

# Cherokee Nation Environmental Programs (CNEP)

## Air Sensor Collocation Shelter Available for Use



*Figure 1. CNEP Stilwell CASTNET/NCORE site.*



*Figure 2. Aerial view of site location.*

The CNEP Clean Air Program has installed an air sensor collocation shelter at the Stilwell air monitoring site (Figure 1). The site is located across the street from Dahlongegah Public Schools, which is approximately eight miles south of Stilwell, OK on E 878 Road in the Cherry Tree community. The site is behind the sports complex and is visible from the road, but is within a locked gate and is not accessible to the public (Figure 2). The shelter was donated to CNEP as part of the EPA air sensor collocation shelter project, which hopes to promote air sensor projects that incorporate air sensor collocation with regulatory monitors, as well as use by citizen, student, and tribal scientists. The shelter protects sensors from the elements while still allowing airflow. The collocation shelter is placed on pavers at ground level in the north-east corner of the site (Figure 3).



*Figure 3. Collocation shelter with door open.*



## USER ACCESS:

Interested parties should contact CNEP (see information below). There are no specific restrictions in place on who can use the shelter, however priority will be given to community groups, educators, and students interested in testing their sensors. Access to the site by users of the collocation shelter must be coordinated with CNEP staff.

Only CNEP employees will have the key to open the shelter. Agencies, groups, and individuals will be required to label their sensors with their name and contact information (e.g., business card).

Sensors can remain in the shelter for as long as the users like if there is enough space for the equipment at the site. If space becomes an issue, we may set time limits per user. Weatherproof sensors may be collocated outside the shelter.

## AMENITIES AT THE SITE:

We will provide a power strip inside the collocation shelter for users to plug in their sensors. We do not have public Wi-Fi, but shelter users are welcome to provide their own Wi-Fi hotspots.

## POLLUTANTS MONITORED:

Pollutants currently monitored are listed in Table 1; some data is uploaded hourly to AirNow Tech (AQS ID: 40-001-9009). We will work to provide higher time resolution data and pollutants not sent to AirNow Tech via email to users who request it.

<b>Stilwell</b> AQS ID 40-001-9009 35.750735, -94.669697	<b>Parameters</b>
Rural Ncore site, CASTNET (CHE 185), IMPROVE (STIL1), MDN (wet deposition and litterfall, OK99), AMoN (OK99)	NCore (continuous monitoring of trace level SO <sub>2</sub> , CO, and NO <sub>y</sub> ; continuous monitoring of PM <sub>2.5</sub> & PM <sub>10</sub> via Teledyne T640x)
	CASTNET program (continuous monitoring of O <sub>3</sub> ; dry deposition sampling for aerosol sulfate, nitrate, and ammonium; dry deposition sampling for gaseous SO <sub>2</sub> and nitric acid)
	IMPROVE (speciated PM components affecting visibility, including PM <sub>2.5</sub> , PM <sub>10</sub> , Na, Mn, Fe, Pb, carbon, nitrate, nitrite, chloride, sulfate)
	Passive sampling of NH <sub>3</sub> (AMoN network)
	Meteorological parameters (wind speed, wind direction, temperature, relative humidity, precipitation, solar radiation) via CASTNET instruments

## CONTACT INFORMATION:

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More information on air sensors can be found at <https://www.epa.gov/air-sensor-toolbox>.

More information about the CNEP Clean Air Program can be found at

<https://www.itecmembers.org/programs/clean-air-program/>.

