Panoramic view of the CASTNET site at Palo Duro, Texas (PAL190)

2024 CASTNET Annual Network Plan

Clean Air & Power Division

Office of Atmospheric Protection

US Environmental Protection Agency

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1. Network Overview

The Clean Air Status and Trends Network (CASTNET) is a long-term multipollutant monitoring network designed to report trends in regional air quality including ozone (O_3), oxidized and reduced forms of nitrogen, and sulfur. CASTNET fills an important role in the National Air Monitoring program by providing data in rural, disadvantaged communities that are often not monitored by the State and Local Air Monitoring Sites (SLAMS). CASTNET data are used to assess regional pollutant transport, validate and evaluate chemical transport models (e.g., CMAQ), and inform NAAQS reviews that consider human health and environmental impacts due to air pollution. CASTNET is managed collaboratively by the US Environmental Protection Agency – Clean Air and Power Division (EPA), the National Park Service – Air Resources Division (NPS), and the Bureau of Land Management – Wyoming State Office (BLM-WSO). In addition to EPA, NPS, and BLM-WSO, numerous other participants provide network support including tribes and other federal agencies, states, private landowners, and universities. The EPA contractor, WSP USA (WSP), operates the EPA-sponsored sites while the NPS and BLM-WSO contractor, Air Resource Specialists, Inc. (ARS), operates the remaining sites. A table detailing the management structure of CASTNET operations is provided in Figure 1. A summary of the entire CASTNET monitoring program is available online.[1]

US Government	US Government Contractors

EPA – Clean Air & Power Division
• **Project Officer**
• **QA Manager**
• **Technical Monitors**
• **Administrative Contracting Officer**
• **Contract Property Coordinator**
	WSP
	• **Project Manager**
	  ○ Field Operations Manager
	  ○ Laboratory Operations Manager
	  ○ Data Management, Analysis, Interpretation, and Reporting Manager
	  ○ Property Control Manager
	• **QA Supervisor**
	  ○ QA Manager

NPS – Air Resources Division
• **Contracting Officer's Representative (COR)**
• **QA Coordinator**
	ARS
	• **Program Manager**
	  ○ Network Operations Manager
	  ○ Data Management Manager
	• **QA Officer**

BLM – Wyoming State Office • **Program Manager**	

Figure 1. CASTNET Project Organization

Eighty-three CASTNET sites measure weekly concentrations of sulfur dioxide (SO_2), sulfate (SO_4^{2-}), nitrate (NO_3^-), nitric acid (HNO_3), ammonium (NH_4^+), chloride (Cl^-) and base cations using a 3-stage filter pack (see Figure 2). Each site also reports hourly 9-meter temperature data to calculate local condition flow volumes. Eighty CASTNET sites collect ambient O_3 concentrations, reported as hourly averages, using a dual cell, ultraviolet photometric analyzer. Seventy-nine of the eighty CASTNET O_3 monitoring analyzers meet the ambient monitoring and quality assurance requirements of Title 40, Code of Federal Regulations (CFR) Part 58 Appendices A, C, D and E. The ozone analyzer at Duke Forest, NC (DUK008) does not meet the siting criteria requirements from Appendix E of Part 58 because it has an inlet above the forest canopy at a height of 48 meters. Monitoring objectives, site types, detailed siting criteria, and other relevant parameters for each monitoring site may be found in Appendix A of this plan.

In addition to weekly filter pack and hourly temperature and O_3 measurements, thirty-nine CASTNET sites report other hourly meteorological parameters. CASTNET also measures trace-level NO/NOy, SO_2, and CO at select sites. CASTNET O_3 and trace-level gas monitors report hourly measurements throughout the entire year. Ozone analyzers are challenged nightly with known

[1] CASTNET monitoring program https://www3.epa.gov/castnet/docs/CASTNET-Factsheet-2021.pdf

concentrations delivered from the on-site transfer standard and trace gas analyzers are challenged every other night for fast-response troubleshooting.

To monitor consistency between the agencies, EPA operates a co-located site (ROM206) at the NPS CASTNET site located in Rocky Mountain National Park, Colorado (ROM406). Also, EPA operates a pair of co-located O_3 monitors (MCK131 and MCK231) in Mackville, KY with the co-located site identified as MCK231. Data from ROM206 and MCK231 are routinely analyzed to assess precision of the measurements and to identify biases that may arise. The CASTNET quality assurance (QA) program is independent of the program management. The QA program routinely assesses compliance with the CASTNET Quality Assurance Project Plan (QAPP)[2] through internal monitoring, including audits and on-site system checks. Additionally, network QA is assessed through an independent audit program managed by EPA. Annual Performance Evaluation (PE) audits at most CASTNET sites are performed by Environmental Engineering & Measurement Services, Inc. (EE&MS). The remaining sites not audited by EE&MS receive PE audits by state, local, or tribal agencies to fulfill the annual PE audit requirement. EE&MS also assesses compliance with the CASTNET QAPP through a Field Systems Audit (FSA) at every CASTNET site every other year following protocols listed in the EPA QA Handbook.[3] The FSA is a complementary component to the facility technical systems audit (TSA) performed by another independent auditor at both the EPA and NPS/BLM-WSO contractors' operations centers every third year.

The EPA uses CASTNET O_3 and trace-level gas data to calculate design values for all sites where data completeness requirements are met. The CASTNET program follows QA/QC procedures and schedules to meet the regulatory requirements detailed in Appendix B of this plan. This document includes an overview of the CASTNET regulatory O_3 and trace-level gas monitoring program, a description of the internal and external QA programs, any planned changes to the network, and a description of each monitoring site. The procedures in this Network Plan originate from the requirements found in 40 CFR Part 58.10, but are adapted to a federally operated national monitoring network.

[2] CASTNET Quality Assurance Project Plan v9.5
https://www3.epa.gov/castnet/docs/CASTNET_QAPP_v9-5_Main_Body.pdf

[3] Quality Assurance Handbook for Air Pollution Measurement Systems Volume II, January 2017
https://www3.epa.gov/ttn/amtic/files/ambient/pm25/qa/Final%20Handbook%20Document%201_17.pdf

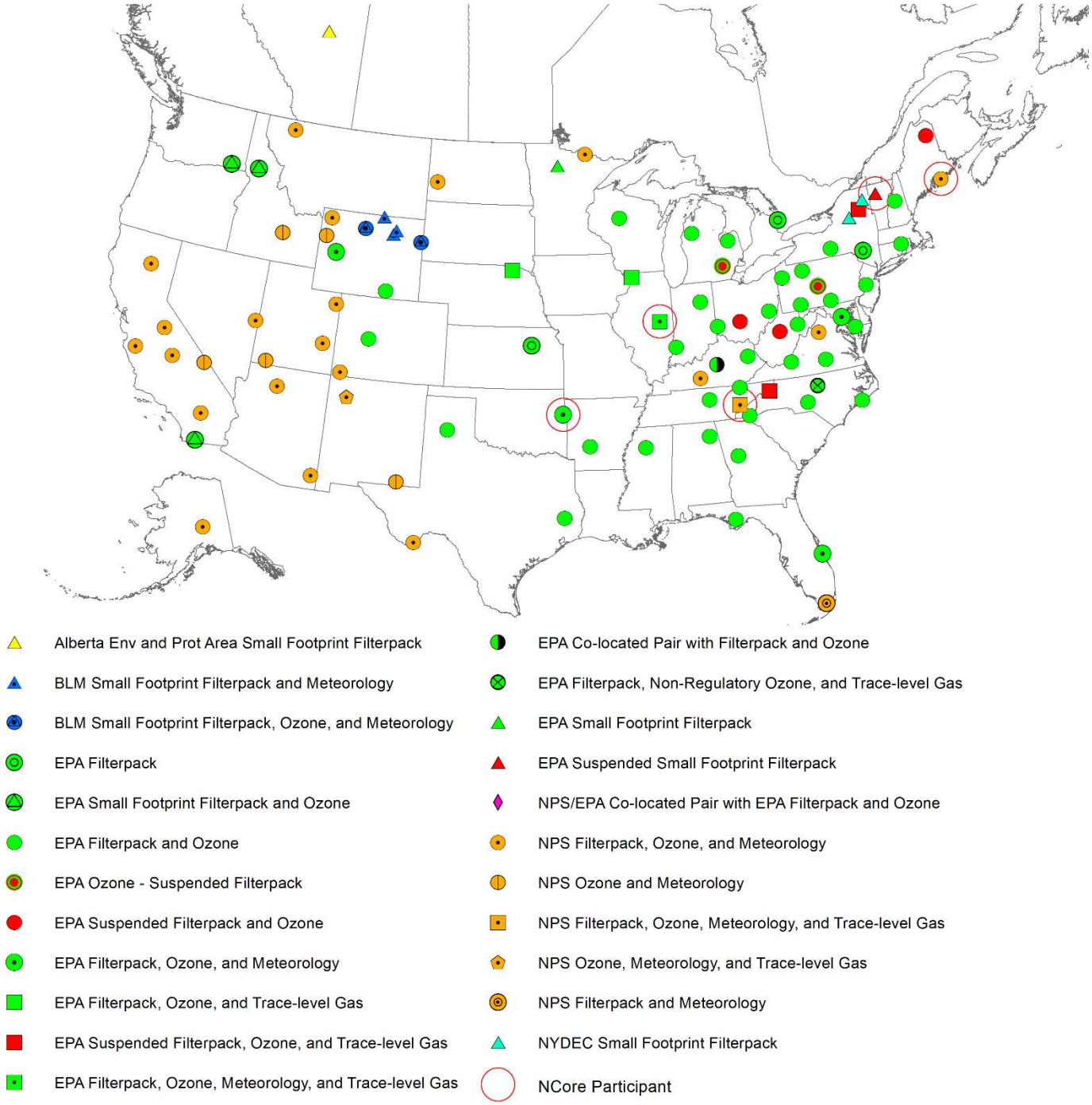

Figure 2. Active and Suspended CASTNET sites in 2024 Green shapes represent EPA-sponsored sites. Red shapes indicate EPA-sponsored sites that suspended some or all monitoring activities in May 2022 due to budget constraints. Orange shapes represent NPS-sponsored sites. The purple diamond represents a co-located pair of NPS-sponsored ozone and filterpack monitoring and EPA-sponsored ozone, filterpack, and trace-level gas monitoring. Blue shapes represent BLM-Wyoming State Office-sponsored sites. National Core network (NCore) sites are identified with a large red circle. Yellow shapes indicate the site sponsored by Alberta Environment and Protected Areas. Teal shapes represent sites that are sponsored by New York Department of Conservation. For a list of which sites are in each category see Appendix J of this plan. A list of EPA-sponsored sites with suspended monitoring is included in Appendix K of this plan.

2. Ozone and Trace-level Gas Data

CASTNET monitors measure ambient O_3 concentrations for the entire year, which extends beyond the required O_3 season for many states. CASTNET submits ambient concentrations in near real time to AIRNow[4] and reports hourly data and nightly QC results to the CASTNET website daily.[5] NPS also displays O_3 and meteorological data on the Gaseous Pollutant and Meteorological Data website[6] and the BLM-WSO distributes O_3 data through the Wyoming Air Resource Monitoring System (WARMS) website.[7] WSP and ARS submit O_3 and trace-level gas concentrations to EPA's Air Quality System (AQS) database on a monthly basis and daily 1-point precision results on a quarterly basis for sites where EPA, NPS, or BLM-WSO is the primary quality assurance organization. EPA submits O_3 data from two co-located monitors (ROM206 and MCK231) to AQS, but these data are identified as 'NAAQS Excluded' because these data are solely used for QA purposes and are not used to calculate design values.

CASTNET also measures ambient trace-level gas concentrations including SO_2 and CO at Bondville, IL as required by the NCore program for the entire year. CASTNET reports ambient trace-level gas concentrations to the CASTNET website daily. WSP and ARS submit the hourly and 5-minute (SO_2 only) trace-level gas concentrations to the AQS database on a monthly basis and daily 1-point precision check results on a quarterly basis. The trace-level gas measurements reported by EPA are certified for comparison against the respective NAAQS, while NPS does not certify their trace-level gas measurements.

CASTNET uses the measurement quality objectives and criteria gas validation templates described in the EPA QA Handbook Validation Template[8] (reproduced in Appendix B of this plan) to ensure that the highest quality data are being submitted to the AQS. These tables describe operational and systematic criteria for O_3 and trace-level gas data validation, including requirements for frequency of measurements or audits, calibration schedules, and acceptance criteria for QC checks. One-minute data collected for ambient O_3 and trace-level gas measurements are used for data validation purposes and are stored indefinitely.

In addition to the QC checks required for meeting the measurement quality objectives and validation templates, semi-annual (O_3) and quarterly (SO_2 and CO) system checks are performed at each CASTNET site. Using National Institute of Standards and Technology (NIST) terminology, we define levels as degrees of separation from a NIST standard reference photometer (Level 1). During these checks, a field operations technician challenges the on-site analyzer and re-verifies the on-site transfer standard, calibrates the on-site analyzer to the traveling transfer standard (Level 2) as needed, and verifies the data logger and the shelter temperature probe using NIST-traceable standards. All on-site O_3 transfer standards at CASTNET sites are NIST-traceable at Level 3. A flow chart diagram of the data certification process for the EPA contractor, WSP, is illustrated in Appendix D of this plan.

Following guidance in 40 CFR Part 58.15, CASTNET federal managers from EPA, NPS, and BLM-WSO submit their annual data certification letter, including the AQS Data Certification Report (AMP600), to the EPA Office of Air Quality Planning and Standards (OAQPS) and applicable EPA Regional Offices by May 1 of each year. Consistent with 40 CFR Part 58.10 (a)(1), each analyzer included in Appendix G of this plan meets the siting and operational criteria required in appendices A, C, D, and E of 40 CFR Part 58 as identified for each year, except DUK008, as noted.

3. Exceptional Events

Exceptional events are unusual or naturally occurring events that can affect air quality, but are not reasonably controllable using techniques that state, local, or tribal (S/L/T) air agencies may implement in order to attain and maintain the National Ambient Air Quality Standards. Exceptional events include wildfires, stratospheric ozone intrusions, and volcanic and seismic activities.

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[4] AIRNow https://www.airnow.gov

[5] CASTNET website https://www.epa.gov/castnet/

[6] NPS Gaseous Pollutant and Meteorological Data website http://ard-request.air-resource.com/

[7] BLM-WSO WARMS website http://www.blmwarms.net/

[8] EPA QA Handbook Appendix D Validation Templates, March 2017 https://www3.epa.gov/ttn/amtic/files/ambient/pm25/qa/APP_D%20validation%20template%20version%2003_2017_for%20AMTIC%20Rev_1.pdf

Following guidance in 40 CFR Part 50.14(a)(1), a state may request that EPA exclude data that exceed the NAAQS and may have been impacted by an exceptional event. As noted in the preamble to the 2016 Exceptional Events Rule (81 FR 68216, 10/3/2016),[9] "as the single actor responsible for administering air quality planning and management activities within its jurisdictional boundaries, the state, exclusive of tribal lands, is ultimately responsible for submitting exceptional event demonstrations for exceedances that occur at all regulatory monitoring sites within the boundary of the state."

CASTNET federal partners will work with S/L/T air agencies to include a flag in AQS for ambient data potentially influenced by an exceptional event, as requested by a S/L/T air agency that has jurisdiction over the area where a CASTNET site is located, and assist in preparing a demonstration (i.e., providing relevant information) if requested. The initial data flag is denoted as informational-use only and flagged data will continue to be used for NAAQS attainment purposes until the EPA Regional Administrator provides approval for an exceptional event demonstration.

State agencies will be responsible for working with the EPA region to submit exceptional event demonstrations, which may include data from CASTNET sites. CASTNET managers do not have the authorization to determine the sufficiency of an exceptional event demonstration or whether CASTNET monitoring data should be excluded from the NAAQS calculation. S/L/T agencies should follow the regulations described in the revision to 40 CFR Parts 50 and 51, Treatment of Data Influenced by Exceptional Events (81 FR 68216, 10/3/2016), to prepare and submit exceptional event demonstrations.

To request that CASTNET managers apply initial data flags to CASTNET O_3 data potentially impacted by an exceptional event, a S/L/T agency should email the following information to Timothy Sharac (sharac.timothy@epa.gov) for EPA-sponsored sites, Barkley Sive (barkley_sive@nps.gov) for NPS-sponsored sites, or Charis Cooper (ccooper@blm.gov) for BLM-sponsored sites:

- date/time range of incident,
- type of exceptional event, and
- CASTNET site(s)

Initial data flags will be applied within 30 days after CASTNET managers receive a request from a S/L/T agency. Exceptional event types and their associated AQS qualifier codes are listed on the AQS Code List webpage.[10]

4. Network Audit Requirements

The network audit requirements for 40 CFR Part 58 compliance are summarized in Appendix B of this plan. CASTNET managers include the PE and FSA schedules with each Annual Network Plan to ensure EPA Regional Offices have the opportunity to make travel arrangements if they choose to attend the audit. The EPA Regional Office contacts are listed in Appendix E of this plan.

5. Quality Control Checks

Automated zero/precision/span (ZPS) quality control checks are performed nightly on all CASTNET ozone analyzers as shown in Table 1. EPA-sponsored ozone analyzers also receive additional weekly QC checks at 30, 90, and 150 ppb on Sundays to verify analyzer accuracy spanning typical ambient ozone concentrations. Additional checks may be initiated remotely to troubleshoot potential issues that may arise. The criteria for the automated ZPS QC checks are included in Appendix B of this plan. Zero, precision, and span QC results are posted to the CASTNET website daily for EPA-sponsored CASTNET sites.

[9] Federal Register Volume 81, No. 191 October 3, 2016
https://www.epa.gov/sites/production/files/2016-09/documents/exceptional_events_rule_revisions_2060-as02_final.pdf

[10] AQS Code List webpage https://www.epa.gov/aqs/aqs-code-list

Table 1 Quality Control Checks

	Frequency	O_3 (ppb)	SO_2 (ppb)	CO (ppb)
Zero	Daily	0	0*	0*
Precision	Daily	60	25*	500*
Span	Daily	225**	90*	1800*
Additional point #1	Weekly	30***	5***	80***
Additional point #2	Weekly	90***	40***	300***
Additional point #3	Weekly	150***	60***	800***

Table 1 Notes: *SO_2 and CO checks are performed every other night
**NPS and BLM-WSO perform O_3 span checks at 200 ppb
***EPA-sponsored CASTNET sites

6. Performance Evaluations (PE)

In accordance with EPA's QA Handbook and 40 CFR Parts 53 and 58, an independent auditor performs an annual PE audit and submits these results to AQS on a quarterly basis. Verification of the O_3 and trace-level gas analyzers during the field systems audit (FSA) requires that the zero/span be within ±2% of the full scale of the best fit linear line. The auditor selects target concentration values among the ten audit levels, as described in Appendix A to 40 CFR Part 58.[11] The evaluation is made by challenging the analyzer with audit gas standards of known concentration from a minimum of three audit levels that represent routine concentrations at the monitoring site (see Table 2 for acceptable audit ranges). Results for audit levels 1 and 2 must be less than ±1.5 ppb or less than ±15.1%, whichever is less restrictive, to meet the acceptance criteria for O_3, SO_2, and NO_2, while levels 1 and 2 must be less than ±0.031 ppm or less than ±15.1%, whichever is less restrictive, to meet the acceptance criteria for CO. Results from levels 3-10 must be less than ±15.1% to meet the acceptance criteria.

Table 2 Audit Levels for Performance Evaluations [11]

Audit Level	O_3 Concentration Range, ppm	SO_2 Concentration Range, ppm	NO_2 Concentration Range, ppm	O_3, SO_2, and NO_2 Acceptance Criteria	CO Concentration Range, ppm	CO Acceptance Criteria
1	0.004 – 0.0059	**0.003 – 0.0029**	**0.003 – 0.0029**	< ±1.5 ppb or < ±15.1%, whichever is greater	0.020 – 0.059	<±0.031 ppm or <±15.1%, whichever is greater
2	**0.006 – 0.019**	**0.0030 – 0.0049**	**0.0030 – 0.0049**	<±1.5 ppb or <±15.1%, whichever is greater	**0.060 – 0.199**	<±0.031 ppm or <±15.1%, whichever is greater
3	**0.020 – 0.039**	0.0050 – 0.0079	0.0050 – 0.0079	<±15.1%	**0.200 – 0.899**	<±15.1%
4	**0.040 – 0.069**	**0.0080 – 0.0199**	**0.0080 – 0.0199**	<±15.1%	**0.900 – 2.999**	<±15.1%
5	0.070 – 0.089	**0.0200 – 0.0499**	**0.0200 – 0.0499**	<±15.1%	**3.000 – 7.999**	<±15.1%
6	**0.090 – 0.119**	0.0500 – 0.0999	0.0500 – 0.0999	<±15.1%	8.000 – 15.999	<±15.1%
7	0.120 – 0.139	0.1000 – 0.1499	0.1000 – 0.2999	<±15.1%	16.000 – 30.999	<±15.1%
8	0.140 – 0.169	0.1500 – 0.2599	0.3000 – 0.4999	<±15.1%	31.000 – 39.999	<±15.1%
9	0.170 – 0.189	0.2600 – 0.7999	0.5000 – 0.7999	<±15.1%	40.000 – 49.999	<±15.1%
10	0.190 - 0.259	0.8000 – 1.000	0.8000 – 1.000	<±15.1%	50.000 – 60.000	<±15.1%

Table 2 Note: 40 CFR Part 58 Appendix A – Quality Assurance Requirements for Monitors used in Evaluations of National Ambient Air Quality Standards.[11] The target audit levels used for PE audits for CASTNET O_3, SO_2, and CO measurements are highlighted in bold font.

The proposed PE and FSA audit schedule for CASTNET sites is shown in Table 3 below. The independent auditor uses equipment that is NIST-certified (verified twice per year) to audit CASTNET monitoring equipment. The independent auditor performs a PE audit at each site annually and performs an FSA which includes an audit of flow, meteorological sensors, and related parameters every other year. States may perform a PE audit if they coordinate with the sponsoring agency, site supervisor, and independent auditor as explained in the third-party CASTNET audit document.[12]

[11] 40 CFR Part 58 Appendix A – Quality Assurance Requirements for Monitors used in Evaluations of National Ambient Air Quality Standards. https://www.ecfr.gov/cgi-bin/retrieveECFR?n=40y6.0.1.1.6
[12] CASTNET third-party audit document https://www.epa.gov/sites/production/files/2015-07/documents/third_party_audits.pdf

Table 3 Proposed PE and FSA Schedule

EPA Rgn	State	AQS ID	POC	SITE ID	Site Name	Audit Type Even Years	Audit Month Even Years	Audit Type Odd Years	Audit Month Odd Years
1	CT	090159991	1	ABT147	Abington	FSA + PE	October	PE	September
1	NH	330099991	1	WST109	Grafton	FSA + PE	October	PE	September
1	ME	230090103	1	ACA416	Acadia NP	FSA + PE	October	Performed by ME-DEP	September
2	NJ	340219991	1	WSP144	Wash. Crossing	PE	October	FSA + PE	October
2	NY	361099991	1	CTH110	Connecticut Hill	FSA + PE	September	PE	November
3	MD	240339991	1	BEL116	Beltsville	FSA + PE	November	PE	October
3	MD	240199991	1	BWR139	Blackwater NWR	PE	November	FSA + PE	October
3	PA	420019991	1	ARE128	Arendtsville	FSA + PE	November	PE	October
3	PA	420479991	1	KEF112	Kane Exp. Forest	FSA + PE	October	PE	November
3	PA	421119991	1	LRL117	Laurel Hill	PE	October	FSA + PE	November
3	PA	420859991	1	MKG113	M.K. Goddard	FSA + PE	October	PE	November
3	PA	420279991	1	PSU106	Penn State	FSA + PE	November	PE	October
3	WV	540939991	1	PAR107	Parsons	PE	October	FSA + PE	November
3	VA	511479991	1	PED108	Prince Edward	PE	September	FSA + PE	September
3	VA	510719991	1	VPI120	Blue Grass Trail	PE	September	FSA + PE	September
3	VA	511130003	1	SHN418	Shenandoah NP - Big Meadows	PE	November	FSA + PE	November
4	AL	010499991	1	SND152	Sand Mountain	FSA + PE	February	PE	February
4	FL	120619991	1	IRL141	Indian River Lagoon	FSA	February	PE	February
4	FL	120779991	1	SUM156	Sumatra	FSA	February	PE	February
4	GA	132319991	1	GAS153	Georgia Station	FSA	February	PE	February
4	KY	211759991	1	CKT136	Crockett	PE	April	FSA + PE	March
4	KY	212299991	1	MCK131	Mackville	PE	March	FSA + PE	March
4	KY	212299991	2	MCK231	Mackville Co-located	PE	March	FSA + PE	March
4	KY	210610501	1	MAC426	Mammoth Cave NP	PE	March	FSA + PE	March
4	MS	281619991	1	CVL151	Coffeeville	PE	March	FSA + PE	February
4	NC	370319991	1	BFT142	Beaufort	PE	November	FSA + PE	October
4	NC	371239991	1	CND125	Candor	PE	November	FSA + PE	October
4	NC	371139991	1	COW137	Coweeta	FSA + PE	March	PE	March
4	NC	N/A	N/A	DUK008	Duke Forest	PE	November	FSA + PE	October
4	TN	470419991	1	ESP127	Edgar Evins	FSA + PE	April	PE	April
4	TN	470259991	1	SPD111	Speedwell	FSA + PE	March	PE	April
4	TN	470090101	1	GRS420	Great Smoky NP - Look Rock	PE	October	FSA + PE	September
5	IL	170191001	1	BVL130	Bondville	PE	August	FSA + PE	August
5	IL	170859991	1	STK138	Stockton	PE	June	FSA + PE	August
5	IN	181699991	1	SAL133	Salamonie Reservoir	FSA + PE	August	PE	August
5	IN	180839991	1	VIN140	Vincennes	PE	June	FSA + PE	August
5	MI	261619991	1	ANA115	Ann Arbor	FSA + PE	August	PE	August

5	MI	261659991	1	HOX148	Hoxeyville	FSA + PE	August	PE	August
5	MI	261579991	1	UVL124	Unionville	FSA + PE	August	PE	August
5	MN	271370034	1	VOY413	Voyageurs NP	PE	August	FSA + PE	August
5	OH	390179991	1	OXF122	Oxford	PE	April	FSA + PE	April
5	OH	391219991	1	QAK172	Quaker City	PE	April	FSA + PE	April
5	WI	551199991	1	PRK134	Perkinstown	PE	August	FSA + PE	August
6	AR	050199991	1	CAD150	Caddo Valley	PE	February	FSA + PE	February
6	OK	400019009	1	CHE185	Cherokee Nation	PE	February	FSA + PE	March
6	NM	350450020	1	CHC432	Chaco NM	PE	April	FSA + PE	April
6	NM	350150010	1	CAV436	Carlsbad Caverns	PE	April	FSA + PE	April
6	TX	483739991	1	ALC188	Alabama-Coushatta	PE	March	FSA + PE	February
6	TX	480430101	1	BBE401	Big Bend NP	PE	March	FSA + PE	March
6	TX	483819991	1	PAL190	Palo Duro	PE	February	FSA + PE	March
7	NE	311079992	1	SAN192	Santee Sioux	PE	July	FSA + PE	June
8	CO	080519991	1	GTH161	Gothic	PE	June	FSA + PE	June
8	CO	080830101	1	MEV405	Mesa Verde NP	FSA + PE	April	PE	April
8	CO	080690007	1	ROM406	Rocky Mtn NP Primary	PE	June	FSA + PE	June
8	CO	080690007	3	ROM206	Rocky Mtn NP QA Co-located	PE	June	FSA + PE	June
8	MT	300298001	1	GLR468	Glacier NP	FSA + PE	June	PE	June
8	ND	380070002	1	THR422	Theodore Roosevelt NP	Performed by ND-DEQ	September	FSA + PE	July
8	UT	490370101	1	CAN407	Canyonlands NP	FSA + PE	April	PE	April
8	UT	490471002	1	DIN431	Dinosaur NM	FSA + PE	July	PE	July
8	UT	490530130	1	ZIO433	Zion NP	PE	April	FSA + PE	April
8	WY	560030002	1	BAS601	Basin	PE	June	FSA + PE	June
8	WY	560019991	1	CNT169	Centennial	PE	June	FSA + PE	June
8	WY	560450003	1	NEC602	Newcastle	PE	June	FSA + PE	June
8	WY	560359991	1	PND165	Pinedale	PE	August	FSA + PE	June
8	WY	560390008	1	GRT434	Grand Teton NP	FSA + PE	August	PE	May
8	WY	560391011	1	YEL408	Yellowstone NP	PE	August	FSA + PE	May
9	AZ	040038001	1	CHA467	Chiricahua NM	FSA + PE	April	PE	April
9	AZ	040058001	1	GRC474	Grand Canyon NP	FSA + PE	April	PE	April
9	CA	060270101	1	DEV412	Death Valley NP	FSA + PE	April	PE	April
9	CA	060719002	1	JOT403	Joshua Tree NP	FSA + PE	May	PE	April
9	CA	060739991	1	LPO010	La Posta Tribal	PE	September	FSA + PE	September
9	CA	060893003	1	LAV410	Lassen Volcanic NP	PE	May	FSA + PE	May
9	CA	060690003	1	PIN414	Pinnacles NM	PE	May	FSA + PE	April
9	CA	061070009	1	SEK430	Sequoia NP - Ash Mountain	PE	May	FSA + PE	May
9	CA	060430003	1	YOS404	Yosemite NP - Turtleback Dome	PE	May	FSA + PE	May
9	NV	320330101	1	GRB411	Great Basin NP	FSA + PE	May	PE	April
10	AK	020680003	1	DEN417	Denali NP	FSA + PE	July	PE	June

10	ID	160499991	1	NPT006	Nez Perce	FSA + PE	October	PE	October
10	ID	160230101	1	CRM435	Craters of the Moon NP	FSA + PE	October	PE	October
10	WA	530139991	1	UMA009	Umatilla	FSA + PE	August	PE	August

Table 3 Note: See Appendix H of this plan for CBSA codes for CASTNET sites where they are available

7. Field Systems Audit (FSA)

An independent auditor performs a field systems audit (FSA) every other year at each CASTNET site to complement the requirements of a technical systems audit (TSA) which is required every three years to ensure network-wide consistency among all sites within CASTNET. The purpose of an FSA is to provide an independent assessment of the siting criteria, performance of monitoring equipment, and the proficiency of the site operator. The auditor verifies that filter pack flow, the O_3 analyzer, shelter temperature, and the meteorological sensors meet the acceptance criteria listed in Appendix B and the CASTNET QAPP.[13] The auditor also completes a PE audit for O_3 in addition to an FSA to verify there are no line losses within the system and documents whether the monitor configuration violates any of the CASTNET siting criteria found in the CASTNET QAPP. During an FSA, the auditor discusses any issues related to equipment, siting criteria, or operator handling with the operator and/or site supervisor. The independent auditor submits audit results to the site supervisor, site operator, site funding agency, and CASTNET contractor following the audit. A summary of audit results is available in a quarterly report and posted to CASTNET's Independent Audit Program webpage.[14]

The independent auditor sends FSA announcement letters to the agency contractor, site operator, and site sponsor describing the purpose of the site visit 2-4 weeks prior to an FSA to ensure all parties involved are prepared. The current proposed schedule is shown in Table 3.

8. National Performance Audit Program (NPAP)

The purpose of the NPAP is to assess the proficiency of the monitoring organization. As the primary sponsor for CASTNET, EPA's Clean Air and Power Division coordinates with OAQPS, EPA Regional Offices (listed in Appendix E of this plan), and the Environmental Services Assistance Team (ESAT) to fulfill the NPAP requirements for all CASTNET sites. Each monitoring organization's network is required to complete NPAP audits, with a goal of 20% of the sites each year or 100% within 6 years. Through-the-probe audits are performed during an NPAP audit using a zero air generator to supply the carrier gas to an O_3 generator. Audit O_3 concentrations are delivered to the through-the-probe dual glass manifold connected to the monitor's inlet probe while venting excess flow to the atmosphere. The O_3 generator is referenced back to a Level 2 O_3 standard which is in turn referenced to a Level 1 standard reference photometer. The auditor selects 3 or 4 known target concentrations to determine the accuracy of the on-site O_3 analyzer. The O_3 NPAP audit's percent difference criterion of less than ±1.5 ppb at audit levels 1 and 2 and less than ±10.1% at audit levels 3 through 10 is more rigorous than the criteria used for the annual performance evaluations in Table 2. The NPAP auditor is responsible for submitting the audit results to AQS. NPAP audits are also performed on CO and SO_2 analyzers, when present.

9. Technical Systems Audit (TSA)

CASTNET uses an independent auditor to conduct the facilities portion of the TSA requirements at the contractor's O_3 laboratory once every three years. The purpose of the facility TSA is to provide a qualitative appraisal of the total measurement system. Site planning, organization, documentation, and operation are evaluated to ensure that good QA/QC practices are being applied throughout the monitoring program. An outline of the facility TSA is available in Appendix F. RTI International performed facility TSAs at the WSP laboratory in Newberry, FL in 2012, 2015, and 2018 and at the ARS facility in Fort Collins, CO in 2013, 2017, and

[13] CASTNET Documents webpage https://www.epa.gov/castnet/

[14] CASTNET's Independent Audit Program webpage https://www.epa.gov/castnet/independent-audit-program

2021. Results, findings, and the responses to the findings can be found on the CASTNET documents webpage[15] under "Technical Systems Audit."

10. Annual Monitoring Network Plans and Network Assessment

CASTNET staff prepare an annual CASTNET Network Plan for public review. The Network Plan focuses on the CASTNET O_3 and trace-level gas monitoring program and addresses the monitoring requirements of 40 CFR 58.10(b). EPA, NPS, and BLM-WSO consult with OAQPS and applicable EPA Regional Offices ahead of adding or discontinuing O_3 monitors in accordance with 40 CFR 58.14 and any known changes are included in this Network Plan. CASTNET staff collect additional comments by sending draft copies to the National Association of Clean Air Agencies (NACAA) and the Association of Air Pollution Control Agencies (AAPCA). A draft copy is also distributed through OAQPS' monitoring list-serve. CASTNET staff contact states directly if these states use a CASTNET monitor in place of a state operated O_3 monitor (e.g., SLAMS) to ensure their participation in the planning process. CASTNET staff submit a final version of the Network Plan and responses to any comments received on the draft Network Plan to the EPA CASTNET O_3 webpage[16] and OAQPS' Ambient Monitoring Technology Information Center (AMTIC) Network Plans webpage.[17] The schedule for these activities is outlined in Table 5. The Division Director or a designee at the EPA's Clean Air and Power Division approves this plan with input from the public by July 1. OAQPS provides comments within 120 days on any plans proposing changes to the O_3 network.

Table 4 Annual Network Plan Schedule

Date	Network Plan Steps
May 31	Distribute draft Network Plan to OAQPS, OAQPS list-serve, EPA Regional Offices, NACAA, AAPCA and post for public review on the CASTNET webpage
June 30	Deadline for public comments to draft Network Plan
June 30	CASTNET staff complete response to public comments
July 1	CASTNET staff distribute final version of Network Plan
October 31	OAQPS/Lead EPA Regional Office review Network Plan and provide approval

EPA completes a network assessment every 5 years in accordance with 40 CFR 58.10(d). CASTNET staff post the network assessment to the EPA CASTNET O_3 webpage[16] and OAQPS' AMTIC Network Plan webpage.[17] There is no public comment review and response to this document. The next assessment is due July 1, 2025.

Some states include CASTNET sites in their Network Plan to fulfill their monitoring requirement under 40 CFR Part 58 Appendix D. These states should notify the CASTNET agency sponsor that they will be using the CASTNET site in their plan so that the state may be included in any discussions related to changes at the site.

[15] CASTNET Documents webpage https://www.epa.gov/castnet/

[16] CASTNET O_3 webpage https://www.epa.gov/castnet/castnet-ozone-monitoring

[17] OAQPS' AMTIC Network Plans webpage https://www.epa.gov/amtic/state-and-local-monitoring-plans

11. Network Modification

As of July 2024, the following network modifications occurred or are planned:

- Mammoth Cave, KY (MAC426, 21-061-0501, POCs 1 and 5) discontinued sampling NOy, CO, and SO_2 on July 31, 2023.
- Woodstock, NH (WST109, 33-009-9991, POC 1) restarted ozone sampling on October 23, 2023. Filter pack sampling resumed on January 1, 2024.
- Petrified Forest (PET427, 04-017-0119, POC 1) was closed on December 31, 2023 due to the recent discovery of Native American artifacts near the monitoring shelter.
- Cadiz, KY (CDZ171, 21-221-9991, POC 1) was closed on May 10, 2024.
- At the request of the Tribe, CASTNET relocated the Santee Sioux CASTNET site (SAN189, 21-061-9991, POC 1) in May of 2024. The relocated site is adjacent to the Tribal Environmental Offices (42.746645, -97.928100), approximately 11 km from the current location. The site will obtain a new AQS (21-061-9992) and CASTNET site ID (SAN192). This site also received a trace NO/NOy analyzer in June 2024.
- Stockton, IL (STK138, 17-085-9991, POC 1) received an enhanced NOy analyzer ("Nitrotrain") in June 2024.
- Pinedale, WY (PND165, 56-035-9991, POC 1) will stop sampling NO/NOy in Summer 2024.
- Rocky Mountain National Park, CO (ROM206, 08-069-0007, POC 3) will stop sampling NO/NOy in Summer 2024.

12. Data Reporting and Certification

CASTNET staff submit applicable ambient and quality assurance data to AQS within 90 days after the end of each quarterly reporting period. CASTNET complies with the annual air monitoring certification requirements in accordance with 40 CFR 58.15-16. EPA, NPS, and BLM-WSO certify CASTNET ambient O_3, SO_2, and CO data and quality assurance results by May 1 for the prior calendar year for their respective CASTNET sites and submit the data to OAQPS for review.

Appendix A. Detailed Site Information

CASTNET O_3 and trace-level gas monitors meet the siting criteria as specified within 40 CFR Part 58 Appendices D and E. Following guidance from 40 CFR Part 58.10b, the following detailed information required for each CASTNET monitor is listed in the following pages ordered by AQS ID.

The following parameters are the same at all CASTNET sites:

- Current sampling frequency is continuous
- Sampling season is 01/01 – 12/31
- Frequency of one-point QC check is daily

Appendix A. Detailed Site Information

AQS ID	01-049-9991
CASTNET ID	SND152
Site Name	Sand Mountain
GPS Coordinates	34.289001, -85.970065
Street Address	Sand Mountain Alabama Agricultural Experiment Station, Crossville, AL 35962
County	DeKalb
Distance to Roads & ADT	170 meters; estimated < 1000 ADT
CBSA Name	Fort Payne, AL Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	250 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	12/6/2023

Appendix A. Detailed Site Information

AQS ID	02-068-0003
CASTNET ID	DEN417
Site Name	Denali NP
GPS Coordinates	63.7232, -148.9676
Street Address	Denali National Park
County	Denali
Distance to Roads & ADT	130 meters; 1897 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-JUN-87
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	78 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/11/2023

Appendix A. Detailed Site Information

AQS ID	04-003-8001
CASTNET ID	CHA467
Site Name	Chiricahua NM
GPS Coordinates	32.009405, -109.389058
Street Address	Chiricahua National Monument
County	Cochise
Distance to Roads & ADT	150 meters; 196 ADT
CBSA Name	Sierra Vista-Douglas, AZ Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Reporting Agency	National Park Service
Start Date	01-JUL-89
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	109 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/24/2023

Appendix A. Detailed Site Information

AQS ID	04-005-8001
CASTNET ID	GRC474
Site Name	Grand Canyon NP
GPS Coordinates	36.058642, -112.183575
Street Address	Grand Canyon National Park, W Rim Drive
County	Coconino
Distance to Roads & ADT	200 meters; estimated < 1000 ADT
CBSA Name	Flagstaff, AZ Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Reporting Agency	National Park Service
Start Date	01-JUL-89
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	213 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/25/2023

Appendix A. Detailed Site Information

AQS ID	04-017-0119
CASTNET ID	PET427
Site Name	Petrified Forest
GPS Coordinates	34.822508, -109.892485
Street Address	Petrified Forest NP, Near Old SW Entrance on Old Route 180
County	Navajo
Distance to Roads & ADT	2168 meters; estimated < 1000 ADT
CBSA Name	Show Low, AZ Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Reporting Agency	National Park Service
Start Date	01-OCT-02
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	224 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	Yes, site closed on January 2, 2024
Frequency for 1 Pt QC	Daily
Last PE Date	10/26/2023

Appendix A. Detailed Site Information

AQS ID	05-019-9991
CASTNET ID	CAD150
Site Name	Caddo Valley
GPS Coordinates	34.179278, -93.098755
Street Address	Lower Lake Recreation Area, Caddo Valley, AR 71923
County	Clark
Distance to Roads & ADT	125 meters; 380 ADT
CBSA Name	Arkadelphia, AR Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Fail; also tree line within 30 meters of inlet
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	146 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	9/15/2023

Appendix A. Detailed Site Information

AQS ID	06-027-0101
CASTNET ID	DEV412
Site Name	Death Valley NP - Park Village
GPS Coordinates	36.50887, -116.847798
Street Address	Death Valley NM, Death Valley, CA
County	Inyo
Distance to Roads & ADT	600 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Reporting Agency	National Park Service
Start Date	10-DEC-93
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	150
Probe Material	Teflon(R)
Changes w/in 18 months	Yes, ozone analyzer upgraded to Thermo 49i
Frequency for 1 Pt QC	Daily
Last PE Date	11/20/2023

Appendix A. Detailed Site Information

AQS ID	06-043-0003
CASTNET ID	YOS404
Site Name	Yosemite NP - Turtleback Dome
GPS Coordinates	37.713251, -119.706196
Street Address	Turtleback Dome, Yosemite National Park
County	Mariposa
Distance to Roads & ADT	250 meters; 2750 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Reporting Agency	National Park Service
Start Date	01-SEP-90
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	24 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	Yes, ozone analyzer upgraded to Thermo 49i
Frequency for 1 Pt QC	Daily
Last PE Date	10/10/2023

Appendix A. Detailed Site Information

AQS ID	06-069-0003
CASTNET ID	PIN414
Site Name	Pinnacles NM
GPS Coordinates	36.483235, -121.156876
Street Address	NE Entrance, Pinnacles NM
County	San Benito
Distance to Roads & ADT	85 meters; 400 ADT & 85 meters; 4,182 ADT [Fail]
CBSA Name	San Jose-Sunnyvale-Santa Clara, CA Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-APR-87
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	23 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/27/2023

Appendix A. Detailed Site Information

AQS ID	06-071-9002
CASTNET ID	JOT403
Site Name	Joshua Tree NP – Black Rock
GPS Coordinates	34.069569, -116.388933
Street Address	Joshua Tree National Park
County	San Bernardino
Distance to Roads & ADT	420 meters; estimated < 1000 ADT
CBSA Name	Riverside-San Bernardino-Ontario, CA Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-OCT-93
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	208 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	12/18/2023

Appendix A. Detailed Site Information

AQS ID	06-073-9991
CASTNET ID	LPO010
Site Name	La Posta Band of Indians
GPS Coordinates	32.725189, -116.36441
Street Address	8 Crestwood Rd Boulevard, CA 91905
County	San Diego
Distance to Roads & ADT	105 meters from Crestwood Rd; 700 ADT
CBSA Name	San Diego-Carlsbad, CA Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	27-JAN-23
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	N/A
Distance Between Co-located	N/A
Wind Obstruction	N/A
Predominant ozone season wind direction	N/A
Probe Material	Teflon(R)
Changes w/in 18 months	Y, new site
Frequency for 1 Pt QC	Daily
Last PE Date	9/26/2023

Appendix A. Detailed Site Information

AQS ID	06-089-3003
CASTNET ID	LAV410
Site Name	Lassen Volcanic NP
GPS Coordinates	40.539991, -121.576462
Street Address	Manzanita Lake, Lassen Volcanic NP
County	Shasta
Distance to Roads & ADT	90 meters; 1,750 ADT
CBSA Name	Redding, CA Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49C
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-NOV-87
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Passes, while tree at 10 meters from inlet
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	219 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	11/14/2023

Appendix A. Detailed Site Information

AQS ID	06-107-0009
CASTNET ID	SEK430
Site Name	Sequoia NP - Ash Mountain
GPS Coordinates	36.489469, -118.829153
Street Address	Sequoia & Kings Canyon NP
County	Tulare
Distance to Roads & ADT	110 meters; 2,350 ADT
CBSA Name	Visalia-Porterville, CA Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Reporting Agency	National Park Service
Start Date	01-JUL-99
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Fail; tree at 5 meters from inlet
Distance Between Co-located	N/A
Wind Obstruction	One tree at 5 meters from inlet
Predominant ozone season wind direction	21 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/17/2023

Appendix A. Detailed Site Information

AQS ID	08-051-9991
CASTNET ID	GTH161
Site Name	Gothic
GPS Coordinates	38.95627, -106.98587
Street Address	Gunnison National Forest, Crested Butte, CO 81224
County	Gunnison
Distance to Roads & ADT	190 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	353 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	7/26/2023

Appendix A. Detailed Site Information

AQS ID	08-069-0007
CASTNET ID	ROM406
Site Name	Rocky Mtn NP
GPS Coordinates	40.278129, -105.545635
Street Address	Rocky Mountain National Park, Estes Park, CO 80517
County	Larimer
Distance to Roads & ADT	70 meters; estimated < 1000 ADT
CBSA Name	Fort Collins-Loveland, CO Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-AUG-87
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	7.5 m
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	294
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	8/29/2023

Appendix A. Detailed Site Information

AQS ID	08-069-0007
CASTNET ID	ROM206
Site Name	Rocky Mtn NP Co-located
GPS Coordinates	40.278129, -105.545635
Street Address	Rocky Mountain National Park, Estes Park, CO 80517
County	Larimer
Distance to Roads & ADT	70 meters; estimated < 1000 ADT
CBSA Name	Fort Collins-Loveland, CO Metropolitan Statistical Area
Pollutant	Ozone, 3
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Relate Impacts, General/Background, and Quality Assurance
Monitor Type	EPA, NON-REGULATORY
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	7.5 m
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	300
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	8/17/2023

Appendix A. Detailed Site Information

AQS ID	08-083-0101
CASTNET ID	MEV405
Site Name	Mesa Verde NP
GPS Coordinates	37.198398, -108.490462
Street Address	Mesa Verde National Park, Colorado
County	Montezuma
Distance to Roads & ADT	145 meters; estimated less than 100 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-MAY-93
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	321 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	7/25/2023

Appendix A. Detailed Site Information

AQS ID	09-015-9991
CASTNET ID	ABT147
Site Name	Abington
GPS Coordinates	41.84046, -72.010368
Street Address	80 Ayers Rd, Abington, CT 06230
County	Windham
Distance to Roads & ADT	575 meters; 1,900 ADT
CBSA Name	Willimantic, CT Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	298 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	7/13/2023

Appendix A. Detailed Site Information

AQS ID	12-061-9991
CASTNET ID	IRL141
Site Name	Indian River Lagoon
GPS Coordinates	27.849215, -80.455595
Street Address	Sebastian Inlet State Recreation Area, Vero Beach, FL 32963
County	Indian River
Distance to Roads & ADT	300 meters; estimated < 1000 ADT
CBSA Name	Sebastian-Vero Beach, FL Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	101 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	3/20/2023

Appendix A. Detailed Site Information

AQS ID	12-077-9991
CASTNET ID	SUM156
Site Name	Sumatra
GPS Coordinates	30.110226, -84.99038
Street Address	Apalachicola National Forest, Bristol, FL 32321
County	Liberty
Distance to Roads & ADT	295 meters; 550 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Fail
Distance Between Co-located	N/A
Wind Obstruction	Tree at 17 meters from inlet
Predominant ozone season wind direction	171 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	2/22/2023

Appendix A. Detailed Site Information

AQS ID	13-231-9991
CASTNET ID	GAS153
Site Name	Georgia Station
GPS Coordinates	33.181173, -84.410054
Street Address	Georgia Station Georgia Agricultural Experiment Station, Williamson, GA 30292
County	Pike
Distance to Roads & ADT	700 meters; 220 ADT
CBSA Name	Atlanta-Sandy Springs-Marietta, GA Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	234 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	4/25/2023

Appendix A. Detailed Site Information

AQS ID	16-023-0101
CASTNET ID	CRM435
Site Name	Craters of the Moon NM and Preserve
GPS Coordinates	43.4606,-113.5622
Street Address	Craters of the Moon National Monument, Idaho
County	Idaho
Distance to Roads & ADT	52 meters; 1,200 ADT [fail]
CBSA Name	Idaho Falls, ID
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-OCT-1992
Sampling Frequency	Continuous
Sampling Season	01/01 – 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	230 degrees
Probe Material	Teflon®
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	5/18/2023

Appendix A. Detailed Site Information

AQS ID	16-049-9991
CASTNET ID	NPT006
Site Name	Nez Perce Tribe
GPS Coordinates	46.2756, -116.0216
Street Address	Woodland Road Kamiah, ID 83536
County	Idaho
Distance to Roads & ADT	250 meters; 80 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and General/Background
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	27-SEP-16
Sampling Frequency	Continuous
Sampling Season	01/01 – 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	Obstruction within a 26.6 degree cone around inlet
Predominant ozone season wind direction	N/A
Probe Material	Teflon®
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	8/11/2023

Appendix A. Detailed Site Information

AQS ID	17-019-1001
CASTNET ID	BVL130
Site Name	Bondville
GPS Coordinates	40.05202, -88.372481
Street Address	Twp Rd 500 E., Champaign, IL
County	Champaign
Distance to Roads & ADT	280 meters; 200 ADT
CBSA Name	Champaign-Urbana, IL Metropolitan Statistical Area
Pollutants	Ozone; hourly SO_2; 5-min SO_2; CO
Parameter Codes, POC	44201, 1; 42401, 2; 42401, 3; 42101, 1
NAAQS Monitoring Objectives	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instruments	Thermo 49i; TAPI T100U; TAPI T100U; TAPI T300U
Method Code	047; 600; 600; 593
FRM or FEM	FEM; FEM; FEM; FRM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11; 01-SEP-12; 01-SEP-12; 01-SEP-12
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	223 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	7/28/2023 (44201), 8/4/2023 (42101, 42401)

Appendix A. Detailed Site Information

AQS ID	17-085-9991
CASTNET ID	STK138
Site Name	Stockton
GPS Coordinates	42.287216, -89.99995
Street Address	10952 E. Parker Rd, Stockton, IL 61085
County	Jo Daviess
Distance to Roads & ADT	745 meters; 50 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	36 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	Yes, site to receive a new Nitrotrain analyzer
Frequency for 1 Pt QC	Daily
Last PE Date	10/29/2023

Appendix A. Detailed Site Information

AQS ID	18-083-9991
CASTNET ID	VIN140
Site Name	Vincennes
GPS Coordinates	38.740792, -87.484923
Street Address	Southwest Purdue Agricultural Center, Vincennes, IN 47591
County	Knox
Distance to Roads & ADT	365 meters; 8,832 ADT
CBSA Name	Vincennes, IN Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objectives	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	260 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	9/26/2023

Appendix A. Detailed Site Information

AQS ID	18-169-9991
CASTNET ID	SAL133
Site Name	Salamonie Reservoir
GPS Coordinates	40.816038, -85.661407
Street Address	Hamilton Rd, Lagro, IN 46941
County	Wabash
Distance to Roads & ADT	415 meters; 525 ADT
CBSA Name	Wabash, IN Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	256 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	3/31/2023

Appendix A. Detailed Site Information

AQS ID	21-061-0501
CASTNET ID	MAC426
Site Name	Mammoth Cave NP
GPS Coordinates	37.131794, -86.142953
Street Address	Mammoth Cave NP - Alfred Cook Road
County	Edmonson
Distance to Roads & ADT	505 meters; 1,049 ADT
CBSA Name	Bowling Green, KY Metropolitan Statistical Area
Pollutants	Ozone
Parameter Codes, POC	44201, 1
NAAQS Monitoring Objective	Welfare Related Impacts, Regional Transport, and Maximum Ozone Concentration
Monitor Type	EPA
Instruments	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Reporting Agency	National Park Service
Start Date	01-AUG-97
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	228 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	Yes, site discontinued CO, NOy, and SO2 on July 31, 2023
Frequency for 1 Pt QC	Daily
Last PE Date	9/21/2023

Appendix A. Detailed Site Information

AQS ID	21-175-9991
CASTNET ID	CKT136
Site Name	Crockett
GPS Coordinates	37.92146, -83.066295
Street Address	State Highway 437, West Liberty, KY 41472
County	Morgan
Distance to Roads & ADT	440 meters; 448 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	227 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	9/25/2023

Appendix A. Detailed Site Information

AQS ID	21-221-9991
CASTNET ID	CDZ171
Site Name	Cadiz
GPS Coordinates	36.784053, -87.85015
Street Address	5720 Old Dover Rd, Cadiz, KY 42211
County	Trigg
Distance to Roads & ADT	525 meters; estimated < 1000 ADT
CBSA Name	Clarksville, TN-KY Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts, Regional Transport, and Maximum Ozone Concentration
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-MAR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	213 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	Site closed on May 10, 2024
Frequency for 1 Pt QC	Daily
Last PE Date	8/12/2021

Appendix A. Detailed Site Information

AQS ID	21-229-9991
CASTNET ID	MCK131/231
Site Name	Mackville
GPS Coordinates	37.704678, -85.048706
Street Address	542 Wesley-Miller Rd, Harrodsburg, KY 40330
County	Washington
Distance to Roads & ADT	1845 meters; 109 ADT
Pollutant	Ozone, 1 & 2
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport; Quality Assurance
Monitor Type	EPA; EPA, NON-REGULATORY
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-MAR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	1 m
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	220 meters
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	9/22/2023; 9/22/2023

Appendix A. Detailed Site Information

AQS ID	23-003-9991
CASTNET ID	ASH135
Site Name	Ashland
GPS Coordinates	46.603832, -68.413227
Street Address	45 Radar Rd, Ashland, ME 04732
County	Aroostook
Distance to Roads & ADT	105 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	282 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	Monitoring Suspended May 10, 2022
Frequency for 1 Pt QC	Daily
Last PE Date	9/29/2021

Appendix A. Detailed Site Information

AQS ID	23-009-0103
CASTNET ID	ACA416
Site Name	Acadia NP
GPS Coordinates	44.377086, -68.2608
Street Address	McFarland Hill-Air Pollutant Research Site
County	Hancock
Distance to Roads & ADT	174 meters; 4,340 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	SLAMS & NON-EPA FEDERAL
Instrument	Thermo 49iQ
Method Code	047
FRM or FEM	FEM
Collecting Agency	Maine - Dept of Environmental Protection
Spatial Scale	Regional Scale
Reporting Agency	Maine - Dept of Environmental Protection
Start Date	09-FEB-98
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	213 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	Yes, ozone analyzer being upgraded to Thermo 49iQ
Frequency for 1 Pt QC	Daily
Last PE Date	2/22/2024

Appendix A. Detailed Site Information

AQS ID	24-019-9991
CASTNET ID	BWR139
Site Name	Blackwater NWR
GPS Coordinates	38.444971, -76.111274
Street Address	Blackwater National Wildlife Refuge, Cambridge, MD 21613
County	Dorchester
Distance to Roads & ADT	245 meters; 263 ADT
CBSA Name	Cambridge, MD Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	209 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	5/11/2023

Appendix A. Detailed Site Information

AQS ID	24-033-9991
CASTNET ID	BEL116
Site Name	Beltsville
GPS Coordinates	39.028177, -76.817127
Street Address	Powder Mill Rd, Laurel, MD 20708
County	Prince George's
Distance to Roads & ADT	365 meters; estimated < 1000 ADT
CBSA Name	Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area
Pollutants	Ozone
Parameter Code, POC	44201, 1
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	284 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	8/15/2023

Appendix A. Detailed Site Information

AQS ID	26-157-9991
CASTNET ID	UVL124
Site Name	Unionville
GPS Coordinates	43.613572, -83.359869
Street Address	1821 E. Dickerson Rd, Unionville, MI 48767
County	Tuscola
Distance to Roads & ADT	205 meters; 1,171 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	240 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/19/2023

Appendix A. Detailed Site Information

AQS ID	26-161-9991
CASTNET ID	ANA115
Site Name	Ann Arbor
GPS Coordinates	42.416636, -83.90218
Street Address	10070 Strawberry Lake Rd, Dexter, MI 48130
County	Washtenaw
Distance to Roads & ADT	330 meters; 4,879 ADT
CBSA Name	Ann Arbor, MI Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	237 degrees
Probe Material	Teflon$^{(R)}$
Changes w/in 18 months	Filterpack measurements suspended on May 10th 2022
Frequency for 1 Pt QC	Daily
Last PE Date	10/20/2023

Appendix A. Detailed Site Information

AQS ID	26-165-9991
CASTNET ID	HOX148
Site Name	Hoxeyville
GPS Coordinates	44.18089, -85.73898
Street Address	10637 S 9 Rd, Cadillac, MI 49601
County	Wexford
Distance to Roads & ADT	55 meters; estimated < 1000 ADT
CBSA Name	Cadillac, MI Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	330 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/19/2023

Appendix A. Detailed Site Information

AQS ID	27-137-0034
CASTNET ID	VOY413
Site Name	Voyageurs NP
GPS Coordinates	48.412518, -92.829225
Street Address	Voyageurs National Park
County	St. Louis
Distance to Roads & ADT	1,400 meters; 337 ADT
CBSA Name	Duluth, MN-WI Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49C
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Reporting Agency	National Park Service
Start Date	01-JUL-96
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Fail; tree at 5 meters
Distance Between Co-located	N/A
Wind Obstruction	Tree at 5 meters
Predominant ozone season wind direction	232 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/10/2023

Appendix A. Detailed Site Information

AQS ID	28-161-9991
CASTNET ID	CVL151
Site Name	Coffeeville
GPS Coordinates	34.002747, -89.799183
Street Address	Jamie L. Whitten Plant Materials Center, Coffeeville, MS 38922
County	Yalobusha
Distance to Roads & ADT	70 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Fail
Distance Between Co-located	N/A
Wind Obstruction	Tree at 17 meters from inlet
Predominant ozone season wind direction	180 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	9/11/2023

Appendix A. Detailed Site Information

AQS ID	30-029-8001
CASTNET ID	GLR468
Site Name	Glacier NP
GPS Coordinates	48.510301, -113.996807
Street Address	Glacier National Park
County	Flathead
Distance to Roads & ADT	50 meters; estimated < 1000 ADT
CBSA Name	Kalispell, MT Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Reporting Agency	National Park Service
Start Date	01-APR-89
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	Tree at 30 meters from inlet
Predominant ozone season wind direction	244 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/18/2023

Appendix A. Detailed Site Information

AQS ID	31-107-9992
CASTNET ID	SAN192
Site Name	Santee Sioux
GPS Coordinates	42.746388, -97.928033
Street Address	52950 NE-12, Niobrara, NE 68760
County	Knox
Distance to Roads & ADT	100 meters; 1,335 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	173 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	Site moved, a new AQS ID requested (31-107-9992 from 31-107-9991), a new CASTNET ID (SAN192 from SAN189), and an NOy analyzer was added to the site
Frequency for 1 Pt QC	Daily
Last PE Date	11/27/2023

Appendix A. Detailed Site Information

AQS ID	32-033-0101
CASTNET ID	GRB411
Site Name	Great Basin NP
GPS Coordinates	39.005121, -114.215932
Street Address	Great Basin National Park
County	White Pine
Distance to Roads & ADT	150 meters; 490 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-SEP-93
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	219 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	6/25/2023

Appendix A. Detailed Site Information

AQS ID	33-009-9991
CASTNET ID	WST109
Site Name	Woodstock
GPS Coordinates	43.944519, -71.700787
Street Address	Hubbard Brook Experimental Forest, North Woodstock, NH 03262
County	Grafton
Distance to Roads & ADT	45 meters; 93 ADT
CBSA Name	Lebanon, NH-VT Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	295 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	Yes, monitoring restarted on Oct 23, 2023
Frequency for 1 Pt QC	Daily
Last PE Date	9/30/2021

Appendix A. Detailed Site Information

AQS ID	34-021-9991
CASTNET ID	WSP144
Site Name	Washington Crossing
GPS Coordinates	40.312303, -74.872663
Street Address	Washington Crossing State Park, Titusville, NJ 08560
County	Mercer
Distance to Roads & ADT	260 meters; 766 ADT
CBSA Name	Trenton-Ewing, NJ Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	331 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	5/17/2023

Appendix A. Detailed Site Information

AQS ID	35-015-0010
CASTNET ID	CAV436
Site Name	Carlsbad Caverns National Park
GPS Coordinates	32.1783, -104.4406
Street Address	N/A
County	Eddy
Distance to Roads & ADT	110 meters; 463 ADT
CBSA Name	Carlsbad-Artesia, NM Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	N/A
Sampling Frequency	Continuous
Sampling Season	01/01 – 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	N/A
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	N/A
Probe Material	Teflon®
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/23/2023

Appendix A. Detailed Site Information

AQS ID	35-045-0020
CASTNET ID	CHC432
Site Name	Chaco Culture National Historical Park
GPS Coordinates	36.03448, -107.904275
Street Address	Chaco Culture National Historical Park - Radio Repeater
County	San Juan
Distance to Roads & ADT	690 meters; 100 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	23-FEB-2017
Sampling Frequency	Continuous
Sampling Season	01/01 – 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	266 degrees
Probe Material	Teflon®
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	7/24/2023

Appendix A. Detailed Site Information

AQS ID	36-031-9991
CASTNET ID	HWF187
Site Name	Huntington Wildlife Forest
GPS Coordinates	43.973044, -74.223317
Street Address	Huntington Wildlife Forest, Newcomb, NY 12852
County	Essex
Distance to Roads & ADT	300 meters; 1,624 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Fail
Distance Between Co-located	N/A
Wind Obstruction	Tree at 20 meters from inlet
Predominant ozone season wind direction	180 degrees
Probe Material	Teflon$^{(R)}$
Changes w/in 18 months	Monitoring Suspended on May 10th 2022
Frequency for 1 Pt QC	Daily
Last PE Date	7/8/2021

Appendix A. Detailed Site Information

AQS ID	36-109-9991
CASTNET ID	CTH110
Site Name	Connecticut Hill
GPS Coordinates	42.400875, -76.653516
Street Address	Connecticut Hill Wildlife Management Area, Newfield, NY 14867
County	Tompkins
Distance to Roads & ADT	75 meters; 680 ADT
CBSA Name	Ithaca, NY Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	331 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	11/8/2023

Appendix A. Detailed Site Information

AQS ID	37-011-9991
CASTNET ID	PNF126
Site Name	Cranberry
GPS Coordinates	36.105435, -82.045015
Street Address	Pisgah National Forest, Newland, NC 28657
County	Avery
Distance to Roads & ADT	370 meters; 870 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	72 degrees
Probe Material	Teflon$^{(R)}$
Changes w/in 18 months	Monitoring Suspended on May 10th 2022
Frequency for 1 Pt QC	Daily
Last PE Date	12/7/2021

Appendix A. Detailed Site Information

AQS ID	37-031-9991
CASTNET ID	BFT142
Site Name	Beaufort
GPS Coordinates	34.884668, -76.620666
Street Address	Open Grounds Farm, Beaufort, NC 28516
County	Carteret
Distance to Roads & ADT	450 meters; 1,200 ADT
CBSA Name	Morehead City, NC Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	236 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	11/9/2023

Appendix A. Detailed Site Information

AQS ID	37-113-9991
CASTNET ID	COW137
Site Name	Coweeta
GPS Coordinates	35.060527, -83.43034
Street Address	USDA Southern Research Station, Coweeta Hydrologic Laboratory, Otto, NC 28763
County	Macon
Distance to Roads & ADT	110 meters; 390 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	184 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	12/26/2023

Appendix A. Detailed Site Information

AQS ID	37-123-9991
CASTNET ID	CND125
Site Name	Candor
GPS Coordinates	35.26333, -79.83754
Street Address	136 Perry Dr, Candor, NC 27229
County	Montgomery
Distance to Roads & ADT	235 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	151 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	12/22/2023

Appendix A. Detailed Site Information

AQS ID	N/A
CASTNET ID	DUK008
Site Name	Duke Forest
GPS Coordinates	35.9745, -79.099
Street Address	600 Eubanks Rd, Chapel Hill, NC 27516
County	Orange
Distance to Roads & ADT	> 100 meters
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	NAAQS-EXCLUDED
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-19
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	44 meters
Tree Dewline > 10m or below inlet	Inlet is 10 m above tree canopy
Distance Between Co-located	N/A
Wind Obstruction	None – Inlet is 10 m above tree canopy
Predominant ozone season wind direction	N/A
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	N/A

Appendix A. Detailed Site Information

AQS ID	38-007-0002
CASTNET ID	THR422
Site Name	Theodore Roosevelt NP
GPS Coordinates	46.894844, -103.377719
Street Address	13881 I94 East
County	Billings
Distance to Roads & ADT	410 meters; 995 ADT
CBSA Name	Dickinson, ND Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	SLAMS
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	North Dakota - Dept of Health
Spatial Scale	Regional Scale
Reporting Agency	North Dakota - Dept of Health
Start Date	27-JUL-98
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	12.2 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	240 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	11/29/2023

Appendix A. Detailed Site Information

AQS ID	39-017-9991
CASTNET ID	OXF122
Site Name	Oxford
GPS Coordinates	39.531115, -84.723547
Street Address	Ecology Research Center, Miami University, Oxford, Ohio 45056
County	Butler
Distance to Roads & ADT	185 meters; 928 ADT
CBSA Name	Cincinnati-Middletown, OH-KY-IN Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	257 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	9/27/2023

Appendix A. Detailed Site Information

AQS ID	39-047-9991
CASTNET ID	DCP114
Site Name	Deer Creek
GPS Coordinates	39.635888, -83.260563
Street Address	Deer Creek State Park, Mt Sterling, OH 43143
County	Fayette
Distance to Roads & ADT	75 meters; estimated < 1000 ADT
CBSA Name	Washington Court House, OH Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	223 degrees
Probe Material	Teflon$^{(R)}$
Changes w/in 18 months	Monitoring Suspended on May 10th 2022
Frequency for 1 Pt QC	Daily
Last PE Date	5/14/2021

Appendix A. Detailed Site Information

AQS ID	39-121-9991
CASTNET ID	QAK172
Site Name	Quaker City
GPS Coordinates	39.942714, -81.337914
Street Address	58163 St. Johns Rd, Quaker City, OH 43773
County	Noble
Distance to Roads & ADT	150 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	203 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	9/26/2023

Appendix A. Detailed Site Information

AQS ID	40-001-9009
CASTNET ID	CHE185
Site Name	Cherokee Nation
GPS Coordinates	35.750786, -94.669789
Street Address	South Highway 59, Rr1, 1795 Dahlonegah Park Road, Stilwell, Oklahoma
County	Adair
Distance to Roads & ADT	230 meters; 280 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	TRIBAL & EPA
Instrument	Teledyne ML9811
Method Code	091
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUL-02
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	156 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	3/26/2024

Appendix A. Detailed Site Information

AQS ID	42-001-9991
CASTNET ID	ARE128
Site Name	Arendtsville
GPS Coordinates	39.923241, -77.307863
Street Address	747 Winding Rd, Biglerville, PA 17307
County	Adams
Distance to Roads & ADT	300 meters; 3,435 ADT
CBSA Name	Gettysburg, PA Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	301 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	6/12/2023

Appendix A. Detailed Site Information

AQS ID	42-027-9991
CASTNET ID	PSU106
Site Name	Penn State
GPS Coordinates	40.720902, -77.931759
Street Address	1366 Tadpole Rd, Pennsylvania Furnace, PA 16865
County	Centre
Distance to Roads & ADT	330 meters; 1,757 ADT
CBSA Name	State College, PA Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	250 degrees
Probe Material	Teflon$^{(R)}$
Changes w/in 18 months	Filterpack measurements suspended on May 10th 2022
Frequency for 1 Pt QC	Daily
Last PE Date	10/17/2023

Appendix A. Detailed Site Information

AQS ID	42-047-9991
CASTNET ID	KEF112
Site Name	Kane Exp. Forest
GPS Coordinates	41.598119, -78.767866
Street Address	Kane Experimental Forest, Allegheny National Forest, Wilcox, PA 15870
County	Elk
Distance to Roads & ADT	160 meters; estimated < 1000 ADT
CBSA Name	St. Mary's, PA Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Fail; tree at 10 meters from inlet
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	259 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	6/13/2023

Appendix A. Detailed Site Information

AQS ID	42-085-9991
CASTNET ID	MKG113
Site Name	M.K. Goddard
GPS Coordinates	41.426847, -80.145247
Street Address	Maurice K Goddard State Park, Sandy Lake, PA 16145
County	Mercer
Distance to Roads & ADT	110 meters; 572 ADT
CBSA Name	Youngstown-Warren-Boardman, OH-PA Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	297 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/3/2023

Appendix A. Detailed Site Information

AQS ID	42-111-9991
CASTNET ID	LRL117
Site Name	Laurel Hill
GPS Coordinates	39.988309, -79.251573
Street Address	Laurel Hill State Park, Rockwood, PA 15557
County	Somerset
Distance to Roads & ADT	160 meters; estimated < 1000 ADT
CBSA Name	Somerset, PA Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	266 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	6/15/2023

Appendix A. Detailed Site Information

AQS ID	47-009-0101
CASTNET ID	GRS420
Site Name	Great Smoky NP - Look Rock
GPS Coordinates	35.633482, -83.941606
Street Address	Great Smoky Mountains NP Look Rock
County	Blount
Distance to Roads & ADT	230 meters; 580 ADT
CBSA Name	Knoxville, TN Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	SLAMS & NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-JUL-88
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	287 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	10/24/2023

Appendix A. Detailed Site Information

AQS ID	47-025-9991
CASTNET ID	SPD111
Site Name	Speedwell
GPS Coordinates	36.46983, -83.826511
Street Address	718 Russell Hill Rd, Speedwell, TN 37870
County	Claiborne
Distance to Roads & ADT	270 meters; 510 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-MAR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	255 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	12/5/2023

Appendix A. Detailed Site Information

AQS ID	47-041-9991
CASTNET ID	ESP127
Site Name	Edgar Evins
GPS Coordinates	36.03893, -85.73305
Street Address	Edgar Evins State Park, Smithville, TN 37166
County	DeKalb
Distance to Roads & ADT	65 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-MAR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	255 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	9/10/2023

Appendix A. Detailed Site Information

AQS ID	48-043-0101
CASTNET ID	BBE401
Site Name	Big Bend NP
GPS Coordinates	29.302651, -103.177813
Street Address	Big Bend National Park, Texas
County	Brewster
Distance to Roads & ADT	770 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-OCT-90
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	198 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	3/1/2023

Appendix A. Detailed Site Information

AQS ID	48-373-9991
CASTNET ID	ALC188
Site Name	Alabama-Coushatta
GPS Coordinates	30.701577, -94.674011
Street Address	361 Tombigbee Rd, Livingston, TX 77351
County	Polk
Distance to Roads & ADT	84 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	151 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	2/26/2024

Appendix A. Detailed Site Information

AQS ID	48-381-9991
CASTNET ID	PAL190
Site Name	Palo Duro
GPS Coordinates	34.88061, -101.664703
Street Address	Palo Duro Canyon State Park, Canyon, TX 79015
County	Randall
Distance to Roads & ADT	3,660 meters; estimated < 1000 ADT
CBSA Name	Amarillo, TX Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	203 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	3/10/2024

Appendix A. Detailed Site Information

AQS ID	49-037-0101
CASTNET ID	CAN407
Site Name	Canyonlands NP
GPS Coordinates	38.458323, -109.82126
Street Address	Canyonlands National Park, Utah
County	San Juan
Distance to Roads & ADT	85 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-SEP-92
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	232 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	3/16/2023

Appendix A. Detailed Site Information

AQS ID	49-047-1002
CASTNET ID	DIN431
Site Name	Dinosaur National Monument
GPS Coordinates	40.4373, -109.3046
Street Address	Dinosaur National Monument
County	Uintah
Distance to Roads & ADT	240 meters; 930 ADT
CBSA Name	Vernal, UT Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Reporting Agency	National Park Service
Start Date	01-JAN-12
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	241 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	7/27/2023

Appendix A. Detailed Site Information

AQS ID	49-053-0130
CASTNET ID	ZIO433
Site Name	Zion National Park, Dalton's Wash
GPS Coordinates	37.1983, -113.1506
Street Address	Zion National Park, UT
County	Washington
Distance to Roads & ADT	335 meters; 6,113 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49C
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	12-JAN-2004
Sampling Frequency	Continuous
Sampling Season	01/01 – 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	88 degrees
Probe Material	Teflon®
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	6/25/2023

Appendix A. Detailed Site Information

AQS ID	51-071-9992
CASTNET ID	VPI120
Site Name	Blue Grass Trail
GPS Coordinates	37.3232, -80.4572
Street Address	1567 Blue Grass Trail, Newport, VA 24136
County	Giles
Distance to Roads & ADT	> 100 meters
CBSA Name	Blacksburg-Christiansburg-Radford, VA Metropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	N/A
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	8/7/2023

Appendix A. Detailed Site Information

AQS ID	51-113-0003
CASTNET ID	SHN418
Site Name	Shenandoah NP - Big Meadows
GPS Coordinates	38.5231, -78.43471
Street Address	Shenandoah NP Big Meadows
County	Madison
Distance to Roads & ADT	125 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	SLAMS & NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-JUL-85
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	284 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	8/21/2023

Appendix A. Detailed Site Information

AQS ID	51-147-9991
CASTNET ID	PED108
Site Name	Prince Edward
GPS Coordinates	37.165222, -78.307067
Street Address	Prince Edward-Gallion State Forest, Burkeville, VA 23922
County	Prince Edward
Distance to Roads & ADT	130 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JAN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	230 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	8/25/2023

Appendix A. Detailed Site Information

AQS ID	53-013-9991
CASTNET ID	UMA009
Site Name	Umatilla
GPS Coordinates	46.2026, -117.9539
Street Address	Dayton, WA
County	Columbia
Distance to Roads & ADT	160 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	05-NOV-2020
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	N/A
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	8/10/2023

Appendix A. Detailed Site Information

AQS ID	54-021-9991
CASTNET ID	CDR119
Site Name	Cedar Creek
GPS Coordinates	38.879503, -80.847677
Street Address	Cedar Creek State Park, Cedarville, WV 26611
County	Gilmer
Distance to Roads & ADT	35 meters; 500 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	348 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	Monitoring Suspended on May 10th 2022
Frequency for 1 Pt QC	Daily
Last PE Date	11/11/2021

Appendix A. Detailed Site Information

AQS ID	54-093-9991
CASTNET ID	PAR107
Site Name	Parsons
GPS Coordinates	39.090434, -79.661742
Street Address	USDA Northern Research Station, Monongahela National Forest, Parsons, WV 26287
County	Tucker
Distance to Roads & ADT	355 meters; 4,097 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	311 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	8/8/2023

Appendix A. Detailed Site Information

AQS ID	55-119-9991
CASTNET ID	PRK134
Site Name	Perkinstown
GPS Coordinates	45.206525, -90.597209
Street Address	W 10746 County Highway M, Medford, WI 54451
County	Taylor
Distance to Roads & ADT	160 meters; 450 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and Regional Transport
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-APR-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	177 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	4/2/2023

Appendix A. Detailed Site Information

AQS ID	56-001-9991
CASTNET ID	CNT169
Site Name	Centennial
GPS Coordinates	41.364531, -106.24002
Street Address	Roosevelt National Forest, Centennial, WY 82055
County	Albany
Distance to Roads & ADT	200 meters; estimated < 1000 ADT
CBSA Name	Laramie, WY Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/01 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	269 degrees
Probe Material	Teflon(R)
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	8/23/2023

Appendix A. Detailed Site Information

AQS ID	56-003-0002
CASTNET ID	BAS601
Site Name	Basin
GPS Coordinates	44.279947,-108.041
Street Address	Basin (WARMS Station)
County	Big Horn
Distance to Roads & ADT	120 meters; 1,780 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	Bureau of Land Management - Wyoming State Office
Spatial Scale	Regional Scale
Reporting Agency	Bureau of Land Management – Wyoming State Office
Start Date	28-NOV-12
Sampling Frequency	Continuous
Sampling Season	01/01 – 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	Fail
Predominant ozone season wind direction	N/A
Probe Material	Teflon®
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	11/9/2023

Appendix A. Detailed Site Information

AQS ID	56-035-9991
CASTNET ID	PND165
Site Name	Pinedale
GPS Coordinates	42.929031, -109.787796
Street Address	Skyline Dr, Pinedale, WY 82941
County	Sublette
Distance to Roads & ADT	230 meters; estimated < 1000 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	EPA
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	EPA/CAPD
Spatial Scale	Regional Scale
Reporting Agency	EPA/CAPD
Start Date	01-JUN-11
Sampling Frequency	Continuous
Sampling Season	01/–1 - 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	320 degrees
Probe Material	Teflon®
Changes w/in 18 months	Yes, removed NOy analyzer
Frequency for 1 Pt QC	Daily
Last PE Date	10/31/2023

Appendix A. Detailed Site Information

AQS ID	56-039-0008
CASTNET ID	GRT434
Site Name	Grand Teton NP
GPS Coordinates	43.6708,-110.5995
Street Address	Grand Teton NP - Science School
County	Teton
Distance to Roads & ADT	145 meters; estimated < 1000 ADT
CBSA Name	Jackson, WY-ID Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	22-AUG-11
Sampling Frequency	Continuous
Sampling Season	01/01 – 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	193 degrees
Probe Material	Teflon®
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	5/16/2023

Appendix A. Detailed Site Information

AQS ID	56-039-1011
CASTNET ID	YEL408
Site Name	Yellowstone NP
GPS Coordinates	44.565356, -110.400338
Street Address	Yellowstone National Park
County	Teton
Distance to Roads & ADT	320 meters; estimated < 1000 ADT
CBSA Name	Jackson, WY-ID Micropolitan Statistical Area
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	National Park Service
Spatial Scale	Regional Scale
Reporting Agency	National Park Service
Start Date	01-JUL-96
Sampling Frequency	Continuous
Sampling Season	01/01 – 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Fail
Distance Between Co-located	N/A
Wind Obstruction	Fail; tree at 15 meters from inlet
Predominant ozone season wind direction	220 degrees
Probe Material	Teflon®
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	5/16/2023

Appendix A. Detailed Site Information

AQS ID	56-045-0003
CASTNET ID	NEC602
Site Name	Newcastle
GPS Coordinates	43.8731, -104.192009
Street Address	Newcastle, Warms Station
County	Weston
Distance to Roads & ADT	140 meters; 1,240 ADT
Pollutant	Ozone, 1
Parameter Code	44201
NAAQS Monitoring Objective	Welfare Related Impacts and General/Background
Monitor Type	NON-EPA FEDERAL
Instrument	Thermo 49i
Method Code	047
FRM or FEM	FEM
Collecting Agency	Bureau of Land Management - Wyoming State Office
Spatial Scale	Regional Scale
Reporting Agency	Bureau of Land Management – Wyoming State Office
Start Date	14-NOV-12
Sampling Frequency	Continuous
Sampling Season	01/01 – 12/31
Probe Height	10 meters
Tree Dewline > 10m or below inlet	Pass
Distance Between Co-located	N/A
Wind Obstruction	No obstructions around inlet
Predominant ozone season wind direction	N/A
Probe Material	Teflon®
Changes w/in 18 months	N
Frequency for 1 Pt QC	Daily
Last PE Date	5/24/2023

Appendix B. Quality Assurance Validation Template[1]

Ozone Validation Template

1) Requirement (O_3)	2) Frequency	3) Acceptance Criteria	Information /Action
CRITICAL CRITERIA - O_3	**CRITICAL CRITERIA - O_3**	**CRITICAL CRITERIA - O_3**	**CRITICAL CRITERIA - O_3**
Monitor	NA	***Meets requirements listed in FRM/FEM designation***	1) 40 CFR Part 58 App C Sec. 2.1 2) NA 3) 40 CFR Part 53 & FRM/FEM method list
One Point QC Check Single analyzer	***Every 14 days***	< ±7.1% (percent difference) or < ±1.5 ppb difference whichever is greater	1 and 2) 40 CFR Part 58 App A Sec. 3.1 3) Recommendation based on DQO in 40 CFR Part 58 App A Sec. 2.3.1.2. QC Check Conc range 0.005 - 0.08 ppm and 05/05/2016 Technical Note on AMTIC
Zero/span check	Every 14 days	Zero drift < ± 3.1 ppb (24 hr) < ± 5.1 ppb (>24hr-14 day) Span drift < ± 7.1 %	1 and 2) QA Handbook Volume 2 Sec. 12.3 3) Recommendation and related to DQO
OPERATIONAL CRITERIA - O_3	**OPERATIONAL CRITERIA - O_3**	**OPERATIONAL CRITERIA - O_3**	**OPERATIONAL CRITERIA - O_3**
Shelter Temperature Range	Daily (hourly values)	20.0 to 30.0° C. (Hourly avg) or per manufacturers specifications if designated to a wider temperature range	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2 Generally, the 20-30.0° C range will apply but the most restrictive operable range of the instruments in the shelter may also be used as guidance. FRM/FEM list found on AMTIC provides temp. range for given instrument. FRM/FEM monitor testing is required at 20-30° C range per 40 CFR Part 53.32
Shelter Temperature Control	Daily (hourly values)	< 2.1° C SD over 24 hours	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2
Shelter Temperature Device Check	Every 182 days and 2/ calendar year	<± 2.1° C of standard	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2
Annual Performance Evaluation Single analyzer	***Every site every 365 days and 1/ calendar year within period of monitor operation,***	Percent difference of audit levels 3-10 < ±15.1% Audit levels 1&2 < ± 1.5 ppb difference or <± 15.1%	1 and 2) 40 CFR Part 58 App A Sec. 3.1.2 3) Recommendation- 3 audit concentrations not including zero. AMTIC guidance 2/17/2011 AMTIC Technical Memo
Federal Audits (NPAP)	***20% of sites audited in calendar year***	Audit levels 1&2 < ± 1.5 ppb difference all other levels percent difference < ± 10.1%	1 and 2) 40 CFR Part 58 App A Sec. 3.1.3 3) NPAP QAPP/SOP

1) Requirement (O_3)	2) Frequency	3) Acceptance Criteria	Information /Action
Verification/Calibration	Upon receipt/adjustment/repair/ installation/moving and repair and recalibration of standard of higher level Every 182 day and 2/ calendar year if manual zero/span performed biweekly Every 365 day and 1/ calendar year if continuous zero/span performed daily	All points < ± 2.1 % or < ±1.5 ppb difference of best-fit straight line whichever is greater and Slope 1 ± .05	1) 40 CFR Part 50 App D 2) Recommendation 3) 40 CFR Part 50 App D Sec 4.5.5.6 Multi-point calibration (0 and 4 upscale points) Slope criteria is a recommendation
Zero Air/Zero Air Check	Every 365 days and 1/calendar year	Concentrations below LDL	1) 40 CFR Part 50 App D Sec. 4.1 2 and 3) Recommendation
Ozone Level 2 Standard	**Ozone Level 2 Standard**	**Ozone Level 2 Standard**	**Ozone Level 2 Standard**
Certification/recertification to Standard Reference Photometer (Level 1)	Every 365 days and 1/calendar year	single point difference < ± 3.1%	1) 40 CFR Part 50 App D Sec. 5.4 2 and 3) Transfer Standard Guidance EPA-454/B-10-001 Level 2 standard (formerly called primary standard) usually transported to EPA Regions SRP for comparison
Level 2 and Greater Transfer Standard Precision	Every 365 days and 1/calendar year	***Standard Deviation less than 0.005 ppm or 3.0% whichever is greater***	1) 40 CFR Part 50 Appendix D Sec. 3.1 2) Recommendation, part of reverification 3) 40 CFR Part 50 Appendix D Sec. 3.1
(if recertified via a transfer standard)	Every 365 days and 1/calendar year	Regression slopes = 1.00 ± 0.03 and two intercepts are 0 ± 3 ppb	1, 2 and 3) Transfer Standard Guidance EPA-545/B-10-001
O_3 Transfer standard (Level 3 and greater)	**O_3 Transfer standard (Level 3 and greater)**	**O_3 Transfer standard (Level 3 and greater)**	**O_3 Transfer standard (Level 3 and greater)**
Qualification	Upon receipt of transfer standard	< ±4.1% or < ±4 ppb (whichever greater)	1, 2 and 3) Transfer Standard Guidance EPA-545/B-10-001
Certification	After qualification and upon receipt/adjustment/repair	RSD of six slopes ≤ 3.7% Std. Dev. of 6 intercepts ≤ 1.5	1, 2 and 3) Transfer Standard Guidance EPA-545/B-10-001 1
Recertification to higher level standard	Beginning and end of O3 season or every 182 days and 2/calendar year whichever less	New slope = ± 0.05 of previous and RSD of six slopes ≤3.7% Std. Dev. of 6 intercepts ≤ 1.5	1, 2 and 3) Transfer Standard Guidance EPA-545/B-10-001 recertification test that then gets added to most recent 5 tests. It does not meet acceptability certification fails
Detection (FEM/FRMs) Noise and Lower Detectable Limits (LDL) are part of the FEM/FRM requirements. It is recommended that monitoring organizations perform the LDL test to minimally confirm and establish the LDL of their monitor. Performing the LDL test will provide the noise information.			
Noise	Every 365 days and 1/ calendar year	***≤ 0.0025 ppm (standard range)*** ***≤ 0.001 ppm (lower range)***	1) 40 CFR Part 53.23 (b) (definition & procedure) 2) Recommendation- info can be obtained from LDL 3) 40 CFR Part 53.20 Table B-1
Lower detectable limit	Every 365 days and 1/calendar year	***≤ 0.005 ppm (standard range)*** ***≤ 0.002 ppm (lower range)***	1) 40 CFR Part 53.23 (b) (definition & procedure) 2) Recommendation 3) 40 CFR Part 53.20 Table B-1

1) Requirement (O_3)	2) Frequency	3) Acceptance Criteria	Information /Action
SYSTEMATIC CRITERIA - O_3	**SYSTEMATIC CRITERIA - O_3**	**SYSTEMATIC CRITERIA - O_3**	**SYSTEMATIC CRITERIA - O_3**
Standard Reporting Units	***All data***	***ppm (final units in AQS)***	1, 2 and 3) 40 CFR Part 50 App U Sec. 3(a)
Rounding convention for design value calculation	***All routine concentration data***	***3 places after decimal with digits to right truncated***	1, 2 and 3) 40 CFR Part 50 App U Sec. 3(a) The rounding convention is for averaging values for comparison to NAAQS not for reporting individual hourly values.
Completeness (seasonal)	***3-Year Comparison***	***≥ 90% (avg) daily max available in ozone season with min of 75% in any one year.***	1,2,3) 40 CFR Part 50 App U Sec 4(b)
	8- hour average	***≥ if at least 6 of the hourly concentrations for the 8-hour period are available***	1) 40 CFR Part 50 App U 2 and 3) 40 CFR Part 50 App U Sec. 3(b)
	Valid Daily Max	***≥ if valid 8-hour averages are available for at least 13 of the 17 consecutive 8-hour periods starting from 7:00 a.m. to 11:00 p.m***	1) 40 CFR Part 50 App U 2,3) 40 CFR Part 50 App U Sec. 3(d)
Sample Residence Time Verification	Every 365 days and 1/calendar year	***≤ 20 Seconds***	1) 40 CFR Part 58 App E, Sec. 9 (c) 2) Recommendation 3) 40 CFR Part 58 App E, Sec. 9 (c)
Sample Probe, Inlet, Sampling train	***All sites***	***Borosilicate glass (e.g., Pyrex®) or Teflon®***	1) 40 CFR Part 58 App E, Sec. Sec. 9 (a) 2) Recommendation 3) 40 CFR Part 58 App E, Sec. Sec. 9 (a) FEP and PFA have been accepted as an equivalent material to Teflon. Replacement or cleaning is suggested as 1/year and more frequent if pollutant load or contamination dictate
Siting	Every 365 days and 1/calendar year	***Meets siting criteria or waiver documented***	1) 40 CFR Part 58 App E, Sec. 2-6 2) Recommendation 3) 40 CFR Part 58 App E, Sec. 2-6
EPA Standard Ozone Reference Photometer (SRP) Recertification (Level 1)	Every 365 days and 1/calendar year	Regression slope = 1.00 ± 0.01 and intercept < 3 ppb	1, 2 and 3) Transfer Standard Guidance EPA-454/B-10-001 This is usually at a Regional Office and is compared against the traveling SRP
Precision (using 1-point QC checks)	***Calculated annually and as appropriate for design value estimates***	**90% CL CV < 7.1%**	1) 40 CFR Part 58 App A 2.3.1.2 & 3.1.1 2) 40 CFR Part 58 App A Sec. 4(b) 3) 40 CFR Part 58 App A Sec. 4.1.2
Bias (using 1-point QC checks)	***Calculated annually and as appropriate for design value estimates***	**95% CL < ± 7.1%**	1) 40 CFR Part 58 App A 2.3.1.2 & 3.1.1 2) 40 CFR Part 58 App A Sec. 4(b) 3) 40 CFR Part 58 App A Sec. 4.1.3

CO Validation Template

1) Requirement (CO)	2) Frequency	3) Acceptance Criteria	Information /Action
CRITICAL CRITERIA-CO	**CRITICAL CRITERIA-CO**	**CRITICAL CRITERIA-CO**	**CRITICAL CRITERIA-CO**
Sampler/Monitor	NA	***Meets requirements listed in FRM/FEM designation***	1) 40 CFR Part 58 App C Sec. 2.1 2) NA 3) 40 CFR Part 53 & FRM/FEM method list
One Point QC Check Single analyzer	***Every 14 days***	< ±10.1% (percent difference)	1 and 2) 40 CFR Part 58 App A Sec. 3.1.1 3) Recommendation based on DQO in 40 CFR Part 58 App A Sec. 2.3.1. QC Check Conc range 0.5 – 5 ppm
Zero/span check	Every 14 days	Zero drift < ± 0.41 ppm (24 hr) < ± 0.61 ppm (>24hr-14 day) Span drift < ± 10.1 %	1 and 2) QA Handbook Volume 2 Sec. 12.3 3) Recommendation
OPERATIONAL CRITERIA-CO	**OPERATIONAL CRITERIA-CO**	**OPERATIONAL CRITERIA-CO**	**OPERATIONAL CRITERIA-CO**
Shelter Temperature range	Daily (hourly values)	20.0 to 30.0° C. (Hourly avg) or per manufacturers specifications if designated to a wider temperature range	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2 Generally, the 20-30.0 ° C range will apply but the most restrictive operable range of the instruments in the shelter may also be used as guidance. FRM/FEM list found on AMTIC provides temp. range for given instrument. FRM/FEM monitor testing is required at 20-30 ° C range per 40 CFR Part 53.32
Shelter Temperature Control	Daily (hourly values)	< 2.1° C SD over 24 hours	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2
Shelter Temperature Device Check	Every 182 days and 2/ calendar year	< ± 2.1° C of standard	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2
Annual Performance Evaluation Single Analyzer	***Every site every 365 days and 1/ calendar year***	Percent difference of audit levels 3-10 < ±15.1% Audit levels 1&2 < ± 0.031 ppm difference or < ±15.1%	1 and 2) 40 CFR Part 58 App A Sec. 3.1.2 3) Recommendation- 3 audit concentrations not including zero. AMTIC Technical Memo
Federal Audits (NPAP)	***20% of sites audited in a calendar year***	Audit levels 1&2 < ± 0.031 ppm difference all other levels percent difference < ± 15.1%	1 and 2) 40 CFR Part 58 App A Sec. 3.1.3 3) NPAP QAPP/SOP
Verification/Calibration	Upon receipt/adjustment/repair/ installation/moving Every 182 day and 2/ calendar year if manual zero/span performed biweekly Every 365 days and 1/ calendar year if continuous zero/span performed daily	All points < ± 2.1 % or < ± 0.03 ppm difference of best-fit straight line. whichever is greater and Slope 1 ± .05	1) 40 CFR Part 50 Appendix C Sec. 4 2 and 3) Recommendation See details about CO2 sensitive instruments Multi-point calibration (0 and 4 upscale points) Slope criteria is a recommendation

1) Requirement (CO)	2) Frequency	3) Acceptance Criteria	Information /Action
Gaseous Standards	All gas cylinders	**NIST Traceable** (e.g., EPA Protocol Gas)	1) 40 CFR Part 50 Appendix C Sec. 4.3.1 2) NA Green Book 3) 40 CFR Part 50 Appendix C Sec. 4.3.1 See details about CO2 sensitive instruments Gas producer used must participate in EPA Ambient Air Protocol Gas Verification Program 40 CFR Part 58 App A Sec. 2.6.1
Zero Air/Zero Air Check	Every 365 days and 1/ calendar year	***< 0.1 ppm CO***	1) 40 CFR Part 50 App C Sec. 4.3.2 2) Recommendation 3) 40 CFR Part 50 App C Sec. 4.3.2
Gas Dilution Systems	Every 365 days and 1/ calendar year or after failure of 1 point QC check or performance evaluation	Accuracy < ± 2.1 %	1, 2 and 3) Recommendation based on SO2 requirement in 40 CFR Part 50 App A-1 Sec. 4.1.2
Detection (FEM/FRMs) Noise and Lower Detectable Limits (LDL) are part of the FEM/FRM requirements. It is recommended that monitoring organizations perform the LDL test to minimally confirm and establish the LDL of their monitor. Performing the LDL test will provide the noise information.			
Noise	Every 365 days and 1/ calendar year	***≤ 0.2 ppm (standard range)*** ***≤ 0.1 ppm (lower range)***	1) 40 CFR Part 53.23 (b) (definition & procedure) 2) Recommendation- info can be obtained from LDL 3) 40 CFR Part 53.20 Table B-1
Lower detectable level	Every 365 days and 1/ calendar year	***≤ 0.4 ppm (standard range)*** ***≤ 0.2 ppm (lower range)***	1) 40 CFR Part 53.23 (c) (definition & procedure) 2) Recommendation 3) 40 CFR Part 53.20 Table B-1
SYSTEMATIC CRITERIA-CO	**SYSTEMATIC CRITERIA-CO**	**SYSTEMATIC CRITERIA-CO**	**SYSTEMATIC CRITERIA-CO**
Standard Reporting Units	***All data***	***ppm (final units in AQS)***	1, 2 and 3) 40 CFR Part 50.8 (a)
Rounding convention for design value calculation	***All routine concentration data***	***1 decimal place***	1, 2 and 3) 40 CFR Part 50.8 (d) The rounding convention is for averaging values for comparison to NAAQS not for reporting individual hourly values.
Completeness	***8-hour standard***	***75% of hourly averages for the 8-hour period***	1) 40 CFR Part 50.8(c) 2) 40 CFR Part 50.8(a-2) 3) 40 CFR Part 50.8(c)
Sample Residence Time Verification	Every 365 days and 1/ calendar year	≤ 20 Seconds	1, 2, and 3) Recommendation. CO not a reactive gas but suggest following same methods other gaseous criteria pollutants.
Sample Probe, Inlet, Sampling train	All Sites	Borosilicate glass (e.g., Pyrex®) or Teflon®	1, 2, and 3) Recommendation. CO not a reactive gas but suggest following same methods other gaseous criteria pollutants. FEP and PFA have been accepted as a equivalent material to Teflon. Replacement/cleaning is suggested as 1/year and more frequent if pollutant load dictate.
Siting	Every 365 days and 1/ calendar year	***Meets siting criteria or waiver documented***	1) 40 CFR Part 58 App E, Sec. 2-6 2) Recommendation 3) 40 CFR Part 58 App E, Sec. 2-6
Precision (using 1-point QC	***Calculated annually and as***	***90% CL CV < 10.1%***	1) 40 CFR part 58 App A Sec. 3.1.1

1) Requirement (CO)	2) Frequency	3) Acceptance Criteria	Information /Action
checks)	***appropriate for design value estimates***		2) 40 CFR Part 58 App A Sec. 4 (b) 3) 40 CFR Part 58 App A Sec. 4.1.2
Bias (using 1-point QC checks)	***Calculated annually and as appropriate for design value estimates***	***95% CL < ± 10.1%***	1) 40 CFR Part 58 App A Sec. 3.1.1 2) 40 CFR Part 58 App A Sec. 4 (b) 3) 40 CFR Part 58 App A Sec. 4.1.3

NO_2, NOx, NO Validation Template

1) Requirement (NO_2)	2) Frequency	3) Acceptance Criteria	Information /Action
CRITICAL CRITERIA- NO_2	**CRITICAL CRITERIA- NO_2**	**CRITICAL CRITERIA- NO_2**	**CRITICAL CRITERIA- NO_2**
Sampler/Monitor	***NA***	***Meets requirements listed in FRM/FEM designation***	1) 40 CFR Part 58 App C Sec. 2.1 2) NA 3) 40 CFR Part 53 & FRM/FEM method list
One Point QC Check Single analyzer	***Every 14 days***	< ±15.1% (percent difference) or < ± 1.5 ppb difference whichever is greater	1 and 2) 40 CFR Part 58 App A Sec. 3.1.1 3) Recommendation based on DQO in 40 CFR Part 58 App A Sec. 2.3.1.5 QC Check Conc range 0.005 - 0.08 ppm and 05/05/2016 Technical Note on AMTIC
Zero/span check	Every 14 days	Zero drift < ± 3.1 ppb (24 hr) < ± 5.1 ppb (>24hr-14 day) Span drift < + 10.1 %	1 and 2) QA Handbook Volume 2 Sec. 12.3 3) Recommendation and related to DQO
Converter Efficiency	During multi-point calibrations, span and audit Every 14 days	***(≥96%)*** 96% – 104.1%	1) 40 CFR Part 50 App F Sec. 1.5.10 and 2.4.10 2) Recommendation 3) 40 CFR Part 50 App F Sec. 1.5.10 and 2.4.10 Regulation states ≥ 96%, 96 – 104.1% is a recommendation.

OPERATIONAL CRITERIA- NO_2	OPERATIONAL CRITERIA- NO_2	OPERATIONAL CRITERIA- NO_2	OPERATIONAL CRITERIA- NO_2
Shelter Temperature Range	Daily (hourly values)	20.0 to 30.0° C. (Hourly avg) or per manufacturers specifications if designated to a wider temperature range	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2 Generally, the 20-30.0 °C range will apply but the most restrictive operable range of the instruments in the shelter may also be used as guidance. FRM/FEM list found on AMTIC provides temp. range for given instrument. FRM/FEM monitor testing is required at 20-30 °C range per 40 CFR Part 53.32

1) Requirement (NO_2)	2) Frequency	3) Acceptance Criteria	Information /Action
Shelter Temperature Control	Daily (hourly values)	< 2.1° C SD over 24 hours	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2
Shelter Temperature Device Check	Every 182 days and 2/calendar year	< ± 2.1° C of standard	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2
Annual Performance Evaluation Single Analyzer	***Every site every 365 days and 1/ calendar year***	Percent difference of audit levels 3-10 < ±15.1% Audit levels 1&2 < ± 1.5 ppb difference or < ±15.1%	1) 40 CFR Part 58 App A Sec. 3.1.2 2) 40 CFR Part 58 App A Sec. 3.1.2 3) Recommendation - 3 audit concentrations not including zero. AMTIC Technical Memo
Federal Audits (NPAP)	20% of sites audited in calendar year	Audit levels 1&2 < ± 1.5 ppb difference all other levels percent difference < ± 15.1%	1 & 2) 40 CFR Part 58 App A Sec. 3.1.3 3) NPAP QAPP/SOP
Verification/Calibration	Upon receipt/adjustment/repair/ installation/moving Every 182 day and 2/ calendar year if manual zero/span performed biweekly Every 365 day and 1/ calendar year if continuous zero/span performed daily	Instrument residence time ≤ 2 min Dynamic parameter ≥ 2.75 ppm-min All points <± 2.1 % or ≤ ± 1.5 ppb difference of best-fit straight line whichever is greater and Slope 1 ± .05	1) 40 CFR Part 50 App F 2 and 3) Recommendation Multi-point calibration (0 and 4 upscale points) Slope criteria is a recommendation
Gaseous Standards	All gas cylinders	**NIST Traceable** (e.g., EPA Protocol Gas) 50-100 ppm of NO in Nitrogen with < 1 ppm NO_2	1) 40 CFR Part 50 App F Sec. 1.3.1 2) NA Green Book 3) 40 CFR Part 50 App F Sec. 1.3.1. A technical memo may change the concentration requirement. Gas producer used must participate in EPA Ambient Air Protocol Gas Verification Program 40 CFR Part 58 App A Sec. 2.6.1
Zero Air/ Zero Air Check	Every 365 days and 1/ calendar year	Concentrations below LDL	1) 40 CFR Part 50 App F Sec. 1.3.2 2 and 3) Recommendation

Gas Dilution Systems	Every 365 days and 1/ calendar year or after failure of 1 point QC check or performance evaluation	Accuracy < ± 2.1 %	1, 2 and 3) Recommendation based on SO2 requirement in 40 CFR Part 50 App A-1 Sec. 4.1.2
Detection (FEM/FRMs) Noise and Lower Detectable Limits (LDL) are part of the FEM/FRM requirements. It is recommended that monitoring organizations perform the LDL test to minimally confirm and establish the LDL of their monitor. Performing the LDL test will provide the noise information.			
Noise	Every 365 days and 1/ calendar year	***≤ 0.005 ppm***	1) 40 CFR Part 53.23 (b) (definition & procedure) 2) Recommendation- info can be obtained from LDL 3) 40 CFR Part 53.20 Table B-1
1) Requirement (NO_2)	**2) Frequency**	**3) Acceptance Criteria**	4) **Information /Action**
Lower detectable level	Every 365 days and 1/ calendar year	***≤ 0.01 ppm***	1) 40 CFR Part 53.23 (c) (definition & procedure) 2) Recommendation 3) 40 CFR Part 53.20 Table B-1
SYSTEMATIC CRITERIA- NO_2	**SYSTEMATIC CRITERIA- NO_2**	**SYSTEMATIC CRITERIA- NO_2**	**SYSTEMATIC CRITERIA- NO_2**
Standard Reporting Units	***All data***	***ppb (final units in AQS)***	1, 2 and 3) 40 CFR Part 50 App S Sec. 2 (c)
Rounding convention for data reported to AQ S	***All routine concentration data***	***1 place after decimal with digits to right truncated***	1, 2 and 3) 40 CFR Part 50 App S Sec. 4.2 (a) The rounding convention is for averaging values for comparison to NAAQS not for reporting individual hourly values.
Completeness	***Annual Standard***	***≥ 75% hours in year***	1) 40 CFR Part 50 App S Sec. 3.1(b) 2) 40 CFR Part 50 App S Sec. 3.1(a) 3) 40 CFR Part 50 App S Sec. 3.1(b)
	1-hour standard	***1) 3consecutive calendars years of complete data 2) 4 quarters complete in each year 3) ≥75% sampling days in quarter 4) ≥ 75% of hours in a day***	1) 40 CFR Part 50 App S Sec. 3.2(b) 2) 40 CFR Part 50 App S Sec. 3.2(a) 3) 40 CFR Part 50 App S Sec. 3.2(b) More details in 40 CFR Part 50 App S
Sample Residence Time Verification	Every 365 days and 1/ calendar year	***≤ 20 Seconds***	1) 40 CFR Part 58 App E, Sec. 9 (c) 2) Recommendation 3) 40 CFR Part 58 App E, Sec. 9 (c)
Sample Probe, Inlet, Sampling train	***All sites***	***Borosilicate glass (e.g., Pyrex®) or Teflon®***	1, 2 and 3) 40 CFR Part 58 App E Sec. 9 (a) FEP and PFA have been accepted as equivalent material to Teflon. Replacement or cleaning is suggested as 1/year and more frequent if pollutant load or contamination dictate

Siting	Every 365 days and 1/ calendar year	***Meets siting criteria or waiver documented***	1) 40 CFR Part 58 App E, Secs 2-6 2) Recommendation 3) 40 CFR Part 58 App E, Sec. 2-6
Precision (using 1-point QC checks)	***Calculated annually and as appropriate for design value estimates***	***90% CL CV < 15.1%***	1) 40 CFR Part 58 App A Sec. 2.3.1.5 & 3.1.1 2) 40 CFR Part 58 App A Sec. 4(b) 3) 40 CFR Part 58 App A Sec. 4.1.2
Bias (using 1-point QC checks)	***Calculated annually and as appropriate for design value estimates***	***95% CL < ± 15.1%***	1) 40 CFR Part 58 App A Sec. 2.3.1.5 & 3.1.1 2) 40 CFR Part 58 App A Sec. 4(b) 3) 40 CFR Part 58 App A Sec. 4.1.3

SO_2 Validation Template

1) Requirement (SO_2)	2) Frequency	3) Acceptance Criteria	Information /Action
CRITICAL CRITERIA- SO_2	**CRITICAL CRITERIA- SO_2**	**CRITICAL CRITERIA- SO_2**	**CRITICAL CRITERIA- SO_2**
Sampler/Monitor	NA	***Meets requirements listed in FRM/FEM designation***	1) 40 CFR Part 58 App C Sec. 2.1 2) NA 3) 40 CFR Part 53 & FRM/FEM method list
One Point QC Check Single analyzer	***Every 14 days***	< ±10.1% (percent difference) or < ± 1.5 ppb difference whichever is greater	1 and 2) 40 CFR Part 58 App A Sec. 3.1.1 3) Recommendation based on DQO in 40 CFR Part 58 App A Sec. 2.3.1.2 QC Check Conc range 0.005 - 0.08 ppm and 05/05/2016 Technical Note on AMTIC
Zero/span check	Every 14 days	Zero drift < ± 3.1 ppb (24 hr) < ± 5.1 ppb (>24hr-14 day) Span drift < ± 10.1 %	1 and 2) QA Handbook Volume 2 Sec. 12.3 3) Recommendation and related to DQO
OPERATIONAL CRITERIA- SO_2	**OPERATIONAL CRITERIA- SO_2**	**OPERATIONAL CRITERIA- SO_2**	**OPERATIONAL CRITERIA- SO_2**
Shelter Temperature Range	Daily (hourly values)	20.0 to 30.0° C. (Hourly avg) or per manufacturers specifications if designated to a wider temperature range	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2 Generally, the 20-30.0 ° C range will apply but the most restrictive operable range of the instruments in the shelter may also be used as guidance. FRM/FEM list found on AMTIC provides temp. range for given instrument. FRM/FEM monitor testing is required at 20-30 ° C range per 40 CFR Part 53.32
Shelter Temperature Control	Daily (hourly values)	< 2.1° C SD over 24 hours	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2
Shelter Temperature Device Check	every 180 days and 2/calendar year	< ± 2.1° C of standard	1, 2 and 3) QA Handbook Volume 2 Sec. 7.2.2
Annual Performance Evaluation Single Analyzer	***Every site every 365 days and 1/ calendar year***	Percent difference of audit levels 3-10 < ±15.1% Audit levels 1&2 < ± 1.5 ppb difference or < ±15.1%	1 and 2) 40 CFR Part 58 App A Sec. 3.1.2 3) Recommendation - 3 audit concentrations not including zero. AMTIC Technical Memo
Federal Audits (NPAP)	20% of sites audited in calendar year	Audit levels 1&2 < ± 1.5 ppb difference all other levels percent difference < ± 15.1%	1&2) 40 CFR Part 58 App A Sec. 3.1.3 3) NPAP QAPP/SOP

Verification/Calibration	Upon receipt/adjustment/repair/ installation/moving Every 182 day and 2/ calendar year if manual zero/span performed biweekly Every 365 day and 1/ calendar year if continuous zero/span performed daily	All points < ± 2.1 % or < ± 1.5 ppb difference of best-fit straight line whichever is greater and Slope 1 ± .05	1) 40 CFR Part 50 App A-1 Sec. 4 2 and 3) Recommendation Multi-point calibration (0 and 4 upscale points) Slope criteria is a recommendation
1) Requirement (SO_2)	**2) Frequency**	**3) Acceptance Criteria**	**Information /Action**
Gaseous Standards	***All gas cylinders***	***NIST Traceable*** ***(e.g., EPA Protocol Gas)***	1) 40 CFR Part 50 App A-1 Sec. 4.1.6.1 2) NA Green Book 3) 40 CFR Part 50 App F Sec. 1.3.1 Producers must participate in Ambient Air Protocol Gas Verification Program 40 CFR Part 58 App A Sec. 2.6.1
Zero Air/ Zero Air Check	Every 365 days and 1/ calendar year	Concentrations below LDL < 0.1 ppm aromatic hydrocarbons	1) 40 CFR Part 50 App A-1 Sec. 4.1.6.2 2) Recommendation 3) Recommendation and 40 CFR Part 50 App A-1 Sec. 4.1.6.2
Gas Dilution Systems	Every 365 days and 1/ calendar year or after failure of 1point QC check or performance evaluation	***Accuracy < ± 2.1 %***	1) 40 CFR Part 50 App A-1Sec. 4.1.2 2) Recommendation 3) 40 CFR Part 50 App A-1 Sec. 4.1.2
Detection (FEM/FRMs) Noise and Lower Detectable Limits (LDL) are part of the FEM/FRM requirements. It is recommended that monitoring organizations perform the LDL test to minimally confirm and establish the LDL of their monitor. Performing the LDL test will provide the noise information.			
Noise	Every 365 days and 1/ calendar year	***≤ 0.001 ppm (standard range)*** ***≤ 0.0005 ppm (lower range)***	1) 40 CFR Part 53.23 (b) (definition & procedure) 2) Recommendation- info can be obtained from LDL 3) 40 CFR Part 53.20 Table B-1
Lower detectable level	Every 365 days and 1/ calendar year	***≤ 0.002 ppm (standard range)*** ***≤ 0.001 ppm (lower range)***	1) 40 CFR Part 53.23 (c) (definition & procedure) 2) Recommendation 3) 40 CFR Part 53.20 Table B-1
SYSTEMATIC CRITERIA- SO_2	**SYSTEMATIC CRITERIA- SO_2**	**SYSTEMATIC CRITERIA- SO_2**	**SYSTEMATIC CRITERIA- SO_2**
Standard Reporting Units	***All data***	***ppb (final units in AQS)***	1, 2 and 3) 40 CFR Part 50 App T Sec. 2 (c)
Rounding convention for design value calculation	***All routine concentration data***	***1 place after decimal with digits to right truncated***	1, 2 and 3) 40 CFR Part 50 App T Sec. 2 (c) The rounding convention is for averaging values for comparison to NAAQS not for reporting individual hourly values.
Completeness	***1 hour standard***	Hour – 75% of hour ***Day- 75% hourly Conc*** ***Quarter- 75% complete days Years- 4 complete quarters*** ***5-min value reported only for valid hours***	1, 2 and 3) 40 CFR Part 50 App T Sec. 3 (b), (c) More details in CFR on acceptable completeness. 5-min values or 5-min max value (40 CFR part 58.16(g)) only reported for the valid portion of the hour reported. If the hour is incomplete no 5-min or 5-min max reported.

Sample Residence Time Verification	Every 365 days and 1/ calendar year	***≤ 20 Seconds***	1) 40 CFR Part 58 App E, Sec. 9 (c) 2) Recommendation 3) 40 CFR Part 58 App E, Sec. 9 (c)
Sample Probe, Inlet, Sampling train	***All sites***	***Borosilicate glass (e.g., Pyrex®) or Teflon®***	1, 2 and 3) 40 CFR Part 58 App E Sec. 9 (a) FEP and PFA have been accepted as equivalent material to Teflon. Replacement or cleaning is suggested as 1/year and more frequent if pollutant load or contamination dictate
1) Requirement (SO_2)	**2) Frequency**	**3) Acceptance Criteria**	**Information /Action**
Siting	Every 365 days and 1/ calendar year	***Meets siting criteria or waiver documented***	1) 40 CFR Part 58 App E, Sec. 2-6 2) Recommendation 3) 40 CFR Part 58 App E, Sec. 2-6
Precision (using 1-point QC checks)	***Calculated annually and as appropriate for design value estimates***	***90% CL CV < 10.1%***	1) 40 CFR Part 58 App A Sec. 2.3.1.6 & 3.1.1 2) 40 CFR Part 58 App A Sec. 4 (b) 3) 40 CFR Part 58 App A Sec. 4.1.2
Bias (using 1-point QC checks)	***Calculated annually and as appropriate for design value estimates***	***95% CL < ± 10.1%***	1) 40 CFR Part 58 App A Sec. 2.3.1.6 & 3.1.1 2) 40 CFR Part 58 App A Sec. 4 (b) 3) 40 CFR Part 58 App A Sec. 4.1.3

[1] Table reproduced from OAQPS' *QA Handbook Appendix D Validation Templates. Ambient Air Quality Monitoring Program EPA-454/B-17-001 March, 2017. Appendix D.* https://www3.epa.gov/ttn/amtic/files/ambient/pm25/qa/APP_D%20validation%20template%20version%2003_2017_for%20AMTIC%20Rev_1.pdf

[2] Match numbered details within the 4) Information/Action column with columns (1) Requirement (pollutant), (2) Frequency, and (3) Acceptance Criteria.

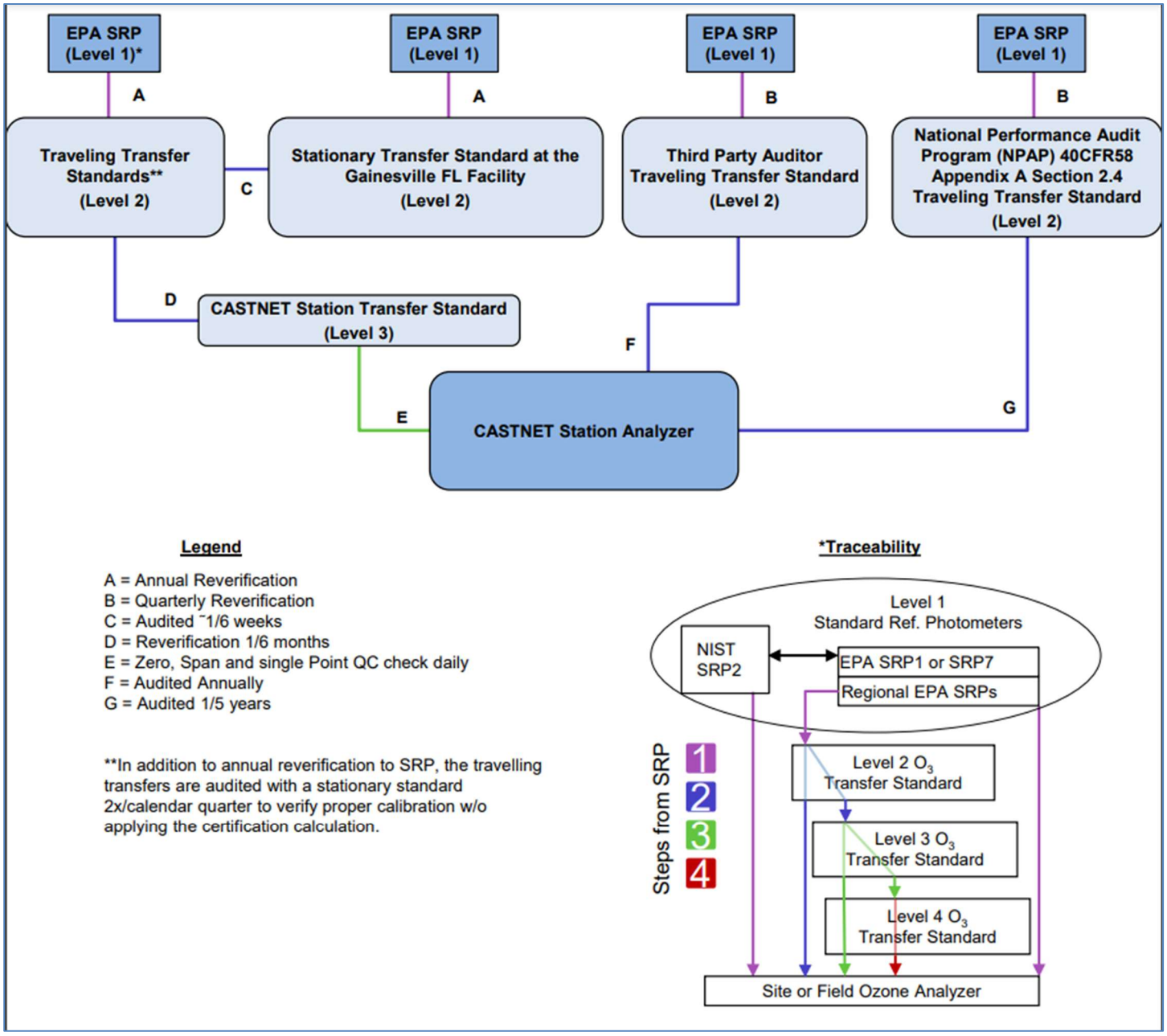
Appendix C. Ozone Season by State[1,2]

State	Begin Month	End Month
Alabama	March	October
Alaska	April	October
Arizona	January	December
Arkansas	March	November
California	January	December
Colorado	January	December
Connecticut	March	September
Delaware	March	October
District of Columbia	March	October
Florida	January	December
Georgia	March	October
Hawaii	January	December
Idaho	April	September
Illinois	March	October
Indiana	March	October
Iowa	March	October
Kansas	March	October
Kentucky	March	October
Louisiana (Northern) AQCR 019, 022	March	October
Louisiana (Southern) AQCR 106	January	December
Maine	April	September
Maryland	March	October
Massachusetts	March	September
Michigan	March	October
Minnesota	March	October
Mississippi	March	October
Missouri	March	October
Montana	April	September
Nebraska	March	October
Nevada	January	December
New Hampshire	March	September
New Jersey	March	October
New Mexico	January	December
New York	March	October
North Carolina	March	October
North Dakota	March	September
Ohio	March	October
Oklahoma	March	November
Oregon	May	September
Pennsylvania	March	October
Puerto Rico	January	December
Rhode Island	March	September
South Carolina	March	October
South Dakota	March	October
Tennessee	March	October
Texas (Northern) AQCR 022, 210, 211, 212, 215, 217, 218	March	November
Texas (Southern) AQCR 106, 153, 213, 214, 216	January	December
Utah	January	December
Vermont	April	September
Virginia	March	October
Washington	May	September
West Virginia	March	October

Wisconsin	March	October 15
Wyoming	January	September
American Samoa	January	December
Guam	January	December
Virgin Islands	January	December

[1] Ozone season by State from Appendix D to 40 CFR Part 58, Table D-3.
[2] Air Quality Control Region (AQCR) as delineated in 40 CFR Part 81, Subpart B.

Appendix D. CASTNET QAPP Ozone Certification Flowchart



Appendix E. EPA Regional Office Contacts Information

EPA Region	Name	Phone	Email
Region 1	Cuzzupe, Mary Jane Murphy, Alysha	617-918-8383 617-918-8381	cuzzupe.maryjane@epa.gov murphy.alysha@epa.gov
Region 2	Ruvo, Richard A. Gavin, Lau	212-637-4014 212-637-3708	ruvo.richard@epa.gov gavin.lau@epa.gov
Region 3	Hyden, Loretta	215-814-2113	hyden.loretta@epa.gov
Region 4	Rinck, Todd Garver, Daniel	404-562-9062 404-562-9839	rinck.todd@epa.gov garver.daniel@epa.gov
Region 5	Hamilton, Scott Compher, Michael	312-353-4775 312-886-5745	hamilton.scott@epa.gov compher.michael@epa.gov
Region 6	Apodaca, Suzanne	214-665-6556	apodaca.suzanne@epa.gov
Region 7	Davis, Michael Krabbe, Stephen	913-551-5042 913-551-7991	davis.michael@epa.gov krabbe.stephen@epa.gov
Region 8	Rickard, Joshua	303-312-6460	rickard.joshua@epa.gov
Region 9	Biland, Larry	415-947-4132	biland.larry@epa.gov
Region 10	Waldo, Sarah Wallace, Will	206-553-1504 206-553-2495	waldo.sarah@epa.gov wallace.will@epa.gov

Appendix F. Outline for TSA Report

Please refer to *Conducting Technical Systems Audits of Ambient Air Monitoring Programs document # EPA-454/B-17-004 November 2017*

1. Executive Summary
2. Introduction
3. General Program and Quality Management (Audit of EPA contractor's office and NPS contractor's office)
    a. Complete General/Quality Management Forms
    b. Findings, Discussions, Recommendations
4. Network Management
    a. Complete Network Management, Field Support, Instrument Certification/Testing, Standards and Calibrations, and Instrument Repair Forms
    b. Table listing the site locations, number of monitors at each location, type of monitor (SLAMS, SPM, etc.), what is measured
    c. Findings, Discussions, Recommendations
5. Field Operations
    a. Complete Field Overview Forms
    b. Table that list site name, AQS ID, and pollutants monitored
    c. Findings, Discussions, Recommendations
6. Laboratory Operations
    a. Complete Laboratory Operations Forms
    b. Findings, Discussions, Recommendations
7. Data and Data Management
    a. Complete Data and Data Management Forms
    b. Findings, Discussions, Recommendations
8. Quality Control and Quality Assurance

Appendix G. Current list of 40 CFR Part 58 Compliant CASTNET Ozone and Trace-level Gas Monitors

EPA Region	ST	AQS ID	POC	PARAM	SITE ID	AGY	PQAO[1]	NOTES	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1	CT	090159991	1	O3	ABT147	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	ME	230039991	1	O3	ASH135	EPA	EPA	Suspended All May 2022	Y	Y	Y	Y	Y	Y	Y			
1	ME	230090103	1	O3	ACA416	NPS	ME		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
1	ME	230199991	1	O3	HOW132	EPA	EPA	Discontinued 10/2012										
1	NH	330099991	1	O3	WST109	EPA	EPA	Restarted Oct 2023	Y	Y	Y	Y	Y	Y	Y			Y
2	NJ	340219991	1	O3	WSP144	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
2	NY	360319991	1	O3	HWF187	EPA	EPA	Suspended All May 2022	Y	Y	Y	Y	Y	Y				
2	NY	361099991	1	O3	CTH110	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	MD	240199991	1	O3	BWR139	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	MD	240339991	1	SO_2 1Hr	BEL116	EPA	EPA	Discontinued 4/2017	Y	Y								
3	MD	240339991	2	SO_2 5Min	BEL116	EPA	EPA	Discontinued 4/2017	Y	Y								
3	MD	240339991	1	O3	BEL116	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	PA	420019991	1	O3	ARE128	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	PA	420279991	1	O3	PSU106	EPA	EPA	Suspended Filterpack May 2022	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	PA	420479991	1	O3	KEF112	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	PA	420859991	1	O3	MKG113	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	PA	421119991	1	O3	LRL117	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	VA	510719992	1	O3	VPI120	EPA	EPA	Changed AQS ID in August 2020	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	VA	511130003	1	O3	SHN418	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	VA	511479991	1	O3	PED108	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
3	WV	540219991	1	O3	CDR119	EPA	EPA	Suspended All May 2022	Y	Y	Y	Y	Y	Y	Y			
3	WV	540939991	1	O3	PAR107	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	AL	010499991	1	O3	SND152	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	FL	120619991	1	O3	IRL141	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	FL	120779991	1	O3	SUM156	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	GA	132319991	1	O3	GAS153	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	KY	210610501	1	O3	MAC426	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	KY	210610501	1	CO	MAC426	NPS	NPS	Discontinued July 31, 2023				Y	Y					
4	KY	210610501	1	SO_2 1Hr	MAC426	NPS	NPS	Discontinued July 31, 2023				Y	Y					
4	KY	210610501	5	SO_2 5Min	MAC426	NPS	NPS	Discontinued July 31, 2023				Y	Y					
4	KY	211759991	1	O3	CKT136	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
4	KY	212219991	1	O3	CDZ171	EPA	EPA	Discontinued May 10, 2024	Y	Y	Y	Y	Y	Y	Y			
4	KY	212299991	1	O3	MCK131	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

4	KY	212299991	2	O3	MCK231	EPA	EPA	QA only beginning 1/1/2015[3]											
4	MS	281619991	1	O3	CVL151	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
4	NC	370119991	1	O3	PNF126	EPA	EPA	Suspended All May 2022	Y	Y	Y	Y	Y	Y	Y				
4	NC	370319991	1	O3	BFT142	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
4	NC	371139991	1	O3	COW137	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
4	NC	371239991	1	O3	CND125	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
4	NC	N/A	NA	O3	DUK008	EPA	EPA	NAAQS-EXCLUDED											
4	TN	470090101	1	O3	GRS420	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
4	TN	470259991	1	O3	SPD111	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
4	TN	470419991	1	O3	ESP127	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	IL	170191001	1	O3	BVL130	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	IL	170191001	2	SO_2 1Hr	BVL130	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	IL	170191001	3	SO_2 5Min	BVL130	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	IL	170191001	1	CO	BVL130	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	IL	170859991	1	O3	STK138	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	IL	171199991	1	O3	ALH157	EPA	EPA	Discontinued on 12/6/2022	Y	Y	Y	Y	Y	Y	Y	Y			
5	IN	180839991	1	O3	VIN140	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	IN	181699991	1	O3	SAL133	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	MI	261579991	1	O3	UVL124	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	MI	261619991	1	O3	ANA115	EPA	EPA	Suspended Filterpack May 2022	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	MI	261659991	1	O3	HOX148	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	MN	271370034	1	O3	VOY413	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	OH	390179991	1	O3	OXF122	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	OH	390479991	1	O3	DCP114	EPA	EPA	Suspended All May 2022	Y	Y	Y	Y	Y	Y	Y				
5	OH	391219991	1	O3	QAK172	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
5	WI	551199991	1	O3	PRK134	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
6	AR	050199991	1	O3	CAD150	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
6	OK	400019009	1	O3	CHE185	EPA	CN		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
6	NM	350150010	1	O3	CAV436	NPS	NPS	Existing NPS site, included w/CASTNET on 3/5/2021							Y	Y	Y	Y	
6	NM	350450020	1	O3	CHC432	NPS	NPS	New site, 2017			Y	Y	Y	Y	Y	Y	Y	Y	
6	TX	480430101	1	O3	BBE401	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
6	TX	483739991	1	O3	ALC188	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
6	TX	483819991	1	O3	PAL190	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
7	KS	201619991	1	O3	KNZ184	EPA	EPA	Discontinued 4/2013											
7	NE	311079992	1	O3	SAN192	EPA	EPA	Requested new AQS and CASTNET ID when site moved	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
8	CO	080519991	1	O3	GTH161	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

8	CO	080690007	3	O3	ROM206	EPA	EPA	QA only beginning 10/2012											
8	CO	080690007	1	O3	ROM406	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	CO	080830101	1	O3	MEV405	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	MT	300298001	1	O3	GLR468	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	ND	380070002	1	O3	THR422	NPS	ND		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	UT	490370101	1	O3	CAN407	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	WY	560019991	1	O3	CNT169	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	WY	560030002	1	O3	BAS601	BLM	BLM		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	WY	560359991	1	O3	PND165	EPA	EPA		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	WY	560390008	1	O3	GRT434	NPS	NPS	Existing NPS site, included w/CASTNET on 7/1/2019					Y	Y	Y	Y	Y	Y
8	WY	560391011	1	O3	YEL408	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	WY	560450003	1	O3	NEC602	BLM	BLM		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	UT	490471002	1	O3	DIN431	NPS	NPS	New site 1/2014	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
8	UT	490530130	1	O3	ZIO433	NPS	NPS	Existing NPS site, included w/CASTNET on 1/1/2018				Y	Y	Y	Y	Y	Y	Y
9	AZ	040038001	1	O3	CHA467	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	AZ	040058001	1	O3	GRC474	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	AZ	040170119	1	O3	PET427	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	CA	060270101	1	O3	DEV412	NPS	NPS	Existing NPS site, included w/CASTNET on 5/1/2019					Y	Y	Y	Y	Y	Y
9	CA	060430003	1	O3	YOS404	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	CA	060690003	1	O3	PIN414	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	CA	060719002	1	O3	JOT403	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	CA	060739991	1	O3	LPO010	EPA	EPA	New site started 1/27/2023									Y	Y
9	CA	060893003	1	O3	LAV410	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	CA	061070009	1	O3	SEK430	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
9	NV	320330101	1	O3	GRB411	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10	AK	020680003	1	O3	DEN417	NPS	NPS		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
10	WA	530139991	1	O3	UMA009	EPA	EPA	New site 11/2020							Y	Y	Y	Y
10	ID	160230101	1	O3	CRM435	NPS	NPS	Existing NPS site, included w/CASTNET on 11/1/2019					Y	Y	Y	Y	Y	Y
10	ID	160499991	1	O3	NPT006	EPA	EPA	Site started on 9/2016			Y	Y	Y	Y	Y	Y	Y	Y
								Network Ozone Sites[4]	**78**	**78**	**78**	**79**	**82**	**82**	**83**	**77**	**77**	**78**
								Network SO_2 Sites	**2**	**2**	**1**	**2**	**2**	**1**	**1**	**1**	**1**	**1**

								Network CO Sites	**1**	**1**	**1**	**2**	**2**	**1**	**1**	**1**	**1**	**1**

[1] See Appendix I for details on PQAO

[2] Year column indicates monitor may be compared to the NAAQS for that year

[3] Bold font indicates status change to the monitor for the upcoming year

[4] Network ozone site totals do not include the three NAAQS-excluded monitors used for quality assurance or research purposes (ROM206, MCK231, and DUK008)

Appendix H. CBSA Code and Title for CASTNET Sites

EPA RGN	AQS ID	POC	CASTNET ID	STATE	COUNTY	O3 DV PPB[1]	CBSA[2]	POP.[3]
1	090159991	1	ABT147	CT	Windham	64	Worcester, MA-CT	798,552
1	230039991	1	ASH135	ME	Aroostook			
1	230090103	1	ACA416	ME	Hancock	61		
1	330099991	1	WST109	NH	Grafton		Claremont-Lebanon, NH-VT	
2	340219991	1	WSP144	NJ	Mercer	65	Trenton, NJ	366,513
2	360319991	1	HWF187	NY	Essex			
2	361099991	1	CTH110	NY	Tompkins	59	Ithaca, NY	101,564
3	240199991	1	BWR139	MD	Dorchester	61	Cambridge, MD	
3	240339991	1	BEL116	MD	Prince George's	67	Washington-Arlington-Alexandria, DC-VA-MD-WV	5,582,170
3	420019991	1	ARE128	PA	Adams	62	Gettysburg, PA	
3	420279991	1	PSU106	PA	Centre	61	State College, PA	153,990
3	420479991	1	KEF112	PA	Elk	58		
3	420859991	1	MKG113	PA	Mercer	62	Youngstown-Warren-Boardman, OH-PA	565,773
3	421119991	1	LRL117	PA	Somerset	59	Somerset, PA	
3	510719992	1	VPI120	VA	Giles	59	Blacksburg-Christiansburg-Radford, VA	162,958
3	511130003	1	SHN418	VA	Madison	58		
3	511479991	1	PED108	VA	Prince Edward	55		
3	540219991	1	CDR119	WV	Gilmer			
3	540939991	1	PAR107	WV	Tucker	58		
4	010499991	1	SND152	AL	DeKalb	58		
4	120619991	1	IRL141	FL	Indian River	59	Sebastian-Vero Beach, FL	138,028
4	120779991	1	SUM156	FL	Liberty	56		
4	132319991	1	GAS153	GA	Pike	58	Atlanta-Sandy Springs-Roswell, GA	5,268,860
4	210610501	1	MAC426	KY	Edmonson	59	Bowling Green, KY	125,953
4	211759991	1	CKT136	KY	Morgan	57		
4	212219991	1	CDZ171	KY	Trigg		Clarksville, TN-KY	273,949
4	212299991	1	MCK131	KY	Washington	60		
4	212299991	2	MCK231	KY	Washington	60		
4	281619991	1	CVL151	MS	Yalobusha	57		
4	370119991	1	PNF126	NC	Avery			
4	370319991	1	BFT142	NC	Carteret	58	Morehead City, NC	
4	371139991	1	COW137	NC	Macon	55		
4	371239991	1	CND125	NC	Montgomery	58		
4	470090101	1	GRS420	TN	Blount	63	Knoxville, TN	698,030
4	470259991	1	SPD111	TN	Claiborne	56		
4	470419991	1	ESP127	TN	DeKalb	57		
5	170191001	1	BVL130	IL	Champaign	63	Champaign-Urbana, IL	231,891
5	170859991	1	STK138	IL	Jo Daviess	62		

5	171199991	1	ALH157	IL	Madison	67	St. Louis, MO-IL	2,812,896
5	180839991	1	VIN140	IN	Knox	66	Vincennes, IN	
5	181699991	1	SAL133	IN	Wabash	65	Wabash, IN	
5	261579991	1	UVL124	MI	Tuscola	66		
5	261619991	1	ANA115	MI	Washtenaw	65	Ann Arbor, MI	344,791
5	261659991	1	HOX148	MI	Wexford	68	Cadillac, MI	
5	271370034	1	VOY413	MN	Saint Louis	55	Duluth, MN-WI	279,771
5	390179991	1	OXF122	OH	Butler	64	Cincinnati, OH-KY-IN	2,130,151
5	390479991	1	DCP114	OH	Fayette		Washington Court House, OH	
5	391219991	1	QAK172	OH	Noble	61		
5	551199991	1	PRK134	WI	Taylor	59		
6	050199991	1	CAD150	AR	Clark	57	Arkadelphia, AR	
6	350150010	1	CAV436	NM	Eddy	77	Carlsbad-Artesia, NM	
6	350450020	1	CHC432	NM	San Juan	68	Farmington, NM	130,044
6	400019009	1	CHE185	OK	Adair	61		
6	480430101	1	BBE401	TX	Brewster	61		
6	483739991	1	ALC188	TX	Polk	57		
6	483819991	1	PAL190	TX	Randall	67	Amarillo, TX	249,881
7	311079992	1	SAN192	NE	Knox	67		
8	080519991	1	GTH161	CO	Gunnison	65		
8	080690007	1	ROM406	CO	Larimer	72	Fort Collins, CO	299,630
8	080690007	3	ROM206	CO	Larimer	72	Fort Collins, CO	299,630
8	080830101	1	MEV405	CO	Montezuma	66		
8	300298001	1	GLR468	MT	Flathead	53	Kalispell, MT	
8	380070002	1	THR422	ND	Billings	58		
8	460330132	3	WNC429	SD	Custer	63	Rapid City, SD	126,382
8	490370101	1	CAN407	UT	San Juan	66		
8	490471002	1	DIN431	UT	Uintah	64	Vernal, UT	
8	490530130	1	ZIO433	UT	Washington	66	St. George, UT	138,115
8	560019991	1	CNT169	WY	Albany	68	Laramie, WY	
8	560030002	1	BAS601	WY	Big Horn	60		
8	560359991	1	PND165	WY	Sublette	67		
8	560390008	1	GRT434	WY	Teton	61	Jackson, WY-ID	
8	560391011	1	YEL408	WY	Teton	62	Jackson, WY-ID	
8	560450003	1	NEC602	WY	Weston	64		
9	040038001	1	CHA467	AZ	Cochise	65	Sierra Vista-Douglas, AZ	
9	040058001	1	GRC474	AZ	Coconino	63	Flagstaff, AZ	134,421
9	040170119	1	PET427	AZ	Navajo	66	Show Low, AZ	
9	060270101	1	DEV412	CA	Inyo	72		
9	060430003	1	YOS404	CA	Mariposa	77		
9	060430003	2	YOS204	CA	Mariposa	77		
9	060690003	1	PIN414	CA	San Benito	67	San Jose-Sunnyvale-Santa Clara, CA	1,836,911
9	060719002	1	JOT403	CA	San Bernardino	81	Riverside-San Bernardino-Ontario, CA	4,224,851

9	060739991	1	LPO010	CA	San Diego		San Diego-Carlsbad, CA	3,263,431
9	060893003	1	LAV410	CA	Shasta	68	Redding, CA	177,223
9	061070009	1	SEK430	CA	Tulare	91	Visalia-Porterville, CA	442,179
9	320330101	1	GRB411	NV	White Pine	66		
10	020680003	1	DEN417	AK	Denali	53		
10	160230101	1	CRM435	ID	Butte	65	Idaho Falls, ID	130,374
10	160499991	1	NPT006	ID	Idaho	59		
10	530139991	1	UMA009	WA	Columbia		Walla Walla, WA	

[1] Design values are displayed for the 2020-2022 sampling period when data completeness requirements are satisfied. These values originate from OAQPS' Air Trends website: https://www.epa.gov/air-trends/air-quality-design-values#report.

[2] CBSA = Core Based Statistical Area - A statistical geographic entity consisting of the county or counties associated with at least one core (urbanized area or urban cluster) of at least 10,000 population, plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties with the counties containing the core.

Definitions of statistical areas are from the Office of Management and Budget Federal Register Notice Vol 65, No. 249. December 27, 2000.
https://www.bls.gov/lau/frn249.pdf

[3]POP. = CBSA 2014 Census from OAPQS' AIRSRAQS.CORE_BASED_STATISTICAL_AREAS Census Population Data

Appendix I. Summary of Current CASTNET Ozone and Trace-level Gas Monitors

2024 SUMMARY

PQAO[1]	PQAO Name	O_3 Sites	SO_2	CO
1344	Environmental Protection Agency – Clean Air and Power Division	47[2]	1	1
0745	National Park Service – Air Resources Division	27		
1366	Bureau of Land Management – Wyoming State Office	2		
905	Cherokee Nation	1		
0782	North Dakota – Department of Health	1		
0635	Maine Department of Environmental Protection – Bureau of Air Quality Control	1		
	Total	79	1	1

[1] Principal Quality Assurance Organization (PQAO) as identified within the AQS AMP480 report.
[2] EPA-CAPD's site count of 48 includes three NAAQS Excluded ozone monitors: the EPA-sponsored QA monitor in Rocky Mountain National Park, CO (ROM206), the co-located QA monitor in Mackville, KY (MCK231), and the ozone monitor sited above a forest canopy in Duke Forest, NC (DUK008).

Appendix J. CASTNET Parameter Key

CASTNET Parameter	Site List
Alberta Environment and Protected Areas Small Footprint Filterpack	ALB801
BLM Small Footprint Filterpack and Meteorology	BUF603, FOR605, SHE604
BLM Small Footprint Filterpack, Ozone, and Meteorology	BAS601, NEC602
EPA Co-located Pair with Filterpack and Ozone	MCK131/MCK231
EPA Filterpack and Ozone	ABT147, ALC188, ARE128, BFT142, BWR139, CAD150, CKT136, CND125, CNT169, COW137, CTH110, CVL151, ESP127, GAS153, GTH161, HOX148, KEF112, LRL117, MKG113, OXF122, PAL190, PAR107, PED108, PND165, PRK134, QAK172, SAL133, SND152, SPD111, STK138, SUM156, UVL124, VIN140, VPI120, WSP144, WST109
EPA Filterpack, Ozone, and Trace-level Gas	SAN192, STK138
EPA Ozone - Suspended Filterpack	ANA115, PSU106
EPA Suspended Filterpack and Ozone	ASH135, CDR119, DCP114
EPA Filterpack	CAT175, EGB181, KNZ184, WFM105
EPA Filterpack, Non-Regulatory Ozone, and Trace-level Gas	DUK008
EPA Filterpack, Ozone, Meteorology, and Trace-level Gas	BVL130
EPA Filterpack, Ozone, and Meteorology	BEL116, CHE185, IRL141, PND165
EPA Suspended Filterpack, Ozone, and Trace-level Gas	HWF187, PNF126
EPA Small Footprint Ozone and Filterpack	LPO010, NPT006, and UMA009
EPA Small Footprint Filterpack	ALB801, NIC001, RED004, WFM105
EPA Suspended Small Footprint	UND002
NCore Participant	ACA416, BVL130, CHE185, GRS420
NPS Filterpack and Meteorology	EVE419
NPS Filterpack, Ozone, Meteorology, and Trace-level Gas	GRS420
NPS Filterpack, Ozone, and Meteorology	ACA416, BBE401, CAN407, CHA467, DEN417, DIN431, GLR468, GRB411, GRC474, JOT403, LAV410, MAC426, MEV405, PIN414, SEK430, SHN418, VOY413, WNC429, YEL408, YOS404
NPS Ozone and Meteorology	CAV436, CRM435, DEV412, GRT434, ZIO433
NPS Ozone, Meteorology, and Trace-level Gas	CHC432
NPS/EPA Co-located Pair with EPA Filterpack, and Ozone	ROM406/ROM206
New York Department of Environmental Conservation Small Footprint	WFM105, NIC001

* Meteorological measurements at PND165 are sponsored by BLM-WSO.

Appendix K. EPA-Sponsored CASTNET Suspended Site List

Site ID	AQS ID	POC	State	EPA Region	Parameters Active	Parameters Suspended
ASH135	230039991	1	ME	1		Ozone and Filterpack
UND002	NA	NA	VT	1		Filterpack
HWF187	360319991	1	NY	2		Ozone, Trace-Level Gas, and Filterpack
PSU106	420279991	1	PA	3	Ozone	Filterpack
CDR119	540219991	1	WV	3		Ozone and Filterpack
PNF126	370119991	1	NC	4		Ozone, Trace-Level Gas, and Filterpack
ANA115	261619991	1	MI	5	Ozone	Filterpack
DCP114	390479991	1	OH	5		Ozone and Filterpack

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
BLM-WARMS	WY	Ambient Temp/Rel Hum	In-Service	Vaisala	HMP45AC	Z3210004				BAS601, 56-003-0002
BLM-WARMS	WY	Ambient Temperature	In-Service	Campbell Scientific	107	WARMS01				BAS601, 56-003-0002
BLM-WARMS	WY	Barometric Pressure	In-Service	Vaisala	PTB101B	W4830009				BAS601, 56-003-0002
BLM-WARMS	WY	Datalogger	In-Service	Campbell Scientific	CR1000	47759				BAS601, 56-003-0002
BLM-WARMS	WY	Gas Cylinders	In-Service	Site	Gas Cylinders	BASI-CYL				BAS601, 56-003-0002
BLM-WARMS	WY	Infrastructure	In-Service	Site	Infrastructure	BASI				BAS601, 56-003-0002
BLM-WARMS	WY	Mass Flow Controller	In-Service	Omega	FMA6518ST-RS232	332759-1				BAS601, 56-003-0002
BLM-WARMS	WY	Modem	In-Service	Sierra Wireless	GX450	LA71010352001005				BAS601, 56-003-0002
BLM-WARMS	WY	O3 Analyzer	In-Service	Thermo	49I	1214552971				BAS601, 56-003-0002
BLM-WARMS	WY	O3 Analyzer	In-Service	Thermo	49I	1214552973				BAS601, 56-003-0002
BLM-WARMS	WY	PM10 & PM2.5	In-Service	Met One	EBAM	T15950				BAS601, 56-003-0002
BLM-WARMS	WY	Precipitation	In-Service	Met One	375	T15382				BAS601, 56-003-0002
BLM-WARMS	WY	Shelter	In-Service	Shelter One	BX902B	AR48-01				BAS601, 56-003-0002
BLM-WARMS	WY	Solar Radiation	In-Service	Apogee	CS301	72391				BAS601, 56-003-0002
BLM-WARMS	WY	Wind Direction	In Service	Met One	024A	K1599				BAS601, 56-003-0002
BLM-WARMS	WY	Wind Speed	In-Service	Met One	014A	J2228				BAS601, 56-003-0002
BLM-WARMS	WY	Ambient Temp/Rel Hum	In-Service	Vaisala	HMP45AC	Y3850007				BUF603, --
BLM-WARMS	WY	Ambient Temperature	In-Service	Campbell Scientific	107	WARMS02				BUF603, --
BLM-WARMS	WY	Barometric Pressure	In Service	Apogee	SB-100	1989				BUF603, --
BLM-WARMS	WY	Datalogger	In-Service	Campbell Scientific	CR1000	49917				BUF603, --
BLM-WARMS	WY	Gas Cylinders	In-Service	Site	Gas Cylinders	BUFF-CYL				BUF603, --
BLM-WARMS	WY	Infrastructure	In-Service	Site	Infrastructure	BUFF				BUF603, --
BLM-WARMS	WY	Mass Flow Controller	In-Service	Omega	FMA6518ST	315688-1				BUF603, --
BLM-WARMS	WY	Modem	In-Service	Sierra Wireless	GX450	LA72510255001005				BUF603, --
BLM-WARMS	WY	Precipitation	In-Service	Met One	385	G5694				BUF603, --
BLM-WARMS	WY	Solar Radiation	In Service	Apogee	CS301	73089				BUF603, --
BLM-WARMS	WY	Wind Direction	In-Service	Met One	024A	F1476				BUF603, --
BLM-WARMS	WY	Wind Speed	In-Service	Met One	014A	1506				BUF603, --
BLM-WARMS	WY	Ambient Temp/Rel Hum	In-Service	Vaisala	HMP45AC	Y3730019				FOR605, --
BLM-WARMS	WY	Ambient Temperature	In-Service	Campbell Scientific	107	WARMS03				FOR605, --
BLM-WARMS	WY	Barometric Pressure	In-Service	Vaisala	PTB101B	Z0940018				FOR605, --
BLM-WARMS	WY	Gas Cylinders	In-Service	Site	Gas Cylinders	FOCR-CYL				FOR605, --
BLM-WARMS	WY	Infrastructure	In-Service	Site	Infrastructure	FOCR				FOR605, --
BLM-WARMS	WY	Mass Flow Controller	In-Service	Omega	FMA6518ST-RS232	394013-1				FOR605, --
BLM-WARMS	WY	Modem	In-Service	Sierra Wireless	GX450	LA72970661001005				FOR605, --
BLM-WARMS	WY	PM10 & PM2.5	In-Service	Met One	EBAM	T15944				FOR605, --
BLM-WARMS	WY	Precipitation	In Service	Met One	385	G5964				FOR605, --
BLM-WARMS	WY	Solar Radiation	In Service	Apogee	CS301	67612				FOR605, --
BLM-WARMS	WY	Wind Direction	In-Service	Met One	024A	D3050				FOR605, --
BLM-WARMS	WY	Wind Speed	In-Service	Met One	014A	K2273				FOR605, --
BLM-WARMS	WY	Ambient Temp/Rel Hum	In Service	Vaisala	HMP45AC	Z1050067				NEC602, 56-045-0003
BLM-WARMS	WY	Ambient Temperature	In-Service	Campbell Scientific	107	(371)				NEC602, 56-045-0003
BLM-WARMS	WY	Barometric Pressure	In Service	Vaisala	PTB101B	W1020015				NEC602, 56-045-0003
BLM-WARMS	WY	Gas Cylinders	In-Service	Site	Gas Cylinders	NEWC-CYL				NEC602, 56-045-0003
BLM-WARMS	WY	Infrastructure	In-Service	Site	Infrastructure	NEWC				NEC602, 56-045-0003
BLM-WARMS	WY	Mass Flow Controller	In Service	Omega	FMA6500	3G4013-3				NEC602, 56-045-0003
BLM-WARMS	WY	O3 Analyzer	In-Service	Thermo	49I	1214552972				NEC602, 56-045-0003
BLM-WARMS	WY	O3 Analyzer	In-Service	Thermo	49I	1214552974				NEC602, 56-045-0003
BLM-WARMS	WY	PM10 & PM2.5	In Service	Met One	EBAM	15948				NEC602, 56-045-0003
BLM-WARMS	WY	Precipitation	In-Service	Met One	375	T15381				NEC602, 56-045-0003
BLM-WARMS	WY	Solar Radiation	In Service	Apogee	CS301	73091				NEC602, 56-045-0003
BLM-WARMS	WY	Wind Direction	In-Service	Met One	024A	J5213				NEC602, 56-045-0003
BLM-WARMS	WY	Wind Speed	In-Service	Met One	014A	J1234				NEC602, 56-045-0003
BLM-WARMS	WY	Ambient Temp/Rel Hum	In Service	Vaisala	HMP60	V0831781				PND165, 56-035-9991
BLM-WARMS	WY	Ambient Temperature	In-Service	RM Young	41342VC	12544				PND165, 56-035-9991

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
BLM-WARMS	WY	Ambient Temperature	In-Service	RM Young	41342VC	14800				PND165, 56-035-9991
BLM-WARMS	WY	Gas Cylinders	In-Service	Site	Gas Cylinders	PINE-CN-CYL				PND165, 56-035-9991
BLM-WARMS	WY	Infrastructure	In-Service	Site	Infrastructure	PINE-CN				PND165, 56-035-9991
BLM-WARMS	WY	Precipitation	In-Service	Texas Electronics	TR-525I	T16273				PND165, 56-035-9991
BLM-WARMS	WY	Solar Radiation	In-Service	LiCor	LI-200	PY77051				PND165, 56-035-9991
BLM-WARMS	WY	Wind Monitor	In-Service	RM Young	5305	21835				PND165, 56-035-9991
BLM-WARMS	WY	Ambient Temp/Rel Hum	In-Service	Vaisala	HMP45AC	E3720077				SHE604, --
BLM-WARMS	WY	Ambient Temperature	In-Service	Campbell Scientific	107	WARMS05				SHE604, --
BLM-WARMS	WY	Barometric Pressure	In Service	Vaisala	PTB101B	X3830009				SHE604, --
BLM-WARMS	WY	Gas Cylinders	In-Service	Site	Gas Cylinders	SHER-CYL				SHE604, --
BLM-WARMS	WY	Infrastructure	In-Service	Site	Infrastructure	SHER				SHE604, --
BLM-WARMS	WY	Mass Flow Controller	In Service	Omega	FMA6500	324333-2				SHE604, --
BLM-WARMS	WY	Precipitation	In-Service	Met One	375	N8139				SHE604, --
BLM-WARMS	WY	Solar Radiation	In Service	Apogee	CS301	72382				SHE604, --
BLM-WARMS	WY	Wind Direction	In-Service	Met One	024A	1505				SHE604, --
BLM-WARMS	WY	Wind Speed	In Service	Met One	014A	ARS1000				SHE604, --
EPA/CAPD	CT	Ambient Temperature	In Use	RM Young	41342	6706	2/1/2002	$294	Poor	ABT147, 09-015-9991
EPA/CAPD	CT	Data Logger	In Use	Campbell Scientific	CR3000	2519	3/14/2008	$3,026	Poor	ABT147, 09-015-9991
EPA/CAPD	CT	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241772	4/6/2010	$7,382	Fair	ABT147, 09-015-9991
EPA/CAPD	CT	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347330	2/25/2011	$7,201	Fair	ABT147, 09-015-9991
EPA/CAPD	CT	Shelter	In Use	Ekto	8810	2149-9	1/1/1988	$5,638	Poor	ABT147, 09-015-9991
EPA/CAPD	CT	Tower	In Use	Aluma Tower	AT-516	N/A	9/1/1996	$1,373	Fair	ABT147, 09-015-9991
EPA/CAPD	TX	Ambient Temperature	In Use	RM Young	41342	31773	10/2/2019	$137	Fair	ALC188, 48-373-9991
EPA/CAPD	TX	Data Logger	In Use	Campbell Scientific	CR3000	2523	3/14/2008	$3,026	Poor	ALC188, 48-373-9991
EPA/CAPD	TX	Pollutant Monitor	In Use	Thermo Environmental	49I	0922236890	7/10/2009	$9,306	Poor	ALC188, 48-373-9991
EPA/CAPD	TX	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347313	2/24/2011	$5,783	Fair	ALC188, 48-373-9991
EPA/CAPD	TX	Tower	In Use	Aluma Tower	AT-516D-1	N/A	10/7/2003	$2,480	Fair	ALC188, 48-373-9991
EPA/CAPD	MI	Ambient Temperature	In Use	RM Young	41342	14796	9/11/2008	$129	Poor	ANA115, 26-161-9991
EPA/CAPD	MI	Data Logger	In Use	Campbell Scientific	CR3000	2118	9/6/2007	$3,020	Poor	ANA115, 26-161-9991
EPA/CAPD	MI	Pollutant Monitor	In Use	Thermo Environmental	49I	0922236889	7/15/2009	$9,316	Poor	ANA115, 26-161-9991
EPA/CAPD	MI	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244804	10/14/2010	$5,789	Fair	ANA115, 26-161-9991
EPA/CAPD	MI	Shelter	In Use	Ekto	8810	2140-3	8/1/1987	$5,708	Poor	ANA115, 26-161-9991
EPA/CAPD	MI	Tower	In Use	Aluma Tower	AT-516D-1	N/A	6/2/2005	$2,329	Fair	ANA115, 26-161-9991
EPA/CAPD	PA	Ambient Temperature	In Use	RM Young	41342VC	9683	2/28/2005	$342	Poor	ARE128, 42-001-9991
EPA/CAPD	PA	Data Logger	In Use	Campbell Scientific	CR3000	2524	3/14/2008	$3,026	Poor	ARE128, 42-001-9991
EPA/CAPD	PA	Pollutant Monitor	In Use	Thermo Fisher	49I	08200009	7/7/2008	$8,318	Poor	ARE128, 42-001-9991
EPA/CAPD	PA	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241789	4/6/2010	$7,376	Fair	ARE128, 42-001-9991
EPA/CAPD	PA	Shelter	In Use	Ekto	8810	2116-7	7/1/1987	$5,000	Poor	ARE128, 42-001-9991
EPA/CAPD	PA	Tower	In Use	Aluma Tower	AT-516	N/A	5/1/1993	$1,070	Fair	ARE128, 42-001-9991
EPA/CAPD	ME	Ambient Temperature	Suspended	RM Young	41342	13994	2/27/2008	$136	Poor	ASH135, 23-003-9991
EPA/CAPD	ME	Data Logger	Suspended	Campbell Scientific	CR3000	11444	7/14/2016	$3,340	Fair	ASH135, 23-003-9991
EPA/CAPD	ME	Pollutant Monitor	Suspended	Thermo Environmental	49I	0622717850	7/25/2006	$8,551	Poor	ASH135, 23-003-9991
EPA/CAPD	ME	Pollutant Monitor	Suspended	Thermo Fisher	49I	1105347325	2/18/2011	$5,783	Fair	ASH135, 23-003-9991
EPA/CAPD	ME	Shelter	Suspended	Ekto	8810	2149-17	6/1/1988	$5,679	Poor	ASH135, 23-003-9991
EPA/CAPD	ME	Tower	Suspended	Aluma Tower	AT048	N/A	2/1/1988	$625	Fair	ASH135, 23-003-9991
EPA/CAPD	MD	Ambient Temp/Rel Hum	In Use	Vaisala	HMP60-L-PT	N0850846	4/6/2017	$333	Fair	BEL116, 24-033-9991
EPA/CAPD	MD	Ambient Temperature	In Use	RM Young	41342	5757	12/16/2000	$115	Poor	BEL116, 24-033-9991
EPA/CAPD	MD	Data Logger	In Use	Campbell Scientific	CR3000	2120	9/6/2007	$3,020	Poor	BEL116, 24-033-9991
EPA/CAPD	MD	Pollutant Monitor	In Use	Tekran	2537B	0342	12/10/2007	$33,845	Poor	BEL116, 24-033-9991
EPA/CAPD	MD	Pollutant Monitor	In Use	Thermo Fisher	49I	0726124695	9/20/2007	$8,555	Poor	BEL116, 24-033-9991
EPA/CAPD	MD	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241791	4/6/2010	$7,376	Fair	BEL116, 24-033-9991
EPA/CAPD	MD	Shelter	In Use	American Ecotech	AIRCARE 20-8	FBXU140098-0	1/17/2011	$51,794	Fair	BEL116, 24-033-9991
EPA/CAPD	MD	Shelter	In Use	Crosley Trailers	EW1211	1WC200E1223048026	1/15/2002	$8,398	Poor	BEL116, 24-033-9991
EPA/CAPD	MD	Solar Radiation	In Use	Li-Cor	LI-200SB	PY9392	2/1/1988	$192	Poor	BEL116, 24-033-9991
EPA/CAPD	MD	Tower	In Use	Aluma Tower	AT-516D-1	N/A	10/1/2002	$1,394	Fair	BEL116, 24-033-9991

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
EPA/CAPD	MD	Tower	In Use	Aluma Tower	C-33	N/A	6/1/1987	$498	Fair	BEL116, 24-033-9991
EPA/CAPD	MD	Wetness	In Use	RM Young	58101	N/A	2/1/2002	$386	Poor	BEL116, 24-033-9991
EPA/CAPD	MD	Wind	In Use	RM Young	05305VM	35866	4/1/1999	$667	Poor	BEL116, 24-033-9991
EPA/CAPD	NC	Ambient Temperature	In Use	RM Young	41342	4542	10/1/1999	$116	Poor	BFT142, 37-031-9991
EPA/CAPD	NC	Data Logger	In Use	Campbell Scientific	CR3000	3815	5/27/2009	$3,437	Poor	BFT142, 37-031-9991
EPA/CAPD	NC	Pollutant Monitor	In Use	Thermo Environmental	49I	0622717854	7/21/2006	$8,551	Poor	BFT142, 37-031-9991
EPA/CAPD	NC	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347315	2/24/2011	$5,783	Fair	BFT142, 37-031-9991
EPA/CAPD	NC	Shelter	In Use	Ekto	8810	2149-15	6/1/1988	$5,638	Poor	BFT142, 37-031-9991
EPA/CAPD	NC	Tower	In Use	Aluma Tower	9000077	N/A	3/6/2018	$4,230	Fair	BFT142, 37-031-9991
EPA/CAPD	IL	Ambient Temp/Rel Hum	In Use	Vaisala	HMP60-L-PT	0850853	4/6/2017	$333	Fair	BVL130, 17-019-1001
EPA/CAPD	IL	Ambient Temperature	In Use	RM Young	41342	31778	10/2/2019	$137	Fair	BVL130, 17-019-1001
EPA/CAPD	IL	Ambient Temperature	In Use	RM Young	41342	6704	2/1/2002	$294	Poor	BVL130, 17-019-1001
EPA/CAPD	IL	Data Logger	In Use	Campbell Scientific	CR3000	2111	9/6/2007	$3,020	Poor	BVL130, 17-019-1001
EPA/CAPD	IL	Pollutant Monitor	In Use	Teledyne API	T100U	94	8/16/2012	$12,213	Fair	BVL130, 17-019-1001
EPA/CAPD	IL	Pollutant Monitor	In Use	Teledyne API	T200U	110	10/3/2012	$21,324	Fair	BVL130, 17-019-1001
EPA/CAPD	IL	Pollutant Monitor	In Use	Teledyne API	T300U	477	8/28/2019	$13,954	Fair	BVL130, 17-019-1001
EPA/CAPD	IL	Pollutant Monitor	In Use	Thermo Environmental	49I	0622717857	7/21/2006	$8,551	Poor	BVL130, 17-019-1001
EPA/CAPD	IL	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347307	2/18/2011	$5,782	Fair	BVL130, 17-019-1001
EPA/CAPD	IL	Shelter	In Use	Crosley Trailers	EW1211	1WC200E1423048027	1/18/2002	$8,398	Poor	BVL130, 17-019-1001
EPA/CAPD	IL	Shelter	In Use	Ekto	8810	2140-1	9/1/1987	$5,558	Poor	BVL130, 17-019-1001
EPA/CAPD	IL	Solar Radiation	In Use	Li-Cor	LI-200SB	PY10653	10/1/1988	$150	Poor	BVL130, 17-019-1001
EPA/CAPD	IL	Tower	In Use	Aluma Tower	AT-516	N/A	5/1/1993	$1,070	Fair	BVL130, 17-019-1001
EPA/CAPD	IL	Tower	In Use	Aluma Tower	AT-516D-1	N/A	6/2/2005	$2,329	Fair	BVL130, 17-019-1001
EPA/CAPD	IL	Tower	In Use	Universal Manufacturing	4-30	N/A	7/1/1994	$294	Fair	BVL130, 17-019-1001
EPA/CAPD	IL	Wetness	In Use	RM Young	58101	N/A	6/1/1993	$278	Poor	BVL130, 17-019-1001
EPA/CAPD	IL	Wind	In Use	ETI Instruments	NOAH IV	4125	1/21/2009	$6,524	Poor	BVL130, 17-019-1001
EPA/CAPD	IL	Wind	In Use	RM Young	05305-5	100698	4/12/2010	$822	Fair	BVL130, 17-019-1001
EPA/CAPD	MD	Ambient Temperature	In Use	RM Young	41342	4012	3/1/1999	$110	Poor	BWR139, 24-019-9991
EPA/CAPD	MD	Data Logger	In Use	Campbell Scientific	CR3000	2536	3/14/2008	$3,026	Poor	BWR139, 24-019-9991
EPA/CAPD	MD	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244814	10/14/2010	$7,235	Fair	BWR139, 24-019-9991
EPA/CAPD	MD	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347323	2/18/2011	$5,783	Fair	BWR139, 24-019-9991
EPA/CAPD	MD	Shelter	In Use	Ekto	8810	2116-10	7/1/1987	$5,000	Poor	BWR139, 24-019-9991
EPA/CAPD	MD	Tower	In Use	Aluma Tower	AT-516	N/A	5/1/1994	$1,275	Fair	BWR139, 24-019-9991
EPA/CAPD	AR	Ambient Temperature	In Use	RM Young	41342	6696	2/1/2002	$294	Poor	CAD150, 05-019-9991
EPA/CAPD	AR	Data Logger	In Use	Campbell Scientific	CR3000	2530	3/14/2008	$3,026	Poor	CAD150, 05-019-9991
EPA/CAPD	AR	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347328	2/9/2011	$5,789	Fair	CAD150, 05-019-9991
EPA/CAPD	AR	Shelter	In Use	Ekto	8810	2149-2	11/1/1987	$5,558	Poor	CAD150, 05-019-9991
EPA/CAPD	AR	Tower	In Use	Aluma Tower	AT048	N/A	8/1/1987	$559	Fair	CAD150, 05-019-9991
EPA/CAPD	WV	Ambient Temperature	Suspended	RM Young	41342	4546	10/1/1999	$116	Poor	CDR119, 54-021-9991
EPA/CAPD	WV	Data Logger	Suspended	Campbell Scientific	CR3000	2125	9/6/2007	$3,020	Poor	CDR119, 54-021-9991
EPA/CAPD	WV	Pollutant Monitor	Suspended	Thermo Environmental	49I	0607315737	3/22/2006	$8,455	Poor	CDR119, 54-021-9991
EPA/CAPD	WV	Pollutant Monitor	Suspended	Thermo Fisher	49I	1030244807	10/14/2010	$5,789	Fair	CDR119, 54-021-9991
EPA/CAPD	WV	Shelter	Suspended	Ekto	8810	2116-3	7/1/1987	$5,000	Poor	CDR119, 54-021-9991
EPA/CAPD	WV	Tower	Suspended	Aluma Tower	AT-516	N/A	6/1/1995	$1,330	Fair	CDR119, 54-021-9991
EPA/CAPD	KY	Ambient Temperature	Suspended	RM Young	41342	14036	3/17/2008	$129	Poor	CDZ171, 21-221-9991
EPA/CAPD	KY	Data Logger	Suspended	Campbell Scientific	CR3000	2133	9/6/2007	$3,020	Poor	CDZ171, 21-221-9991
EPA/CAPD	KY	Pollutant Monitor	Suspended	Thermo Environmental	49I	0622717868	7/21/2006	$8,551	Poor	CDZ171, 21-221-9991
EPA/CAPD	KY	Pollutant Monitor	Suspended	Thermo Fisher	49I	1105347320	2/18/2011	$5,783	Fair	CDZ171, 21-221-9991
EPA/CAPD	KY	Shelter	Suspended	Ekto	8810	2625-3	5/1/1993	$7,783	Poor	CDZ171, 21-221-9991
EPA/CAPD	KY	Tower	Suspended	Aluma Tower	AT-516B	N/A	7/25/2002	$1,562	Fair	CDZ171, 21-221-9991
EPA/CAPD	OK	Ambient Temperature	In Use	RM Young	41342VC	12543	1/24/2007	$325	Poor	CHE185, 40-001-9009
EPA/CAPD	OK	Relative Humidity	In Use	Vaisala	102425	A0310104	3/15/2005	$499	Poor	CHE185, 40-001-9009
EPA/CAPD	OK	Solar Radiation	In Use	Li-Cor	LI-200SB	PY10654	10/1/1988	$150	Poor	CHE185, 40-001-9009
EPA/CAPD	OK	Tower	In Use	Aluma Tower	AT-516B	N/A	1/1/1999	$1,712	Fair	CHE185, 40-001-9009
EPA/CAPD	OK	Tower	In Use	Universal Manufacturing	4-30	N/A	8/1/1994	$294	Fair	CHE185, 40-001-9009

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
EPA/CAPD	OK	Wetness	In Use	RM Young	58101	N/A	5/1/1997	$362	Poor	CHE185, 40-001-9009
EPA/CAPD	OK	Wind	In Use	RM Young	05305	35509	4/1/1999	$702	Poor	CHE185, 40-001-9009
EPA/CAPD	KY	Ambient Temperature	In Use	RM Young	41342	6703	2/1/2002	$294	Poor	CKT136, 21-175-9991
EPA/CAPD	KY	Data Logger	In Use	Campbell Scientific	CR3000	2115	9/6/2007	$3,020	Poor	CKT136, 21-175-9991
EPA/CAPD	KY	Pollutant Monitor	In Use	Thermo Environmental	49I	0607315738	3/22/2006	$8,455	Poor	CKT136, 21-175-9991
EPA/CAPD	KY	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244791	10/14/2010	$5,784	Fair	CKT136, 21-175-9991
EPA/CAPD	KY	Shelter	In Use	Ekto	8810	2116-2	9/1/1987	$5,558	Poor	CKT136, 21-175-9991
EPA/CAPD	KY	Tower	In Use	Aluma Tower	AT-516D-1	N/A	2/17/2014	$3,525	Fair	CKT136, 21-175-9991
EPA/CAPD	NC	Ambient Temperature	In Use	RM Young	41342	14035	3/17/2008	$129	Poor	CND125, 37-123-9991
EPA/CAPD	NC	Data Logger	In Use	Campbell Scientific	CR3000	3816	5/27/2009	$3,437	Poor	CND125, 37-123-9991
EPA/CAPD	NC	Pollutant Monitor	In Use	Thermo Fisher	49I	0726124693	10/12/2007	$8,555	Poor	CND125, 37-123-9991
EPA/CAPD	NC	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241794	4/6/2010	$7,372	Fair	CND125, 37-123-9991
EPA/CAPD	NC	Shelter	In Use	Ekto	8810	2107-5	2/1/1987	$6,920	Poor	CND125, 37-123-9991
EPA/CAPD	NC	Tower	In Use	Aluma Tower	AT-177	N/A	5/1/1990	$862	Fair	CND125, 37-123-9991
EPA/CAPD	NC	Tower	In Use	Aluma Tower	AT-516	N/A	7/1/1994	$1,277	Fair	CND125, 37-123-9991
EPA/CAPD	WY	Ambient Temperature	In Use	RM Young	41342	14606	8/1/2008	$136	Poor	CNT169, 56-001-9991
EPA/CAPD	WY	Data Logger	In Use	Campbell Scientific	CR3000	2526	3/14/2008	$3,026	Poor	CNT169, 56-001-9991
EPA/CAPD	WY	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241793	4/6/2010	$7,376	Fair	CNT169, 56-001-9991
EPA/CAPD	WY	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244809	10/14/2010	$7,192	Fair	CNT169, 56-001-9991
EPA/CAPD	WY	Shelter	In Use	Ekto	8810	2149-19	6/1/1988	$5,679	Poor	CNT169, 56-001-9991
EPA/CAPD	WY	Tower	In Use	Aluma Tower	AT-516D-1	N/A	6/2/2005	$2,329	Fair	CNT169, 56-001-9991
EPA/CAPD	NC	Ambient Temperature	In Use	RM Young	43347	N/A	5/1/1993	$109	Poor	COW137, 37-113-9991
EPA/CAPD	NC	Data Logger	In Use	Campbell Scientific	CR3000	2529	3/14/2008	$3,026	Poor	COW137, 37-113-9991
EPA/CAPD	NC	Pollutant Monitor	In Use	Thermo Fisher	49I	08200017	7/7/2008	$8,318	Poor	COW137, 37-113-9991
EPA/CAPD	NC	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244795	10/14/2010	$5,784	Fair	COW137, 37-113-9991
EPA/CAPD	NC	Shelter	In Use	Ekto	8810	2116-9	7/1/1987	$5,000	Poor	COW137, 37-113-9991
EPA/CAPD	NC	Tower	In Use	Aluma Tower	AT-516D-1	N/A	2/14/2005	$2,627	Fair	COW137, 37-113-9991
EPA/CAPD	NC	Tower	In Use	Aluma Tower	AT-516D-1	N/A	8/5/2014	$1,325	Fair	COW137, 37-113-9991
EPA/CAPD	NC	Tower	In Use	Aluma Tower	C-33	N/A	5/1/1990	$498	Fair	COW137, 37-113-9991
EPA/CAPD	NY	Ambient Temperature	In Use	RM Young	41342VC	12540	1/24/2007	$325	Poor	CTH110, 36-109-9991
EPA/CAPD	NY	Data Logger	In Use	Campbell Scientific	CR3000	2510	3/14/2008	$3,026	Poor	CTH110, 36-109-9991
EPA/CAPD	NY	Pollutant Monitor	In Use	Thermo Fisher	49I	08200023	7/28/2008	$8,319	Poor	CTH110, 36-109-9991
EPA/CAPD	NY	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347308	2/18/2011	$5,782	Fair	CTH110, 36-109-9991
EPA/CAPD	NY	Shelter	In Use	Ekto	8810	2116-6	7/1/1987	$6,920	Poor	CTH110, 36-109-9991
EPA/CAPD	NY	Tower	In Use	Aluma Tower	AT-516	N/A	5/1/1993	$1,070	Fair	CTH110, 36-109-9991
EPA/CAPD	MS	Ambient Temperature	In Use	RM Young	43342B-01	N/A	9/8/2009	$62	Poor	CVL151, 28-161-9991
EPA/CAPD	MS	Data Logger	In Use	Campbell Scientific	CR3000	2515	3/14/2008	$3,026	Poor	CVL151, 28-161-9991
EPA/CAPD	MS	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244803	10/14/2010	$5,786	Fair	CVL151, 28-161-9991
EPA/CAPD	MS	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244812	10/14/2010	$7,192	Fair	CVL151, 28-161-9991
EPA/CAPD	MS	Shelter	In Use	Ekto	8810	2149-3	11/1/1987	$5,258	Poor	CVL151, 28-161-9991
EPA/CAPD	MS	Tower	In Use	Aluma Tower	AT048	N/A	8/1/1987	$559	Fair	CVL151, 28-161-9991
EPA/CAPD	OH	Ambient Temperature	Suspended	RM Young	41342	13993	2/27/2008	$136	Poor	DCP114, 39-047-9991
EPA/CAPD	OH	Data Logger	Suspended	Campbell Scientific	CR3000	2124	9/6/2007	$3,020	Poor	DCP114, 39-047-9991
EPA/CAPD	OH	Pollutant Monitor	Suspended	Thermo Fisher	49I	0726124694	10/4/2007	$8,555	Poor	DCP114, 39-047-9991
EPA/CAPD	OH	Pollutant Monitor	Suspended	Thermo Fisher	49I	1009241786	4/6/2010	$7,382	Fair	DCP114, 39-047-9991
EPA/CAPD	OH	Shelter	Suspended	Ekto	8810	2149-13	3/1/1988	$5,638	Poor	DCP114, 39-047-9991
EPA/CAPD	OH	Tower	Suspended	Aluma Tower	AT-516	N/A	5/1/1998	$1,722	Fair	DCP114, 39-047-9991
EPA/CAPD	TN	Ambient Temperature	In Use	RM Young	41342	14039	3/17/2008	$129	Poor	ESP127, 47-041-9991
EPA/CAPD	TN	Data Logger	In Use	Campbell Scientific	CR3000	2130	9/6/2007	$3,020	Poor	ESP127, 47-041-9991
EPA/CAPD	TN	Pollutant Monitor	In Use	Thermo Environmental	49I	0622717852	7/19/2006	$8,551	Poor	ESP127, 47-041-9991
EPA/CAPD	TN	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244799	10/14/2010	$5,787	Fair	ESP127, 47-041-9991
EPA/CAPD	TN	Shelter	In Use	Ekto	8810	2140-5	11/1/1987	$5,558	Poor	ESP127, 47-041-9991
EPA/CAPD	TN	Tower	In Use	Aluma Tower	AT048	N/A	8/1/1987	$559	Fair	ESP127, 47-041-9991
EPA/CAPD	GA	Ambient Temperature	In Use	RM Young	41342	4038	3/1/1999	$110	Poor	GAS153, 13-231-9991
EPA/CAPD	GA	Data Logger	In Use	Campbell Scientific, Inc.	CR3000	4934	7/21/2010	$3,436	Fair	GAS153, 13-231-9991

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EPA/CAPD	GA	Pollutant Monitor	In Use	Thermo Environmental	49I	0622717856	7/19/2006	$8,551	Poor	GAS153, 13-231-9991
EPA/CAPD	GA	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244793	10/14/2010	$5,789	Fair	GAS153, 13-231-9991
EPA/CAPD	GA	Shelter	In Use	Ekto	8810	2140-6	11/1/1987	$5,558	Poor	GAS153, 13-231-9991
EPA/CAPD	GA	Tower	In Use	Aluma Tower	AT-516D-1	N/A	10/7/2003	$2,480	Fair	GAS153, 13-231-9991
EPA/CAPD	CO	Ambient Temperature	In Use	RM Young	41342VC	11742	5/23/2006	$342	Poor	GTH161, 08-051-9991
EPA/CAPD	CO	Data Logger	In Use	Campbell Scientific	CR3000	2513	3/14/2008	$3,026	Poor	GTH161, 08-051-9991
EPA/CAPD	CO	Pollutant Monitor	In Use	Thermo Environmental	49I	0611416461	3/30/2006	$8,458	Poor	GTH161, 08-051-9991
EPA/CAPD	CO	Shelter	In Use	Ekto	8810	2149-12	2/1/1988	$5,638	Poor	GTH161, 08-051-9991
EPA/CAPD	CO	Tower	In Use	Aluma Tower	AT-431	N/A	1/1/1993	$971	Fair	GTH161, 08-051-9991
EPA/CAPD	CO	Tower	In Use	Aluma Tower	AT048	N/A	2/1/1988	$625	Fair	GTH161, 08-051-9991
EPA/CAPD	MI	Ambient Temperature	In Use	RM Young	41342	14038	3/17/2008	$129	Poor	HOX148, 26-165-9991
EPA/CAPD	MI	Data Logger	In Use	Campbell Scientific	CR3000	2533	3/14/2008	$3,026	Poor	HOX148, 26-165-9991
EPA/CAPD	MI	Pollutant Monitor	In Use	Thermo Fisher	49I	0929938242	10/20/2009	$9,304	Poor	HOX148, 26-165-9991
EPA/CAPD	MI	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347317	2/18/2011	$5,782	Fair	HOX148, 26-165-9991
EPA/CAPD	MI	Shelter	In Use	Ekto	8810	2149-1	11/1/1987	$5,558	Poor	HOX148, 26-165-9991
EPA/CAPD	MI	Tower	In Use	Aluma Tower	AT-516B	N/A	9/1/2000	$1,908	Fair	HOX148, 26-165-9991
EPA/CAPD	NY	Ambient Temperature	Suspended	RM Young	41342VC	1860	5/1/1996	$305	Poor	HWF187, 36-031-9991
EPA/CAPD	NY	Data Logger	Suspended	Campbell Scientific	CR3000	2134	9/6/2007	$3,020	Poor	HWF187, 36-031-9991
EPA/CAPD	NY	Pollutant Monitor	Suspended	Teledyne API	T200U	111	10/5/2012	$21,324	Fair	HWF187, 36-031-9991
EPA/CAPD	NY	Pollutant Monitor	Suspended	Thermo Fisher	49I	08200026	7/29/2008	$8,079	Poor	HWF187, 36-031-9991
EPA/CAPD	NY	Pollutant Monitor	Suspended	Thermo Fisher	49I	1009241782	4/6/2010	$7,372	Fair	HWF187, 36-031-9991
EPA/CAPD	NY	Tower	Suspended	Aluma Tower	9000077	N/A	3/6/2018	$4,230	Fair	HWF187, 36-031-9991
EPA/CAPD	NY	Tower	Suspended	Aluma Tower	AT-516	N/A	5/1/1993	$1,070	Fair	HWF187, 36-031-9991
EPA/CAPD	NY	Tower	Suspended	Aluma Tower	AT-516D-1	N/A	8/27/2012	$3,610	Fair	HWF187, 36-031-9991
EPA/CAPD	FL	Ambient Temperature	In Use	RM Young	41342	14804	9/11/2008	$129	Poor	IRL141, 12-061-9991
EPA/CAPD	FL	Ambient Temperature	In Use	RM Young	41342	31776	10/2/2019	$137	Fair	IRL141, 12-061-9991
EPA/CAPD	FL	Data Logger	In Use	Campbell Scientific	CR3000	2116	9/6/2007	$3,020	Poor	IRL141, 12-061-9991
EPA/CAPD	FL	Data Logger	In Use	Campbell Scientific	CR3000	2119	9/6/2007	$3,020	Poor	IRL141, 12-061-9991
EPA/CAPD	FL	Pollutant Monitor	In Use	Thermo Fisher	49I	08200019	7/2/2008	$8,316	Poor	IRL141, 12-061-9991
EPA/CAPD	FL	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244797	10/14/2010	$5,789	Fair	IRL141, 12-061-9991
EPA/CAPD	FL	Relative Humidity	In Use	Vaisala	HMP50	E4920058	12/7/2009	$227	Poor	IRL141, 12-061-9991
EPA/CAPD	FL	Shelter	In Use	Ekto	1641-TR-2	TR-101	5/1/1990	$2,260	Poor	IRL141, 12-061-9991
EPA/CAPD	FL	Shelter	In Use	Ekto	8810	2864-1	11/1/1995	$15,040	Poor	IRL141, 12-061-9991
EPA/CAPD	FL	Solar Radiation	In Use	Li-Cor	LI-200SB	PY10665	10/1/1988	$150	Poor	IRL141, 12-061-9991
EPA/CAPD	FL	Solar Radiation	In Use	Li-Cor	LI-200SZ	PY33345	3/1/1999	$166	Poor	IRL141, 12-061-9991
EPA/CAPD	FL	Tower	In Use	Aluma Tower	AT-516	N/A	9/1/1996	$1,373	Fair	IRL141, 12-061-9991
EPA/CAPD	FL	Tower	In Use	Aluma Tower	C-33	N/A	6/1/1987	$498	Fair	IRL141, 12-061-9991
EPA/CAPD	FL	Wetness	In Use	RM Young	58101	N/A	8/1/1994	$312	Poor	IRL141, 12-061-9991
EPA/CAPD	FL	Wind	In Use	RM Young	05305	35870	4/1/1999	$667	Poor	IRL141, 12-061-9991
EPA/CAPD	PA	Ambient Temperature	In Use	RM Young	41342	13992	2/27/2008	$136	Poor	KEF112, 42-047-9991
EPA/CAPD	PA	Data Logger	In Use	Campbell Scientific	CR3000	2537	3/14/2008	$3,026	Poor	KEF112, 42-047-9991
EPA/CAPD	PA	Pollutant Monitor	In Use	Thermo Fisher	49I	08200008	7/2/2008	$8,316	Poor	KEF112, 42-047-9991
EPA/CAPD	PA	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244796	10/14/2010	$5,784	Fair	KEF112, 42-047-9991
EPA/CAPD	PA	Shelter	In Use	Ekto	8810	2149-14	3/1/1988	$5,638	Poor	KEF112, 42-047-9991
EPA/CAPD	PA	Tower	In Use	Aluma Tower	AT048	N/A	2/1/1988	$625	Fair	KEF112, 42-047-9991
EPA/CAPD	CA	Pollutant Monitor	In Use	Thermo Environmental	49I	0922236891	7/15/2009	$9,316	Poor	LPO010, 06-073-9991
EPA/CAPD	CA	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244805	10/14/2010	$5,786	Fair	LPO010, 06-073-9991
EPA/CAPD	PA	Ambient Temperature	In Use	RM Young	41342	4006	3/1/1999	$110	Poor	LRL117, 42-111-9991
EPA/CAPD	PA	Data Logger	In Use	Campbell Scientific	CR3000	2123	9/6/2007	$3,020	Poor	LRL117, 42-111-9991
EPA/CAPD	PA	Pollutant Monitor	In Use	Thermo Fisher	49I	08200020	7/29/2008	$8,079	Poor	LRL117, 42-111-9991
EPA/CAPD	PA	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244808	10/14/2010	$5,789	Fair	LRL117, 42-111-9991
EPA/CAPD	PA	Shelter	In Use	Ekto	8810	2116-5	7/1/1987	$5,000	Poor	LRL117, 42-111-9991
EPA/CAPD	PA	Tower	In Use	Aluma Tower	AT-516D-1	N/A	8/27/2012	$3,610	Fair	LRL117, 42-111-9991
EPA/CAPD	KY	Ambient Temperature	In Use	RM Young	43347-L34-VX-UC	23293	11/24/2014	$310	Fair	MCK131, 21-229-9991
EPA/CAPD	KY	Data Logger	In Use	Campbell Scientific	CR3000	2535	3/14/2008	$3,026	Poor	MCK131, 21-229-9991

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EPA/CAPD	KY	Pollutant Monitor	In Use	Thermo Environmental	49I	0622717849	7/21/2006	$8,551	Poor	MCK131, 21-229-9991
EPA/CAPD	KY	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347309	2/18/2011	$5,783	Fair	MCK131, 21-229-9991
EPA/CAPD	KY	Shelter	In Use	Ekto	8810	2203-1	9/1/1988	$6,020	Poor	MCK131, 21-229-9991
EPA/CAPD	KY	Tower	In Use	Aluma Tower	AT048	N/A	2/1/1988	$625	Fair	MCK131, 21-229-9991
EPA/CAPD	KY	Ambient Temperature	In Use	RM Young	43347-L34-VX-UC	25496	11/24/2014	$310	Fair	MCK231, 21-229-9991
EPA/CAPD	KY	Data Logger	In Use	Campbell Scientific	CR3000	2137	9/6/2007	$3,020	Poor	MCK231, 21-229-9991
EPA/CAPD	KY	Pollutant Monitor	In Use	Thermo Fisher	49I	08200025	7/30/2008	$8,079	Poor	MCK231, 21-229-9991
EPA/CAPD	KY	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244801	10/14/2010	$5,787	Fair	MCK231, 21-229-9991
EPA/CAPD	PA	Ambient Temperature	In Use	RM Young	41342	4009	3/1/1999	$110	Poor	MKG113, 42-085-9991
EPA/CAPD	PA	Data Logger	In Use	Campbell Scientific	CR3000	2521	3/14/2008	$3,026	Poor	MKG113, 42-085-9991
EPA/CAPD	PA	Pollutant Monitor	In Use	Thermo Fisher	49I	0726124689	10/1/2007	$8,555	Poor	MKG113, 42-085-9991
EPA/CAPD	PA	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347316	2/24/2011	$5,783	Fair	MKG113, 42-085-9991
EPA/CAPD	PA	Shelter	In Use	Ekto	8810	2116-4	7/1/1987	$5,000	Poor	MKG113, 42-085-9991
EPA/CAPD	PA	Tower	In Use	Aluma Tower	AT-516	N/A	5/1/1993	$1,070	Fair	MKG113, 42-085-9991
EPA/CAPD	ID	Ambient Temperature	In Use	RM Young	41342	6695	2/1/2002	$294	Poor	NPT006, 16-049-9991
EPA/CAPD	ID	Data Logger	In Use	Campbell Scientific	CR3000	2131	9/6/2007	$3,020	Poor	NPT006, 16-049-9991
EPA/CAPD	ID	Data Logger	In Use	Campbell Scientific, Inc.	CR850-ST-SW-NC	32797	11/10/2014	$1,330	Fair	NPT006, 16-049-9991
EPA/CAPD	ID	Pollutant Monitor	In Use	Thermo Fisher	49I	08200024	7/30/2008	$8,079	Poor	NPT006, 16-049-9991
EPA/CAPD	ID	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241779	4/6/2010	$7,372	Fair	NPT006, 16-049-9991
EPA/CAPD	ID	Tower	In Use	Aluma Tower	AT-516D-1	N/A	1/2/2015	$3,525	Fair	NPT006, 16-049-9991
EPA/CAPD	OH	Ambient Temperature	In Use	RM Young	41342	14803	9/11/2008	$129	Poor	OXF122, 39-017-9991
EPA/CAPD	OH	Ambient Temperature	In Use	RM Young	43347	00319	8/1/1988	$84	Poor	OXF122, 39-017-9991
EPA/CAPD	OH	Data Logger	In Use	Campbell Scientific	CR3000	2528	3/14/2008	$3,026	Poor	OXF122, 39-017-9991
EPA/CAPD	OH	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241778	4/6/2010	$7,372	Fair	OXF122, 39-017-9991
EPA/CAPD	OH	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244817	10/14/2010	$7,237	Fair	OXF122, 39-017-9991
EPA/CAPD	OH	Shelter	In Use	Ekto	8810	2107-4	2/1/1987	$5,000	Poor	OXF122, 39-017-9991
EPA/CAPD	OH	Tower	In Use	Aluma Tower	AT-516	N/A	9/1/1996	$1,373	Fair	OXF122, 39-017-9991
EPA/CAPD	TX	Ambient Temperature	In Use	RM Young	41342VC	12542	1/24/2007	$325	Poor	PAL190, 48-381-9991
EPA/CAPD	TX	Data Logger	In Use	Campbell Scientific	CR3000	2122	9/6/2007	$3,020	Poor	PAL190, 48-381-9991
EPA/CAPD	TX	Pollutant Monitor	In Use	Thermo Fisher	49I	0726124696	10/12/2007	$8,555	Poor	PAL190, 48-381-9991
EPA/CAPD	TX	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347314	2/18/2011	$5,783	Fair	PAL190, 48-381-9991
EPA/CAPD	TX	Shelter	In Use	Shelter One	TYPE E	26012-02	3/8/2007	$19,040	Poor	PAL190, 48-381-9991
EPA/CAPD	TX	Tower	In Use	Aluma Tower	AT-516D-1	N/A	2/13/2007	$3,054	Fair	PAL190, 48-381-9991
EPA/CAPD	TX	Tower	In Use	Universal Manufacturing	4-30	N/A	12/11/2006	$514	Fair	PAL190, 48-381-9991
EPA/CAPD	WV	Ambient Temperature	In Use	RM Young	41342	4013	3/1/1999	$110	Poor	PAR107, 54-093-9991
EPA/CAPD	WV	Data Logger	In Use	Campbell Scientific	CR3000	2112	9/6/2007	$3,020	Poor	PAR107, 54-093-9991
EPA/CAPD	WV	Pollutant Monitor	In Use	Thermo Fisher	49I	08200012	7/7/2008	$8,318	Poor	PAR107, 54-093-9991
EPA/CAPD	WV	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241792	4/6/2010	$7,376	Fair	PAR107, 54-093-9991
EPA/CAPD	WV	Shelter	In Use	Ekto	8810	2116-8	7/1/1987	$5,000	Poor	PAR107, 54-093-9991
EPA/CAPD	WV	Tower	In Use	Aluma Tower	AT-516D-1	N/A	12/30/2014	$3,525	Fair	PAR107, 54-093-9991
EPA/CAPD	WV	Tower	In Use	Aluma Tower	AT048	N/A	5/1/1990	$559	Fair	PAR107, 54-093-9991
EPA/CAPD	VA	Ambient Temperature	In Use	RM Young	41342	14041	3/17/2008	$129	Poor	PED108, 51-147-9991
EPA/CAPD	VA	Data Logger	In Use	Campbell Scientific	CR3000	2511	3/14/2008	$3,026	Poor	PED108, 51-147-9991
EPA/CAPD	VA	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347319	2/18/2011	$5,783	Fair	PED108, 51-147-9991
EPA/CAPD	VA	Shelter	In Use	Ekto	8810	2116-13	9/1/1987	$5,558	Poor	PED108, 51-147-9991
EPA/CAPD	VA	Tower	In Use	Aluma Tower	AT-516D-1	N/A	8/27/2012	$3,610	Fair	PED108, 51-147-9991
EPA/CAPD	WY	Ambient Temperature	In Use	RM Young	41342	4545	10/1/1999	$116	Poor	PND165, 56-035-9991
EPA/CAPD	WY	Data Logger	In Use	Campbell Scientific	CR3000	2516	3/14/2008	$3,026	Poor	PND165, 56-035-9991
EPA/CAPD	WY	Pollutant Monitor	In Use	Teledyne API	T200U	112	10/5/2012	$21,324	Fair	PND165, 56-035-9991
EPA/CAPD	WY	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244794	10/14/2010	$5,784	Fair	PND165, 56-035-9991
EPA/CAPD	WY	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244815	10/14/2010	$7,194	Fair	PND165, 56-035-9991
EPA/CAPD	WY	Shelter	In Use	Ekto	8810	2149-22	9/1/1988	$5,679	Poor	PND165, 56-035-9991
EPA/CAPD	WY	Solar Radiation	In Use	Li-Cor	LI-200SA	PY05510	1/25/2007	$234	Poor	PND165, 56-035-9991
EPA/CAPD	WY	Tower	In Use	Aluma Tower	AT-516B	N/A	1/1/1999	$1,712	Fair	PND165, 56-035-9991
EPA/CAPD	WY	Tower	In Use	Aluma Tower	AT-516D-1	N/A	8/27/2012	$3,610	Fair	PND165, 56-035-9991

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
EPA/CAPD	NC	Ambient Temperature	Suspended	RM Young	41342	6701	2/1/2002	$294	Poor	PNF126, 37-011-9991
EPA/CAPD	NC	Shelter	Suspended	Ekto	8810	2149-18	6/1/1988	$5,679	Poor	PNF126, 37-011-9991
EPA/CAPD	NC	Tower	Suspended	Aluma Tower	AT-516D-1	N/A	6/2/2005	$2,329	Fair	PNF126, 37-011-9991
EPA/CAPD	NC	Tower	Suspended	Aluma Tower	AT-516D-1	N/A	9/18/2012	$3,737	Fair	PNF126, 37-011-9991
EPA/CAPD	NC	Tower	Suspended	Universal Manufacturing	4-30	N/A	6/1/1988	$343	Fair	PNF126, 37-011-9991
EPA/CAPD	WI	Ambient Temperature	In Use	RM Young	41342VC	12545	1/24/2007	$325	Poor	PRK134, 55-119-9991
EPA/CAPD	WI	Pollutant Monitor	In Use	Thermo Fisher	49I	0726124685	10/4/2007	$8,555	Poor	PRK134, 55-119-9991
EPA/CAPD	WI	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244806	10/14/2010	$5,786	Fair	PRK134, 55-119-9991
EPA/CAPD	WI	Shelter	In Use	Ekto	8810	2116-11	11/1/1987	$5,258	Poor	PRK134, 55-119-9991
EPA/CAPD	WI	Tower	In Use	Aluma Tower	AT-516D-1	N/A	8/5/2014	$1,325	Fair	PRK134, 55-119-9991
EPA/CAPD	WI	Tower	In Use	Aluma Tower	AT048	N/A	2/1/1988	$625	Fair	PRK134, 55-119-9991
EPA/CAPD	PA	Ambient Temperature	In Use	RM Young	41342VC	9642	2/23/2005	$342	Poor	PSU106, 42-027-9991
EPA/CAPD	PA	Data Logger	In Use	Campbell Scientific	CR3000	2512	3/14/2008	$3,026	Poor	PSU106, 42-027-9991
EPA/CAPD	PA	Pollutant Monitor	In Use	Thermo Fisher	49I	0726124688	9/20/2007	$8,318	Poor	PSU106, 42-027-9991
EPA/CAPD	PA	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241780	4/6/2010	$7,376	Fair	PSU106, 42-027-9991
EPA/CAPD	PA	Tower	In Use	Aluma Tower	AT-177	N/A	9/1/1990	$862	Fair	PSU106, 42-027-9991
EPA/CAPD	OH	Ambient Temperature	In Use	RM Young	41342	14034	3/17/2008	$129	Poor	QAK172, 39-121-9991
EPA/CAPD	OH	Ambient Temperature	In Use	RM Young	41342VC	12533	1/25/2007	$342	Poor	QAK172, 39-121-9991
EPA/CAPD	OH	Data Logger	In Use	Campbell Scientific	CR3000	2508	3/14/2008	$3,026	Poor	QAK172, 39-121-9991
EPA/CAPD	OH	Pollutant Monitor	In Use	Thermo Fisher	49I	0726124683	9/20/2007	$8,324	Poor	QAK172, 39-121-9991
EPA/CAPD	OH	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244800	10/14/2010	$5,787	Fair	QAK172, 39-121-9991
EPA/CAPD	OH	Shelter	In Use	Ekto	8810	2625-2	5/1/1993	$7,783	Poor	QAK172, 39-121-9991
EPA/CAPD	OH	Tower	In Use	Aluma Tower	AT-516	N/A	5/1/1993	$1,070	Fair	QAK172, 39-121-9991
EPA/CAPD	CO	Ambient Temperature	In Use	RM Young	41342VC	12534	1/25/2007	$342	Poor	ROM206, 08-069-0007
EPA/CAPD	CO	Data Logger	In Use	Campbell Scientific	CR3000	2527	3/14/2008	$3,026	Poor	ROM206, 08-069-0007
EPA/CAPD	CO	Pollutant Monitor	In Use	Teledyne API	T200U	103	9/10/2012	$21,324	Fair	ROM206, 08-069-0007
EPA/CAPD	CO	Pollutant Monitor	In Use	Thermo Fisher	49I	08200016	7/2/2008	$8,316	Poor	ROM206, 08-069-0007
EPA/CAPD	CO	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347322	2/18/2011	$5,783	Fair	ROM206, 08-069-0007
EPA/CAPD	CO	Shelter	In Use	Ekto	8810	2182-1	6/1/1988	$7,256	Poor	ROM206, 08-069-0007
EPA/CAPD	CO	Tower	In Use	Aluma Tower	AT-516D	N/A	5/24/2013	$5,446	Fair	ROM206, 08-069-0007
EPA/CAPD	IN	Ambient Temperature	In Use	RM Young	41342	14043	3/17/2008	$129	Poor	SAL133, 18-169-9991
EPA/CAPD	IN	Data Logger	In Use	Campbell Scientific	CR3000	2129	9/6/2007	$3,020	Poor	SAL133, 18-169-9991
EPA/CAPD	IN	Pollutant Monitor	In Use	Thermo Fisher	49I	0726124692	10/2/2007	$8,555	Poor	SAL133, 18-169-9991
EPA/CAPD	IN	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241785	4/6/2010	$7,376	Fair	SAL133, 18-169-9991
EPA/CAPD	IN	Shelter	In Use	Ekto	8810	2149-8	12/1/1987	$5,558	Poor	SAL133, 18-169-9991
EPA/CAPD	IN	Tower	In Use	Aluma Tower	AT-516	N/A	6/1/1995	$1,330	Fair	SAL133, 18-169-9991
EPA/CAPD	NE	Ambient Temperature	In Use	RM Young	41342	14798	9/11/2008	$129	Poor	SAN189, 31-107-9991
EPA/CAPD	NE	Data Logger	In Use	Campbell Scientific	CR3000	2138	9/6/2007	$3,020	Poor	SAN189, 31-107-9991
EPA/CAPD	NE	Pollutant Monitor	In Use	Thermo Fisher	49I	08200010	7/7/2008	$8,318	Poor	SAN189, 31-107-9991
EPA/CAPD	NE	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244789	10/14/2010	$5,784	Fair	SAN189, 31-107-9991
EPA/CAPD	NE	Shelter	In Use	Shelter One	E0810811	26012-01	6/27/2006	$18,159	Poor	SAN189, 31-107-9991
EPA/CAPD	NE	Tower	In Use	Aluma Tower	AT-516D-1	N/A	2/18/2002	$2,350	Fair	SAN189, 31-107-9991
EPA/CAPD	AL	Data Logger	In Use	Campbell Scientific	CR3000	2135	9/6/2007	$3,020	Poor	SND152, 01-049-9991
EPA/CAPD	AL	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244816	10/14/2010	$7,192	Fair	SND152, 01-049-9991
EPA/CAPD	AL	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347321	2/24/2011	$5,783	Fair	SND152, 01-049-9991
EPA/CAPD	AL	Shelter	In Use	Ekto	8810	2149-4	5/1/1990	$5,558	Poor	SND152, 01-049-9991
EPA/CAPD	AL	Tower	In Use	Aluma Tower	AT-516D-1	N/A	2/14/2005	$2,627	Fair	SND152, 01-049-9991
EPA/CAPD	TN	Ambient Temperature	In Use	RM Young	41342	4011	3/1/1999	$110	Poor	SPD111, 47-025-9991
EPA/CAPD	TN	Ambient Temperature	In Use	RM Young	41342VC	9641	2/23/2005	$342	Poor	SPD111, 47-025-9991
EPA/CAPD	TN	Data Logger	In Use	Campbell Scientific	CR3000	2522	3/14/2008	$3,026	Poor	SPD111, 47-025-9991
EPA/CAPD	TN	Pollutant Monitor	In Use	Thermo Fisher	49I	08200011	7/2/2008	$8,316	Poor	SPD111, 47-025-9991
EPA/CAPD	TN	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244802	10/14/2010	$5,787	Fair	SPD111, 47-025-9991
EPA/CAPD	TN	Shelter	In Use	Ekto	8810	2149-24	9/1/1988	$5,679	Poor	SPD111, 47-025-9991
EPA/CAPD	TN	Tower	In Use	Aluma Tower	AT048	N/A	3/1/1989	$724	Fair	SPD111, 47-025-9991
EPA/CAPD	IL	Ambient Temperature	In Use	RM Young	41342	14040	3/17/2008	$129	Poor	STK138, 17-085-9991

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
EPA/CAPD	IL	Data Logger	In Use	Campbell Scientific	CR3000	2128	9/6/2007	$3,020	Poor	STK138, 17-085-9991
EPA/CAPD	IL	Pollutant Monitor	In Use	Thermo Fisher	49I	08200021	7/28/2008	$8,319	Poor	STK138, 17-085-9991
EPA/CAPD	IL	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241797	4/6/2010	$7,376	Fair	STK138, 17-085-9991
EPA/CAPD	IL	Shelter	In Use	Ekto	8810	2149-21	9/1/1988	$5,679	Poor	STK138, 17-085-9991
EPA/CAPD	IL	Tower	In Use	Aluma Tower	AT048	N/A	9/1/1988	$694	Fair	STK138, 17-085-9991
EPA/CAPD	FL	Ambient Temperature	In Use	RM Young	41342VC	9639	2/23/2005	$342	Poor	SUM156, 12-077-9991
EPA/CAPD	FL	Data Logger	In Use	Campbell Scientific	CR3000	2127	9/6/2007	$3,020	Poor	SUM156, 12-077-9991
EPA/CAPD	FL	Pollutant Monitor	In Use	Thermo Environmental	49I	0922236888	7/10/2009	$9,306	Poor	SUM156, 12-077-9991
EPA/CAPD	FL	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241790	4/6/2010	$7,376	Fair	SUM156, 12-077-9991
EPA/CAPD	FL	Shelter	In Use	Ekto	8810	2149-11	2/1/1988	$5,638	Poor	SUM156, 12-077-9991
EPA/CAPD	FL	Tower	In Use	Aluma Tower	AT048	N/A	2/1/1988	$625	Fair	SUM156, 12-077-9991
EPA/CAPD	WA	Ambient Temperature	In Use	RM Young	41342	31771	10/2/2019	$137	Fair	UMA009, 53-013-9991
EPA/CAPD	WA	Pollutant Monitor	In Use	Thermo Environmental	49I	1200706581	4/14/2020	$12,705	Fair	UMA009, 53-013-9991
EPA/CAPD	WA	Pollutant Monitor	In Use	Thermo Environmental	49I	1200706582	4/14/2020	$14,775	Fair	UMA009, 53-013-9991
EPA/CAPD	MI	Ambient Temperature	In Use	RM Young	41342	14624	8/6/2008	$136	Poor	UVL124, 26-157-9991
EPA/CAPD	MI	Data Logger	In Use	Campbell Scientific	CR3000	2126	9/6/2007	$3,020	Poor	UVL124, 26-157-9991
EPA/CAPD	MI	Pollutant Monitor	In Use	Thermo Fisher	49I	08200014	7/7/2008	$8,316	Poor	UVL124, 26-157-9991
EPA/CAPD	MI	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244792	10/14/2010	$5,784	Fair	UVL124, 26-157-9991
EPA/CAPD	MI	Shelter	In Use	Ekto	8810	2140-2	8/1/1987	$5,708	Poor	UVL124, 26-157-9991
EPA/CAPD	MI	Tower	In Use	Aluma Tower	AT048	N/A	8/1/1987	$559	Fair	UVL124, 26-157-9991
EPA/CAPD	IN	Ambient Temperature	In Use	RM Young	41342	6699	2/1/2002	$294	Poor	VIN140, 18-083-9991
EPA/CAPD	IN	Data Logger	In Use	Campbell Scientific	CR3000	2136	9/6/2007	$3,020	Poor	VIN140, 18-083-9991
EPA/CAPD	IN	Pollutant Monitor	In Use	Thermo Fisher	49I	0929938239	10/20/2009	$9,304	Poor	VIN140, 18-083-9991
EPA/CAPD	IN	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347324	2/24/2011	$5,783	Fair	VIN140, 18-083-9991
EPA/CAPD	IN	Shelter	In Use	Ekto	8810	2116-1	5/1/1990	$5,000	Poor	VIN140, 18-083-9991
EPA/CAPD	IN	Tower	In Use	Aluma Tower	AT-516D-1	N/A	10/7/2003	$2,480	Fair	VIN140, 18-083-9991
EPA/CAPD	VA	Ambient Temperature	In Use	RM Young	41342	4037	3/1/1999	$110	Poor	VPI120, 51-071-9992
EPA/CAPD	VA	Data Logger	In Use	Campbell Scientific	CR3000	2514	3/14/2008	$3,026	Poor	VPI120, 51-071-9992
EPA/CAPD	VA	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241783	4/6/2010	$7,372	Fair	VPI120, 51-071-9992
EPA/CAPD	VA	Pollutant Monitor	In Use	Thermo Fisher	49I	1030244818	10/14/2010	$7,192	Fair	VPI120, 51-071-9992
EPA/CAPD	VA	Shelter	In Use	Ekto	8810	2107-3	1/1/1987	$5,000	Poor	VPI120, 51-071-9992
EPA/CAPD	VA	Tower	In Use	Aluma Tower	AT-516D-1	N/A	8/5/2014	$1,325	Fair	VPI120, 51-071-9992
EPA/CAPD	NJ	Ambient Temperature	In Use	RM Young	41342	13960	2/27/2008	$136	Poor	WSP144, 34-021-9991
EPA/CAPD	NJ	Data Logger	In Use	Campbell Scientific	CR3000	2525	3/14/2008	$3,026	Poor	WSP144, 34-021-9991
EPA/CAPD	NJ	Pollutant Monitor	In Use	Thermo Environmental	49I	0622717858	7/19/2006	$8,551	Poor	WSP144, 34-021-9991
EPA/CAPD	NJ	Pollutant Monitor	In Use	Thermo Fisher	49I	1105347310	2/24/2011	$5,783	Fair	WSP144, 34-021-9991
EPA/CAPD	NJ	Shelter	In Use	Ekto	8810	2116-12	11/1/1987	$5,258	Poor	WSP144, 34-021-9991
EPA/CAPD	NJ	Tower	In Use	Aluma Tower	AT-516D-1	N/A	10/1/2002	$1,394	Fair	WSP144, 34-021-9991
EPA/CAPD	NH	Ambient Temperature	In Use	RM Young	41342	31772	10/2/2019	$137	Fair	WST109, 33-009-9991
EPA/CAPD	NH	Data Logger	In Use	Campbell Scientific	CR3000	2132	9/6/2007	$3,020	Poor	WST109, 33-009-9991
EPA/CAPD	NH	Pollutant Monitor	In Use	Thermo Environmental	49I	0922236892	7/15/2009	$9,316	Poor	WST109, 33-009-9991
EPA/CAPD	NH	Pollutant Monitor	In Use	Thermo Fisher	49I	1009241795	4/6/2010	$7,372	Fair	WST109, 33-009-9991
EPA/CAPD	NH	Shelter	In Use	Ekto	8810	2149-16	6/1/1988	$5,638	Poor	WST109, 33-009-9991
EPA/CAPD	NH	Tower	In Use	Aluma Tower	AT-516D-1	N/A	5/24/2011	$3,781	Fair	WST109, 33-009-9991
NPS	ME	Computer	In Service	HP	EliteBook 8460P	CNU20941M6	3/29/2012	$850		ACA416, 23-009-0103
NPS	ME	Datalogger	In Service	ESC	8832	A3506K		$0		ACA416, 23-009-0103
NPS	ME	Gas Cylinders	In-Service	Site	Gas Cylinders	ACAD-MH-CYL				ACA416, 23-009-0103
NPS	ME	Infrastructure	In-Service	Site	Infrastructure	ACAD-MH				ACA416, 23-009-0103
NPS	ME	O3 Analyzer	In Service	Thermo	49C	74536-376	5/20/2002	$6,354		ACA416, 23-009-0103
NPS	ME	Shelter	In Service	Ekto	8818	2920-1	9/29/1997	$7,000		ACA416, 23-009-0103
NPS	TX	Ambient Temp/Rel Hum	In Service	Rotronic	MP101A-C4	56095	2/12/1999	$895		BBE401, 48-043-0101
NPS	TX	Ambient Temperature	In Service	RM Young	41342VC	TS00014961	10/23/2008	$414		BBE401, 48-043-0101
NPS	TX	Computer	In Service	HP	Compaq 6730B	CNU9335N72	10/19/2009	$972		BBE401, 48-043-0101
NPS	TX	Datalogger	In Service	ESC	8816	4592		$0		BBE401, 48-043-0101
NPS	TX	Gas Cylinders	In-Service	Site	Gas Cylinders	BIBE-KB-CYL				BBE401, 48-043-0101

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NPS	TX	Infrastructure	In Service	Steve Stumbo	SS101	(5154)	1/21/1997	$300		BBE401, 48-043-0101
NPS	TX	Infrastructure	In-Service	Site	Infrastructure	BIBE-KB				BBE401, 48-043-0101
NPS	TX	Mass Flow Controller	In Service	Alicat Scientific	MC-10SLPM-D-PCV65	134658	7/6/2016	$1,215		BBE401, 48-043-0101
NPS	TX	O3 Analyzer	In Service	Thermo	49I	1201477660				BBE401, 48-043-0101
NPS	TX	O3 Station Reference	In Service	Thermo	49C-SR	520012325	3/12/2024			BBE401, 48-043-0101
NPS	TX	Precipitation	In Service	Climatronics	100508	NPS01474	10/24/2023			BBE401, 48-043-0101
NPS	TX	Solar Radiation	In Service	Apogee	CS300	60163	5/25/2018	$278		BBE401, 48-043-0101
NPS	TX	Tower	In Service	Aluma Tower	AT-516	EPA 923308		$0		BBE401, 48-043-0101
NPS	TX	Tower	In Service	Aluma Tower	Tower Aluma	(5235)		$0		BBE401, 48-043-0101
NPS	TX	Tower	In Service	Tower	Tower	(5236)		$0		BBE401, 48-043-0101
NPS	TX	Wind Monitor	In Service	RM Young	05305	165132	10/11/2023			BBE401, 48-043-0101
NPS	TX	Zero-Air Supply	In Service	Werther	PC70/48	526293	10/4/2000	$1,368		BBE401, 48-043-0101
NPS	UT	Ambient Temp/Rel Hum	In Service	Rotronic	MP101A	61854266	1/17/2020	$1,254		CAN407, 49-037-0101
NPS	UT	Infrastructure	In Service	Brad Lawrence	BL101	(4285)	6/17/1992	$425		CAN407, 49-037-0101
NPS	UT	Infrastructure	In Service	Site	Infrastructure	CANY-IS				CAN407, 49-037-0101
NPS	UT	Mass Flow Controller	In Service	Tylan	FC-280	AW9403022		$0		CAN407, 49-037-0101
NPS	UT	Mass Flow Controller	In Service	Tylan	RO-32	FP9404002		$0		CAN407, 49-037-0101
NPS	UT	Modem	In Service	Sierra Wireless	GX450	LA50720447001003	10/19/2016	$0		CAN407, 49-037-0101
NPS	UT	O3 Analyzer	In Service	Thermo	49I	1030745086	10/20/2010	$8,279		CAN407, 49-037-0101
NPS	UT	O3 Station Reference	In Service	Thermo	49I-SR	1030745084	10/20/2010	$6,953		CAN407, 49-037-0101
NPS	UT	Precipitation	In Service	Climatronics	100508	NPS 90870		$0		CAN407, 49-037-0101
NPS	UT	Shelter	In Service	Morgan	081089HBCWC9	R46453		$0		CAN407, 49-037-0101
NPS	UT	Solar Radiation	In Service	Apogee	CS300	62279	10/30/2018	$0		CAN407, 49-037-0101
NPS	UT	Tower	In Service	Aluma Tower	AT-516	EPA 923305		$0		CAN407, 49-037-0101
NPS	UT	Tower	In Service	Aluma Tower	Tower Aluma	(5237)		$0		CAN407, 49-037-0101
NPS	UT	Tower	In Service	Tower	Tower	(5238)		$0		CAN407, 49-037-0101
NPS	UT	Wind Monitor	In Service	RM Young	05305	157077	10/24/2023			CAN407, 49-037-0101
NPS	NM	Ambient Temp/Rel Hum	In Service	Rotronic	MP101A	36673	10/24/2023			CAV436, 35-015-0010
NPS	NM	Ambient Temperature	In Service	RM Young	41342VC	32188	10/24/2023			CAV436, 35-015-0010
NPS	NM	Gas Cylinders	In-Service	Site	Gas Cylinders	CAVE-BB-CYL				CAV436, 35-015-0010
NPS	NM	Infrastructure	In-Service	Site	Infrastructure	CAVE-BB				CAV436, 35-015-0010
NPS	NM	O3 Analyzer	In Service	Thermo	49I	1231755663	1/20/2020	$3,770		CAV436, 35-015-0010
NPS	NM	O3 Station Reference	In Service	Thermo	49I-SR	CM08460009	12/4/2008	$6,740		CAV436, 35-015-0010
NPS	NM	Precipitation	In Service	Texas Electronics	TR-525M-10-H	83557-0620	10/24/2023			CAV436, 35-015-0010
NPS	NM	Solar Radiation	In Service	Apogee	CS301	68764	1/17/2020	$248		CAV436, 35-015-0010
NPS	NM	Tower	In Service	Aluma Tower	FOT-10-BW	(4516)	4/8/2019	$3,925		CAV436, 35-015-0010
NPS	NM	Wind Monitor	In Service	RM Young	05305	167464	10/24/2023			CAV436, 35-015-0010
NPS	AZ	Ambient Temperature	In Service	RM Young	41342VC	018535	1/29/2020	$0		CHA467, 04-003-8001
NPS	AZ	Combination Met Sensor	In Service	Vaisala	WXT536	V4930335	12/12/2023	$3,524		CHA467, 04-003-8001
NPS	AZ	Datalogger	In Service	Campbell Scientific	CR310	18926	12/1/2023	$1,170		CHA467, 04-003-8001
NPS	AZ	Datalogger	In Service	ESC	8816	2613	12/2/1998	$4,895		CHA467, 04-003-8001
NPS	AZ	Gas Cylinders	In-Service	Site	Gas Cylinders	CHIR-ES-CYL				CHA467, 04-003-8001
NPS	AZ	Infrastructure	In Service	Steve Stumbo	SS101	(5156)	8/13/1997	$300		CHA467, 04-003-8001
NPS	AZ	Infrastructure	In-Service	Site	Infrastructure	CHIR-ES				CHA467, 04-003-8001
NPS	AZ	Mass Flow Controller	In Service	Tylan	FC-280	AW9706014	6/23/1997	$1,192		CHA467, 04-003-8001
NPS	AZ	Modem	In Service	Sierra Wireless	GX450	LA54360370001003	1/26/2016	$759		CHA467, 04-003-8001
NPS	AZ	O3 Analyzer	In Service	Thermo	49I	CM08460007	12/4/2008	$8,024		CHA467, 04-003-8001
NPS	AZ	O3 Station Reference	In Service	Thermo	49I-SR	CM08460051	12/18/2008	$6,740		CHA467, 04-003-8001
NPS	AZ	Precipitation	In Service	Texas Electronics	TR-525M	21258-598	1/29/2020	$0		CHA467, 04-003-8001
NPS	AZ	Relative Humidity	In Service	Rotronic	MP601	80496	5/28/2002	$450		CHA467, 04-003-8001
NPS	AZ	Shelter	In Service	Ekto	8812	2149-23		$0		CHA467, 04-003-8001
NPS	AZ	Solar Radiation	In Service	Climatronics	101655	PY37733		$0		CHA467, 04-003-8001
NPS	AZ	Solar Radiation	In Service	LiCor	LI-200	PY3773	10/25/2023			CHA467, 04-003-8001
NPS	AZ	Tower	In Service	Aluma Tower	AT-516	EPA 880492X		$0		CHA467, 04-003-8001
NPS	AZ	Tower	In Service	Aluma Tower	Tower Aluma	EPA 03565		$0		CHA467, 04-003-8001

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
NPS	AZ	Wind Monitor	In Service	RM Young	05305	46197	5/29/2001	$862		CHA467, 04-003-8001
NPS	AZ	Zero-Air Supply	In Service	Werther	PC70/4E	531392	9/21/2001	$1,564		CHA467, 04-003-8001
NPS	NM	Ambient Temp/Rel Hum	In Service	Vaisala	HMP45AC	Z1050016	10/25/2023			CHC432, 35-045-0020
NPS	NM	Computer	In Service	HP	PROBOOK 640	5CG5340VRK	9/14/2015	$884		CHC432, 35-045-0020
NPS	NM	Datalogger	In Service	ESC	8832	A4871K	10/16/2015	$0		CHC432, 35-045-0020
NPS	NM	Gas Cylinders	In-Service	Site	Gas Cylinders	CHCU-RR-CYL				CHC432, 35-045-0020
NPS	NM	Gas Dilution Calibrator	In Service	Thermo	146I	1152780009	11/4/2015	$9,418		CHC432, 35-045-0020
NPS	NM	Infrastructure	In-Service	Site	Infrastructure	CHCU-RR				CHC432, 35-045-0020
NPS	NM	NOx Analyzer	In Service	Thermo	42I	1152780008	11/4/2015	$11,254		CHC432, 35-045-0020
NPS	NM	O3 Analyzer	In Service	Thermo	49I	0733726103	12/3/2007	$6,993		CHC432, 35-045-0020
NPS	NM	O3 Station Reference	In Service	Thermo	49I-SR	1152780006	11/4/2015	$7,862		CHC432, 35-045-0020
NPS	NM	Shelter	In Service	Ekto	8812	4599-1	10/27/2015	$27,095		CHC432, 35-045-0020
NPS	NM	Solar Radiation	In Service	Apogee	CS301	68422	1/17/2020	$248		CHC432, 35-045-0020
NPS	NM	Wind Monitor	In Service	RM Young	05305	155881	10/25/2023			CHC432, 35-045-0020
NPS	ID	Ambient Temp/Rel Hum	In Service	Vaisala	HMP45AC	C5040006	1/29/2020	$0		CRM435, 16-023-0101
NPS	ID	Combination Met Sensor	In Service	Vaisala	WXT536	V4910296	12/12/2023	$3,524		CRM435, 16-023-0101
NPS	ID	Computer	In Service	HP	PROBOOK 6560B	5CB1520H6N	8/29/2012	$570		CRM435, 16-023-0101
NPS	ID	Datalogger	In Service	ESC	8816	2559	2/16/1999	$4,895		CRM435, 16-023-0101
NPS	ID	Gas Cylinders	In-Service	Site	Gas Cylinders	CRMO-VC-CYL				CRM435, 16-023-0101
NPS	ID	Infrastructure	In-Service	Site	Infrastructure	CRMO-VC				CRM435, 16-023-0101
NPS	ID	Modem	In Service	Sierra Wireless	GX450	LA708606250001005	3/29/2017	$719		CRM435, 16-023-0101
NPS	ID	O3 Analyzer	In Service	Thermo	49I	1201477662				CRM435, 16-023-0101
NPS	ID	O3 Station Reference	In Service	Thermo	49C-SR	62025-333	9/4/1998	$6,990		CRM435, 16-023-0101
NPS	ID	Solar Radiation	In Service	Apogee	CS301	64247	4/28/2019	$268		CRM435, 16-023-0101
NPS	ID	Tower	In Service	Aluma Tower	FOT-10-BW	(4517)	4/8/2019	$3,925		CRM435, 16-023-0101
NPS	ID	Wind Monitor	In Service	RM Young	05305	33306	2/16/2016	$0		CRM435, 16-023-0101
NPS	AK	Ambient Temp/Rel Hum	In Service	Vaisala	HMP45C	Z4430013		$0		DEN417, 02-068-0003
NPS	AK	Ambient Temperature	In Service	RM Young	41342VC	18533	7/8/2016	$0		DEN417, 02-068-0003
NPS	AK	Combination Met Sensor	In Service	Vaisala	WXT536	V4920369	12/12/2023	$3,524		DEN417, 02-068-0003
NPS	AK	Computer	In Service	HP	PROBOOK 6560B	5CB22906R7	8/29/2012	$745		DEN417, 02-068-0003
NPS	AK	Datalogger	In Service	ESC	8816	2274	8/17/1998	$4,395		DEN417, 02-068-0003
NPS	AK	Gas Cylinders	In-Service	Site	Gas Cylinders	DENA-HQ-CYL				DEN417, 02-068-0003
NPS	AK	Infrastructure	In Service	Steve Stumbo	SS101	(5158)	1/21/1997	$280		DEN417, 02-068-0003
NPS	AK	Infrastructure	In-Service	Site	Infrastructure	DENA-HQ				DEN417, 02-068-0003
NPS	AK	Mass Flow Controller	In Service	Tylan	FC-280	AW9706011	6/23/1997	$1,192		DEN417, 02-068-0003
NPS	AK	Mass Flow Controller	In Service	Tylan	RO-32	FP9706004	6/23/1997	$695		DEN417, 02-068-0003
NPS	AK	O3 Analyzer	In Service	Thermo	49C	0520012327	7/5/2005	$8,109		DEN417, 02-068-0003
NPS	AK	O3 Station Reference	In Service	Thermo	49C-SR	71310368	3/12/2024			DEN417, 02-068-0003
NPS	AK	Precipitation	In Service	Texas Electronics	TR-525M	71387-1116	1/4/2017	$621		DEN417, 02-068-0003
NPS	AK	Shelter	In Service	Ekto	8814	2980-1	7/28/1997	$12,946		DEN417, 02-068-0003
NPS	AK	Solar Radiation	In Service	LiCor	LI-200SZ	PY48447		$0		DEN417, 02-068-0003
NPS	AK	Tower	In Service	Aluma Tower	AT-516	(4269)		$0		DEN417, 02-068-0003
NPS	AK	Tower	In Service	Aluma Tower	Tower Aluma	(5239)		$0		DEN417, 02-068-0003
NPS	AK	Tower	In Service	Tower	Tower	(5240)		$0		DEN417, 02-068-0003
NPS	AK	Wind Direction	In Service	Climatronics	100076	1808 (3898)		$0		DEN417, 02-068-0003
NPS	AK	Wind Monitor	In Service	RM Young	05305	47105	8/29/2003	$478		DEN417, 02-068-0003
NPS	AK	Wind Speed	In Service	Climatronics	100075	1797 (3883)		$0		DEN417, 02-068-0003
NPS	CA	Computer	In Service	HP	EliteBook 8460P	CNU13607B3	10/19/2011	$850		DEV412, 06-027-0101
NPS	CA	Datalogger	In Service	ESC	8816	2567	2/16/1999	$4,895		DEV412, 06-027-0101
NPS	CA	Gas Cylinders	In-Service	Site	Gas Cylinders	DEVA-PV-CYL				DEV412, 06-027-0101
NPS	CA	Infrastructure	In Service	Brad Lawrence	BL101	(4288)	6/3/1993	$425		DEV412, 06-027-0101
NPS	CA	Infrastructure	In Service	Pioneer	YN012GMFI19RPD	34050190302830801501	3/27/2019	$1,188		DEV412, 06-027-0101
NPS	CA	Infrastructure	In-Service	Site	Infrastructure	DEVA-PV				DEV412, 06-027-0101
NPS	CA	O3 Analyzer	In Service	Thermo	49I	1201557776	7/19/2022	$0		DEV412, 06-027-0101
NPS	CA	O3 Station Reference	In Service	Thermo	49C-SR	66830-354	6/27/2000	$6,990		DEV412, 06-027-0101

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
NPS	CA	Tower	In Service	Aluma Tower	FOT-10-BW	(4518)	4/8/2019	$3,925		DEV412, 06-027-0101
NPS	UT	Ambient Temperature	In Service	RM Young	41342	4273		$0		DIN431, 49-047-1002
NPS	UT	Computer	In Service	HP	PROBOOK 6560B	5CB22906V2	8/29/2012	$745		DIN431, 49-047-1002
NPS	UT	Datalogger	In Service	ESC	8816	2643	3/1/1999	$6,310		DIN431, 49-047-1002
NPS	UT	Gas Cylinders	In-Service	Site	Gas Cylinders	DINO-WE-CYL				DIN431, 49-047-1002
NPS	UT	Infrastructure	In-Service	Site	Infrastructure	DINO-WE				DIN431, 49-047-1002
NPS	UT	Mass Flow Controller	In Service	Tylan	FC-280	AW902153		$0		DIN431, 49-047-1002
NPS	UT	Modem	In Service	Sierra Wireless	GX450	LA54720483001003	1/26/2016	$759		DIN431, 49-047-1002
NPS	UT	O3 Analyzer	In Service	Thermo	49I	1023943903	8/23/2010	$8,279		DIN431, 49-047-1002
NPS	UT	O3 Station Reference	In Service	Thermo	49I-SR	CM08460050	12/18/2008	$6,740		DIN431, 49-047-1002
NPS	UT	Precipitation	In Service	Texas Electronics	TR-525M	45483-910	10/6/2010	$355		DIN431, 49-047-1002
NPS	UT	Solar Radiation	In Service	Apogee	CS301	67633	11/3/2023			DIN431, 49-047-1002
NPS	UT	Tower	In Service	Aluma Tower	Tower Aluma	(5203)	10/7/2013	$616		DIN431, 49-047-1002
NPS	UT	Tower	In Service	Tower	Tower	(5204)	10/7/2013	$616		DIN431, 49-047-1002
NPS	UT	Wind Monitor	In Service	RM Young	05305	WM00180325	1/19/2021	$0		DIN431, 49-047-1002
NPS	FL	Computer	In Service	HP	PROBOOK 6560B	5CB1520H7V	8/29/2012	$570		EVE419, --
NPS	FL	Datalogger	In Service	ESC	8816	2527	1/14/1999	$4,895		EVE419, --
NPS	FL	Gas Cylinders	In-Service	Site	Gas Cylinders	EVER-BC-CYL				EVE419, --
NPS	FL	Infrastructure	In Service	Steve Stumbo	SS101	(5160)	8/13/1997	$300		EVE419, --
NPS	FL	Infrastructure	In-Service	Site	Infrastructure	EVER-BC				EVE419, --
NPS	FL	Mass Flow Controller	In Service	Alicat Scientific	MC-10SLPM-D-PCV65	150338	5/11/2017	$1,315		EVE419, --
NPS	FL	Shelter	In Service	Ekto	8810	3422-1		$0		EVE419, --
NPS	FL	Tower	In Service	Aluma Tower	Tower Aluma	(5209)	10/26/2018	$3,925		EVE419, --
NPS	MT	Ambient Temperature	In Service	RM Young	41342VC	TS00017625	3/12/2010	$426		GLR468, 30-029-8001
NPS	MT	Combination Met Sensor	In Service	Vaisala	WXT536	V5020686	12/12/2023	$3,524		GLR468, 30-029-8001
NPS	MT	Computer	In Service	HP	PROBOOK 6560B	5CB1520H65	8/29/2012	$570		GLR468, 30-029-8001
NPS	MT	Datalogger	In Service	ESC	8816	2560	2/16/1999	$4,895		GLR468, 30-029-8001
NPS	MT	Gas Cylinders	In-Service	Site	Gas Cylinders	GLAC-WG-CYL				GLR468, 30-029-8001
NPS	MT	Infrastructure	In Service	Steve Stumbo	SS101	(5162)	8/13/1997	$300		GLR468, 30-029-8001
NPS	MT	Infrastructure	In-Service	Site	Infrastructure	GLAC-WG				GLR468, 30-029-8001
NPS	MT	Mass Flow Controller	In Service	Tylan	FC-280	AW9403018		$0		GLR468, 30-029-8001
NPS	MT	O3 Analyzer	In Service	Thermo	49I	1201477661	3/13/2024			GLR468, 30-029-8001
NPS	MT	O3 Station Reference	In Service	Thermo	49I-SR	0733726104	12/4/2007	$6,993		GLR468, 30-029-8001
NPS	MT	Shelter	In Service	Ekto	8810	2149-20		$0		GLR468, 30-029-8001
NPS	MT	Solar Radiation	In Service	LiCor	LI-200	82723	11/3/2023			GLR468, 30-029-8001
NPS	MT	Tower	In Service	Aluma Tower	AT-516	EPA 03573		$0		GLR468, 30-029-8001
NPS	MT	Tower	In Service	Aluma Tower	Tower Aluma	EPA 03574		$0		GLR468, 30-029-8001
NPS	MT	Wind Monitor	In Service	RM Young	05305	WM00165135	11/13/2018	$941		GLR468, 30-029-8001
NPS	MT	Zero-Air Supply	In Service	Werther	PC70/4E	1011-16490	1/15/2013	$2,685		GLR468, 30-029-8001
NPS	NV	Ambient Temperature	In Service	RM Young	41342VC	18532	4/21/2016	$0		GRB411, 32-033-0101
NPS	NV	Computer	In Service	HP	PROBOOK 6560B	5CB22906V0	8/29/2012	$745		GRB411, 32-033-0101
NPS	NV	Datalogger	In Service	ESC	8816	2507	1/14/1999	$4,895		GRB411, 32-033-0101
NPS	NV	Gas Cylinders	In-Service	Site	Gas Cylinders	GRBA-MY-CYL				GRB411, 32-033-0101
NPS	NV	Infrastructure	In Service	Brad Lawrence	BL101	(4289)	6/3/1994	$425		GRB411, 32-033-0101
NPS	NV	Infrastructure	In-Service	Site	Infrastructure	GRBA-MY				GRB411, 32-033-0101
NPS	NV	Mass Flow Controller	In Service	Tylan	FC-280	AW9403026		$0		GRB411, 32-033-0101
NPS	NV	Modem	In Service	Sierra Wireless	GX450	LA54620104001003	1/26/2016	$759		GRB411, 32-033-0101
NPS	NV	O3 Analyzer	In Service	Thermo	49I	120066639	11/29/2021	$0		GRB411, 32-033-0101
NPS	NV	O3 Station Reference	In Service	Thermo	49C-SR	330302-753	12/19/2003	$7,875		GRB411, 32-033-0101
NPS	NV	Precipitation	In Service	Texas Electronics	TR-525M-HT	45-48910	11/7/2023			GRB411, 32-033-0101
NPS	NV	Relative Humidity	In Service	Rotronic	MP601A	67855 (4926)		$0		GRB411, 32-033-0101
NPS	NV	Shelter	In Service	Ekto	8810	2652-1	5/28/1993	$8,050		GRB411, 32-033-0101
NPS	NV	Solar Radiation	In Service	Apogee	CS300	62291	10/30/2018	$278		GRB411, 32-033-0101
NPS	NV	Tower	In Service	Aluma Tower	AT-516	EPA 928346		$0		GRB411, 32-033-0101
NPS	NV	Tower	In Service	Glen Martin	MF1331	NPS 01358		$0		GRB411, 32-033-0101

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
NPS	NV	Wind Monitor	In Service	RM Young	05305	54831	3/7/2003	$870		GRB411, 32-033-0101
NPS	AZ	Ambient Temperature	In Service	RM Young	41342VC	029457	11/7/2023			GRC474, 04-005-8001
NPS	AZ	Computer	In Service	HP	PROBOOK 6560B	5CB22906T9	8/29/2012	$745		GRC474, 04-005-8001
NPS	AZ	Datalogger	In Service	ESC	8816	2270	8/17/1998	$4,395		GRC474, 04-005-8001
NPS	AZ	Gas Cylinders	In-Service	Site	Gas Cylinders	GRCA-AS-CYL				GRC474, 04-005-8001
NPS	AZ	Infrastructure	In Service	Steve Stumbo	SS101	(5164)	5/21/1998	$0		GRC474, 04-005-8001
NPS	AZ	Infrastructure	In-Service	Site	Infrastructure	GRCA-AS				GRC474, 04-005-8001
NPS	AZ	Mass Flow Controller	In Service	Tylan	FC-280	AW9805027		$0		GRC474, 04-005-8001
NPS	AZ	Mass Flow Controller	In Service	Tylan	RO-32	FP902017		$0		GRC474, 04-005-8001
NPS	AZ	Modem	In Service	Sierra Wireless	GX450	LA54620247001003	1/26/2016	$759		GRC474, 04-005-8001
NPS	AZ	O3 Analyzer	In Service	Thermo	49I	1023953902				GRC474, 04-005-8001
NPS	AZ	O3 Station Reference	In Service	Thermo	49I-SR	1130450191	1/6/2012	$6,774		GRC474, 04-005-8001
NPS	AZ	Precipitation	In Service	Climatronics	100508	NPS01328	11/7/2023			GRC474, 04-005-8001
NPS	AZ	Relative Humidity	In Service	Rotronic	MP601A	26671	11/7/2023			GRC474, 04-005-8001
NPS	AZ	Shelter	In Service	Ekto	8810	2149-25		$0		GRC474, 04-005-8001
NPS	AZ	Solar Radiation	In Service	Apogee	CS301	67614	11/7/2023			GRC474, 04-005-8001
NPS	AZ	Solar Radiation	In Service	Climatronics	101655	PY8975		$0		GRC474, 04-005-8001
NPS	AZ	Tower	In Service	Aluma Tower	Tower Aluma	AT-215178-BB-1	1/29/2016	$0		GRC474, 04-005-8001
NPS	AZ	Wind Monitor	In Service	RM Young	05305	00172784	11/5/2019	$0		GRC474, 04-005-8001
NPS	AZ	Zero-Air Supply	In Service	Werther	PC70/4E	531380	9/21/2001	$1,564		GRC474, 04-005-8001
NPS	TN	Ambient Temp/Rel Hum	In Service	Vaisala	HMP45C	C1210008	6/21/2007	$592		GRS420, 47-009-0101
NPS	TN	Ambient Temperature	In Service	RM Young	41342VC	032955	11/27/2023			GRS420, 47-009-0101
NPS	TN	Combination Met Sensor	In Service	RM Young	70201	NPS 91046	6/5/2002	$782		GRS420, 47-009-0101
NPS	TN	Computer	In Service	HP	Compaq 6730B	USH01700BY	8/19/2010	$778		GRS420, 47-009-0101
NPS	TN	Gas Cylinders	In-Service	Site	Gas Cylinders	GRSM-LR-CYL				GRS420, 47-009-0101
NPS	TN	Infrastructure	In Service	Steve Stumbo	SS101	(5166)	1/21/1997	$280		GRS420, 47-009-0101
NPS	TN	Infrastructure	In-Service	Site	Infrastructure	GRSM-LR				GRS420, 47-009-0101
NPS	TN	Mass Flow Controller	In Service	Tylan	FC-280	AW9510056		$0		GRS420, 47-009-0101
NPS	TN	O3 Analyzer	In Service	Thermo	49I	1201557777	7/19/2022	$0		GRS420, 47-009-0101
NPS	TN	O3 Station Reference	In Service	Thermo	49I-SR	1130450193	1/6/2012	$6,774		GRS420, 47-009-0101
NPS	TN	PM10 & PM2.5	In Service	Thermo	1400A	140AB240260203		$0		GRS420, 47-009-0101
NPS	TN	Precipitation	In Service	Climatronics	100508	EPA 02179	11/27/2023			GRS420, 47-009-0101
NPS	TN	Shelter	In Service	Ekto	8812	2961-1		$0		GRS420, 47-009-0101
NPS	TN	Tower	In Service	Aluma Tower	AT-516	NPS 90945		$0		GRS420, 47-009-0101
NPS	TN	Tower	In Service	Aluma Tower	Tower Aluma	NPS 90944		$0		GRS420, 47-009-0101
NPS	TN	Wind Monitor	In Service	RM Young	05305	39243	11/27/2023			GRS420, 47-009-0101
NPS	WY	Ambient Temp/Rel Hum	In Service	Vaisala	HMP45AC	Y3250078	10/8/2003	$564		GRT434, 56-039-0008
NPS	WY	Barometric Pressure	In Service	RM Young	61302V	BPA1874		$0		GRT434, 56-039-0008
NPS	WY	Computer	In Service	HP	Probook 6550B	CNU02532PM		$0		GRT434, 56-039-0008
NPS	WY	Computer	In Service	Panasonic	CF-52	JTYA66528	11/19/2010	$1,779		GRT434, 56-039-0008
NPS	WY	Datalogger	In Service	ESC	8832	A3743K		$0		GRT434, 56-039-0008
NPS	WY	Gas Cylinders	In-Service	Site	Gas Cylinders	GRTE-SS-CYL				GRT434, 56-039-0008
NPS	WY	Infrastructure	In-Service	Site	Infrastructure	GRTE-SS				GRT434, 56-039-0008
NPS	WY	O3 Analyzer	In Service	Thermo	49I	903334536				GRT434, 56-039-0008
NPS	WY	O3 Station Reference	In Service	Thermo	49I-SR	1023943899	8/23/2010	$6,953		GRT434, 56-039-0008
NPS	WY	Shelter	In Service	Shelter One	TYPE E	20036-02	12/8/2010	$24,164		GRT434, 56-039-0008
NPS	WY	Wind Monitor	In Service	RM Young	05305	187461	11/27/2023			GRT434, 56-039-0008
NPS	CA	Ambient Temperature	In Service	RM Young	41342VC	TS00014960	10/23/2008	$414		JOT403, 06-071-9002
NPS	CA	Computer	In Service	HP	EliteBook 8470B	CNU3389GDD	2/20/2014	$1,010		JOT403, 06-071-9002
NPS	CA	Datalogger	In Service	ESC	8816	2271	8/17/1998	$4,395		JOT403, 06-071-9002
NPS	CA	Gas Cylinders	In-Service	Site	Gas Cylinders	JOTR-BR-CYL				JOT403, 06-071-9002
NPS	CA	Infrastructure	In-Service	Site	Infrastructure	JOTR-BR				JOT403, 06-071-9002
NPS	CA	Mass Flow Controller	In Service	Tylan	FC-280	AW9403016		$0		JOT403, 06-071-9002
NPS	CA	Mass Flow Controller	In Service	Tylan	RO-32	608102A		$0		JOT403, 06-071-9002
NPS	CA	O3 Analyzer	In Service	Thermo	49I	1160770010	11/21/2023			JOT403, 06-071-9002

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
NPS	CA	O3 Station Reference	In Service	Thermo	49I-SR	1130450194	1/6/2012	$6,774		JOT403, 06-071-9002
NPS	CA	Precipitation	In Service	Texas Electronics	TR-525M-HT	NPS01498	11/21/2023			JOT403, 06-071-9002
NPS	CA	Relative Humidity	In Service	Rotronic	MP601A	10142		$0		JOT403, 06-071-9002
NPS	CA	Shelter	In Service	Cornerstone	Shelter CornerStone	(5308)	11/1/1990	$3,800		JOT403, 06-071-9002
NPS	CA	Shelter	In Service	Paradise Sheds	Shelter Paradise Sheds	(5309)	11/1/1990	$3,800		JOT403, 06-071-9002
NPS	CA	Shelter	In Service	Shelter One	TYPE E	28036-02	10/16/2008	$18,500		JOT403, 06-071-9002
NPS	CA	Solar Radiation	In Service	LiCor	LI-200SZ	PY100848	9/8/2017	$0		JOT403, 06-071-9002
NPS	CA	Tower	In Service	Aluma Tower	AT-516	EPA 923310		$0		JOT403, 06-071-9002
NPS	CA	Tower	In Service	Aluma Tower	Tower Aluma	(5247)		$0		JOT403, 06-071-9002
NPS	CA	Tower	In Service	Tower	Tower	(5248)		$0		JOT403, 06-071-9002
NPS	CA	Wind Monitor	In Service	RM Young	05305	WM00180328	1/19/2021	$0		JOT403, 06-071-9002
NPS	CA	Ambient Temp/Rel Hum	In Service	Rotronic	MP101	33240 (4843)		$0		LAV410, 06-089-3003
NPS	CA	Ambient Temperature	In Service	RM Young	41342VC	029458	11/20/2023			LAV410, 06-089-3003
NPS	CA	Computer	In Service	HP	PROBOOK 440	5CD8296JDY	11/5/2018	$631		LAV410, 06-089-3003
NPS	CA	Gas Cylinders	In-Service	Site	Gas Cylinders	LAVO-ML-CYL				LAV410, 06-089-3003
NPS	CA	Infrastructure	In Service	Steve Stumbo	SS101	(5169)	5/21/1998	$0		LAV410, 06-089-3003
NPS	CA	Infrastructure	In-Service	Site	Infrastructure	LAVO-ML				LAV410, 06-089-3003
NPS	CA	Mass Flow Controller	In Service	Tylan	FC-280	AW02213004		$0		LAV410, 06-089-3003
NPS	CA	Mass Flow Controller	In Service	Tylan	RO-32	FP9605010		$0		LAV410, 06-089-3003
NPS	CA	O3 Analyzer	In Service	Thermo	49I	1152780007	10/30/2015	$7,862		LAV410, 06-089-3003
NPS	CA	O3 Station Reference	In Service	Thermo	49C-SR	59283-322	9/18/1997	$6,990		LAV410, 06-089-3003
NPS	CA	Precipitation	In Service	Texas Electronics	TR-525I	20895-398	11/20/2023			LAV410, 06-089-3003
NPS	CA	Relative Humidity	In Service	Rotronic	MP601A	56088	2/12/1999	$425		LAV410, 06-089-3003
NPS	CA	Solar Radiation	In Service	Apogee	CS301	64517	4/28/2019	$268		LAV410, 06-089-3003
NPS	CA	Tower	In Service	Aluma Tower	AT-516	EPA 923314		$0		LAV410, 06-089-3003
NPS	CA	Tower	In Service	Aluma Tower	Tower Aluma	(5251)		$0		LAV410, 06-089-3003
NPS	CA	Tower	In Service	Tower	Tower	(5252)		$0		LAV410, 06-089-3003
NPS	CA	Wind Monitor	In Service	RM Young	05305 / 08254 PSD	157076	11/20/2023			LAV410, 06-089-3003
NPS	CA	Zero-Air Supply	In Service	Werther	PC70/4E	526292		$0		LAV410, 06-089-3003
NPS	KY	Ambient Temp/Rel Hum	In Service	Rotronic	HC2-S3	67855 (5521)	11/20/2023			MAC426, 21-061-0501
NPS	KY	Ambient Temperature	In Service	RM Young	41342VC	TS00015104	12/4/2008	$414		MAC426, 21-061-0501
NPS	KY	Barometric Pressure	In Service	RM Young	61202V	BP06203		$0		MAC426, 21-061-0501
NPS	KY	Computer	In Service	HP	PROBOOK 6560B	5CB1520H70	8/29/2012	$570		MAC426, 21-061-0501
NPS	KY	Gas Cylinders	In-Service	Site	Gas Cylinders	MACA-HM-CYL				MAC426, 21-061-0501
NPS	KY	Gas Dilution Calibrator	In Service	Teledyne-API	M700E	0957		$9,540		MAC426, 21-061-0501
NPS	KY	Infrastructure	In Service	Steve Stumbo	SS101	(5172)	8/13/1997	$280		MAC426, 21-061-0501
NPS	KY	Infrastructure	In-Service	Site	Infrastructure	MACA-HM				MAC426, 21-061-0501
NPS	KY	Mass Flow Controller	In Service	Tylan	FC-280	(4468)		$0		MAC426, 21-061-0501
NPS	KY	NADP Sampler	In Service	Aerochem Metrics	NADP Sampler	(4953)	9/17/2002	$2,400		MAC426, 21-061-0501
NPS	KY	O3 Analyzer	In Service	Thermo	49I	1030745085	11/5/2010	$8,279		MAC426, 21-061-0501
NPS	KY	O3 Station Reference	In Service	Thermo	49I-SR	1015543061	8/23/2010	$6,953		MAC426, 21-061-0501
NPS	KY	Precipitation	In Service	Climatronics	100508	NPS 02532	11/13/2023			MAC426, 21-061-0501
NPS	KY	Shelter	In Service	Consolidated Analytical Systerms	9001-14-8	CUSTOM	10/13/2016	$33,917		MAC426, 21-061-0501
NPS	KY	Solar Radiation	In Service	Apogee	CS301	328530	11/13/2023			MAC426, 21-061-0501
NPS	KY	Tower	In Service	Aluma Tower	AT-516	(4272)		$0		MAC426, 21-061-0501
NPS	KY	Tower	In Service	Aluma Tower	Tower Aluma	(5253)		$0		MAC426, 21-061-0501
NPS	KY	Tower	In Service	Tower	Tower	(5254)		$0		MAC426, 21-061-0501
NPS	KY	Wind Direction	In Service	Climatronics	100076	4231	11/20/2023			MAC426, 21-061-0501
NPS	KY	Zero-Air Supply	In Service	Werther	PC70/4E	091700441	10/20/2017	$3,250		MAC426, 21-061-0501
NPS	CO	Ambient Temp/Rel Hum	In Service	Rotronic	MP101A	61854274	1/17/2020	$1,254		MEV405, 08-083-0101
NPS	CO	Ambient Temperature	In Service	RM Young	41342VC	TS00015106	12/4/2008	$414		MEV405, 08-083-0101
NPS	CO	Computer	In Service	HP	EliteBook 8470B	CNU347CS41	2/20/2014	$1,010		MEV405, 08-083-0101
NPS	CO	Datalogger	In Service	ESC	8864	C2597	1/10/2020	$9,160		MEV405, 08-083-0101
NPS	CO	Gas Cylinders	In-Service	Site	Gas Cylinders	MEVE-RM-CYL				MEV405, 08-083-0101
NPS	CO	Infrastructure	In Service	Brad Lawrence	BL101	(4293)	6/17/1992	$425		MEV405, 08-083-0101

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
NPS	CO	Infrastructure	In Service	Friedrich	SM18N30A	ABFZ01645		$1,110		MEV405, 08-083-0101
NPS	CO	Infrastructure	In-Service	Site	Infrastructure	MEVE-RM				MEV405, 08-083-0101
NPS	CO	Mass Flow Controller	In Service	Tylan	FC-280	AW9403013		$0		MEV405, 08-083-0101
NPS	CO	Mass Flow Controller	In Service	Tylan	RO-32	FP9710002		$0		MEV405, 08-083-0101
NPS	CO	NADP Sampler	In Service	Aerochem Metrics	NADP Sampler	(4954)	9/17/2002	$2,400		MEV405, 08-083-0101
NPS	CO	O3 Analyzer	In Service	Thermo	49I	1201477664	11/13/2023			MEV405, 08-083-0101
NPS	CO	O3 Station Reference	In Service	Thermo	49C-SR	62014-333	9/4/1998	$6,990		MEV405, 08-083-0101
NPS	CO	Precipitation	In Service	Climatronics	100508	(3958)		$0		MEV405, 08-083-0101
NPS	CO	Shelter	In Service	Ekto	888	2276-1		$0		MEV405, 08-083-0101
NPS	CO	Solar Radiation	In Service	Apogee	CS301	67630	11/13/2023			MEV405, 08-083-0101
NPS	CO	Tower	In Service	Aluma Tower	AT-516	EPA 923301		$0		MEV405, 08-083-0101
NPS	CO	Tower	In Service	Aluma Tower	Tower Aluma	(5255)		$0		MEV405, 08-083-0101
NPS	CO	Tower	In Service	Tower	Tower	(5256)		$0		MEV405, 08-083-0101
NPS	CO	Wind Monitor	In Service	RM Young	05305 / 08254 PSD	187462	11/13/2023			MEV405, 08-083-0101
NPS	CA	Ambient Temp/Rel Hum	In Service	Vaisala	HMP45AC	Z130143	11/8/2023			PIN414, 06-069-0003
NPS	CA	Ambient Temperature	In Service	RM Young	41342VC	29459	1/28/2020	$0		PIN414, 06-069-0003
NPS	CA	Computer	In Service	HP	EliteBook 8460P	CNU136077G	10/19/2011	$850		PIN414, 06-069-0003
NPS	CA	Datalogger	In Service	ESC	8864	C2599	1/10/2020	$9,160		PIN414, 06-069-0003
NPS	CA	Gas Cylinders	In-Service	Site	Gas Cylinders	PINN-ES-CYL				PIN414, 06-069-0003
NPS	CA	Infrastructure	In Service	Brad Lawrence	BL101	(4297)	8/10/1994	$425		PIN414, 06-069-0003
NPS	CA	Infrastructure	In-Service	Site	Infrastructure	PINN-ES				PIN414, 06-069-0003
NPS	CA	Mass Flow Controller	In Service	Alicat Scientific	MC-10SLPM-D-PCV65	134656	7/6/2016	$1,215		PIN414, 06-069-0003
NPS	CA	O3 Analyzer	In Service	Thermo	49I	1201477659	11/8/2023			PIN414, 06-069-0003
NPS	CA	O3 Station Reference	In Service	Thermo	49C-SR	0425208055	8/26/2004	$6,588		PIN414, 06-069-0003
NPS	CA	Precipitation	In Service	Climatronics	100508	NPS 91040		$0		PIN414, 06-069-0003
NPS	CA	Shelter	In Service	Cornerstone	Shelter CornerStone	(5310)	6/18/1990	$3,700		PIN414, 06-069-0003
NPS	CA	Shelter	In Service	Paradise Sheds	Shelter Paradise Sheds	(5311)	6/18/1990	$3,700		PIN414, 06-069-0003
NPS	CA	Solar Radiation	In Service	Apogee	CS300	60157	5/25/2018	$278		PIN414, 06-069-0003
NPS	CA	Tower	In Service	Aluma Tower	AT-516	EPA 928348		$0		PIN414, 06-069-0003
NPS	CA	Tower	In Service	Aluma Tower	Tower Aluma	(5263)		$0		PIN414, 06-069-0003
NPS	CA	Tower	In Service	Tower	Tower	(5264)		$0		PIN414, 06-069-0003
NPS	CA	Wind Monitor	In Service	RM Young	05305 / 08254 PSD	48581	11/8/2023			PIN414, 06-069-0003
NPS	CO	Ambient Temperature	In Service	RM Young	41342VC	TS00017079	11/6/2009	$426		ROM406, 08-069-0007
NPS	CO	Computer	In Service	HP	Compaq 6730B	USH01700BR	8/19/2010	$778		ROM406, 08-069-0007
NPS	CO	Datalogger	In Service	ESC	8864	C2601	5/21/1998	$0		ROM406, 08-069-0007
NPS	CO	Gas Cylinders	In-Service	Site	Gas Cylinders	ROMO-LP-CYL				ROM406, 08-069-0007
NPS	CO	Infrastructure	In-Service	Site	Infrastructure	ROMO-LP				ROM406, 08-069-0007
NPS	CO	Mass Flow Controller	In Service	Alicat Scientific	MC-5SLPM-D	218347	11/8/2023			ROM406, 08-069-0007
NPS	CO	Mass Flow Controller	In Service	Tylan	FC-280	AW9403024		$0		ROM406, 08-069-0007
NPS	CO	Mass Flow Controller	In Service	Tylan	RO-32	FP9403032		$0		ROM406, 08-069-0007
NPS	CO	O3 Analyzer	In Service	Thermo	49I	1201557779	7/19/2022	$0		ROM406, 08-069-0007
NPS	CO	O3 Station Reference	In Service	Thermo	49I-SR	CM08460008	12/4/2008	$6,740		ROM406, 08-069-0007
NPS	CO	Precipitation	In Service	Climatronics	100508	NPS80918	11/8/2023			ROM406, 08-069-0007
NPS	CO	Relative Humidity	In Service	Rotronic	MP601	52067 (5497)	11/8/2023			ROM406, 08-069-0007
NPS	CO	Shelter	In Service	Ekto	8814	3062-1	10/7/1998	$15,975		ROM406, 08-069-0007
NPS	CO	Solar Radiation	In Service	Apogee	CS301	64346	6/25/2019	$0		ROM406, 08-069-0007
NPS	CO	Tower	In Service	Aluma Tower	AT-516	EPA 923302		$0		ROM406, 08-069-0007
NPS	CO	Tower	In Service	Aluma Tower	Tower Aluma	(5267)		$0		ROM406, 08-069-0007
NPS	CO	Tower	In Service	Tower	Tower	(5268)		$0		ROM406, 08-069-0007
NPS	CO	Wind Monitor	In Service	RM Young	05305	68464	11/8/2023			ROM406, 08-069-0007
NPS	CA	Ambient Temperature	In Service	RM Young	41342	8472	10/31/2003	$154		SEK430, 06-107-0009
NPS	CA	Combination Met Sensor	In Service	RM Young	70201	PY37610	5/29/2001	$782		SEK430, 06-107-0009
NPS	CA	Computer	In Service	HP	PROBOOK 440	5CD83930X9	11/5/2018	$631		SEK430, 06-107-0009
NPS	CA	Computer	In Service	HP	PROBOOK 6560B	5CB1520H7P	8/29/2012	$570		SEK430, 06-107-0009
NPS	CA	Datalogger	In Service	ESC	8816	2562	2/16/1999	$4,895		SEK430, 06-107-0009

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
NPS	CA	Gas Cylinders	In-Service	Site	Gas Cylinders	SEKI-AS-CYL				SEK430, 06-107-0009
NPS	CA	Infrastructure	In Service	Kenmore	04270121000	KK24285530	7/15/2014	$319		SEK430, 06-107-0009
NPS	CA	Infrastructure	In-Service	Site	Infrastructure	SEKI-AS				SEK430, 06-107-0009
NPS	CA	Mass Flow Controller	In Service	Tylan	FC-280	AW9403014		$0		SEK430, 06-107-0009
NPS	CA	O3 Analyzer	In Service	Thermo	49I	1200666538	11/8/2023			SEK430, 06-107-0009
NPS	CA	O3 Station Reference	In Service	Thermo	49C-SR	74532-376	5/20/2002	$6,354		SEK430, 06-107-0009
NPS	CA	Precipitation	In Service	Climatronics	100508	NPS1329	12/27/2018	$0		SEK430, 06-107-0009
NPS	CA	Relative Humidity	In Service	Rotronic	MP601A	67858		$0		SEK430, 06-107-0009
NPS	CA	Solar Radiation	In Service	LiCor	LI-200	PY36710	11/8/2023			SEK430, 06-107-0009
NPS	CA	Wind Monitor	In Service	RM Young	05305	60367		$0		SEK430, 06-107-0009
NPS	CA	Zero-Air Supply	In Service	Werther	PC70/4E	531385	9/21/2001	$1,564		SEK430, 06-107-0009
NPS	VA	Barometric Pressure	In Service	Vaisala	PTB101B	P4640020		$0		SHN418, 51-113-0003
NPS	VA	Gas Cylinders	In-Service	Site	Gas Cylinders	SHEN-BM-CYL				SHN418, 51-113-0003
NPS	VA	Infrastructure	In Service	Brad Lawrence	BL101	(4299)	10/6/1994	$425		SHN418, 51-113-0003
NPS	VA	Infrastructure	In Service	Brad Lawrence	BL101	(4300)	10/6/1994	$425		SHN418, 51-113-0003
NPS	VA	Infrastructure	In Service	Brad Lawrence	BL101	(4301)	10/6/1994	$425		SHN418, 51-113-0003
NPS	VA	Infrastructure	In-Service	Site	Infrastructure	SHEN-BM				SHN418, 51-113-0003
NPS	VA	Mass Flow Controller	In Service	Tylan	FC-280	AW9605202		$0		SHN418, 51-113-0003
NPS	VA	O3 Analyzer	In Service	Thermo	49I	90334534	10/31/2023			SHN418, 51-113-0003
NPS	VA	O3 Station Reference	In Service	Thermo	49I-SR	103745083	3/12/2024			SHN418, 51-113-0003
NPS	VA	Precipitation	In Service	Texas Electronics	TR-525M-HT	71384-1116	10/23/2018	$0		SHN418, 51-113-0003
NPS	VA	Relative Humidity	In Service	Rotronic	MP601A	56080	2/12/1999	$425		SHN418, 51-113-0003
NPS	VA	Relative Humidity	In Service	Rotronic	MP601A	59218	2/12/1999	$425		SHN418, 51-113-0003
NPS	VA	Solar Radiation	In Service	Apogee	CS301	65504	10/31/2023			SHN418, 51-113-0003
NPS	VA	Wind Monitor	In Service	RM Young	05305 / 08254 PSD	172783	10/31/2023			SHN418, 51-113-0003
NPS	ND	Computer	In Service	HP	PROBOOK 6560B	5CB1520H68	8/29/2012	$570		THR422, 38-007-0002
NPS	ND	Datalogger	In Service	ESC	8816	2600	3/30/1999	$4,895		THR422, 38-007-0002
NPS	ND	Gas Cylinders	In-Service	Site	Gas Cylinders	THRO-VC-CYL				THR422, 38-007-0002
NPS	ND	Infrastructure	In Service	Friedrich	230V	60500394		$0		THR422, 38-007-0002
NPS	ND	Infrastructure	In-Service	Site	Infrastructure	THRO-VC				THR422, 38-007-0002
NPS	ND	Modem	In Service	Sierra Wireless	GX450	LA80510523001005	9/12/2018	$0		THR422, 38-007-0002
NPS	ND	Shelter	In Service	Ekto	8814	3028-1	8/12/1998	$0		THR422, 38-007-0002
NPS	ND	Solar Radiation	In Service	LiCor	LI-200SZ	PY47290		$0		THR422, 38-007-0002
NPS	ND	Tower	In Service	Aluma Tower	AT-516	(4250)	3/31/2017	$2,760		THR422, 38-007-0002
NPS	ND	Tower	In Service	Aluma Tower	Tower Aluma	(5271)		$0		THR422, 38-007-0002
NPS	ND	Tower	In Service	Tower	Tower	(5272)		$0		THR422, 38-007-0002
NPS	MN	Ambient Temperature	In Service	RM Young	41342VC	029199	12/28/2018	$0		VOY413, 27-137-0034
NPS	MN	Computer	In Service	HP	EliteBook 8460P	CNU136077P	10/19/2011	$850		VOY413, 27-137-0034
NPS	MN	Datalogger	In Service	ESC	8816	2505	1/14/1999	$4,895		VOY413, 27-137-0034
NPS	MN	Gas Cylinders	In-Service	Site	Gas Cylinders	VOYA-SB-CYL				VOY413, 27-137-0034
NPS	MN	Infrastructure	In-Service	Site	Infrastructure	VOYA-SB				VOY413, 27-137-0034
NPS	MN	Mass Flow Controller	In Service	Alicat Scientific	MC-10SLPM-D-PCV65	301229	10/31/2023			VOY413, 27-137-0034
NPS	MN	O3 Analyzer	In Service	Thermo	49C	66828-354	6/27/2000	$6,990		VOY413, 27-137-0034
NPS	MN	O3 Station Reference	In Service	Thermo	49C-SR	59260-322	9/18/1997	$6,990		VOY413, 27-137-0034
NPS	MN	Precipitation	In Service	Climatronics	100508	NPS 91050		$0		VOY413, 27-137-0034
NPS	MN	Relative Humidity	In Service	Rotronic	MP601A	52067	6/1/1998	$425		VOY413, 27-137-0034
NPS	MN	Shelter	In Service	Ekto	8810	2880-2		$0		VOY413, 27-137-0034
NPS	MN	Solar Radiation	In Service	Apogee	CS301	66942	10/31/2023			VOY413, 27-137-0034
NPS	MN	Wind Monitor	In Service	RM Young	05305	91804	10/24/2023			VOY413, 27-137-0034
NPS	WY	Ambient Temperature	In Service	RM Young	41342VC	29239	3/23/2018	$0		YEL408, 56-039-1011
NPS	WY	Computer	In Service	HP	EliteBook 8470B	CNU347CS5G	2/20/2014	$1,010		YEL408, 56-039-1011
NPS	WY	Gas Cylinders	In-Service	Site	Gas Cylinders	YELL-WT-CYL				YEL408, 56-039-1011
NPS	WY	Infrastructure	In Service	Friedrich	CP18G30B	R410A	6/3/2013	$956		YEL408, 56-039-1011
NPS	WY	Infrastructure	In-Service	Site	Infrastructure	YELL-WT				YEL408, 56-039-1011
NPS	WY	O3 Analyzer	In Service	Thermo	49I	1172090002	8/29/2017	$9,953		YEL408, 56-039-1011

Appendix L. CASTNET Asset Management Table

OWNER	STATE	ASSET TYPE	STATUS	MANUFACTURER	MODEL	SERIAL ID	ACQUIRED	PURCH PRICE	CONDITION	AGENCY ID
NPS	WY	O3 Station Reference	In Service	Thermo	49I-SR	926938297	3/12/2024			YEL408, 56-039-1011
NPS	WY	Relative Humidity	In Service	Rotronic	MP601A	56086	2/12/1999	$425		YEL408, 56-039-1011
NPS	WY	Shelter	In Service	Ekto	8810	2880-1		$0		YEL408, 56-039-1011
NPS	WY	Solar Radiation	In Service	Apogee	CS300	62292	10/30/2018	$278		YEL408, 56-039-1011
NPS	WY	Tower	In Service	Aluma Tower	AT-516	(4277)		$0		YEL408, 56-039-1011
NPS	WY	Tower	In Service	Aluma Tower	Tower Aluma	(5275)		$0		YEL408, 56-039-1011
NPS	WY	Tower	In Service	Tower	Tower	(5276)		$0		YEL408, 56-039-1011
NPS	WY	Wind Direction	In Service	Climatronics	100076	2228		$0		YEL408, 56-039-1011
NPS	WY	Wind Speed	In Service	Climatronics	100075	2745	9/30/1998	$0		YEL408, 56-039-1011
NPS	WY	Zero-Air Supply	In Service	Werther	PC70/4	531393		$0		YEL408, 56-039-1011
NPS	CA	Ambient Temp/Rel Hum	In Service	Rotronic	MP101A	61854267	1/17/2020	$1,254		YOS404, 06-043-0003
NPS	CA	Ambient Temperature	In Service	RM Young	41342VC	00031822	11/5/2019	$0		YOS404, 06-043-0003
NPS	CA	Datalogger	In Service	ESC	8816	2558	2/16/1999	$4,895		YOS404, 06-043-0003
NPS	CA	Gas Cylinders	In-Service	Site	Gas Cylinders	YOSE-TD-CYL				YOS404, 06-043-0003
NPS	CA	Infrastructure	In Service	Cabinet Makers	Rack	(5312)		$0		YOS404, 06-043-0003
NPS	CA	Infrastructure	In Service	Custom	Rack Custom	(5313)		$0		YOS404, 06-043-0003
NPS	CA	Infrastructure	In-Service	Site	Infrastructure	YOSE-TD				YOS404, 06-043-0003
NPS	CA	Mass Flow Controller	In Service	Alicat Scientific	MC-10SLPM-D-PCV65	150929	5/22/2017	$1,315		YOS404, 06-043-0003
NPS	CA	Modem	In Service	Sierra Wireless	GX450	LA82610183001005	10/12/2018	$639		YOS404, 06-043-0003
NPS	CA	O3 Analyzer	In Service	Thermo	49I	1201477663	10/23/2023			YOS404, 06-043-0003
NPS	CA	O3 Station Reference	In Service	Thermo	49C-SR	58308-318	5/28/1997	$6,990		YOS404, 06-043-0003
NPS	CA	Precipitation	In Service	Texas Electronics	TR-525M	45482-910		$0		YOS404, 06-043-0003
NPS	CA	Relative Humidity	In Service	Rotronic	MP601A	56082	2/12/1999	$425		YOS404, 06-043-0003
NPS	CA	Shelter	In Service	Ekto	8812	3515-2		$0		YOS404, 06-043-0003
NPS	CA	Solar Radiation	In Service	LiCor	LI-200SZ	PY47327		$0		YOS404, 06-043-0003
NPS	CA	Tower	In Service	Aluma Tower	AT-516	(4278)		$0		YOS404, 06-043-0003
NPS	CA	Wind Monitor	In Service	RM Young	05305	86685	6/5/2008	$972		YOS404, 06-043-0003
NPS	CA	Zero-Air Supply	In Service	Werther	PC70/4E	531397	9/21/2001	$1,564		YOS404, 06-043-0003
NPS	UT	Ambient Temperature	In Service	RM Young	41342VC	TS00015103	12/4/2008	$414		ZIO433, 49-053-0130
NPS	UT	Computer	In Service	HP	Compaq 6730B	CNU9335F7W	10/19/2009	$972		ZIO433, 49-053-0130
NPS	UT	Datalogger	In Service	ESC	8816	2561	2/16/1999	$4,895		ZIO433, 49-053-0130
NPS	UT	Gas Cylinders	In-Service	Site	Gas Cylinders	ZION-DW-CYL				ZIO433, 49-053-0130
NPS	UT	Infrastructure	In-Service	Site	Infrastructure	ZION-DW				ZIO433, 49-053-0130
NPS	UT	Modem	In Service	Sierra Wireless	GX450	LA54620260001003	1/26/2016	$759		ZIO433, 49-053-0130
NPS	UT	O3 Analyzer	In Service	Thermo	49C	59348-322	9/18/1997	$6,990		ZIO433, 49-053-0130
NPS	UT	O3 Station Reference	In Service	Thermo	49C-SR	70528-366	6/27/2001	$7,060		ZIO433, 49-053-0130
NPS	UT	Precipitation	In Service	Climatronics	100097	645	5/14/2002	$985		ZIO433, 49-053-0130
NPS	UT	Precipitation	In Service	Climatronics	100097-1-G0-H0	NPS 91002	10/23/2023			ZIO433, 49-053-0130
NPS	UT	Shelter	In Service	Ekto	8814	3434-1		$0		ZIO433, 49-053-0130
NPS	UT	Solar Radiation	In Service	Apogee	CS301	64345	10/23/2023			ZIO433, 49-053-0130
NPS	UT	Tower	In Service	Aluma Tower	Tower Aluma	(5215)		$0		ZIO433, 49-053-0130
NPS	UT	Tower	In Service	Glen Martin	MF1331	(4774)		$0		ZIO433, 49-053-0130
NPS	UT	Tower	In Service	Tower	Tower	(5216)		$0		ZIO433, 49-053-0130
NPS	UT	Wind Monitor	In Service	RM Young	05305	79820	10/23/2023			ZIO433, 49-053-0130