFD-BPT-FB 2	Field Blank 2	0.00	0.1310	0	None Detected			N/A	<7.60	N/A
531800029-0004										

Analyst(s)

Peter Donato (4)

Peter Donato Asbestos Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Rochester, NY NVLAP Lab Code 600183-0.

Initial Report From: 02/23/2018 16:54:05



# EMSL Analytical, Inc.

2975 Brighton Henrietta Town Line Rd ,100 Ste 130 Rochester, NY 14623

Tel/Fax: (585) 957-9436 / (585) 957-9437

<http://www.EMSL.com / rochesterlab@EMSL.com>

EMSL Order: 531800030

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.21 Launch Ramp (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/23/2018 10:32 AM

Analysis Date: 02/23/2018 - 02/26/2018

Collected Date: 02/21/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0221-OFD-LRP-01	WP009A AM Launch Ramp Parking	1961.80	0.1970	0	None Detected		0.0010	<5.10	<0.0010
531800030-0001									
0221-OFD-LRP-02	WP010A AM Launch Ramp Turnaround	1947.50	0.2100	0	None Detected		0.0009	<4.80	<0.0009
531800030-0002									
0221-OFD-LRP-03	WP009A PM Launch Ramp Parking	1947.50	0.2100	0	None Detected		0.0009	<4.80	<0.0009
531800030-0003									
0221-OFD-LRP-04	WP010A PM Launch Ramp Turnaround	1943.10	0.2100	0	None Detected		0.0009	<4.80	<0.0010
531800030-0004									
0221-OFD-LRP-FB 1	Field Blank 1	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
531800030-0005									
0221-OFD-LRP-FB 2	Field Blank 2	0.00	0.1310	0	None Detected		N/A	<7.60	N/A
531800030-0006									

Analyst(s)

Peter Donato (6)

Peter Donato Asbestos Laboratory Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Rochester, NY NVLAP Lab Code 600183-0.

Initial Report From: 02/26/2018 17:04:31





# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492

Tel/Fax: (203) 284-5948 / (203) 284-5978

<http://www.EMSL.com> / [wallingfordlab@emsl.com](mailto:wallingfordlab@emsl.com)

EMSL Order: 241801085

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.22 UPPER AREA (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/24/2018 9:25 AM

Analysis Date: 02/26/2018

Collected Date: 02/22/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 ≥5μ	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0222-OFD-PMT-01 241801085-0001	WP246 AM INTAKE YARD	1931.20	0.2080	0	None Detected		0.0010	<4.80	<0.0010
0222-OFD-PMT-02 241801085-0002	WP247 AM UPPER OVERLOOK ENTRY	1921.40	0.2080	2	None Detected		0.0010	<4.80	<0.0010
Non-asbestos structures reported include a contribution from non-regulated amphiboles.									
0222-OFD-PMT-03 241801085-0003	WP248 AM UPPER OVERLOOK	1913.30	0.2080	0	None Detected		0.0010	<4.80	<0.0010
0222-OFD-PMT-04 241801085-0004	WP249 AM CANYON DRIVE	1916.00	0.2080	1	None Detected		0.0010	<4.80	<0.0010
Non-asbestos structures reported include a contribution from non-regulated amphiboles.									
0222-OFD-PMT-05 241801085-0005	WP246 PM INTAKE YARD	1962.90	0.2080	0	None Detected		0.0009	<4.80	<0.0009
0222-OFD-PMT-06 241801085-0006	WP247 PM UPPER OVERLOOK ENTRY	1983.10	0.1950	1	None Detected		0.0010	<5.10	<0.0010
0222-OFD-PMT-07 241801085-0007	WP248 PM UPPER OVERLOOK	1984.50	0.1950	0	None Detected		0.0010	<5.10	<0.0010
0222-OFD-PMT-08 241801085-0008	WP249 PM CANYON DRIVE	1967.10	0.2080	0	None Detected		0.0009	<4.80	<0.0009
0222-OFD-PMT-FB 1 241801085-0009	FIELD BLANK 1	0.00	0.1300	0	None Detected		N/A	<7.70	N/A
0222-OFD-PMT-FB 2 241801085-0010	FIELD BLANK 2	0.00	0.1300	0	None Detected		N/A	<7.70	N/A



# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492

Tel/Fax: (203) 284-5948 / (203) 284-5978

<http://www.EMSL.com> / [wallingfordlab@emsl.com](mailto:wallingfordlab@emsl.com)

EMSL Order: 241801085

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.22 UPPER AREA (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/24/2018 9:25 AM

Analysis Date: 02/26/2018

Collected Date: 02/22/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥0.5μ	< 5 ≥5μ		(S/mm <sup>2</sup> )	(S/cc)

Analyst(s)

Almedina Hodzic (10)

Lauren Brennan, Asbestos Lab Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Wallingford, CT NVLAP Lab Code 200700-0, CT PH-0322, MA AA000191, RI AAL-108T3, VT AL357101

Initial report from: 02/26/2018 15:12:53



# EMSL Analytical, Inc.

29 North Plains Highway, Unit # 4 Wallingford, CT 06492

Tel/Fax: (203) 284-5948 / (203) 284-5978

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EMSL Order: 241801096

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.22 BURMA RD (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/24/2018 9:25 AM

Analysis Date: 02/26/2018

Collected Date: 02/22/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures		Analytical Sensitivity (S/cc)	Asbestos Concentration	
						≥0.5μ	< 5 ≥5μ		(S/mm <sup>2</sup> )	(S/cc)
0222-OFD-BPT-01	WP017A AM BURMA ROAD 01	1925.10	0.2080	0	None Detected			0.0010	<4.80	<0.0010
241801096-0001										
0222-OFD-BPT-02	WP017A PM BURMA ROAD 01	1962.00	0.2080	0	None Detected			0.0009	<4.80	<0.0009
241801096-0002										
Filter wet upon arrival, dried at lab.										
0222-OFD-BPT-FB 1	FIELD BLANK 1	0.00	0.1300	0	None Detected			N/A	<7.70	N/A
241801096-0003										
0222-OFD-BPT-FB 2	FIELD BLANK 2	0.00	0.1300	0	None Detected			N/A	<7.70	N/A
241801096-0004										

Analyst(s)

Almedina Hodzic (4)

Lauren Brennan, Asbestos Lab Manager  
or other approved signatory

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Samples analyzed by EMSL Analytical, Inc. Wallingford, CT NVLAP Lab Code 200700-0, CT PH-0322, MA AA000191, RI AAL-108T3, VT AL357101

Initial report from: 02/26/2018 17:30:02



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Tel/Fax: (203) 284-5948 / (203) 284-5978

<http://www.EMSL.com / wallingfordlab@emsl.com>

EMSL Order: 241801084

Customer ID: SMGS78B

Customer PO:

Project ID: Oroville EM OP

Attention: Dave Beadle, CIH

Safety Management Systems

1001 Brad Freeman Trail

Trailer #2 / Safety Mgmt Systems

Oroville, CA 95965

Project: 2018.02.22 LAUNCH RAMP (Oroville EM OP)

Phone: (661) 699-9375

Fax:

Received Date: 2/24/2018 9:25 AM

Analysis Date: 02/26/2018

Collected Date: 02/22/2018

## Test Report: Asbestos Fiber Analysis by Transmission Electron Microscopy (TEM) Performed by CARB-Modified AHERA

Sample	Location	Volume (Liters)	Area Analyzed (mm <sup>2</sup> )	Non Asb	Asbestos Types	#Structures ≥0.5μ < 5 μm	Analytical Sensitivity (S/cc)	Asbestos Concentration (S/mm <sup>2</sup> )	(S/cc)
0222-OFD-LRP-01	WP009A AM LAUNCH RAMP PARKING	1967.30	0.2080	0	None Detected		0.0009	<4.80	<0.0009
241801084-0001									
0222-OFD-LRP-02	WP010A AM LAUNCH RAMP TURNAROUND	1950.20	0.2080	3	None Detected		0.0009	<4.80	<0.0010
241801084-0002									
Non-asbestos structures reported include a contribution from non-regulated amphiboles.									
0222-OFD-LRP-03	WP009A PM LAUNCH RAMP PARKING	1978.30	0.1950	0	None Detected		0.0010	<5.10	<0.0010
241801084-0003									
0222-OFD-LRP-04	WP010A PM LAUNCH RAMP TURNAROUND	1948.50	0.2080	0	None Detected		0.0010	<4.80	<0.0010
241801084-0004									
0222-OFD-LRP-FB 1	FIELD BLANK 1	0.00	0.1300	0	None Detected		N/A	<7.70	N/A
241801084-0005									
0222-OFD-LRP-FB 2	FIELD BLANK 2	0.00	0.1300	0	None Detected		N/A	<7.70	N/A
241801084-0006									

Analyst(s)

Almedina Hodzic (6)

Lauren Brennan, Asbestos Lab Manager  
or other approved signatory

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