HOUSING AUTHORITY OF THE CHEROKEE NATION

Environmental Programs

METHAMPHETAMINE LAB ASSESSMENT

CONDUCTED ON AUGUST 28, 2026

SITE: WHEELER CIRCLE BLDG 150 APT 2

PREPARED BY: Jim Mill **DATE:** 09/30/2026

PREPARED FOR: HACN/LOY TOWIE

SUMMARY

The Housing Authority of the Cherokee Nation Environmental Programs conducted the following sampling assessment of the property located at: Wheeler Circle Building 150 Apt 2, Tahlequah, OK on August 28, 2026. Staff initiated the activity at the request of the Housing Authority of the Cherokee Nation (HACN), as an effort to determine the level of residual methamphetamine contamination produced from suspected former methamphetamine use and/or production at the site. The scope of work for this investigation is based on professional standard practices for evaluating methamphetamine contamination of residential properties. This report presents the results of such an environmental evaluation.

OBEJECTIVE OF THE ASSESSMENT

Adverse health effects have been reported in subsequent occupants of former drug labs that have not been adequately decontaminated. Examples include throat irritation, respiratory difficulties, and headaches in individuals who unknowingly moved into houses that previously contained methamphetamine labs. Of even greater concern is the risk these sites pose to children. Studies have shown that children exposed to methamphetamine residue via skin absorption and oral ingestion are much more likely to suffer from respiratory infections as well as chronic learning disabilities.

The purpose of this assessment is to render an opinion as to whether residual methamphetamine levels present at the previously mentioned site warrant any further remediation.

SCOPE OF WORK

The scope of services consisted of the following activities:

- Preliminary site reconnaissance for identifying any potential hazards that may impede the sampling event.
- Site sampling activity.
- Review of laboratory results.
- Preparation of this report of findings.

SITE DESCRIPTION

The site consisted of a low rent dwelling located in Tahlequah, OK. GPS: 35.89930N, -94.97844W located in Cherokee County.

There were no visible signs of methamphetamine production or use at the site. The site was, littered with trash, and other items on the floors.

METHOD

Methamphetamine is used as a surrogate to determine if chemicals used to make the methamphetamine and the byproducts associated are present within the interior of the residence. The sampling methodology of choice for this event was composite and discrete wipe sampling. Five composite samples were collected from inside the structure and each sample was placed into a separate sampling container for analysis. Each composite sample consisted of four sub-samples of 100 cm^2 in area, for a total of 400 cm^2 area for each sample. Composite wipe samples were collected from similar non-porous surfaces with a wipe pre-moistened with isopropyl alcohol. Five discrete samples 100 cm^2 in area were also collected, for a total of ten areas that were sampled and submitted to a certified laboratory for analysis. The results of the analysis are contained within the Results/Recommendations section of this report.

PERSONNEL QUALIFICATIONS

All field samplers are recommended to have completed a 40-hour health and safety training course in accordance with 29 CFR 1920.120 *Hazardous Waste Operations and Emergency Response* (HAZWOPER) Standard and regular refresher courses prior to engaging in any field collection activities. Field samplers are also knowledgeable of the hazards associated with "sharps" that may be encountered in a CDL environment.

RESULTS/RECOMMENDATIONS

During the sampling event, the areas in the table below were identified and sampled using the wipe-sampling method as described earlier in this report. Samples were collected from the areas listed below. Lab analysis revealed the following methamphetamine levels:

Sample Number	Location	Type Of Sample	Area Sampled	Result (ug/Sample)	Result ug/100 cm^2
W150-01	Living Room Walls	Composite	400 cm^2	13	3.1
W150-02	Bedroom 1 Walls	Composite	400 cm^2	18	4.5
W150-03	Bedroom 2 Walls	Composite	400 cm^2	21	5.2
W150-04	Kitchen Walls	Composite	400 cm^2	.58	.14
W150-05	Bathroom Walls	Composite	400 cm^2	17	4.2
W150-06	Bedroom 1 Floor	Discrete	100 cm^2	19	19
W150-07	Bathroom Floor	Discrete	100 cm^2	11	11
W150-08	Bedroom 2 Air Vent	Discrete	100 cm^2	18	18
W150-09	Living Room Air Vent	Discrete	100 cm^2	28	28
W150-10	Return Air Vent	Discrete	100 cm^2	17	17

KEY:	ND=Non Detect	Above Action Level

All of the samples were above the 0.10 ug/100 cm² action level established as a benchmark for cleanup standards. Due to the high level of residual contamination that is currently present within the HVAC system, it is the recommendation for the ductwork be replaced throughout the structure. This suggests that the entire duct system may be heavily contaminated. In addition, the blower unit and any other interior HVAC parts could be replaced due to the high level of contamination.

DECONTAMINATION PROCEDURES

- **Walls that are heavily stained should be replaced and porous materials such as carpet, draperies, furniture, bedding, and personal items from inside the structure should be removed and properly disposed.**
- **Food items, dishes, pots/pans and utensils should be removed for proper disposal.**
- **Light fixtures, ceiling fans, smoke alarms, light switches, doorknobs and other small items should be replaced.**
- **Walls and ceilings should be decontaminated by triple washing with a soft-bristled brush and a soap and water solution, simple green, or a commercially available methamphetamine cleaner and then rinsed with clean water.**
- **The wash/rinse cleaning will start in the farthest reaches of the residence and will proceed in a backward fashion to the entry of the residence in order to eliminate the spread of contamination.**
- **The rinse water should be recovered using a HEPA filter-equipped wet vacuum. All waste and rinse water generated during the decontamination process should be collected and pH tested to verify that it is non-corrosive (pH 4-10) prior to proper disposal.**

No waste collected or generated during the day's cleanup activities should remain on site. All waste should be transported to the appropriate landfill at the end of each workday.

Post-cleanup samples should be collected upon the completion of the renovation/decontamination activities.

ANALYTICAL REPORT

Report Date: September 29, 2026

Timothy Miller
Housing Authority of Cherokee Nation
1500 Hensley Dr
Tahlequah, OK 74464

Phone: (918) -570-9545
Fax: (918) 453-2904
E-mail: timothy.miller@hacn.org

Workorder: **34-2626860**
Client Project ID: Tahlequah, OK
Purchase Order: 916550
Project Manager: Meredith Edwards

Analytical Results

Sample ID: **W150-01**
Lab ID: 2626860001
Sampling Location: Living Room Walls
Collected: 08/28/2026
Received: 09/25/2026

Method: NIOSH 9111 Mod.
Dilution: 1
Media: Wipe
Sampling Parameter: Area 400 cm²
Instrument: LCMS07
Analyzed: 09/28/2026 (343144)

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)
Methamphetamine	**13**	**3.1**	0.10

Sample ID: **W150-02**
Lab ID: 2626860002
Sampling Location: Bedroom 1 Walls
Collected: 08/28/2026
Received: 09/25/2026

Method: NIOSH 9111 Mod.
Dilution: 1
Media: Wipe
Sampling Parameter: Area 400 cm²
Instrument: LCMS07
Analyzed: 09/28/2026 (343144)

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)
Methamphetamine	**18**	**4.5**	0.10

Sample ID: **W150-03**
Lab ID: 2626860003
Sampling Location: Bedroom 2 Walls
Collected: 08/28/2026
Received: 09/25/2026

Method: NIOSH 9111 Mod.
Dilution: 1
Media: Wipe
Sampling Parameter: Area 400 cm²
Instrument: LCMS07
Analyzed: 09/28/2026 (343144)

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)
Methamphetamine	**21**	**5.2**	0.10

Sample ID: **W150-04**
Lab ID: 2626860004
Sampling Location: Kitchen Walls
Collected: 08/28/2026
Received: 09/25/2026

Method: NIOSH 9111 Mod.
Dilution: 1
Media: Wipe
Sampling Parameter: Area 400 cm²
Instrument: LCMS07
Analyzed: 09/28/2026 (343144)

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)
Methamphetamine	**0.58**	**0.14**	0.10

ANALYTICAL REPORT

Workorder: **34-2626860**
Client Project ID: Tahlequah, OK
Purchase Order: 916550
Project Manager: Meredith Edwards

Analytical Results

Sample ID: **W150-05**
Lab ID: 2626860005
Sampling Location: Bathroom Walls
Collected: 08/28/2026
Received: 09/25/2026

Method: NIOSH 9111 Mod.
Dilution: 1
Media: Wipe
Sampling Parameter: Area 400 cm²
Instrument: LCMS07
Analyzed: 09/28/2026 (343144)

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)
Methamphetamine	**17**	**4.2**	0.10

Sample ID: **W150-06**
Lab ID: 2626860006
Sampling Location: Bedroom 1 Floor
Collected: 08/28/2026
Received: 09/25/2026

Method: NIOSH 9111 Mod.
Dilution: 1
Media: Wipe
Sampling Parameter: Area 100 cm²
Instrument: LCMS07
Analyzed: 09/28/2026 (343144)

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)
Methamphetamine	**19**	**19**	0.10

Sample ID: **W150-07**
Lab ID: 2626860007
Sampling Location: Bathroom Floor
Collected: 08/28/2026
Received: 09/25/2026

Method: NIOSH 9111 Mod.
Dilution: 1
Media: Wipe
Sampling Parameter: Area 100 cm²
Instrument: LCMS07
Analyzed: 09/28/2026 (343144)

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)
Methamphetamine	**11**	**11**	0.10

Sample ID: **W150-08**
Lab ID: 2626860008
Sampling Location: Bedroom 2 Ceiling Vent
Collected: 08/28/2026
Received: 09/25/2026

Method: NIOSH 9111 Mod.
Dilution: 1
Media: Wipe
Sampling Parameter: Area 100 cm²
Instrument: LCMS07
Analyzed: 09/28/2026 (343144)

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)
Methamphetamine	**18**	**18**	0.10

Sample ID: **W150-09**
Lab ID: 2626860009
Sampling Location: Living Room Ceiling Vent
Collected: 08/28/2026
Received: 09/25/2026

Method: NIOSH 9111 Mod.
Dilution: 1
Media: Wipe
Sampling Parameter: Area 100 cm²
Instrument: LCMS07
Analyzed: 09/28/2026 (343144)

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)
Methamphetamine	**28**	**28**	0.10

ANALYTICAL REPORT

Workorder: **34-2626860**
Client Project ID: Tahlequah, OK
Purchase Order: 916550
Project Manager: Meredith Edwards

Analytical Results

Sample ID: **W150-10**
Lab ID: 2626860010
Sampling Location: HVAC Return Vent
Collected: 08/28/2026
Received: 09/25/2026

Method: NIOSH 9111 Mod.
Dilution: 1
Media: Wipe
Sampling Parameter: Area 100 cm²
Instrument: LCMS07
Analyzed: 09/28/2026 (343144)

Analyte	Result (ug/sample)	Result (ug/100cm²)	RL (ug/sample)
Methamphetamine	**17**	**17**	0.10

Report Authorization (/S/ is an electronic signature that complies with 21 CFR Part 11)

Method (Analysis Batch)	Analyst	Peer Review
NIOSH 9111 Mod. (343144)	/S/ Gabriela Garcia 09/29/2026 14:56	/S/ Carlo Vos 09/29/2026 15:49

Laboratory Contact Information

ALS Environmental
960 W Levoy Drive
Salt Lake City, Utah 84123

Phone: (801) 266-7700
Email: alslt.lab@ALSGlobal.com
Web: www.alsglobal.com/slt

General Lab Comments

The results provided in this report relate only to the items tested.
Samples were received in acceptable condition unless otherwise noted.
The following was provided by the client: Sample ID, Collection Date, Sampling Location, Media Type, Sampling Parameter.
Collection Date, Media Type, and Sampling Parameter can potentially affect the validity of the results.
Samples have not been blank corrected unless otherwise noted.
This test report shall not be reproduced, except in full, without written approval of ALS.

ALS provides professional analytical services for all samples submitted. ALS is not in a position to interpret the data and assumes no responsibility for the quality of the samples submitted.

All quality control samples processed with the samples in this report yielded acceptable results unless otherwise noted.

ALS is accredited for specific fields of testing (scopes) in the following testing sectors. The quality system implemented at ALS conforms to accreditation requirements and is applied to all analytical testing performed by ALS. The following table lists testing sector, accreditation body, accreditation number and website. Please contact these accrediting bodies or your ALS project manager for the current scope of accreditation that applies to your analytical testing.

Testing Sector	Accreditation Body (Standard)	Certificate Number	Website
Industrial Hygiene	AIHA LAP (ISO 17025 & AIHA LAP IHLAP)	101574	http://www.aihaaccreditedlabs.org
	DOECAP-AP	L26-3	http://www.pjlabs.com
	Washington	C596	https://ecology.wa.gov/Regulations-Permits/Permits-certifications/Laboratory-Accreditation

ANALYTICAL REPORT

Workorder: **34-2626860**
Client Project ID: Tahlequah, OK
Purchase Order: 916550
Project Manager: Meredith Edwards

Definitions

LOD = Limit of Detection
MDL = Method Detection Limit, A statistical estimate of method/media/instrument sensitivity.
LOQ = Limit of Quantitation = RL = Reporting Limit, A verified value of method/media/instrument sensitivity.
ND = Not Detected, Testing result not detected above the LOD or LOQ.
NA = Not Applicable.
** No result could be reported, see sample comments for details.
< Means this testing result is less than the numerical value.
( ) This testing result is between the LOD and LOQ and has higher analytical uncertainty than values at or above the LOQ.

2626860

ANALYTICAL REQUEST FORM

2626860

1. ☑ REGULAR Status

☐ RUSH Status Requested - ADDITIONAL CHARGE
RESULTS REQUIRED BY _____
DATE
CONTACT ALS SALT LAKE PRIOR TO SENDING SAMPLES

2. Date 08/28/2026 Purchase Order No. 916550

3. Company Name Housing Authority of the Cherokee Nation
Address 1500 Hensley Dr.
Tahlequah, OK 74464
Person to Contact Timothy Miller
Telephone ( ) 918-570-9545
Fax Telephone ( )
E-mail Address timothy.miller@hacn.org
Billing Address (if different from above)

4. Quote No.
ALS Project Manager

5. Sample Collection
Sampling Site Tahlequah, OK
Industrial Process
Date of Collection 08/28/2026
Time Collected
Date of Shipment 08/28/2026
Chain of Custody No.

6. How did you first learn about ALS?

7. REQUEST FOR ANALYSES

Client Sample Number	Matrix*	Sample/Area Volume	ANALYSES REQUESTED - Use method number if known	Units**	Lab Comments
W150-01	Wipe	400 cm²	Meth		
W150-02	Wipe	400 cm²	Meth		
W150-03	Wipe	400 cm²	Meth		
W150-04	Wipe	400 cm²	Meth		
W150-05	Wipe	400 cm²	Meth		
W150-06	Wipe	100 cm²	Meth		
W150-07	Wipe	100 cm²	Meth		
W150-08	Wipe	100 cm²	Meth		
W150-09	Wipe	100 cm²	Meth		
W150-10	Wipe	100 cm²	Meth		

* Specify: Solid sorbent tube, e.g. Charcoal; Filter type; Impinger solution; Bulk sample; Blood; Urine; Tissue; Soil; Water; Other

** 1. µg/sample 2. mg/m³ 3. ppm 4. % 5. µg/m³ 6. _____ (other) Please indicate one or more units in the column entitled Units**

Comments Initial Test, Bldg150 Apt 2, Wheeler Circle, Ross Swimmer Addition, Tahlequah, OK TM/JS

Possible Contamination and/or Chemical Hazards

7. Chain of Custody (Optional)

Relinquished by	Timothy Miller	Date/Time	08/28/2026 10:00 AM
Received by		Date/Time	08-25-26 1640
Relinquished by		Date/Time	
Received by		Date/Time	

960 West LeVoy Drive / Salt Lake City, UT 84123 800-356-9135 or 801-266-7700 / FAX: 801-268-9992
ALS Environmental

Meth Assessment Form

Sample Number	Location Notes/Composite or Discrete Sample	Time/Picture Number
W150-01	Living Room Walls	
W150-02	Bedroom 1 Walls	
W150-03	Bedroom 2 Walls	
W150-04	Kitchen Walls	
W150-05	Bathroom Walls	
W150-06	Bedroom 1 Floor	
W150-07	Bathroom Floor	
W150-08	Bedroom 2 Ceiling Vent	
W150-09	Living Room Ceiling Vent	
W150-10	HVAC Return Vent	

NOTES: Initial Test, Ross Swimmer Addition, TM/JS

Address: Bldg 150 Apt 2, Wheeler Circle, Tahlequah, OK Lat/Long: 35.89930, -94.97844