



# ASBESTOS CHAIN OF CUSTODY

2033 Heritage Park Drive, Oklahoma City, OK 73120-7502  
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For Lab Use Only  
 Lab No. 358079  
 Accept  Reject

Contact Information		Project Information	
Company: Cherokee Nation Environmental Programs	Phone: (918) 453-6140	Project Name: Allen Hintz	Report Results ( <input checked="" type="checkbox"/> one box )
Contact: Logan Girty	Cell Phone: (918) 772-8346	Project Location: Bluejacket	<input type="checkbox"/> Quantem Website
Account #: C 162	E-mail: logan-girty@cherokee.org	Project ID:	<input checked="" type="checkbox"/> Email <a href="mailto:logan-girty@cherokee.org">logan-girty@cherokee.org</a>
SAMPLED BY: Name: Logan Girty	Date: 5/1/2023	P.O. Number: 289269	<input type="checkbox"/> Other

RELINQUISHED BY: John E. [Signature] RECEIVED BY: [Signature] DATE & TIME: 5/1/2023 2:30 pm VIA: FedEx DATE & TIME: 5/3/23 @ 10:00

REQUESTED SERVICES (Please  the Appropriate Boxes)

PLM	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"/> Rush
<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"/> Same Day
<input type="checkbox"/> 1000 Point Count	<input type="checkbox"/> PCM	<input type="checkbox"/> Air- ISO 10312	<input type="checkbox"/> Dust- Presence / Absence	<input type="checkbox"/> 24 - Hour
<input type="checkbox"/> Gravimetric Preparation		<input type="checkbox"/> Drinking Water- EPA 100.2	<input type="checkbox"/> Dust- Quantitative [fibers/sq.cm]- ASTM D5755	<input checked="" type="checkbox"/> 3 - Day
<input type="checkbox"/> Particle ID	<input type="checkbox"/> NIOSH 7400	<input type="checkbox"/> Waste Water- EPA 600/4-83-043	<input type="checkbox"/> Other	<input type="checkbox"/> 5 - Day

No.	Sample ID (10 Characters Max)	To Be Analyzed	Color	Description	Volume / Area (as applicable)	Comments / Notes
1	01-01	<input checked="" type="checkbox"/>	Black	Shingle		Roof
2	02-01	<input checked="" type="checkbox"/>	Black	Felt Paper		Roof
3	03-01	<input checked="" type="checkbox"/>	Tan	Formica Countertop		Kitchen
4	04-01	<input checked="" type="checkbox"/>	Green	Vinyl Floor Tile		Bath
5	05-01	<input checked="" type="checkbox"/>	White	Drywall Ceiling		Bath
6	06-01	<input checked="" type="checkbox"/>	White	Ceiling Tile Texture		Bath/Dining
7	07-01	<input checked="" type="checkbox"/>	Tan	Cementitious Siding		Garage Exterior
8	08-01	<input checked="" type="checkbox"/>	Tan	Fireproof Brick		Chimney
9	09-01	<input checked="" type="checkbox"/>	Gray	Concrete		Foundation
10		<input type="checkbox"/>				



2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

### Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 358079	Client: Cherokee Nation Environmental Programs
Account Number: C162	Logan Girty
Date Received: 05/03/2023	PO Box 948
Received By: Courtney Holman	Tahlequah, OK 74464
Date Analyzed: 05/05/2023	Project: Allen Hintz
Analyzed By: Benjamin Hill	Project Location: Bluejacket
Methodology: EPA/600/R-93/116	Project Number: 289269

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
005a		Layered	White Sheetrock	Asbestos Not Present	Cellulose 10	Gypsum
006	06-01	Homogeneous	White Ceiling Tile	Asbestos Not Present	Cellulose 50 Glass Fiber 30	Perlite Paint
007	07-01	Homogeneous	Tan Siding	Asbestos Present Chrysotile 20	NA	CaCO3 Sand
008	08-01	Homogeneous	Tan Brick	Asbestos Not Present	NA	Clay Sand
009	09-01	Homogeneous	Gray Concrete	Asbestos Not Present	NA	Sand CaCO3

*Benjamin Hill*

Benjamin Hill, Assistant Laboratory Manager

5/5/2023

Date of Report

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/600/M4-82-020 and EPA/600/R-93/116 methods.  
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Methodology: EPA/600/R-93/116	Project Number: 289269

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	01-01	Homogeneous	Black Shingle	Asbestos Not Present	Cellulose 40	Tar Sand
002	02-01	Homogeneous	Black Felt	Asbestos Not Present	Cellulose 55	Tar
003	03-01	Layered	Tan Counter Top	Asbestos Not Present	Cellulose 80	Binder
003a		Layered	White Adhesive	Asbestos Not Present	NA	Glue CaCO3
004	04-01	Layered	Green/Blue Floor Tile	Asbestos Not Present	Synthetic 5	CaCO3 Vinyl
004a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
005	05-01	Layered	Cream Ceiling Texture	Asbestos Present Chrysotile 2	NA	CaCO3 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/600/M4-82-020 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. This report may not be reproduced except in full, without the written approval of the laboratory.

**APPENDIX B.**  
LABORATORY RESULTS  
&  
CHAIN OF CUSTODY

# National Flood Hazard Layer FIRMette

95°75'1"W 36°46'32"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE) Zone A, V, A33
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

**OTHER AREAS**

- NO SCREEN
- Area of Minimal Flood Hazard Zone
- Effective LOMRS
- Area of Undetermined Flood Hazard Zone D

**GENERAL STRUCTURES**

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**

- Cross Sections with 1% Annual Chance Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

**MAP PANELS**

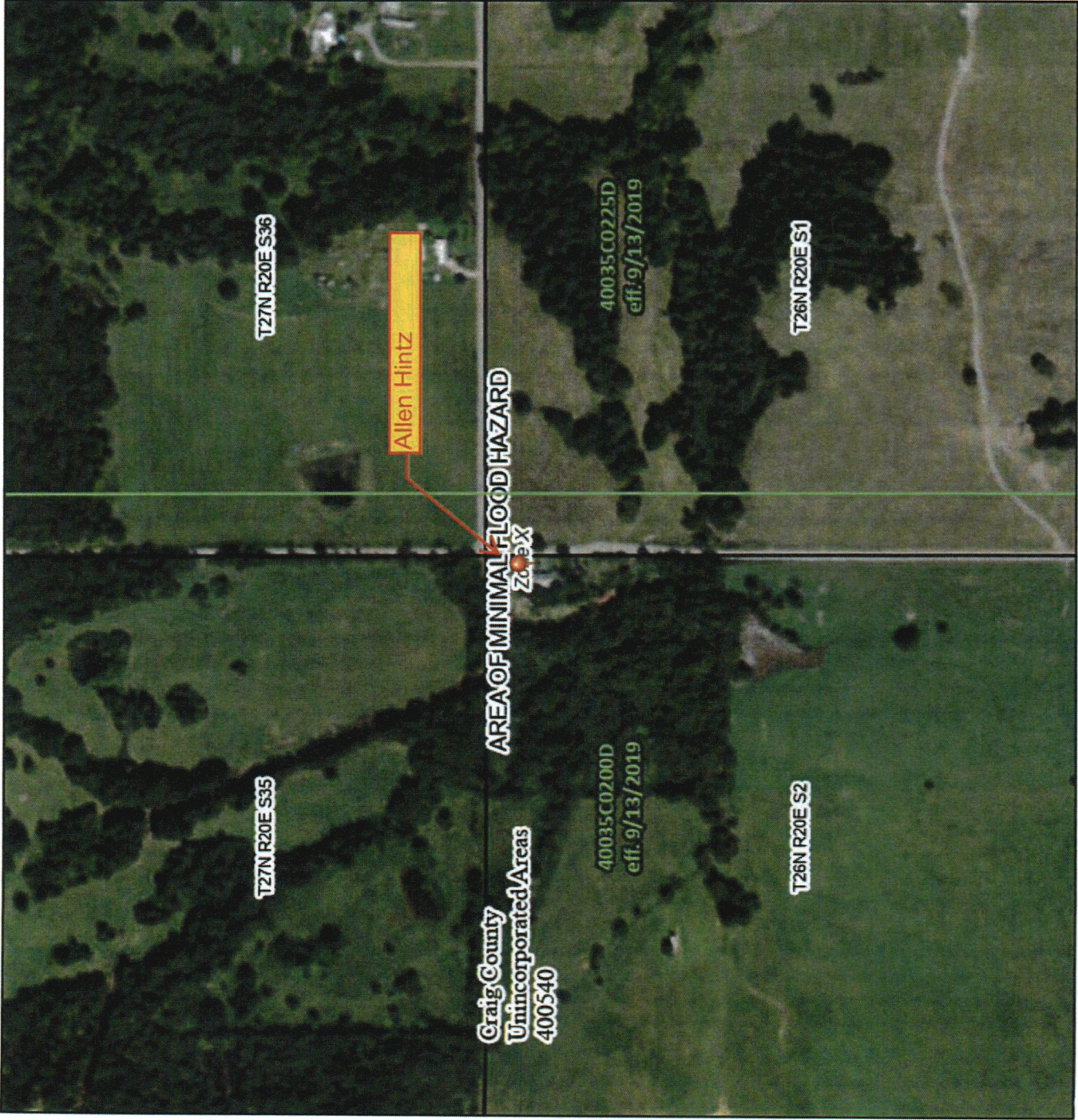
- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/4/2023 at 3:56 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



95°75'1"W 36°46'32"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Sample #	Material Description	Locations	Friability (Friable, NF Cat I NF Cat II)	Condition	Sample Results (% Asbestos)
05-01	Drywall Ceiling	Bath	Friable	Damaged	2% Chrysotile
07-01	Cementitious Siding	Garage Exterior	NF Cat II	Damaged	20% Chrysotile

Sample #	Material Description	Locations	Condition	Sample Results (% Asbestos)
01-01	Shingle	Roof	Damaged	None Detected
02-01	Felt Paper	Roof	Damaged	None Detected
03-01	Formica Countertop	Kitchen	Damaged	None Detected
04-01	Vinyl Floor Tile	Bath	Damaged	None Detected
06-01	Ceiling Tile Texture	Bath/Dining	Damaged	None Detected
08-01	Fireproof Brick	Chimney	Damaged	None Detected
09-01	Concrete	Foundation	Damaged	None Detected

## **V. CONCLUSIONS**

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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.

- Less than 1000 ft<sup>2</sup> – Minimum 3 samples
- From 1000-5000 ft<sup>2</sup> – Minimum 5 samples
- Greater than 5000 ft<sup>2</sup> – 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 from 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

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A total of 9 samples were analyzed from 9 homogeneous areas due to multi-layers of material within some homogeneous sample areas. Photographs of all ACM can be found in Appendix C. 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 have 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.

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 (cementitious 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.



## I. Site Inspection/Description

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

Allen Hintz  
17027 S 4420 Rd, Bluejacket, OK 74333  
918-944-6450  
Coordinates: 36.7716 / -95.1256

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:

Logan Girty ODOL, AHERA Inspector, License No: OK401597

The sampling was conducted on May 1, 2023 at the request of the Cherokee Nation Housing Rehabilitation Department.

The site is a single family home built in 1923. Sampling was limited to areas that would be affected by the project scope of work (Appendix A) provided by the housing rehabilitation department.

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

## II. BACKGROUND

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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

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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

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- V. CONCLUSIONS

APPENDIX A: PROJECT SCOPE OF WORK

APPENDIX B: LABORATORY REPORT & CHAIN OF CUSTODY

**CHEROKEE NATION**  
**Environmental Programs**



**Asbestos Sampling Report**

**PARTICIPANT:** HINTZ, ALLEN

**PREPARED BY:** *Logan Girty* **DATE:** 5/5/2023  
LOGAN GIRTY, ENVIRONMENTAL SPECIALIST II

**REQUESTED BY:** HACN HOUSING REHABILITATION (HUD) –  
GEORGE HUBBARD