

CHEROKEE NATION
Environmental Programs



Asbestos Sampling Report

Unit #13729

PREPARED BY: Tyler Moore **DATE:** 3/26/2025

TYLER MOORE, ENVIRONMENTAL SPECIALIST I

REQUESTED BY: Housing Authority of the Cherokee Nation

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I. Site Inspection/Description

Cherokee Nation Environmental Programs (CNEP) has conducted asbestos sampling for the presence of asbestos containing materials (ACM) for the following site:

918-803-1515
16 S Ora St
Pryor, OK 74361
Coordinates: 36.30450, -85.30650

The sampling was performed to determine the presence of all ACM from within the affected parts of the structure for EPA's National Emissions of Hazardous Air Pollutants (NESHAP) compliance as well as OSHA worker protection.

The inspector responsible for this project was:

Tyler Moore EPA AHERA Inspector

The sampling was conducted on March 26, 2025, at the request of the Housing Authority of the Cherokee Nation.

The site is a single-family residential structure built in 1947. Sampling was limited to areas that would be affected by the project scope of work (Appendix A) provided by the Housing Authority of the Cherokee Nation.

ACM was found at this site. See Section IV for locations.

II. BACKGROUND

The Oklahoma Department of Environmental Quality (ODEQ) has adopted EPA's NESHAP regulation under OAC252:100, 41-15 and has been delegated authority in the state of Oklahoma for its enforcement. Section 61.145(a) of Federal EPA regulation states that prior to commencement of the demolition or renovation of a facility a thorough inspection of the affected part or parts of a facility is required to determine the presence of all asbestos including Category I and Category II non-friable, and friable ACM. ACM is defined by EPA and OSHA as any material that contains greater than 1% asbestos.

III. FIELD PROCEDURES AND ANALYTICAL METHODS

During the on-site inspection, we visually assessed the physical characteristics of suspect asbestos-containing materials (SACM) based on homogeneous areas. Homogeneous areas are areas of asbestos similar in color, texture, and construction, date of application, and in general appearance. For purposes of renovation and demolition, homogeneous areas of SACM can be further classified according to NESHAPs rules by whether the material is friable, Category I non-friable, or Category II non-friable.

Friable ACM is defined by NESHAPs rules as any material containing more than 1% asbestos as determined by Polarized Light Microscopy (PLM), that, when dry, can be crumbled, pulverized or reduced to powder by hand pressure.

Category I Non-friable ACM is defined by NESHAPs rules as any asbestos-containing packings, gaskets, construction mastics, resilient floor covering (i.e. floor tiles, roll sheet flooring) or asphalt roofing products that contain more than 1% asbestos as determined by PLM.

Category II Non-friable ACM is defined by NESHAPs rules as any material, excluding Category I non-friable ACM, containing more than 1% asbestos as determined by PLM, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Typically, non-friable materials, such as transite (cementious products) and vinyl floor tiles are not regulated by the State of Oklahoma provided they do not become friable. General deterioration, machine grinding, drilling, sanding, and dry-buffing are all ways of causing non-friable materials to become classified as Regulated Asbestos Containing Materials (RACM). All friable materials are classified RACM. Please note that the following materials, even though classified as non-friable are fully regulated by Oklahoma Department of Labor for removal purposes as friable material: ceiling tiles, roll sheet flooring (linoleum), and joint wall compound when deemed friable.

In addition to classification of suspect material into friable and non-friable materials, a determination of current condition was conducted as part of the physical assessment. The condition noted is the representative of the material at the time of inspection. Conditions of materials can change very quickly when disturbed. All suspect material was placed in one of the following categories of condition.

Significantly damaged: Material that is damaged, blistered, deteriorated, water stained over at least 10% of its total area.

Damaged: Material that is damaged, blistered, deteriorated, water stained less than 10% of its total area.

Good: Material that has no visible damage or deterioration.

Guidelines used for the number of samples collected per homogeneous area were determined using the Asbestos Hazard Emergency Response Act (AHERA) protocol promulgated in 40 CFR 763, Appendix E as follows:

Surfacing materials – material that is sprayed or troweled on wall, ceilings, or support columns for fireproofing, acoustical, or even decorative purpose.

- Less than 1000 ft² – Minimum 3 samples
- From 1000-5000 ft² – Minimum 5 samples
- Greater than 5000 ft² – Minimum 7 samples

Thermal System Insulation (TSI) materials – thermal system insulation material applied to tanks, boiler, pipes or other structural component for an insulating purpose.

- May omit areas of fibrous glass, foam glass, rubber, and Styrofoam form sampling. Areas that have mastic on seams or outer jacketing will be sampled.
- At least three samples must be collected from each homogeneous area of TSI.
- Plus an additional sample from each patched area of less than 6 linear feet.
- Fittings require a sufficient amount to determine positive or negative nature.
- Inspector will first collect samples from damaged areas, exposed ends, or areas missing jacketing first.

Miscellaneous materials – all other material that are not thermal system insulation or surfacing materials. This includes gaskets, packings, joint wall compound, cementitious asbestos materials, ceiling tiles resilient flooring materials, construction mastics, etc..

- May assume and document as such
- A sufficient amount of samples to determine negative or positive nature. A minimum or one per suspect homogeneous area.
- Collect samples from inconspicuous locations.
- Material such as cementitious asbestos or vibration dampening cloths should not be sampled and will be assumed ACM unless instructed by client to collect these samples.

Bulk samples of suspect ACM were analyzed by Polarized Light Microscopy (PLM) in accordance with EPA Methods 600R-93/116. All samples were sent to a NVLAP accredited laboratory for analysis. QuanTEM Laboratories, LLC (NVLAP # 101959-0) in Oklahoma City, OK analyzed the samples. A copy of the full laboratory report and chain of custody can be found in Appendix B.

IV. SUMMARY OF FINDINGS

A total of 12 samples were analyzed from 6 homogeneous areas due to multi-layers of material within some homogeneous sample areas. All accessible and observable areas within the renovation area were sampled for ACM. Samples were not taken of suspect materials that may have placed the inspector at risk of injury (i.e. electrical panel boxes). Any suspect ACM that has not been tested and/or found positive for asbestos must be assumed ACM until they are analyzed. Upon review of laboratory analysis, the following asbestos containing materials can be found in Table 1. All suspect ACM samples that were analyzed and did not contain asbestos can be found in Table 2.

Table 1. Asbestos Containing Materials

Sample #	Material Description	Locations	Friability (Friable, NF Cat I NF Cat II)	Condition	Sample Results (% Asbestos)
01-01	White Siding	Exterior	NF Cat I	Damaged	15 % Chrysotile

Table 2. Non – Asbestos Containing Materials

Sample #	Material Description	Locations	Condition	Sample Results (% Asbestos)
02-01 Thru 02-03	White Smooth Ceiling Texture	Throughout	Damaged	Asbestos not Present
03-01 Thru 03-03	White Coarse Ceiling Texture	Throughout	Damaged	Asbestos not Present
04-01	Joint Compound	Side D Living Room	Damaged	Asbestos not Present
05-01 Thru 05-03	White Wall Texture	Throughout	Damaged	Asbestos not Present
06-01	Black	Roof Shingle	Damaged	Asbestos not Present

V. CONCLUSIONS

Asbestos is not always an immediate hazard. Intact and undisturbed ACM does not pose a health risk. They may, however become a health hazard if they are damaged, disturbed, or deteriorate over time and release fibers into the air. There are no federal, state, or Tribal laws mandating asbestos removal. It is only when the material can no longer be maintained in good condition and/or airborne concentrations of asbestos are measured and found to be above a permissible exposure limit (PEL), or when the building is to be demolished or renovated, that removal may become necessary. Any renovation/demolition work which may impact these positive materials should be conducted in accordance with all applicable Federal, state, and local regulations.



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Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 377785

Client: Cherokee Nation Environmental Programs
Tyler Moore

Account Number: C162

Date Received: 03/28/2025

Received By: Charlie Johnson

Date Analyzed: 04/01/2025

Analyzed By: Tanner Smith Project Location: Pryor, OK

Methodology: EPA/600/R-93/116

Project Number: NA

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-01	Homogeneous	White Siding	Asbestos Present Chrysotile 15	NA	CaCO ₃ Binder Paint
002	02-01	Homogeneous	White Ceiling Texture	Asbestos Not Present	NA	CaCO ₃ Perlite Paint
003	02-02	Homogeneous	White Ceiling Texture	Asbestos Not Present	NA	CaCO ₃ Perlite Paint
004	02-03	Homogeneous	White Ceiling Texture	Asbestos Not Present	Cellulose 5	CaCO ₃ Perlite
005	03-01	Layered	White Ceiling Texture	Asbestos Not Present	NA	CaCO ₃ Perlite
005a		Layered	White Skim Coat	Asbestos Not Present	NA	CaCO ₃ Gypsum Paint

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuanTEM is a NVLAP accredited Testing PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA—40 CFR Appendix E to Subpart E of Part 763 and EPA/600/R-93/116 methods.

This report may not be used to claim product endorsement by NVLAP or any agency of the US Government.

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Account Number: C162

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Received By: Charlie Johnson

Date Analyzed: 04/01/2025

Analyzed By: Tanner Smith

Methodology: EPA/600/R-93/116

Project Location: Pryor, OK

Project Number: NA

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
005b		Layered	Gray Plaster	Asbestos Not Present	NA	Gypsum Sand
006	03-02	Layered	White Ceiling Texture	Asbestos Not Present	NA	CaCO3 Perlite
006a		Layered	White Skim Coat	Asbestos Not Present	NA	CaCO3 Gypsum Paint
007	03-03	Homogeneous	White Ceiling Texture	Asbestos Not Present	NA	CaCO3 Paint
008	04-01	Layered	White Texture	Asbestos Not Present	NA	CaCO3 Perlite Paint
008a		Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3
009	05-01	Homogeneous	White Wall Texture	Asbestos Not Present	NA	CaCO3 Perlite

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Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 377785

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Methodology: EPA/600/R-93/116 Project Number: NA

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
010	05-02	Layered	White Skim Coat	Asbestos Not Present	NA	CaCO ₃ Gypsum
010a		Layered	Gray Plaster	Asbestos Not Present	NA	Gypsum Sand
010b		Layered	White Sheetrock	Asbestos Not Present	Cellulose 10	Gypsum
011	05-03	Layered	White Wall Texture	Asbestos Not Present	NA	Gypsum Perlite Paint
011a		Layered	White Skim Coat	Asbestos Not Present	NA	CaCO ₃ Gypsum Paint
011b		Layered	Beige Plaster	Asbestos Not Present	Cellulose 2	Gypsum Sand

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Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 377785

Client: Cherokee Nation Environmental Programs
Tyler Moore

Account Number: C162

Date Received: 03/28/2025

Received By: Charlie Johnson

Date Analyzed: 04/01/2025

Analyzed By: Tanner Smith

Project Location: Pryor, OK

Methodology: EPA/600/R-93/116

Project Number: NA

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
011c		Layered	Gray Substrate	Asbestos Not Present	Glass Fiber	3 CaCO ₃ Binder
012	06-01	Layered	Black/Gray Shingle	Asbestos Not Present	Cellulose Glass Fiber	20 5 Tar Sand
012a		Layered	Black Tar	Asbestos Not Present	NA	Tar

Tanner Smith, Laboratory Analyst

4/1/2025

Date of Report

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Contact Information

Company: Cherokee Nation Environmental Programs	Phone: (918) 453-7607	Project Information																														
Contact: Tyler Moore	Cell Phone: (918) 772-8709	Report Results (✓ one box)																														
Account #: C 162	E-mail: tyler.moore@cherokee.org	<input type="checkbox"/> QuantEM Website																														
SAMPLED By: Name: Tyler Moore & Tim Miller	Date: 3/26/2025	<input checked="" type="checkbox"/> Email: tyler.moore@cherokee.org																														
RELINQUISHED BY 	DATE & TIME 3/27/2025 Fed EX	<input type="checkbox"/> Other _____																														
REQUESTED SERVICES (Please ✓ the Appropriate Boxes)																																
<table border="1"> <thead> <tr> <th>PLM</th> <th>TEM</th> <th>TEM</th> <th>TURNAROUND TIME</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/> Bulk Analysis (EPA 600/R-93/116)</td> <td><input type="checkbox"/> Vermiculite Attic Insulation (EPA 600/R-04/004)</td> <td><input type="checkbox"/> Air- AHERA</td> <td><input type="checkbox"/> Bulk- Presence / Absence EPA600/R-93/116</td> </tr> <tr> <td><input type="checkbox"/> 400 Point Count</td> <td><input type="checkbox"/> Other</td> <td><input type="checkbox"/> Air- NIOSH 7402</td> <td><input type="checkbox"/> Bulk- Quantitative [weight%] - Chatfield</td> </tr> <tr> <td><input type="checkbox"/> 1000 Point Count</td> <td></td> <td><input type="checkbox"/> Air- ISO 10312</td> <td><input type="checkbox"/> Dust- Presence / Absence</td> </tr> <tr> <td><input type="checkbox"/> Gravimetric Preparation</td> <td></td> <td><input type="checkbox"/> Drinking Water- EPA 100.2</td> <td><input type="checkbox"/> 24 - Hour</td> </tr> <tr> <td><input type="checkbox"/> Particle ID</td> <td><input type="checkbox"/> NIOSH 7400</td> <td><input type="checkbox"/> Waste Water- EPA 600/4-83-043</td> <td><input checked="" type="checkbox"/> Dust- Quantitative [fibers/sq.cm]- ASTM D5755</td> </tr> <tr> <td></td> <td></td> <td></td> <td><input type="checkbox"/> Other</td> </tr> </tbody> </table>					PLM	TEM	TEM	TURNAROUND TIME	<input checked="" type="checkbox"/> Bulk Analysis (EPA 600/R-93/116)	<input type="checkbox"/> Vermiculite Attic Insulation (EPA 600/R-04/004)	<input type="checkbox"/> Air- AHERA	<input type="checkbox"/> Bulk- Presence / Absence EPA600/R-93/116	<input type="checkbox"/> 400 Point Count	<input type="checkbox"/> Other	<input type="checkbox"/> Air- NIOSH 7402	<input type="checkbox"/> Bulk- Quantitative [weight%] - Chatfield	<input type="checkbox"/> 1000 Point Count		<input type="checkbox"/> Air- ISO 10312	<input type="checkbox"/> Dust- Presence / Absence	<input type="checkbox"/> Gravimetric Preparation		<input type="checkbox"/> Drinking Water- EPA 100.2	<input type="checkbox"/> 24 - Hour	<input type="checkbox"/> Particle ID	<input type="checkbox"/> NIOSH 7400	<input type="checkbox"/> Waste Water- EPA 600/4-83-043	<input checked="" type="checkbox"/> Dust- Quantitative [fibers/sq.cm]- ASTM D5755				<input type="checkbox"/> Other
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No.	Sample ID (10 Characters Max)	✓ To Be Analyzed	Description	Volume / Area (as applicable)																												
1	01-01	<input checked="" type="checkbox"/>	White	Comments / Notes Exterior Siding																												
2	02-01	<input checked="" type="checkbox"/>	White	Ceiling Texture Smooth Throughout																												
3	02-02	<input checked="" type="checkbox"/>	White	Ceiling Texture Smooth Throughout																												
4	02-03	<input checked="" type="checkbox"/>	White	Ceiling Texture Smooth Throughout																												
5	03-01	<input checked="" type="checkbox"/>	White	Ceiling Texture Original Throughout																												
6	03-02	<input checked="" type="checkbox"/>	White	Ceiling Texture Original Throughout																												
7	03-03	<input checked="" type="checkbox"/>	White	Ceiling Texture Original Throughout																												
8	04-01	<input checked="" type="checkbox"/>	White	Joint Compound North Wall																												
9	05-01	<input checked="" type="checkbox"/>	White	Wall Texture																												
10	05-02	<input checked="" type="checkbox"/>	White	Wall Texture																												

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Page 2 of 1

For Lab Use Only	
Lab No. <u>377785</u>	
Accept	Reject

Project Information

Company: Cherokee Nation Environmental Programs

Project Information				Project Location: Pryor, OK		
No.	Sample ID (10 Characters Max)	To Be Analyzed	Color	Description	Volume/Area (as applicable)	Comments / Notes
11	05-03	<input checked="" type="checkbox"/>	White	Wall Texture Throughout		
12	06-01	<input checked="" type="checkbox"/>	Black/Grey	Roof Shingle		
13		<input type="checkbox"/>				
14		<input type="checkbox"/>				
15		<input type="checkbox"/>				
16		<input type="checkbox"/>				
17		<input type="checkbox"/>				
18		<input type="checkbox"/>				
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