SJR Environmental
Consulting

PRE-DEMOLITION
ASBESTOS INSPECTION AND RBM IDENTIFICATION REPORT

Water Treatment Plant
2166 Apple Valley Rd
Lyons, Colorado 80540

Prepared For:

Joe Kubala, PE
Town of Lyons
432 5th Avenue
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Prepared By:

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April 12, 2016

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CONTENTS

APPENDICES

1.0 INTRODUCTION

SJR Environmental Consulting (SJRE) was contracted by the Town of Lyons to perform an asbestos inspection of the former Lyons Water Treatment Plant, which was impacted by the 2013 flood event. The structure is a one (1)-story building located at 2166 Apple Valley Rd. in Lyons, Colorado. SJRE also prepared an inventory of regulated building materials (RBMs).

The asbestos inspection and RBM inventory were conducted due to planned demolition of the structure. The Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE) require that materials suspected to contain asbestos be properly sampled and analyzed prior to any demolition activities that may disturb these materials. The purpose of this inspection was to identify and sample suspect materials that would be classified as Regulated Asbestos-Containing Materials (RACM) that must be removed prior to demolition.

For this pre-demolition inspection, the asbestos inspector collected bulk samples for laboratory analysis for those suspect materials that would be classified as RACM, if determined to be an ACM. Colorado State Certified Asbestos Building Inspector Mr. Josh DeKrey, Certificate #15596, conducted this asbestos inspection on March 16, 2016.

2.0 ASBESTOS INSPECTION

The asbestos inspection was conducted in general conformance with the *United States EPA procedures published in 40 Code of Federal Regulations (CFR) Part 763, Subpart E – Asbestos-containing Materials in Schools* and *CDPHE Regulation 8.* These inspection protocols specify requirements for the inspector (Section 763.85), laboratory (Section 763.87), and number of samples collected during an inspection (Section 763.86).

The asbestos inspection involved identification and sampling of materials suspected to contain asbestos located on or within the building that would be classified as RACM. Suspect materials include nearly all building materials except concrete, glass, metal, wood, plastic, and ceramic. Bulk samples of suspect materials were collected in general conformance with Asbestos Hazard Emergency Response Act (AHERA) protocols as outlined in CDPHE Regulation No. 8. Random samples of suspect building materials were collected for the specific areas and materials identified in this report (see Appendix A). Samples were placed in sealable containers and labeled with unique sample numbers using an indelible marker.

2.1 Asbestos-Containing Material Regulation

EPA, CDPHE, and the Occupational Health and Safety Administration (OSHA) define asbestos-containing material (ACM) as any material that contains asbestos in concentrations greater than 1 percent (> 1% asbestos), as confirmed by an accredited laboratory. EPA and CDPHE further categorize ACM as non-friable or friable asbestos. Non-friable asbestos is any material that *cannot* be crumbled, pulverized or

reduced to a powder by hand pressure when dry. Friable asbestos *can* be crumbled, pulverized, or reduced to a powder by hand pressure when dry.

RACMs are those ACMs that are required by EPA and CDPHE regulation to be removed prior to demolition activities that will impact these materials. RACMs are either friable materials and/or non-friable materials likely to be rendered friable during the demolition/renovation processes which are more likely to release airborne asbestos. Non-RACM may remain in a building during normal building demolition activities and can be disposed of as normal demolition debris, provided these materials remain non-friable during demolition activities.

Materials containing one percent or less asbestos (≤ 1%) also referred to as "trace asbestos" (when verified by point count) are not subject to EPA and CDPHE requirements, and therefore, may remain during building demolition for disposal as normal demolition debris. Materials containing one percent or less asbestos may be subject to OSHA regulations if air concentrations are at or above the personal exposure limit (PEL) of 0.1 fibers per cubic centimeter (f/cc) or the excursion limit of 1.0 f/cc.

EPA and CDPHE policy for the handling of joint compound that is ACM, when associated with drywall that is not asbestos, results in a mixed classification that requires evaluation of work methods to determine whether the impact will be direct or indirect to determine which classification applies. The following regulatory rationale is used to determine the final classification and when the composite result may be used and when only the layer result can be used:

1. EPA and CDPHE allow a composite sample result (drywall and joint compound together) to be used when renovation or demolition operations will only ***indirectly*** impact the joint compound, such as removal of the entire wall system (drywall and joint compound removed together), in order to determine if the material is ACM. This option does not prevent classifying the material as ACM based solely on the layered result as described below.
2. When the renovation or demolition operations will ***directly*** impact the joint compound, such as sanding or scraping the joint compound, then only the layer result for the joint compound may be used to determine if the material is ACM.

OSHA does not recognize the EPA and CDPHE composite analysis policy, and therefore, the joint compound is considered ACM regardless if the activity is direct or indirect impact and is subject to applicable OSHA asbestos regulations. Removal of the drywall and joint compound together under normal demolition methods is not considered direct impact to the joint compound and is not subject to EPA and CDPHE regulations when the composite result is less than one percent (< 1%) asbestos.

2.2 Suspect Asbestos-Containing Materials

The EPA and OSHA maintain comprehensive lists of suspect ACM frequently encountered during inspections. Based on a review of the planned demolition, fifteen (15) suspect ACMs were identified and subject to inspection and bulk sampling. One of these suspect ACMs was not sampled and is assumed to

contain asbestos (gasket material associated with piping). This suspect ACM is considered non-friable, and therefore, can remain on site during demolition.

Refer to Appendix A for additional information pertaining to the suspect ACM sampled as a part of this inspection. Colorado State Certified Asbestos Building Inspector Mr. Josh DeKrey, Certificate #15596, conducted this asbestos inspection; his state certification documents are attached (see Appendix B).

Twenty-nine (29) samples were submitted under chain of custody procedures to DCM Science Laboratories, Inc. in Wheat Ridge, Colorado, for analysis by Polarized Light Microscopy (PLM) with dispersion staining techniques per EPA methodology (40 CFR 763, Subpart F). Microscopic visual estimation was used in obtaining the percentage of asbestos in bulk samples. DCM Science Laboratories, Inc. is an accredited laboratory under the National Voluntary Laboratory Accreditation Program (NVLAP Lab Code: 101258-0). Appendix C contains these analytical results.

2.3 Asbestos-Containing Materials

Confirmed RACM
For those materials that were sampled, the following RACM was reported to contain asbestos:

- Black sink undercoating (UC01)

Assumed RACM

- None

Materials Containing Trace Amounts of Asbestos
Through laboratory analysis of bulk samples, SJRE identified asbestos in concentrations less than or equal to one percent (≤ 1%) (classified as trace ACM) for the following materials:

- White concrete masonry sealant (CMS01)
- Grey concrete masonry sealant associated with exterior (CMS02)

Assumed Non-RACM
All the suspect materials that would be classified as non-RACM were not sampled and are assumed to contain asbestos. These materials include but are not limited to tar and asphalt roofing materials, floor tile and associated adhesives, mastics, adhesives, foundation coatings, caulking, window glazing. The roof was sampled and determined not to contain asbestos. The pipe fitting gaskets were not sampled and assumed to contain asbestos, but they may remain during demolition.

2.4 Regulated Asbestos-Containing Materials

RACMs are those ACMs that are required by EPA and CDPHE regulations to be removed prior to renovation and/or demolition activities that will impact these materials. RACMs are either friable material and/or non-friable materials likely to be rendered friable during the demolition/renovation processes, which are more likely to release airborne asbestos.

The following RACM has been identified in the building and requires removal prior to demolition of the structure.

- Black sink undercoating (UC01)

3.0 REGULATED BUILDING MATERIALS

3.1 Regulations

RBMs identified in this report are subject to the EPA Resource Conservation and Recovery Act (RCRA) Regulations (40 CFR Part 260) and CDPHE Hazardous Waste Regulations (6 CCR 1007-3). These hazardous waste programs regulate commercial businesses as well as federal, state, and local government facilities that generate, transport, treat, store, or dispose of hazardous waste.

3.2 Regulated Building Materials Methodology / Purpose and Scope of Work

The RBM inventory included an inspection and compilation of an inventory of presumed common materials where proper disposition is customary prior to renovation or demolition to comply with applicable regulations and general industry standards.

The inventory included the identification and quantification of the following types of commonly regulated materials associated with building components:

- Containerized chemicals (miscellaneous compounds)
- Cooling/refrigeration equipment [chlorofluorocarbons (CFCs)]
- Cylinders/tanks (miscellaneous compounds)
- Electronic equipment (fixed building components only) (lead, mercury)
- Fluids elevator hydraulic fluids [poly-chlorinated biphenyl (PBC) containing]
- Fluorescent lamps (mercury)
- Fire suppression systems (Halon, chemical systems)
- Light ballasts (PCB containing)
- Mechanical equipment (fluids)
- Mercury gauges/thermometers
- Mercury thermostats

- Mercury vapor lamps, high pressure sodium, and metal halide lamps
- Oil sand traps
- Rechargeable batteries
- Smoke alarms (radioactive materials)
- Storage tank/vessel (fluids)
- Transformers (PCB containing)

3.3 Regulated Building Material Findings

The building inspection identified the following RBMs that require proper management. These items and the approximate quantity include:

- 16 fluorescent bulbs – 4-ft
- 8 light ballasts
- 4 aerosol cans
- 6 gallons of paint
- 1 qt oil
- 4 high intensity discharge (HID) lights (sulfer)
- Miscellaneous stored chemicals, approximately 80 gallons
- Approximate 1,000-gallon underground storage tank approx. 6 foot diameter and 5 foot deep containing an unknown volume of aluminum sulfate
- 1 mercury thermostat gauge

All identified RBMs should be removed and recycled or disposed of by properly trained and qualified personnel in order to comply with all current EPA, DOT, OSHA, and CDPHE regulations for waste transportation and disposal, as well as worker protection requirements.

4.0 CONCLUSIONS AND RECOMMENDATIONS

SJRE performed a pre-demolition asbestos inspection and RBM inventory of the former Water Treatment Plant building located at 2166 Apple Valley Rd. in Lyons, Colorado.

4.1 ACM Conclusions and Recommendations

The following RACMs have been identified in the building that require removal prior to demolition of the structure:

- Black sink undercoating (UC01)

RACM identified in this report is subject to the EPA National Emissions Standards for Hazardous Air Pollutants (NESHAPs) Regulations for Asbestos (40 CFR Part 61), OSHA, and the CDPHE Rules and

Regulation. The proper removal and handling of these materials is addressed through the preparation of a written abatement scope of work/specification document. This document is used to identify the specific locations of RACM within the scope of work to be removed by the abatement contractor. All ACM is subject to OSHA Construction Industry Standard for Asbestos (29 CFR Part 1926.1101). Based on the laboratory analytical results, RACM listed in this report should be removed by a Certified Abatement Contractor prior to conducting any demolition activities associated with the RACM mentioned above.

Any remaining ACM and material containing trace amounts of asbestos may remain in the building during the demolition project, provided the asbestos materials are not rendered friable during demolition. Special demolition procedures will be required to prevent visible emissions and to keep the ACM non-friable. The demolition contractor/personnel should be made aware of the presence of these materials along with the material containing a trace amount of asbestos prior to beginning demolition and comply with all current OSHA regulations for employee exposure to asbestos. In addition, the demolition contractor must comply with applicable EPA NESHAP asbestos emission control regulations for renovation of structures containing ACMs. These materials may not be subject to sanding, grinding, cutting or abrading during the demolition process.

All work associated with these materials must be performed in accordance with all state and federal regulations. If any suspect building materials that are not listed in this report are encountered during demolition, stop work and contact SJRE for additional sampling. As per CDPHE regulations, a suspect material is to be considered as asbestos-containing unless it is proven otherwise by appropriate sampling.

Reasonable effort was made by SJRE to locate and sample accessible suspect building materials. However, for any structure, the existence of unique or concealed ACM is a possibility.

4.2 RBM Conclusions and Recommendations

All identified RBMs which will be impacted during renovation or demolition activities should be removed and recycled or disposed of by properly trained and qualified personnel in order to comply with all current EPA, DOT, OSHA, and CDPHE regulations for waste transportation and disposal, as well as worker protection requirements.

The following RBMs should be removed and properly disposed prior to demolition:

- 16 fluorescent bulbs – 4-ft
- 8 light ballasts
- 4 aerosol cans
- 6 gallons of paint
- 1 qt oil
- 4 high intensity discharge (HID) lights (sulfer)
- Miscellaneous stored chemicals, approximately 80 gallons

- Approximate 1,000-gallon underground storage tank approx. 6 foot diameter and 5 feet deep containing an unknown volume of aluminum sulfate
- 1 mercury thermostat gauge

5.0 LIMITATIONS

The ACM survey and RBM inventory were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. The information contained in this report is relevant to the date on which the surveys were performed and should not be relied upon to represent conditions at a later date. This report has been prepared on behalf of, and exclusively for use by, the client for specific application to the project as discussed. Contractors or consultants reviewing this report must draw their own conclusions regarding further investigation or remediation deemed necessary. SJRE does not warrant the work of regulatory agencies, laboratories or other third parties supplying information which may have been used in the preparation of this report.

In the event of any reuse or publication of any portion of this report, SJRE shall not be liable for any damages arising out of such reuse or publication. Any use a third party makes of this report, or any reliance on or decisions to be made on it, are the responsibility of such third party. The material in this report reflects the best judgment of SJRE, in light of the information that was available at the time of preparation. No inspection can completely eliminate uncertainty regarding the presence of ACM, LBP, or RBMs. SJRE's level of diligence and investigative procedures are intended to reduce, but not eliminate, potential uncertainty regarding the presence of ACM and RBMs. The determinations in this report should not be construed as a guarantee that all ACM and RBMs present in the subject property has been included in this report. The limitations presented above supersede the requirements or provisions of all other contacts or scopes of work, implied or otherwise, except those stated or acknowledged herein.

This document is not to be used as a design or bid document for the removal, repair, encapsulation, enclosure, or Operations and Maintenance (O&M) of asbestos containing materials. EPA and state accredited individuals from our firm can prepare a scope of work, bid documents, removal, and repair methods/procedures, specifications, designs and O&M plans, if desired.

Respectfully Submitted,

Josh DeKrey
Colorado State Certified Asbestos Building Inspector #15596

Thomas Norman, P.E
Senior Engineering Manager

SJR Environmental
Consulting

APPENDIX A

Summary of Asbestos Samples and Laboratory Results

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Table 1
Summary of Sampling for Suspect ACM and Laboratory Results
Former Water Treatment Plant, 2166 Apple Valley Rd., Lyons, Colorado

Material Description	Material Location	Estimated Quantity	Material Type and Friability Classification	Condition	Associated Sample Numbers	Laboratory Result
Tan pliable baseboard adhesive associated with 3" grey cove base (BBA01)	NA	NA	Non Friable Category II Miscellaneous Material	Good	BBA01-01	None Detected
Cream carpet adhesive (CA01)	NA	NA	Non Friable Category I Miscellaneous Material	Good	CA01-01	None Detected
5/8" Fibrous grey drywall with brown paper backing (CDW01)	NA	NA	Non Friable Category II Miscellaneous Material	Good	CDW01-01	None Detected
White concrete masonry sealant (CMS01)	NA	NA	Non Friable Category II Surfacing Material	Good	CMS01-01 CMS01-02 CMS01-03 CMS01-04 CMS01-05 CMS01-06 CMS01-07	Trace 0.75% chrysotile point count analysis
Grey concrete masonry sealant associated with exterior (CMS02)	NA	NA	Non Friable Category II Surfacing Material	Poor	CMS02-01 CMS02-02 CMS02-03 CMS02-04 CMS02-05 CMS02-06 CMS02-07	Trace 0.75% chrysotile point count analysis

Material Description	Material Location	Estimated Quantity	Material Type and Friability Classification	Condition	Associated Sample Numbers	Laboratory Result
12" x 12" White tar with grey mottle (FTC01)	NA	NA	Non Friable Category I Miscellaneous Material	Good	FTC01-01	None Detected
All gasket material (GM01)	Associated with piping in building	NA	Non Friable Category I Miscellaneous Material	Good	NA	Assumed
2' x 4' White lay-in panel with divots and pinholes (LIP01)	NA	NA	Friable Miscellaneous Material	Good	LIP01-01	None Detected
Hard white filter material (OT01)	NA	NA	Non Friable Category I Miscellaneous Material	Good	OT01-01	None Detected
Vibration damper for heavy mechanics (OT02)	NA	NA	Non Friable Category II Miscellaneous Material	Good	OT02-01	None Detected
Grey composite roofing shingles (RSG01)	NA	NA	Non Friable Category I Miscellaneous Material	Good	RSG01-01	None Detected
Black mopped-on roofing tar (RT01)	NA	NA	Non Friable Category I Miscellaneous Material	Good	RT01-01	None Detected

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Material Description	Material Location	Estimated Quantity	Material Type and Friability Classification	Condition	Associated Sample Numbers	Laboratory Result
Sprayed on orange peel texture (TS01)	NA	NA	Friable Surfacing Material	Good	TS01-01 TS01-02 TS01-03	None Detected
Black sink undercoating (UC01)	**Tank Room B**	**1 Sink**	**Non Friable Category II Miscellaneous Material**	**Good**	**UC01**	**7% Chrysotile**
Micaceous window glazing (WG01)	NA	NA	Non Friable Category II Miscellaneous Material	Good	WG01-01 WG01-02	None Detected

QUANTITIES/LOCATIONS FOR POSITIVE MATERIALS ONLY
SF = Square Feet
LF = Linear Feet
N, E, S, W = Compass Points
NA = Not applicable

APPENDIX B

Inspector's Certification

ACCLAIM ENVIRONMENTAL
SERVICES INC

14367 Lakeview Lane, Broomfield, Colorado 80023
Tel: 303.424.4647
Fax: 303.432.8669

CERTIFIES THAT

JOSH DEKREY

Has successfully completed

The **EPA-Approved AHERA Annual Refresher Course** for **INSPECTOR**. This course is EPA-approved under Section 206 of the Toxic Substances Control Act (TSCA) and meets the requirements of Colorado Regulation No. 8.

Course Date:	07/08/15
Exam Date:	N/A
Certificate No.:	AE15-034-BI-R-01
Expiration Date:	07/08/16

K. Jay Gale, President

Colorado Department
of Public Health
and Environment

ASBESTOS CERTIFICATION*

This certifies that

Joshua DeKrey

Certification No.: 15596

has met the requirements of 25-7-507, C.R.S. and Air Quality Control Commission Regulation No. 8, Part B, and is hereby certified by the state of Colorado in the following discipline:

Building Inspector*

Issued: **November 12, 2015**

Expires: **November 15, 2016**

**** This certificate is valid only with the possession of a current Division-approved training course certification in the discipline specified above.***

Authorized APCD Representative

SEAL

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APPENDIX C

Laboratory Reports and Chain of Custody Forms

DCM SCIENCE LABORATORY, INC
12421 W. 49TH AVENUE, UNIT #6
WHEAT RIDGE, CO 80033 (303) 463-8270

BULK ASBESTOS TEST REPORT

CLIENT:
SJR ENVIRONMENTAL CONSULTING
1735 LAFAYETTE STREET
DENVER, CO 80218

ANALYSIS DATE: 3-21-16
REPORTING DATE: 3-21-16
RECEIPT DATE: 3-16-16
CLIENT JOB NO.: TOWN OF LYONS
PROJECT TITLE: WATER TREATMENT PLANT
DCMSL PROJECT: SJR142

PERCENTAGE COMPOSITION BY VISUAL ESTIMATE

DCMSL SAMPLE NUMBER	CLIENT SAMPLE NUMBER	SAMPLE DATE	DESCRIPTION	PERCENT OF SAMPLE	ASBESTOS TYPE	RANGE	%	TOTAL ASBESTOS IN SAMPLE	OTHER FIBROUS CONSTITUENTS	NON-FIBROUS CONSTITUENTS	TOTAL PERCENTAGE IDENTIFIED MATERIALS
-1	LYONS-WTP-CMS01-01	-	A. MULTICOLORED PAINT/WHITE RESIN (I)	30.0%	CHRYSOTILE	[TR]	0.5		0.0	99.5	100.0
			B. GREY BLOCK	70.0%			ND		0.0	100.0	100.0
								0.2			
-2	LYONS-WTP-CMS01-02	-	A. MULTICOLORED PAINT	25.0%			ND		0.0	100.0	100.0
			B. GREY CONCRETE	75.0%			ND		0.0	100.0	100.0
								ND			
-3	LYONS-WTP-CMS01-03	-	A. MULTICOLORED PAINT/WHITE RESIN (I)	35.0%	CHRYSOTILE	[TR-1]	0.5		0.0	99.5	100.0
			B. GREY CONCRETE	65.0%			ND		0.0	100.0	100.0
								0.2			
-4	LYONS-WTP-CMS01-04	-	A. MULTICOLORED PAINT	25.0%			ND		0.0	100.0	100.0
			B. WHITE RESIN	35.0%	CHRYSOTILE	[TR-1]	0.5		0.0	99.5	100.0
			C. GREY BLOCK	40.0%			ND		0.0	100.0	100.0
								0.2			
-5	LYONS-WTP-CMS01-05	-	A. MULTICOLORED PAINT	20.0%			ND		0.0	100.0	100.0
			B. WHITE RESIN	35.0%	CHRYSOTILE	[TR-1]	0.5		0.0	99.5	100.0
			C. GREY CONCRETE	45.0%			ND		0.0	100.0	100.0
								0.2			
-6	LYONS-WTP-CMS01-06	-	A. MULTICOLORED PAINT/WHITE RESIN (I)	15.0%	CHRYSOTILE	[TR]	0.5		0.0	99.5	100.0
			B. GREY CONCRETE	85.0%			ND		0.0	100.0	100.0
								0.1			
-7	LYONS-WTP-CMS01-07	-	A. WHITE PAINT	20.0%			ND		0.0	100.0	100.0
			B. WHITE CONCRETE	80.0%			ND		0.0	100.0	100.0
								ND			

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-8	LYONS-WTP-WG01-01	-	A. BLACK RESIN/GREEN PAINT (I)	100.0%			ND	ND	10.0	90.0	100.0
-9	LYONS-WTP-WG01-02	-	A. BLACK RESIN/GREEN PAINT (I)	100.0%			ND	ND	0.0	100.0	100.0
-10	LYONS-WTP-UC01-01	-	A. BROWN TAR	100.0%	CHRYSOTILE	[5-15]	7.0	7.0	0.0	93.0	100.0
-11	LYONS-WTP-TS01-01	-	A. WHITE TEXTURE	10.0%			ND		0.0	100.0	100.0
			B. WHITE PAINT	30.0%			ND		0.0	100.0	100.0
			C. TAN FIBROUS	60.0%			ND	ND	100.0	0.0	100.0
-12	LYONS-WTP-TS01-02	-	A. WHITE PAINT	10.0%			ND		0.0	100.0	100.0
			B. WHITE TEXTURE	25.0%			ND		0.0	100.0	100.0
			C. TAN FIBROUS	65.0%			ND	ND	100.0	0.0	100.0
-13	LYONS-WTP-TS01-03	-	A. WHITE DRYWALL	1.0%			ND		0.0	100.0	100.0
			B. WHITE PAINT	12.0%			ND		0.0	100.0	100.0
			C. WHITE TEXTURE	20.0%			ND		0.0	100.0	100.0
			D. TAN FIBROUS	67.0%			ND	ND	100.0	0.0	100.0
-14	LYONS-WTP-CDW01-01	-	A. WHITE DRYWALL MUD	3.0%			ND		0.0	100.0	100.0
			B. TAN FIBROUS	6.0%			ND		100.0	0.0	100.0
			C. WHITE DRYWALL	91.0%			ND	ND	1.0	99.0	100.0

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-15	LYONS-WTP-FTC01-01	-	A. WHITE AND GREY TILE/YELLOW MASTIC (I)	100.0%			ND	ND	0.0	100.0	100.0
-16	LYONS-WTP-BBA01-01	-	A. WHITE DRYWALL MUD/WHITE PAINT (I)	1.0%			ND		0.0	100.0	100.0
			B. TAN FIBROUS	2.0%			ND		100.0	0.0	100.0
			C. YELLOW MASTIC/GREY BASECOVE (I)	97.0%			ND		0.0	100.0	100.0
								ND			
-17	LYONS-WTP-CA01-01	-	A. GREY CONCRETE PLASTER/YELLOW PAINT (I)	40.0%			ND		0.0	100.0	100.0
			B. YELLOW MASTIC	60.0%			ND		0.0	100.0	100.0
								ND			
-18	LYONS-WTP-CMS02-01	-	A. TAN PAINT	45.0%			ND		0.0	100.0	100.0
			B. GREY CONCRETE	55.0%			ND		0.0	100.0	100.0
								ND			
-19	LYONS-WTP-CMS02-02	-	A. MULTICOLORED PAINT	3.0%			ND		0.0	100.0	100.0
			B. WHITE RESIN	4.0%	CHRYSOTILE	[TR-1]	0.5		3.0	96.5	100.0
			C. GREY BLOCK	93.0%			ND		0.0	100.0	100.0
								<0.1			
-20	LYONS-WTP-CMS02-03	-	A. WHITE RESIN	1.0%	CHRYSOTILE	[TR-1]	0.5		3.0	96.5	100.0
			B. MULTICOLORED PAINT	23.0%			ND		0.0	100.0	100.0
			C. GREY BLOCK	76.0%			ND		0.0	100.0	100.0
								<0.1			
-21	LYONS-WTP-CMS02-04	-	A. WHITE RESIN/WHITE PAINT (I)	6.0%	CHRYSOTILE	[TR-1]	0.5		2.0	97.5	100.0
			B. MULTICOLORED PAINT	94.0%			ND		0.0	100.0	100.0
								<0.1			

DCM SCIENCE LABORATORY, INC
12421 W 49TH AVENUE, UNIT #6
WHEAT RIDGE, CO 80033 (303) 463-8270

BULK ASBESTOS TEST REPORT

CLIENT:
SJR ENVIRONMENTAL CONSULTING
1735 LAFAYETTE STREET
DENVER, CO 80218

ANALYSIS DATE: 3-21-16
REPORTING DATE: 3-21-16
RECEIPT DATE: 3-16-16
CLIENT JOB NO.: TOWN OF LYONS
PROJECT TITLE: WATER TREATMENT PLANT
DCMSL PROJECT: SJR142

PERCENTAGE COMPOSITION BY VISUAL ESTIMATE

DCMSL SAMPLE NUMBER	CLIENT SAMPLE NUMBER	SAMPLE DATE	DESCRIPTION	PERCENT OF SAMPLE	ASBESTOS TYPE	RANGE	%	TOTAL ASBESTOS IN SAMPLE	OTHER FIBROUS CONSTITUENTS	NON-FIBROUS CONSTITUENTS	TOTAL PERCENTAGE IDENTIFIED MATERIALS
-22	LYONS-WTP-CMS02-05	-	A. GREY CONCRETE	30.0%			ND		0.0	100.0	100.0
			B. TANPAINT/WHITE RESIN (I)	70.0%	CHRYSOTILE	[TR-1]	0.5		0.0	99.5	100.0
								0.4			
-23	LYONS-WTP-CMS02-06	-	A. GREY CONCRETE	45.0%			ND		0.0	100.0	100.0
			B. TAN PAINT	55.0%			ND		0.0	100.0	100.0
								ND			
-24	LYONS-WTP-CMS02-07	-	A. TAN PAINT/WHITE RESIN (I)	10.0%			ND		0.0	100.0	100.0
			B. GREY CONCRETE	90.0%			ND		0.0	100.0	100.0
								ND			
-25	LYONS-WTP-OT02-01	-	A. BROWN CORK	100.0%			ND		0.0	100.0	100.0
								ND			
-26	LYONS-WTP-LIP01-01	-	A. WHITE PAINT	5.0%			ND		0.0	100.0	100.0
			B. TAN PERLITIC CEILING TILE	95.0%			ND		72.0	28.0	100.0
								ND			
-27	LYONS-WTP-RT01-01	-	A. MULTICOLORED ROCK	7.0%			ND		0.0	100.0	100.0
			B. BLACK TAR	20.0%			ND		0.0	100.0	100.0
			C. BROWN FIBROUS TAR	73.0%			ND		65.0	35.0	100.0
								ND			
-28	LYONS-WTP-RSG01-01	-	A. WHITE ROCK	10.0%			ND		0.0	100.0	100.0
			B. BLACK RESINOUS TAR	20.0%			ND		0.0	100.0	100.0
			C. BLACK FIBROUS TAR	22.0%			ND		20.0	80.0	100.0
			D. BLACK FIBROUS, RESINOUS TAR	48.0%			ND		35.0	65.0	100.0
								ND			

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PERCENTAGE COMPOSITION BY VISUAL ESTIMATE

DCMSL SAMPLE NUMBER	CLIENT SAMPLE NUMBER	SAMPLE DATE	DESCRIPTION	PERCENT OF SAMPLE	ASBESTOS TYPE	RANGE	%	TOTAL ASBESTOS IN SAMPLE	OTHER FIBROUS CONSTITUENTS	NON-FIBROUS CONSTITUENTS	TOTAL PERCENTAGE IDENTIFIED MATERIALS
-29	LYONS-WTP-OT01-01	-	A. WHITE RESIN	100.0%			ND	ND	0.0	100.0	100.0

FOR CALCULATION PURPOSES, TRACE (TR) IS ASSUMED TO BE 0.5%.

(I) - INSEPARABLE LAYERS ND - NONE DETECTED

THE SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION. THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED. THIS REPORT MAY NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY.

SAMPLE NO. 29 WAS NOT LISTED ON THE FIELD DATA SHEET WHEN RECEIVED FOR ANALYSIS.

DCM
S·C·I·E·N·C·E
LABORATORY, INC.

12421 W. 49th Avenue, Unit #6
Wheat Ridge, CO 80033

DCM Project No.: SJR 142

Client Job No.: LYONS

Bulk Sample Analysis

BULK SAMPLE ANALYSIS PROCEDURES:

DCM Science Laboratory, Inc. analyzes bulk asbestos samples following procedures developed by the McCrone Research Institute and in compliance with guidelines established by the Environmental Protection Agency (EPA-600/M4-82-020, 1982 and EPA-600/R-93/116, July, 1993).

Bulk samples are prepared for analysis using a 10X-80X stereo microscope in a hepa filter hood which provides a contamination-free environment. The sample is then analyzed by polarized light microscopy (PLM) at 100X. When the sample consists of more than one layer, each layer is prepared and analyzed separately. Fiber and matrix materials are identified by the characterization of optical properties including color and pleochroism, form, cleavage, relief, birefringence, extinction, orientation, twinning, interference figure and other distinguishing features. Dispersion staining is also used to further aid in mineral identification. All percentages of asbestos, other fibers and non-fibrous constituents are calculated from the values obtained from analyses using the stereo and PLM microscopes. In-house and NIST standards as well as a chart prepared by R.D. Terry and G.V. Chilinger for "The Journal of Sedimentary Petrology", (Volume 24, pp. 229-234, 1955) provide a guide for estimating percentages. All samples are archived for six months unless other arrangements are made by the client.

ACCREDITATION:

DCMSL is accredited by NVLAP (since April 1, 1989). Our NVLAP Lab Code is 101258-0. DCMSL complies with NVLAP requirements unless otherwise noted.

ENDORSEMENT:

The results of this analysis must not be used by the client to claim endorsement by NVLAP or any agency of the U.S. Government.

The analysis was performed by :

John Silverman, Analyst

Jason Barnes, Analyst

Ron Schott, Analyst

3-21-16
Date

NVLAP
NVLAP Lab Code 101258-0

Ron Schott
Laboratory Director

DCM Science Laboratory, Inc.
12421 W. 49th Avenue, Unit #6
Wheat Ridge, CO 80033

(303) 463-8270/(800) 852-7340
(303) 463-8267 – fax

Date/Time Received 3-16-16 DCMSL Group No. 0775 DCMSL Log No. SJR142

Field Data Sheet/Chain of Custody

Samples submitted by:

Company: **SJR Environmental**
Address: **7800 South Highway 287 Suite 202**
Fort Collins, CO 80525

Job/P.O. # Town of Lyons

Project Title: Water treatment Plant

Contact: Josh DeKruy
Phone: 970-218-6132
Fax: 866-821-7317
Cell/Pager:

Archive: All samples are archived for 6 months unless other arrangements are made.

Email to: JDeKruy@SJREnvironmental.com

Turnaround Time Requested:

[✓] Standard (3 to 5 Business Days)
[ ] 24 Hour Rush
[ ] 2 Hour Rush (Asbestos Only)
[ ] Other _____

Procedure Requested:

ASBESTOS
Bulk
[✓] Standard EPA
[ ] Progressive
[ ] Point Count
[ ] Other _____

Air
[ ] NIOSH 7400
[ ] Other _____

XRD
[ ] Respirable Silica
[ ] Bulk Silica
[ ] Scan & Search
[ ] Other _____

OTHER
[ ] Optical Microscopy
[ ] Gravimetric
[ ] SEM
[ ] Other _____

ADDITIONAL INFORMATION

Aggressive sets

	Client Sample No.:	Sample Date	Air Volume	Other Information
1	Lyons-WTP"-CMS01-01			1
2	" "CMS01-02			
3	" "CMS01-03			
4	" "CMS01-04			
5	" "CMS01-05			
6	" "CMS01-06			
7	" "CMS01-07			
8	" "WG01-01			2

Relinquished by:	Date/Time	Received by:	Date/Time
	3/10/2016	Wendy McBride	3-15-16 8:45

DCM Science Laboratory, Inc.
12421 W. 49th Avenue, Unit #6
Wheat Ridge, CO 80033

	Client Sample No.:	Sample Date	Air Volume	Other Information
9	"Lyons-WTP"-WL01-02			2
10	" "-UL01-01			
11	" "-TS01-01			3
12	" "TS01-02			
13	" "TS01-03			
14	" "CDW01-01			
15	" "FTE01-01			
16	" "BBA01-01			
17	" "CA01-01			
18	" "CMS02-01			4
19	" "CMS02-02			
20	" "CMS02-03			
21	" "CMS02-04			
22	" "CMS02-05			
23	" "CMS02-06			
24	" "CMS02-07			
25	" "OT02-01			
26	" "LIP01-01			
27	" "RT01-01			
28	" "RS601-01			
29				
30				

Relinquished by: _____ Date/Time 3/10/2016

Received by: Wendy McBride Date/Time 3-15-16 8:46

DRAFT

DCM SCIENCE LABORATORY, INC.
12421 W. 49TH AVENUE, UNIT #6
WHEAT RIDGE, CO 80033 (303) 463-8270

BULK ASBESTOS ANALYSIS - POINT COUNT METHOD

CLIENT:
SJR ENVIRONMENTAL CONSULTING
1735 LAFAYETTE STREET
DENVER, CO 80218

ANALYSIS DATE:	3-22-16
REPORTING DATE:	3-22-16
REQUESTED DATE:	3-22-16
CLIENT JOB NO.:	TOWN OF LYONS
PROJECT TITLE:	WATER TREATMENT PLANT
DCMSL PROJECT:	SJR144
CROSS REFERENCE:	SJR142

PERCENTAGE COMPOSITION BY AREA/VOLUME

DCM LAB NO.:	-1R	-2R	-3R	-4R	-5R
SAMPLE DATE:	-	-	-	-	-
% OF TOTAL SAMPLE:	30.0%	35.0%	35.0%	35.0%	15.0%
CLIENT NO.:	LYONS-WTP CMS01-01 PART A	LYONS-WTP CMS01-03 PART A	LYONS-WTP CMS01-04 PART B	LYONS-WTP CMS01-05 PART B	LYONS-WTF CMS01-06 PART A
ASBESTIFORM MINERAL FIBERS:					
CHRYSOTILE	0.25%	0.75%	0.75%	0.25%	<0.25%
AMOSITE	ND	ND	ND	ND	ND
CROCIDOLITE	ND	ND	ND	ND	ND
TREMOLITE-ACTINOLITE	ND	ND	ND	ND	ND
ANTHOPHYLLITE	ND	ND	ND	ND	ND
TOTAL ASBESTOS COUNTED	0.25%	0.75%	0.75%	0.25%	<0.25%
TOTAL ASBESTOS IN LAYER	0.25%	0.75%	0.75%	0.25%	<0.25%
TOTAL ASBESTOS IN SAMPLE	0.08%	0.26%	0.26%	0.09%	<0.04%

NOTES: SAMPLES NO. 1R AND 2R ARE MULTICOLORED PAINT/WHITE RESIN (INSEPARABLE). SAMPLES NO. 3R AND 4R ARE WHITE RESIN. SAMPLE NO., 5R IS MULTICOLORED PAINT/WHITE RESIN (INSEPARABLE).
ND - NONE DETECTED

DEFINITIONS

TOTAL ASBESTOS COUNTED = THE AMOUNT OF ASBESTOS PRESENT IN THE SAMPLE EXPRESSED AS A PERCENT.

TOTAL ASBESTOS IN LAYER = THE PERCENT OF SAMPLE REMAINING TIMES ASBESTOS COUNTED EXPRESSED AS A PERCENT.

TOTAL ASBESTOS IN SAMPLE = THE PERCENT OF TOTAL SAMPLE (FROM PLM/SM ANALYSIS) TIMES THE TOTAL ASBESTOS IN LAYER (IF NO ASBESTOS IN OTHER LAYERS).

DRAFT

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BULK ASBESTOS ANALYSIS - POINT COUNT METHOD

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ANALYSIS DATE:	3-22-16
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DCMSL PROJECT:	SJR144
CROSS REFERENCE:	SJR142

PERCENTAGE COMPOSITION BY AREA/VOLUME

DCM LAB NO.:	-6R	-7R	-8R	-9R
SAMPLE DATE:	-	-	-	-
% OF TOTAL SAMPLE:	4.0%	1.0%	6.0%	70.0%
CLIENT NO.:	LYONS-WTP CMS02-02 PART B	LYONS-WTP CMS02-03 PART A	LYONS-WTP CMS02-04 PART A	LYONS-WTP CMS02-05 PART B
ASBESTIFORM MINERAL FIBERS:				
CHRYSOTILE	0.75%	0.50%	0.75%	<0.25%
AMOSITE	ND	ND	ND	ND
CROCIDOLITE	ND	ND	ND	ND
TREMOLITE-ACTINOLITE	ND	ND	ND	ND
ANTHOPHYLLITE	ND	ND	ND	ND
TOTAL ASBESTOS COUNTED	0.75%	0.50%	0.75%	<0.25%
TOTAL ASBESTOS IN LAYER	0.75%	0.50%	0.75%	<0.25%
TOTAL ASBESTOS IN SAMPLE	0.03%	0.01%	0.05%	<0.18%

NOTES: SAMPLES NO. 6R AND 7R ARE WHITE RESIN. SAMPLE NO. 8R IS WHITE RESIN/WHITE PAINT (INSEPARABLE). SAMPLE NO. 9R IS TAN PAINT/WHITE RESIN (INSEPARABLE).
ND - NONE DETECTED

DEFINITIONS

TOTAL ASBESTOS COUNTED = THE AMOUNT OF ASBESTOS PRESENT IN THE SAMPLE EXPRESSED AS A PERCENT.

TOTAL ASBESTOS IN LAYER = THE PERCENT OF SAMPLE REMAINING TIMES ASBESTOS COUNTED EXPRESSED AS A PERCENT.

TOTAL ASBESTOS IN SAMPLE = THE PERCENT OF TOTAL SAMPLE (FROM PLM/SM ANALYSIS) TIMES THE TOTAL ASBESTOS IN LAYER (IF NO ASBESTOS IN OTHER LAYERS).

SJR Environmental
Consulting

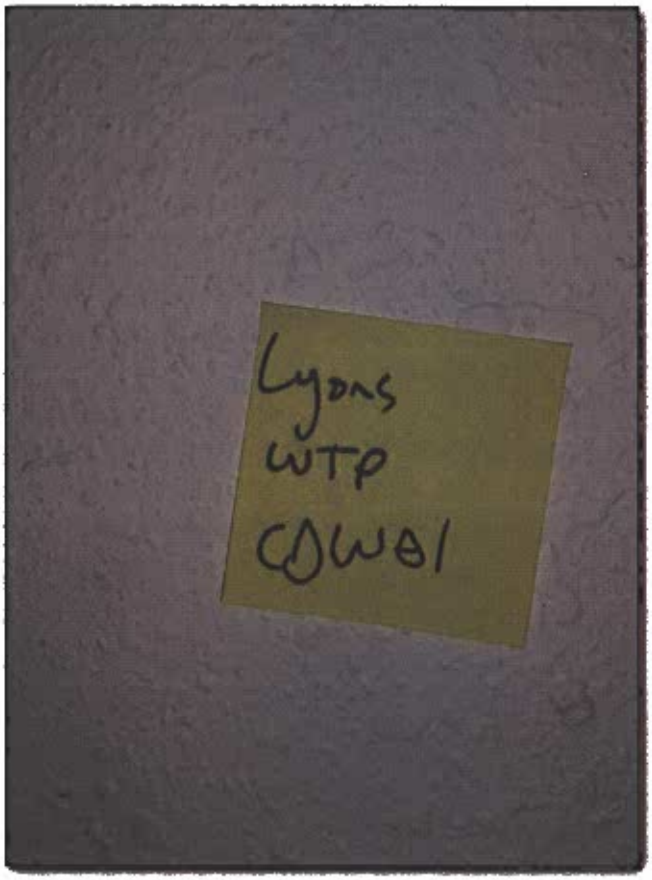
APPENDIX D

Photo Log

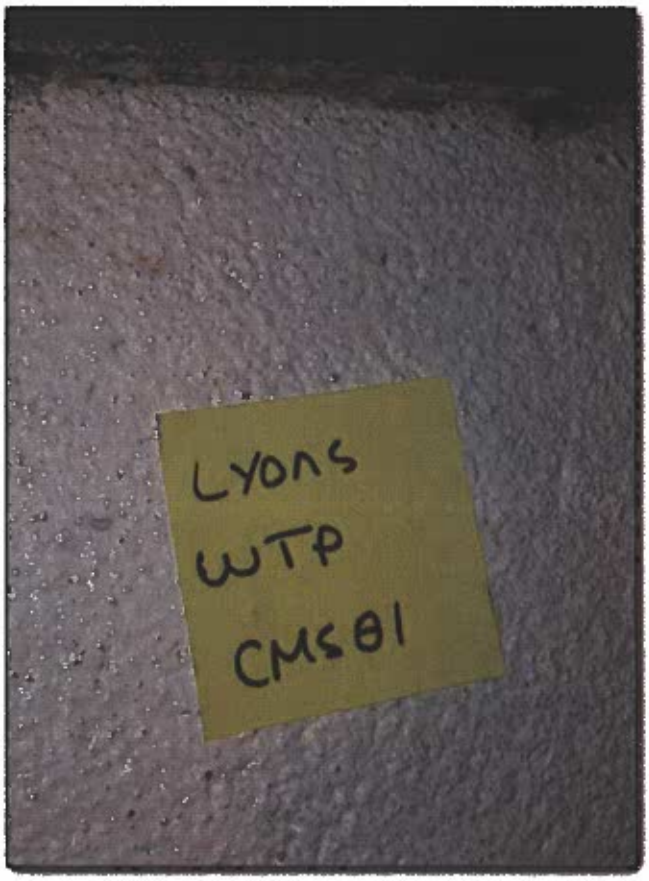
BBA01

CA01

CDW01



CMS01



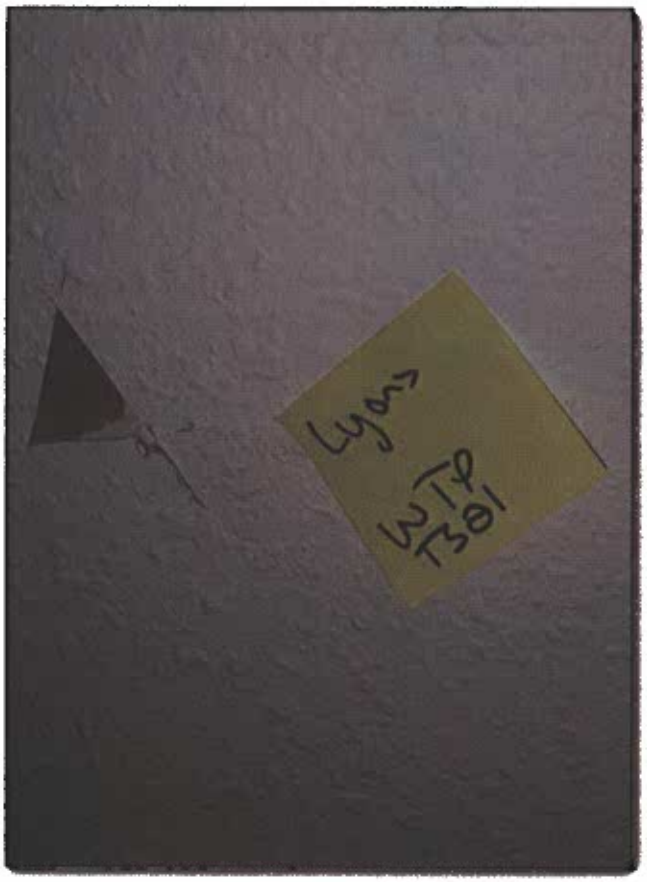
FTC01

GM01

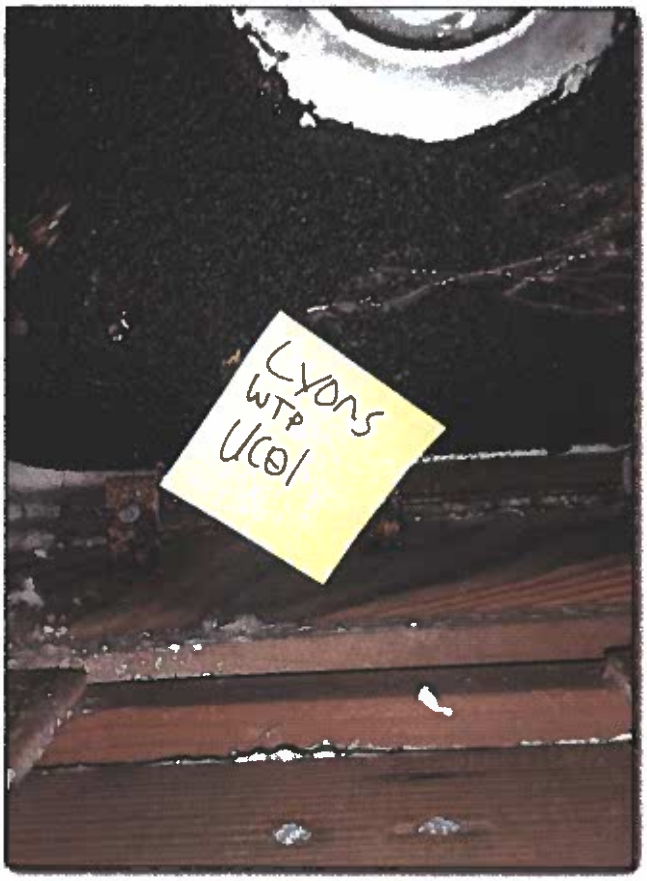
LIP01

OT01

TS01



UC01



WG01