



EMSL Analytical, Inc.

14375 23rd Avenue North Minneapolis, Mn 55447
Tel/Fax: (763) 449-4922 / (763) 449-4924
<http://www.EMSL.com> / minneapolislab@emsl.com

EMSL Order: 351900555
Customer ID: IFEA50
Customer PO:
Project ID:

Attention: Jennifer Theis
Inst. For Environmental Assessment
9201 West Broadway
Suite 600
Brooklyn Park, MN 55445
Project: 201910130- Duluth Transit Authority

Phone: (952) 687-1427
Fax: (763) 315-7920
Received Date: 01/29/2019 2:25 PM
Analysis Date: 02/04/2019
Collected Date:

Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
3-Vapor Retarder 351900555-0001	Admin. Low, System Cut Vapor Retarder, Vapor Ret.	Black Fibrous Homogeneous	25% Glass	75.0% Non-fibrous (Other)	None Detected
3-Tar 351900555-0001A	Admin. Low, System Cut Vapor Retarder, Vapor Ret.	Black Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
4-Fibrous Layer 351900555-0002	Admin. High, System Cut membrane, membrane	Gray Fibrous Homogeneous	90% Cellulose	10% Perlite 0.0% Non-fibrous (Other)	None Detected
4-Tar 351900555-0002A	Admin. High, System Cut membrane, membrane	Black Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
4-Membrane 351900555-0002B	Admin. High, System Cut membrane, membrane	Black Fibrous Homogeneous	25% Glass	75.0% Non-fibrous (Other)	None Detected
5-Vapor Retarder 351900555-0003	Admin. High, System cut Vapor Retarder, Vapor Retarder	Black Fibrous Homogeneous	35% Glass	65.0% Non-fibrous (Other)	None Detected
5-Tar 351900555-0003A	Admin. High, System cut Vapor Retarder, Vapor Retarder	Black Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
6-Roofing 351900555-0004	Maintenance, Re Below Gravel Stop, B.f.	Black Fibrous Homogeneous	30% Glass	70.0% Non-fibrous (Other)	None Detected
6-Tar 351900555-0004A	Maintenance, Re Below Gravel Stop, B.f.	Black Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
7-Roofing 351900555-0005	Maintenance, R.E. Above Gravel Stop, B.f.	Silver Fibrous Homogeneous	15% Glass	85.0% Non-fibrous (Other)	None Detected

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Initial report from: 02/04/2019 11:57:40



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Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
7-Tar 351900555-0005A	Maintenance, R.E. Above Gravel Stop, B.f.	Black Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
8-Fibrous Layer 351900555-0006	Maintenance, Maintenance Garage System Membrane, membrane	Gray Fibrous Homogeneous	90% Cellulose	10% Perlite 0.0% Non-fibrous (Other)	None Detected
8-Tar 351900555-0006A	Maintenance, Maintenance Garage System Membrane, membrane	Black Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
8-Membrane 351900555-0006B	Maintenance, Maintenance Garage System Membrane, membrane	Black Fibrous Homogeneous	25% Glass	75.0% Non-fibrous (Other)	None Detected
9-Foam 351900555-0007	Maintenance, Maintenance Roof Area Vapor Retarder, Vapor Ret.	White Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
9-Tar Paper 351900555-0007A	Maintenance, Maintenance Roof Area Vapor Retarder, Vapor Ret.	Gray Fibrous Homogeneous	80% Cellulose 10% Glass	10.0% Non-fibrous (Other)	None Detected
9-Tar 351900555-0007B	Maintenance, Maintenance Roof Area Vapor Retarder, Vapor Ret.	Black Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
9-Membrane 351900555-0007C	Maintenance, Maintenance Roof Area Vapor Retarder, Vapor Ret.	Black Fibrous Homogeneous	35% Cellulose	65.0% Non-fibrous (Other)	None Detected
9-Fibrous Layer 351900555-0007D	Maintenance, Maintenance Roof Area Vapor Retarder, Vapor Ret.	Tan Fibrous Homogeneous	90% Cellulose	10% Perlite 0.0% Non-fibrous (Other)	None Detected

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Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
10-Roofing 351900555-0008	Maintenance, Maintenance EJ, Base flashing	Black Fibrous Homogeneous	15% Glass	85.0% Non-fibrous (Other)	None Detected
10-Tar 351900555-0008A	Maintenance, Maintenance EJ, Base flashing	Black Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
11-Foam 351900555-0009	Maintenance, HVAC Curb, Base flashing	White Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
11-Roofing 351900555-0009A	Maintenance, HVAC Curb, Base flashing	Black Non-Fibrous Homogeneous	10% Cellulose	90.0% Non-fibrous (Other)	None Detected
11-Tar 351900555-0009B	Maintenance, HVAC Curb, Base flashing	Black Non-Fibrous Homogeneous		100.0% Non-fibrous (Other)	None Detected
11-Fibrous Layer 351900555-0009C	Maintenance, HVAC Curb, Base flashing	Gray Fibrous Homogeneous	90% Cellulose	10% Perlite 0.0% Non-fibrous (Other)	None Detected

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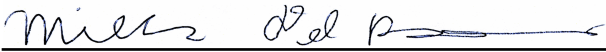
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The samples in this report were submitted to EMSL for analysis by Asbestos Analysis of Bulk materials via EPA/600 (0513) Method using Polarized Light Microscopy. The reference number for these samples is the EMSL Order ID above. Please use this reference number when calling about these samples.


Report Comments:

Sample Receipt Date:	01/29/2019	Sample Receipt Time:	2:25 PM
Analysis Completed Date:	02/04/2019	Analysis Completed Time:	11:47 AM

Analyst(s):


Miles DelBusso PLM (25)

Samples Reviewed and approved by:


Rachel Travis, Laboratory Manager
or other approved signatory

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