Rec'd 2/11/25 KAM

SOUTHERN CALIFORNIA EDISON®
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January 31, 2025

Mr. Keith Macias
Manager, Compliance Division
Ventura County Air Quality Management District
4567 Telephone Road, 2nd Floor
Ventura, CA 93003

Subject: Submission of Part 70 Permit Annual Compliance Certification
McGrath Peaker Generating Station, Permit No. 07891

Dear Mr. Macias,

Southern California Edison Company (SCE) is submitting the Part 70 Permit Annual Compliance Certification for McGrath Peaker Generating Station, Permit #07891, for the period between January 1, 2024 and December 31, 2024.

During the subject period the facility experienced one CEMS breakdown on April 11, 2024, which involved a missed calibration during the gas turbine 60-minute startup period. Breakdown Form ENF-32B for the incident was submitted to VCAPCD Inspector Mr. Ed Swede on April 22, 2024 and a deviation summary form is included with this report. No additional equipment breakdowns, permit deviations, emergency conditions, or activities involving the demolition of asbestos-containing material occurred at the facility during the subject period. All other monitoring required by the permit was conducted.

Also, please find enclosed the Annual Compliance Certification Signature Cover Form, Permit Attachment Forms, Source Test Summary Form, and supporting documents.

If you have any questions regarding these reports, please contact Ali Aleshaiker at (909) 353-9609 or by email at Ali.Aleshaiker@sce.com.

Sincerely,

DocuSigned by:
Lyle Laven
B96AB80F17EA457...

Lyle Laven
Senior Manager – Mainland
Generation, Eastern Operations

Enclosures

cc: Ms. Roshni Brahmbhatt
Enforcement & Compliance Enforcement Division
EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

docusign

Certificate Of Completion

Envelope Id: 2B7DED40-B3F7-4A09-B93F-2B256799C44B
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Envelope Originator:
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1/31/2025 8:46:17 AM
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Lyle Laven LYLE.LAVEN@SCE.COM Senior Manager Southern California Edison Company Security Level: Email, Account Authentication (None)	DocuSigned by: Lyle Laven B96AB80F17EA457... Signature Adoption: Pre-selected Style Using IP Address: 163.116.248.72	Sent: 1/31/2025 8:46:52 AM Viewed: 2/5/2025 12:07:16 PM Signed: 2/5/2025 12:07:46 PM

Electronic Record and Signature Disclosure:
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In Person Signer Events	Signature	Timestamp

Editor Delivery Events	Status	Timestamp

Agent Delivery Events	Status	Timestamp

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Carbon Copy Events	Status	Timestamp

Witness Events	Signature	Timestamp

Notary Events	Signature	Timestamp

Envelope Summary Events	Status	Timestamps
Envelope Sent	Hashed/Encrypted	1/31/2025 8:46:52 AM
Certified Delivered	Security Checked	2/5/2025 12:07:16 PM
Signing Complete	Security Checked	2/5/2025 12:07:46 PM
Completed	Security Checked	2/5/2025 12:07:46 PM

Payment Events	Status	Timestamps

Ventura County
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Control District

ANNUAL COMPLIANCE CERTIFICATION
SIGNATURE COVER FORM

TV Permit # 07891

A copy of each Annual Compliance Certification shall be submitted to EPA, Region 9, at the following address:

Ms. Roshni Brahmbhatt
Enforcement & Compliance Enforcement Division
EPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

Confidentiality

All information in a Part 70 permit compliance certification is public information. The Part 70 permit is also public information.

Certification by Responsible Official

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this compliance certification are true, accurate, and complete.

Signature and Title of Responsible Official:	Date:
Title: Production Manager, Generation - Eastern Operations	7/5/2025

Time Period Covered by Compliance Certification

01 / 01 / 2024 (MM/DD/YY) to 12 / 31 / 2024 (MM/DD/YY)

Ventura County
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PERMIT ATTACHMENT FORM

Period Covered by Compliance Certification: 01 / 01 / 24 (MM/DD/YY) to 12 / 31 / 24 (MM/DD/YY)

A. Attachment # or Permit Condition #: 7891-T1-161 Conditions # 1-5	D. Frequency of monitoring: Annual Source Test and Continuous Emissions Monitoring
B. Description: Gas Turbine Emissions Limits: - NOx emissions shall not exceed 2.5 ppmvd @ 15% O2 - NOx emissions shall not exceed 25 ppm @ 15% O2 (4-hr rolling avg) - ROC emissions shall not exceed 2.0 ppmvd @ 15% O2 - CO emissions shall not exceed 6.0 ppmvd @ 15% O2 - NH3 emissions shall not exceed 5.0 ppmvd @ 15% O2	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable Source Test Summary Form attached.
C. Method of monitoring: Continuous Emissions Monitoring. Annual compliance source tests performed on 8/20/24.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 7891-T1-161 Conditions # 6-12	D. Frequency of monitoring: Continuous monitoring
B. Description: Continuous Emissions Monitor - Permittee shall: -Install, Operate, Maintain, and Calibrate CEMS pursuant to Rule 74.23; Rule 103, NSPS KKKK and 40 CFR 75. -Promptly report emission violations as indicated by the CEMS -Maintain permanent CEMS records. -Maintain records of all maintenance activities	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A
C. Method of monitoring: Attachment #1: CEMS emissions and natural gas usage records. Attachment #2: CEMS maintenance record. Attachment #3: CEMS calibrations record. Attachment #4: SCR and CO catalyst temperature and pressure devices calibrations records. Attachment #5: Fuel and Ammonia flow-meters calibrations records.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): I H. *Excursions, exceedances, or other non-compliance? (Y or N): Y *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 7891-T1-161 Conditions # 13,14	D. Frequency of monitoring: Continuous monitoring
B. Description: Permittee shall submit operating records pursuant to Rule 74.23.E of: -Actual fuel consumption or operating hour records for the past 12 months; -Annual source test and control system operating parameters Permittee shall submit excess emissions and monitoring report every 6 months pursuant to 40 CFR 60, Subpart KKKK, including 4-hour rolling NOx average	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable Source Test Summary Form attached
C. Method of monitoring: An in-line fuel flow meter is used to monitor actual fuel consumption. Attachment #1 includes rolling twelve months total gas consumption. Annual compliance source tests were performed on 8/20/24. Test reports have been submitted to the District. Excess emissions and monitoring systems reports have been submitted to the District	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

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Period Covered by Compliance Certification: 01 / 01 / 24 (MM/DD/YY) to 12 / 31 / 24 (MM/DD/YY)

A. Attachment # or Permit Condition #: 7891-T2 Conditions # 1-2	D. Frequency of monitoring: None for PUC quality gas
B. Description: 40 CFR 60 KKKK: SO2 emissions shall not exceed 0.9 lbs/MW-hr or total sulfur in fuel shall not exceed 0.06 lbs/MMBTU heat input	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: Only PUC quality gas supplied by Southern California Gas Co. is combusted in the turbine, therefore the facility is in compliance with Rule 64 and 40 CFR 60 Subpart KKKK pursuant to 7891-T2 condition #2.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 7891-T2 Conditions # 3,4	D. Frequency of monitoring: None for PUC quality gas
B. Description: Pursuant to Rule 54.B.1, no person shall discharge sulfur compounds calculated as SO2 in excess of (a) 300 ppmv at point of discharge; (b) 0.25 ppmv, 1-hr average and/or 0.04 ppmv, 24-hr average at ground or sea level.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: Combustion of PUC quality natural gas ensures compliance with this requirement. No additional monitoring was required pursuant to 07891-T2 condition #3. No source testing pursuant to condition #4 is required.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 07891-Engine-161 Condition #1	D. Frequency of monitoring: Continuous
B. Description: The permitted emissions for the 924 BHP Waukesha engine are based on a NOx emission level of 1.25 grams/BHP-hr. Permittee shall maintain manufacturer's emission documentation that the engine meets this emission level.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: Attachment #6 is the generator and engine specification. Emissions Performance vs load curve on page 7 of the attachment shows the engine complies with NOx emissions level of 1.25 grams/BHP-hr.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

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Period Covered by Compliance Certification: 01 / 01 / 24 (MM/DD/YY) to 12 / 31 / 24 (MM/DD/YY)

A. Attachment # or Permit Condition #: 07891-Engine-161 Conditions 2 & 7	D. Frequency of monitoring: Monthly
B. Description: -Engine shall be used only when electrical power fails, except for testing and maintenance; -Engine recordkeeping requirement	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: Attachment #7, engine operating log is used to document all engine operations including emergency use hours and testing/maintenance use hours. The log shows the engine in question operated 5.4 hours in 2024.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 07891-Engine-161 Conditions # 3, 4, 5, 6 & 7	D. Frequency of monitoring: Monthly
B. Description: -Engine shall not operate more than 200 hrs/yr; -Engine shall be equipped with a non-resettable time meter; -Annual compliance certification shall include engine mfr., model number, operator ID and location. -Total engine hours shall be reported annually.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: Engine operating log is used to document all engine operations including emergency use hours and testing/maintenance use hours. (Attachment #7, engine operating log indicates manufacturer, model number, operator ID and location of use). The engine operated 5.4 hours in 2024.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: PO07891PC-111 Condition 1	D. Frequency of monitoring: Continuous monitoring
B. Description: Annual natural gas limit for turbine operation shall not exceed 1,667 MMSCF/yr.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: An in-line fuel flow meter calibrated annually is used to monitor natural gas combusted in the turbine. Attachment #1 includes the 12-month natural gas consumption for turbine operation, which indicated 80.60 mmscf of natural gas was combusted in the gas turbine in 2024.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

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A. Attachment # or Permit Condition #: PO07891PC1-111 Condition 2	D. Frequency of monitoring: Continuous Monitoring
B. Description: Turbine annual NOx emissions shall not exceed 4.81 tons/yr. Facility annual NOx emissions shall not exceed 4.99 tons/yr. A rolling 12-month record shall be maintained.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: Continuous Emissions Monitoring, Attachment #1 includes the rolling 12-month NOx emissions for 2024, which indicates 706 lbs of NOx were emitted from the gas turbine (0.35 tons). Attachment #7 indicates 13.75 lbs of NOx was emitted from the black-start generator engine (0.01 tons). These totals are below the permit limits.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: PO07891PC1-111 Condition 3	D. Frequency of monitoring: Monthly
B. Description: The 924 BHP Waukesha natural gas engine shall not be used for more than 200 hours per year.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: A totalizing hour meter documents engine operated hours. All engine operation is documented in an operation log. Attachment #7, engine operating log showed the engine operated 5.4 hours in 2024.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: PO07891PC1-111 Condition 4	D. Frequency of monitoring: N/A
B. Description: The LM-6000 SPRINT gas turbine and the 924 BHP Waukesha engine shall be fired on PUC regulated natural gas.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: Southern California Gas Company supplies only PUC quality natural gas to McGrath Generating Station.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

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Period Covered by Compliance Certification: 01 / 01 / 24 (MM/DD/YY) to 12 / 31 / 24 (MM/DD/YY)

A. Attachment # or Permit Condition #: PO07891PC1-111 Condition 5	D. Frequency of monitoring: N/A
B. Description: The 10,500 gallon ammonia storage tank shall be equipped with a pressure vacuum relief valve set at 50 psig and shall be vented to the vessel from which it is being filled during all filling operations.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A
C. Method of monitoring: -Visual observation during filling to verify the tank is vented to the filling vessel. -Attachment #8 is the pressure vacuum relief valve calibration sheet.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: PO07891-111 Condition 6	D. Frequency of monitoring: N/A
B. Description: Exempted solvents, coatings, adhesives, lubricants, and sealants.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A
C. Method of monitoring: A list of all VOC containing materials used at the facility is maintained. Attachment #9 is the VOC material usage record for 2024. Glycerin usage as a sealant is exempt due to low usage (< 10 gallons/yr).	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: VCAPCD Rule 50	D. Frequency of monitoring: Routine surveillance, annual certificaiton
B. Description: Rule 50 - Opacity: No visible emissions for a period or periods greater than 3 minutes in any one hour which are as dark or darker in shade as No. 1 on the Ringelmann Chart, or equivalent to 20% opacity or greater.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable EPA Method 9
C. Method of monitoring: Annual certification indicates the emissions units at the facility comply with the applicable sections of Rule 50. Attachment #10 is a copy of the 2024 opacity survey for the gas turbine and Black-start Generator performed on 8/20/24.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

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Period Covered by Compliance Certification: 01 / 01 / 24 (MM/DD/YY) to 12 / 31 / 24 (MM/DD/YY)

A. Attachment # or Permit Condition #: VCAPCD Rules 54.B.1 & 54.B.2	D. Frequency of monitoring: Upon request
B. Description: -Stationary IC engine & gas turbine operators shall not discharge sulfur compounds in excess of 300 ppm by vol (SO2) at 15% O2. -Sulfur concentration at ground level or at any point at or beyond property line shall not exceed 0.25 ppmv 1-hr average or 0.04 ppmv 24-hr average.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: EPA Method 6, 6A, 6C, 8, 15, 16A, 16B, or SCAQMD method 307-91
C. Method of monitoring: -Only PUC quality gas is combusted at the facility in compliance with Rule 64 and by extension Rule 54.B.1; -Sulfur concentration at point of discharge and ground level concentration of SO2 shall be monitored upon District's request.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: VCAPCD Rule 55 - Fugitive Dust	D. Frequency of monitoring: Routine Surveillance
B. Description: Fugitive dust emissions resulting from any operation, disturbed surface area or man made conditions shall not be visible beyond the midpoint of an adjacent street. Opacity shall be less than 20 percent and track out shall be less than 25 feet.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: On site operations monitoring: All applicable sources of dust at the facility are operating in compliance with Rule 55. Facility did not import gravel in 2024 for landscaping purposes.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: VCAPCD Rule 57.1	D. Frequency of monitoring: Upon request
B. Description: Particulate Matter emission from fuel burning equipment shall not exceed 0.12 lbs. per million BTU.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: CARB Method 5
C. Method of monitoring: -Per District Analysis dated Dec. 3rd, 1997, Gas Turbine emission factor was determined to be 0.0419 lb./MMBTU, less than 0.12 lbs./MMBTU limit specified in Rule 57.1 -PM source test will be conducted upon request by the District.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

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Period Covered by Compliance Certification: 01 / 01 / 24 (MM/DD/YY) to 12 / 31 / 24 (MM/DD/YY)

A. Attachment # or Permit Condition #: VCAPCD Rule 64.B.1	D. Frequency of monitoring: None for PUC quality gas
B. Description: Sulfur content of fuels: No person shall burn gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of fuel (788 ppmv).	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: Southern California Gas Company supplies only PUC quality natural gas to McGrath Peaker. No additional monitoring required.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: VCAPCD Rule 74.6	D. Frequency of monitoring: N/A
B. Description: Surface Cleaning and Degreasing: comply with VOC content limits and maintain records of usage. The exemption for aerosol usage is less than 160 fl oz/day.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: An annual log is used to document surface cleaning and degreasing activities. Attachment #9 is the coating, solvent, adhesive, sealant, and aerosol usage log. All aerosol use was < 160 fl oz/day in 2024.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: VCAPCD Rule 74.11.1	D. Frequency of monitoring: N/A
B. Description: Large Water Heaters and Small Boilers: comply with NOx emission limits for subject equipment. Maintain list of equipment.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: There are no large water heaters or small boilers installed at the facility.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

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Period Covered by Compliance Certification: 01 / 01 / 24 (MM/DD/YY) to 12 / 31 / 24 (MM/DD/YY)

A. Attachment # or Permit Condition #: VCAPCD Rule 74.22	D. Frequency of monitoring: N/A
B. Description: Natural Gas Fired Fan-Type Central Furnaces: comply with NOx emission limits for subject equipment. Maintain list of equipment.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A
C. Method of monitoring: There are no natural gas fired fan-type central furnaces installed at the facility.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: VCAPCD Rule 74.1	D. Frequency of monitoring: N/A
B. Description: Abrasive Blasting: Comply with visible emissions standards and methods for abrasive blasting operations. Maintain records.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A
C. Method of monitoring: No abrasive blasting operation was performed at McGrath Peaker in 2024.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: VCAPCD Rule 74.2	D. Frequency of monitoring: N/A
B. Description: Architectural Coatings: Comply with VOC content limits and maintain records for architectural coating use.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable N/A
C. Method of monitoring: Coatings used at the facility in 2024 were in compliance with the VOC content limits in Rule 74.2 or exempt (small container). Attachment #9 is the coating and solvent usage log for 2024.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

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Period Covered by Compliance Certification: 01 / 01 / 24 (MM/DD/YY) to 12 / 31 / 24 (MM/DD/YY)

A. Attachment # or Permit Condition #: VCAPCD Rule 74.4.D	D. Frequency of monitoring: N/A
B. Description: Cutback Asphalt: Comply with organic compound limit (0.5%) for road oils applied for street paving or maintenance.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: Cut back asphalt activities were not performed at the facility in 2024.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #: 40 CFR Part 61, Subpart M	D. Frequency of monitoring: N/A
B. Description: National Emission Standards for Asbestos: Comply with applicable requirements for demolition/renovation activities.	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable: N/A
C. Method of monitoring: Asbestos demolition/renovation activities were not performed at the facility in 2024.	F. Currently in Compliance? (Y or N): Y G. Compliance Status? (C or I): C H. *Excursions, exceedances, or other non-compliance? (Y or N): N *If yes, attach Deviation Summary Form

A. Attachment # or Permit Condition #:	D. Frequency of monitoring:
B. Description:	E. Source test reference method, if applicable. Attach Source Test Summary Form, if applicable
C. Method of monitoring:	F. Currently in Compliance? (Y or N): _____ G. Compliance Status? (C or I): _____ H. *Excursions, exceedances, or other non-compliance? (Y or N): _____ *If yes, attach Deviation Summary Form

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ANNUAL COMPLIANCE CERTIFICATION

SOURCE TEST SUMMARY FORM

Period Covered by Compliance Certification: 01 / 01 / 24 (MM/DD/YY) to 12 / 31 / 24 (MM/DD/YY)

A. Emission Unit Description:			B. Pollutant:
GE LM-6000 PC SPRINT Gas Turbine			NOx
C. Measured Emission Rate:	D. Limited Emission Rate:	E. Specific Source Test or Monitoring Record Citation:	F. Test Date:
2.11 ppm @ 15% O2 3.13 lbs/hr	2.5 ppm @ 15% O2 50 lbs/hr	07891-T1-161, Condition 1a	08/20/24

A. Emission Unit Description:			B. Pollutant:
GE LM-6000 PC SPRINT Gas Turbine			ROC
C. Measured Emission Rate:	D. Limited Emission Rate:	E. Specific Source Test or Monitoring Record Citation:	F. Test Date:
<0.98 ppm @ 15% O2 <0.53 lbs/hr	2.0 ppm @ 15% O2 1.38 lbs/hr	07891-T1-161, Condition 1b	08/20/24

A. Emission Unit Description:			B. Pollutant:
GE LM-6000 PC SPRINT Gas Turbine			CO
C. Measured Emission Rate:	D. Limited Emission Rate:	E. Specific Source Test or Monitoring Record Citation:	F. Test Date:
2.07 ppm @ 15% O2 1.88 lbs/hr	6.0 ppm @ 15% O2 15.80 lbs/hr	07891-T1-161, Condition 1c	08/20/24

A. Emission Unit Description:			B. Pollutant:
GE LM-6000 PC SPRINT Gas Turbine			NH3
C. Measured Emission Rate:	D. Limited Emission Rate:	E. Specific Source Test or Monitoring Record Citation:	F. Test Date:
0.55 ppm @15% O2 0.32 lbs/hr	5.0 ppm @ 15% O2 3.44 lbs/hr	07891-T1-161, Condition 1d	08/20/24

A. Emission Unit Description:			B. Pollutant:
C. Measured Emission Rate:	D. Limited Emission Rate:	E. Specific Source Test or Monitoring Record Citation:	F. Test Date:

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ANNUAL COMPLIANCE CERTIFICATION
DEVIATION SUMMARY FORM

Period Covered by Compliance Certification: 01 / 01 / 24 (MM/DD/YY) to 12 / 31 / 24 (MM/DD/YY)

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time
7891-T1-161 Condition 6	CEMS for Gas Turbine	Begin: 4/11/24, 5:27 PM End: 4/11/24, 6:27 PM When Discovered: Date & Time 4/16/24 4:00 PM
D. Parameters monitored:	**E. Limit:**	**F. Actual:**
NOx and CO	NOx: 2.5 ppmvd @ 15%O2, CO: 6.0 ppmvd @ 15%O2	Deviation did not result in emissions exceedance

G. Probable Cause of Deviation:	H. Corrective actions taken:
A daily online CEMS calibration was not conducted during the 60-min startup of the gas turbine. It was discovered that the CEMS calibration request logic differed from the logic used at other SCE Peaker sites, which is believed to have been the cause of the missed calibration	Upon discovery, the CEMS vendor modified the logic to standardize with other SCE Peaker sites. Offline calibrations were passed prior to startup and on the following day.

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time Begin: End: When Discovered: Date & Time
D. Parameters monitored:	**E. Limit:**	**F. Actual:**

G. Probable Cause of Deviation:	H. Corrective actions taken:

A. Attachment # or Permit Condition #:	B. Equipment description:	C. Deviation Period: Date & Time Begin: End: When Discovered: Date & Time
D. Parameters monitored:	**E. Limit:**	**F. Actual:**

G. Probable Cause of Deviation:	H. Corrective actions taken:

Attachment 1

Emissions and Natural Gas Fuel Records

SCE McGrath Peaker

Oxnard CA

McGrath- Multi Purpose Report

2024

Month	Unit On-Time	Number of Starts	Water Injection klb	NOx lbs	CO lbs	PM lbs	SOx lbs	ROC lbs	Gas Flow mmscf	Gross Megawatt Hours	Net Megawatt Hours
Jan 2024	29.62	4	552.1	92	46	131	8	11	12.65	1389.3	1361.5
Feb 2024	6.76	1	124.4	21	13	29	2	3	2.82	306.2	300.1
Mar 2024	15.75	7	271.5	79	31	65	3	5	6.35	678.0	664.2
Apr 2024	7.60	3	124.6	30	16	30	3	3	2.97	314.7	307.5
May 2024	1.45	1	22.8	11	8	6	0	1	0.54	54.7	0.0
Jun 2024	19.84	8	331.1	66	46	82	5	7	7.83	810.3	794.8
Jul 2024	41.87	9	633.7	122	92	159	8	14	15.41	1571.8	1532.1
Aug 2024	30.36	6	508.5	94	64	123	7	11	11.82	1238.7	1210.6
Sep 2024	21.17	5	335.9	61	52	83	4	7	7.95	830.0	811.6
Oct 2024	7.55	4	116.7	26	13	29	1	3	2.81	291.0	284.1
Nov 2024	22.42	10	377.3	92	49	93	5	8	8.94	940.0	920.6
Dec 2024	1.42	1	21.8	12	6	5	0	0	0.51	51.0	0.2
Total	205.81	59	3420.4	706	436	835	46	73	80.60	8475.7	8187.3

SCE McGrath Peaker

Oxnard CA

McGrath- 12-Month Rolling Mass Emissions Report

December 2024 12-Month Rolling

12-Month Rolling Emission Limits

NOx tons - 4.81	CO tons - 11.79	SOx tons - 0.5
PM tons - 8.64	NH3 Slip tons - 5.96	ROC tons - 2.24

Month	NOx lbs	SOx lbs	CO lbs	PM lbs	NH3 Slip lbs (Bias Adjusted)	ROC lbs
Jan 2024	92	8	46	131	23	11
Feb 2024	21	2	13	29	5	3
Mar 2024	79	3	31	65	16	5
Apr 2024	30	3	16	30	9	3
May 2024	11	0	8	6	2	1
Jun 2024	66	5	46	82	22	7
Jul 2024	122	8	92	159	35	14
Aug 2024	94	7	64	123	22	11
Sep 2024	61	4	52	83	20	7
Oct 2024	26	1	13	29	10	3
Nov 2024	92	5	49	93	20	8
Dec 2024	12	0	6	5	2	0
12-Mo Roll	0.35 tons	0.0 tons	0.22 tons	0.42 tons	0.1 tons	0.04 tons

SOx Emission Factor - 0.6 lb/mmscf
PM Emission Factor - 10.37 lb/mmscf
ROC Emission Factor - 0.96 lb/mmscf

SCE McGrath Peaker

Oxnard CA

McGrath- 12-Month Rolling Fuel Usage & Start Ups Report

December 2024 12-Month Rolling

Month	Monthly Gas Flow mmscf	12-Month Rolling Gas Flow mmscf	Monthly # of Startups	12-Month Rolling # of Startups	Monthly Unit On-Time	12-Month Rolling Unit On-Time
Jan 2024	12.65	127.28	4	88	29.62	317.20
Feb 2024	2.82	127.34	1	85	6.76	317.24
Mar 2024	6.35	124.57	7	88	15.75	312.00
Apr 2024	2.97	122.61	3	86	7.60	308.09
May 2024	0.54	114.71	1	80	1.45	286.65
Jun 2024	7.83	118.26	8	85	19.84	296.01
Jul 2024	15.41	117.41	9	82	41.87	295.73
Aug 2024	11.82	110.44	6	77	30.36	277.62
Sep 2024	7.95	105.32	5	71	21.17	265.38
Oct 2024	2.81	95.33	4	65	7.55	240.81
Nov 2024	8.94	94.48	10	66	22.42	238.81
Dec 2024	0.51	80.60	1	59	1.42	205.81

Attachment 2

CEMS Maintenance Records

McGrath Peaker Quarterly Checks

Quality Control/Quality Assurance Plan
Checklist for CEMS Shelter Inspection

Quarterly QA/QC Inspections					
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Date:		*3/27/2024*	*5/2/2024*	*7/3/2024*	*10/3/2024*
Technician's Name:		*White*	*White*	*White*	*White*
Sample System Checks					
Perform Weekly and Monthly Inspections		√	√	√	√
Inspect Sample Pressure, if declining, perform one or more of the following:		√	√	√	√
Perform Probe maintenance		N/A	N/A	N/A	N/A
Clean and Inspect Probe Filter Element and Chamber. Replace Filter if needed		N/A	N/A	N/A	N/A
Verify if Probe Box Heater is operating (Amp Clamp)		√	√	√	√
Replace NH3 NOx Dessicant Media		N/A	N/A	N/A	N/A
If Sample Flow is low then leak check Sample Pump		N/A	N/A	N/A	N/A
Perform CEMS sample system leak check		N/A	N/A	N/A	N/A
Perform general housekeeping duties. Dust/clean all equipment surfaces.		√	√	√	√
Analyzer Checks					
Visually check for obvious defects such as loose connectors, loose fittings, cracked or clogged teflon lines, and excessive dust or dirt accumulation. Dirt accumulation can cause overheating or component failure and may provide a conducting path for electricity		√	√	√	√
Clean inside of each instrument by vacuuming		√	√	√	√
Clean all Analyzer cooling fans/filters		√	√	√	√
NOx Analyzer					
If there is excessive noise, drifting zero or span values, low response or a combination of all, the Reaction Cell may need to be cleaned.		N/A	N/A	N/A	N/A
NO Norm Offset	-20 to 150 mV	0.2	0.3	0.1	0.1
NO Stability	≤ 0.001 PPM at **Zero Air** for 10 minutes	√	√	√	√
NO2 Stability	≤ 0.001 PPM at **Zero Air** for 10 minutes	√	√	√	√
NOx Norm Offset	-20 to 150 mV	0.5	0.4	0.2	0.2
NOx Stability	≤ 0.001 PPM at **Zero Air** for 10 minutes	√	√	√	√
CO/O2 Analyzer					
Examine and clean pneumatic lines as needed.		√	√	√	√
O2 STB	< 1% during **Zero Air** after 10 minutes	√	√	√	√
Caution: Observe all safety warnings from manufacturers manual		√	√	√	√
NOx/NH3 Analyzer					
If there is excessive noise, drifting zero or span values, low response or a combination of all, the Reaction Cell may need to be cleaned.		N/A	N/A	N/A	N/A
NO Norm Offset	-20 to 150 mV	0.3	0.2	0.1	0.1
NO Stability	≤ 0.001 PPM at **Zero Air** for 10 minutes	√	√	√	√
NO2 Stability	≤ 0.001 PPM at **Zero Air** for 10 minutes	√	√	√	√
NOx Norm Offset	-20 to 150 mV	0.4	0.5	0.2	0.2
NOx Stability	≤ 0.001 PPM at **Zero Air** for 10 minutes	√	√	√	√
REMARKS:					

Mark as either **Acceptable "√", Corrective action Required "X", or Actual Readings, where required**

Note: Report all deficiencies to the Control Operator immediately. Log corrective actions in the CEMS shelter log book

Location:		JAN	FEB	MAR	APR	MAY	JUN
Date:		1/31/2024	2/28/2024	3/27/2024	4/25/2024	5/2/2024	6/5/2024
Technician's Name:		White	White	White	White	White	White
Sample System Checks							
Perform Weekly Inspections		✓	✓	✓	✓	✓	✓
Check NH3 NOx Dessicant Media. Replace as necessary		N/A	N/A	N/A	N/A	N/A	N/A
Plan for the upcoming Linearity/CGA. Check gas bottles pressures >500 psig. Verify expiration dates. Order new bottles as needed keeping in mind the lead time may be several weeks.		✓	✓	✓	✓	✓	✓
Check incoming instrument air filter. Open purge valve for at least 1 minute, then close.		✓	✓	✓	✓	✓	✓
DAHS Checks							
If enabled, check/change backup media (removable hard drive, network location, etc.).		✓	✓	✓	✓	✓	✓
Verify that automatic backups to the iFIX workstation have occurred for the month. *Log on to the iFIX HMI D:\WindowsImageBackup\pkdahs1br and check for date and time to make sure the backups are current.*		N/A	N/A	N/A	N/A	N/A	N/A
Verify there is more than 10GB of free disk space available in the iFIX workstation.		N/A	N/A	N/A	N/A	N/A	N/A
Diagnostic Checks: (Dashboard) **Mark as either Acceptable/Checked "√", Corrective action Required "X", or Actual Readings, where required**							
NOx Analyzer							
Auto Zero	-20 to 150 mV	-1.2	-1.1	-1.0	-1.0	-0.9	-0.5
Box Temp	32 ± 5 °C	28.5	29.0	28.6	29.2	28.8	28.6
Conv Temp	700 ± 15 °C	700.9	699.3	700.2	700.5	700.8	314.8
HVPS	400 to 900 V, nominal 500 V ± 50	447	447	447	447	447	447
NO Slope	1.00 ± 0.3 PPM/mV	1.071	1.217	1.217	1.217	1.217	1.064
NO Slope (Range 2)	1.00 ± 0.3 PPM/mV	1.042	1.042	1.042	1.042	1.051	1.024
NOx Slope	1.00 ± 0.3 PPM/mV	1.055	1.080	1.080	1.080	1.080	1.054
NOx Slope (Range 2)	1.00 ± 0.3 PPM/mV	1.037	1.037	1.037	1.037	1.044	1.021
O3 Flow (Ozone)	250 ± 25 cc/minute	255	257	258	257	254	243
PMT Signal	-20 to 150 mV at **Zero Air**	2.6	-1.0	-1.0	-0.7	-0.5	-0.5
	0 to 5,000 mV at **Span Gas** Concentration	3192.0	3192.3	3212.7	3164.6	3240.6	3205.8
PMT Temp	7.0 ± 2 °C	6.9	6.9	6.9	6.9	6.9	6.9
Rx Cell Pressure	less than 10 in. HgA or, Barometric pressure if the pump is off	4.8	4.8	4.8	4.8	4.8	4.6
Rx Cell Temp	50 ± 1 °C	50.0	50.0	50.0	50.0	50.0	50.0
Sample Flow	250 ± 25 cc/minute	254	255	256	255	254	243
Sample Pressure	Barometric Pressure ± 1 in. Hg-A	29.9	30.0	30.2	30.1	29.9	29.9
Required Check:	Check or Replace Particulate Filter	✓	✓	✓	✓	✓	✓
CO/O2 Analyzer							
Bench Temp	50 ± 5 °C	48.0	48.0	48.0	48.0	48.0	48.0
Box Temp	30 ± 5 °C	21.4	31.6	31.2	31.4	31.5	31.5
CO Offset 1	0 ± 0.5 during **Zero Cal**	-0.030	-0.029	-0.027	-0.027	-0.027	-0.039
CO Offset 2	0 ± 0.5 during **Zero Cal**	-0.030	-0.030	-0.028	-0.028	-0.026	-0.039
CO Slope 1	1.00 ± 0.3 during **Span Cal**	1.120	1.100	1.154	1.143	1.143	1.132
CO Slope 2	1.00 ± 0.3 during **Span Cal**	1.085	1.091	1.098	1.098	1.080	1.105
Meas Detector	4500 mV ± 300 mV during **Zero Cal**	2164.5	2706.4	4107.8	4291.3	4601.5	4074.3
MR Ratio	1.15 - 1.200 during **Zero Cal**	1.181	1.182	1.184	1.184	1.184	1.172
O2 Cell Temperature	50 ± 5 °C	50.0	50.0	50.0	50.0	50.0	50.0
O2 Offset	< 1%	0.447	0.447	0.447	0.447	0.447	0.564
O2 Slope	1.000 ± 0.3	1.073	1.073	1.073	1.073	1.073	1.068
PHT Drive	< 4800 mV during **Sample**	1859.6	1860.2	1860.0	1852.7	1860.2	2731.2
Ref Detector	< 4800 mV during **Sample**	1848.2	2305.2	3481.5	3640.5	3907.5	3494.7
Sample Flow	800 ± 50 cc/minute	789	792	805	799	783	890
Sample Pressure	29.0 ± 1 in. Hg-A during **Sample**	29.7	29.9	30.0	29.9	29.7	29.7
Sample Temp	50 ± 5 °C	48.2	48.2	48.3	48.3	48.3	48.1
Wheel Temp	70 ± 5 °C	68.2	68.0	67.9	68.1	67.9	68.0
Required Check:	Check or Replace Particulate Filter	✓	✓	✓	✓	✓	✓
NOx/NH3 Analyzer							
Auto Zero	-20 to 150 mV	-0.4	-0.3	-0.3	-0.4	-0.2	-0.3
Box Temp	32 ± 5 °C	30.7	30.8	30.5	30.1	30.7	29.5
Conv Temp	700 ± 15 °C	700.4	700.7	697.4	698.8	699.6	314.8
HVPS	400 to 900 V, nominal 500 V ± 50	429	429	429	429	429	457
NO Slope	1.00 ± 0.3 PPM/mV	1.472	1.550	1.617	1.644	1.644	1.116
NO Slope (Range 2)	1.00 ± 0.3 PPM/mV	1.473	1.508	1.534	1.590	1.604	1.078
NOx Slope	1.00 ± 0.3 PPM/mV	1.530	1.571	1.636	1.686	1.686	1.135
NOx Slope (Range 2)	1.00 ± 0.3 PPM/mV	1.491	1.513	1.537	1.597	1.616	1.086
O3 Flow (Ozone)	250 ± 25 cc/minute	254	255	257	256	253	239
PMT Signal	-20 to 150 mV at **Zero Air**	1.7	-0.2	-0.2	-0.2	-0.2	-0.2
	0 to 5,000 mV at **Span Gas** Concentration	2084.1	2037.1	1978.5	1917.1	1914.6	2808.5
PMT Temp	7.0 ± 2 °C	6.6	6.6	6.6	6.6	6.6	6.6
Rx Cell Pressure	less than 10 in. Hg-A or, Barometric pressure if the pump is off	5.4	5.4	5.5	5.5	5.5	5.3
Rx Cell Temp	50 ± 1 °C	50.0	50.0	50.0	50.0	50.0	50.0
Sample Flow	250 ± 25 cc/minute	263	264	265	265	263	236
Sample Pressure	Barometric Pressure ± 1 in. Hg-A	30.0	30.1	30.3	30.2	30.0	30.0
Required Check:	Check or Replace Particulate Filter	✓	✓	✓	✓	✓	✓
REMARKS:							

Note: All deficiencies must be reported to the Control Operator immediately. Corrective Action performed shall be logged in the CEMS shelter log book.

Location:		JUL	AUG	SEP	OCT	NOV	DEC
Date:		7/3/2024	8/7/2024	9/12/2024	10/3/2024	11/7/2024	12/5/2024
Technician's Name:		White	White	White	White	White	White
Sample System Checks							
Check NOx analyzer dessicant media. Replace as necessary		N/A	N/A	N/A	N/A	N/A	N/A
Plan for the upcoming Linearity/CGA. Check gas bottles pressures >500 psig. Verify expiration dates. Order new bottles as needed keeping in mind the lead time may be several weeks.		✓	✓	✓	✓	✓	✓
Check incoming instrument air filter		✓	✓	✓	✓	✓	✓
DAHS Checks							
If enabled, check/change backup media (removable hard drive, network location, etc.).		✓	✓	✓	✓	✓	✓
Verify that automatic backups to the iFIX workstation have occurred for the month. *Log on to the iFIX HMI D:\WindowsImageBackup\pkdahs1br and check for date and time to make sure the backups are current.*		N/A	N/A	N/A	N/A	N/A	N/A
Verify there is more than 10GB of free disk space available in the iFIX workstation.		N/A	N/A	N/A	N/A	N/A	N/A
Diagnostic Checks: (Dashboard) **Mark as either Acceptable/Checked "√", Corrective action Required "X", or Actual Readings, where required**							
NOx Analyzer							
Auto Zero	-20 to 150 mV	-0.5	-0.1	0.4	0.7	1.3	2.0
Box Temp	32 ± 5 °C	28.1	28.4	27.9	28.0	29.0	27.7
Conv Temp	700 ± 15 °C	314.8	315.3	315.3	315.2	315.1	315.1
HVPS	400 to 900 V, nominal 500 V ± 50	447	447	447	447	447	447
NO Slope	1.00 ± 0.3 PPM/mV	1.064	1.156	1.156	1.156	1.156	1.156
NO Slope (Range 2)	1.00 ± 0.3 PPM/mV	1.024	1.043	1.055	1.055	1.059	1.059
NOx Slope	1.00 ± 0.3 PPM/mV	1.054	1.087	1.087	1.087	1.087	1.087
NOx Slope (Range 2)	1.00 ± 0.3 PPM/mV	1.021	1.040	1.049	1.049	1.056	1.056
O3 Flow (Ozone)	250 ± 25 cc/minute	243	244	242	242	247	246
PMT Signal	-20 to 150 mV at **Zero Air**	-0.3	0.0	0.6	0.8	1.5	2.1
	0 to 5,000 mV at **Span Gas** Concentration	3187.5	3194.8	3204.6	3219.5	3322.6	3232.7
PMT Temp	7.0 ± 2 °C	6.9	6.9	6.9	6.9	6.9	6.9
Rx Cell Pressure	less than 10 in. HgA or, Barometric pressure if the pump is off	4.6	4.7	4.6	4.7	4.2	4.7
Rx Cell Temp	50 ± 1 °C	50.0	50.0	50.0	50.0	50.0	50.0
Sample Flow	250 ± 25 cc/minute	243	244	241	242	245	245
Sample Pressure	Barometric Pressure ± 1 in. Hg-A	29.9	30.0	29.7	29.8	30.1	30.1
Required Check:	Check or Replace Particulate Filter	✓	✓	✓	✓	✓	✓
CO/O2 Analyzer							
Bench Temp	50 ± 5 °C	48.0	48.0	48.0	48.0	48.0	48.0
Box Temp	30 ± 5 °C	30.9	31.5	31.0	31.1	31.4	30.6
CO Offset 1	0 ± 0.5 during **Zero Cal**	-0.039	-0.039	-0.039	-0.038	-0.037	-0.037
CO Offset 2	0 ± 0.5 during **Zero Cal**	-0.039	-0.038	-0.038	-0.039	-0.037	-0.037
CO Slope 1	1.00 ± 0.3 during **Span Cal**	1.180	1.157	1.130	1.140	1.156	1.156
CO Slope 2	1.00 ± 0.3 during **Span Cal**	1.105	1.095	1.095	1.112	1.109	1.111
Meas Detector	4500 mV ± 300 mV during **Zero Cal**	3222.1	4191.7	3913.2	4218.2	3847.2	4390.5
MR Ratio	1.15 - 1.200 during **Zero Cal**	1.172	1.172	1.172	1.172	1.174	1.174
O2 Cell Temperature	50 ± 5 °C	50.0	50.0	50.0	50.0	50.0	50.0
O2 Offset	< 1%	0.564	0.564	0.564	0.564	0.651	0.769
O2 Slope	1.000 ± 0.3	1.068	1.068	1.068	1.068	1.076	1.082
PHT Drive	< 4800 mV during **Sample**	2727.2	2731.2	2730.5	2729.3	2728.3	2728.1
Ref Detector	< 4800 mV during **Sample**	2765.4	3588.5	3352.9	3611.8	3280.1	3755.3
Sample Flow	800 ± 50 cc/minute	893	897	879	881	858	854
Sample Pressure	29.0 ± 1 in. Hg-A during **Sample**	29.6	29.8	29.5	29.5	30.1	30.1
Sample Temp	50 ± 5 °C	48.2	48.1	48.2	48.1	48.5	48.5
Wheel Temp	70 ± 5 °C	68.1	68.1	68.0	68.1	68.1	68.1
Required Check:	Check or Replace Particulate Filter	✓	✓	✓	✓	✓	✓
NOx/NH3 Analyzer							
Auto Zero	-20 to 150 mV	-0.4	-0.1	0.1	0.2	0.2	0.3
Box Temp	32 ± 5 °C	29.0	29.9	29.6	29.8	29.9	28.9
Conv Temp	700 ± 15 °C	314.5	314.5	314.9	315.2	315.4	315.4
HVPS	400 to 900 V, nominal 500 V ± 50	456	456	457	457	457	457
NO Slope	1.00 ± 0.3 PPM/mV	1.148	1.179	1.220	1.269	1.305	1.333
NO Slope (Range 2)	1.00 ± 0.3 PPM/mV	1.109	1.157	1.191	1.241	1.273	1.300
NOx Slope	1.00 ± 0.3 PPM/mV	1.165	1.201	1.247	1.293	1.328	1.374
NOx Slope (Range 2)	1.00 ± 0.3 PPM/mV	1.113	1.168	1.201	1.148	1.286	1.311
O3 Flow (Ozone)	250 ± 25 cc/minute	239	240	237	238	241	241
PMT Signal	-20 to 150 mV at **Zero Air**	-0.2	-0.1	0.1	0.1	0.4	0.4
	0 to 5,000 mV at **Span Gas** Concentration	2732.5	2646.1	2585.2	2531.1	2534.2	2395.7
PMT Temp	7.0 ± 2 °C	6.6	6.6	6.6	6.6	6.6	6.6
Rx Cell Pressure	less than 10 in. Hg-A or, Barometric pressure if the pump is off	5.3	4.6	5.3	5.3	5.3	5.4
Rx Cell Temp	50 ± 1 °C	50.0	50.0	50.0	50.0	50.0	50.0
Sample Flow	250 ± 25 cc/minute	236	237	235	236	238	238
Sample Pressure	Barometric Pressure ± 1 in. Hg-A	30.0	30.1	29.9	29.9	30.2	30.3
Required Check:	Check or Replace Particulate Filter	✓	✓	✓	✓	✓	✓
REMARKS:							

Note: All deficiencies must be reported to the Control Operator immediately. Corrective Action performed shall be logged in the CEMS shelter log book.

McGrath Peaker Annual Checks

Quality Control/Quality Assurance Plan
Checklist for CEMS Shelter Inspection

Annual QA/QC Inspections		
	Date:	5-21-24
	Technician's Name:	Akers
Sample System Checks		
	Perform Probe maintenance, replace filter and O-rings	✓
	Replace Main Dual Heads Sample Pump and Motor (return used pump to shop and rebuild)	✓
	Replace in-line sample system filter	✓
	Inspect and clean thermoelectric cooler fan	✓
	Check Sample Pumps A & B - Replace diaphragms and tubing as necessary (Replace every 3 Years, Note install date)	✓
	Replace inline Exhaust scrubbers	✓
	Replace Peristaltic Pump tubing	✓
	Visually inspect sample line from Probe to shelter for wear or damage.	✓
	Check system alarms, smoke detectors, and ambient monitors. Calibrate as needed	✓
NOx Analyzer		
	Clean the lens in the Reaction Cell and replace O-rings	✓
	Replace the PermaPure Dryer inlet particulate filter	not at Peaker
	Check the pnuematic sub-system for leaks in the gas flow paths	✓
	Replace all critical flow orifice O-rings and sintered filters	✓
	Whenever the PMT/preamp changes, perform a low-level hardware calibration	✓
	Perform a NOx converter check. Replace the converter every 3 years, or if efficiency drops below 90%	scheduled for July
CO/O2 Analyzer		
	Check for leaks around fittings, perform leak check	✓
	Check internal pump diaphragm and replace	✓
	Perform flow check	✓
NOx/NH3 Analyzer		
	Clean the lens in the Reaction Cell and replace O-rings	✓
	Replace the PermaPure Dryer inlet particulate filter	not at Peaker
	Check the pnuematic sub-system for leaks in the gas flow paths	✓
	Replace all critical flow orifice O-rings and sintered filters	✓
	Whenever the PMT/preamp changes, perform a low-level hardware calibration	✓
	Perform a NOx converter check. Replace the converter every 3 years, or if efficiency drops below 90%	scheduled for July
REMARKS:		

Mark as either **Acceptable "√", Corrective action Required "X", or Actual Readings, where required**

Note: All deficiencies must be reported to the Control Operator immediately. Corrective Action performed shall be logged in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**1/6/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1400**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1410**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1420**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.5**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.5**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.3**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.2**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**1/14/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1190**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1200**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1200**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.0**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.1**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.1**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**5.9**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.7**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.20**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.40**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**1/18/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1060**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1100**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1080**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°c	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.4**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.4**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.6**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.3**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.35**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.2**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.40**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**X**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**1/25/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**780**
NOX Low Span/CO Low Span	SV2	>150 PSI	**800**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**730**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.4**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.6**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.4**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**71.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.65**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.20**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**2.00**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.2**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.40**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**1/31/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**550**
NOX Low Span/CO Low Span	SV2	>150 PSI	**550**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**480**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.6**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**2.00**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.0**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**2/5/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1890**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1910**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1930**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.6**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.0**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.9**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.1**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**71.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.25**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.0**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**2/15/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1590**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1580**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1560**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.1**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.4**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.5**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.3**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.35**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.2**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**2/22/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1330**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1320**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1300**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.6**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.3**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**71.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.30**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.2**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**2/28/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1190**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1180**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1120**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.7**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.1**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**72.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.35**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.2**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**3/7/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**800**
NOX Low Span/CO Low Span	SV2	>150 PSI	**690**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**700**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.7**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.1**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.9**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.0**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**72.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.35**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.0**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**3/14/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**610**
NOX Low Span/CO Low Span	SV2	>150 PSI	**610**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**520**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.5**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.9**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**2.00**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.0**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.40**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**3/21/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1710**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1800**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1720**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.3**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.5**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.6**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.65**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.0**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**3/27/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1510**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1650**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1500**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.5**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.9**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.0**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.65**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**4/4/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1210**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1400**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1200**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.5**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.9**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.0**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.40**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**4/11/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1080**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1200**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**960**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.6**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.1**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.0**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**72.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**4.0**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.0**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.40**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**4/16/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**970**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1090**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**810**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.6**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.9**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.20**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.0**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.40**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**4/25/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1890**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1950**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**2070**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.5**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.9**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**71.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.35**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**N/A**
System Flow	FM-7	3-5 LPM	**4.1**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.40**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**5/2/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1620**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1750**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1780**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.5**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.7**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.1**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**9.50**
System Flow	FM-7	3-5 LPM	**4.0**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.40**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**5/9/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1490**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1550**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1580**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.4**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.7**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.35**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**4.0**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.40**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**5/13/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1300**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1370**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1320**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.8**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**6.1**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.2**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.1**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**71.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**4.1**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.60**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.40**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	Tag ID	Limits	Date
Technician's Name: Jason White			5/24/2024
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	750
NOX Low Span/CO Low Span	SV2	>150 PSI	820
NOX High Span, O2/CO Zero	SV3	>150 PSI	580
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	250
Sample NH3 Temperature	TC2	760°C	760
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	6.5
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	7.6
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	6.7
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	6.9
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	X
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	X
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	69.5
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	X
Moisture Sensor B/Filter	MS-2		X
Operational Status of Sample Pumps (2)		Check if ok	X
Operational Status of Condensate Drain Pump		Check if ok	X
Check LED Status of Sample Cooler		Check if ok	X
NH3 Scrubber Drain	HV-4	Drain weekly	X
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	4.0
NOx Analyzer	FM-3	1.2 - 1.7 LPM	1.55
NOx Bypass	FM-4	1.2 - 1.7 LPM	1.45
CO Analyzer	FM-5	1.2 - 1.7 LPM	1.95
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	3.8
NOx/NH3 Analyzer	FM-8	1.5 LPM	1.70
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	1.50
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	X
Verify no Alarms in DAHS		Check if ok	X
Check printer status		Check if ok	X
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	X
No yellow "WARNING" status indicated?		Check if ok	X
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	N/A
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	N/A
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**5/30/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**510**
NOX Low Span/CO Low Span	SV2	>150 PSI	**680**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**420**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.8**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.5**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.2**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.8**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**71.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**4.0**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.50**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.70**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.45**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**6/5/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1910**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1910**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1900**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.7**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.5**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.1**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.8**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**71.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**4.0**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.50**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.70**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**X**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	Tag ID	Limits	Date
Technician's Name: Jason White			6/13/2024
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1530**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1620**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1560**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.4**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.6**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**6.9**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**7.0**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**4.0**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.30**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**2.00**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.70**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**X**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**6/19/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1300**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1480**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1400**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.6**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.5**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.8**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.50**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.7**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.45**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**6/27/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1030**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1120**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1060**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.5**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.5**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.8**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.50**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**2.00**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.8**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.45**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**7/3/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**810**
NOX Low Span/CO Low Span	SV2	>150 PSI	**960**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**820**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.9**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.4**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.7**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**72.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.50**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.7**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.70**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.45**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**7/11/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**500**
NOX Low Span/CO Low Span	SV2	>150 PSI	**620**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**470**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.9**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.4**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**7.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**72.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.7**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.50**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.30**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.45**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**X**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**7/18/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1820**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1920**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1930**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.8**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.5**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.6**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**71.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**X**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**7/24/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1610**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1620**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1640**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.6**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.5**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.3**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.7**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.50**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**2.00**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.7**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**8/1/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1370**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1330**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1300**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.6**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.4**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.3**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.7**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.50**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.35**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**X**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**8/7/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1100**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1090**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1050**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.8**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.5**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.7**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.45**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.30**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.45**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**8/15/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**860**
NOX Low Span/CO Low Span	SV2	>150 PSI	**880**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**770**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.0**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.1**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.7**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.6**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**71.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.45**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.30**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.8**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**8/21/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**580**
NOX Low Span/CO Low Span	SV2	>150 PSI	**630**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**500**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.1**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.9**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.6**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**71.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.45**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.30**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**2.00**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**8/29/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1760**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1830**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1840**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.1**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.9**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.6**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**72.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.25**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.8**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**9/4/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1530**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1640**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1680**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.9**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.6**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.7**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.45**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.25**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**2.00**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**9/12/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1200**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1320**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1360**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.0**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.9**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.6**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.45**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.25**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.80**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**9/18/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**950**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1170**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1180**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.9**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.6**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.6**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.45**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.25**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**X**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**9/26/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**690**
NOX Low Span/CO Low Span	SV2	>150 PSI	**890**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**900**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.9**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**7.7**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.6**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.95**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.45**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**10/3/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**560**
NOX Low Span/CO Low Span	SV2	>150 PSI	**600**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**600**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.1**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**8.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.5**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.60**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**2.00**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.55**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**X**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**10/9/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1770**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1820**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1900**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.5**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**9.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.6**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**72.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.60**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.90**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.50**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**X**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**10/17/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1390**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1420**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1500**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.5**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.4**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**9.5**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.6**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.35**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.75**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.5**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.75**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.45**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**10/23/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1200**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1200**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1300**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.4**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.4**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**9.2**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**7.0**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**70.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.30**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.85**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.5**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.50**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**10/31/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**700**
NOX Low Span/CO Low Span	SV2	>150 PSI	**780**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**790**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.1**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.4**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**9.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**6.9**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.60**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.80**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.3**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.50**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	Tag ID	Limits	Date
Technician's Name: Jason White			11/7/2024
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	550
NOX Low Span/CO Low Span	SV2	>150 PSI	540
NOX High Span, O2/CO Zero	SV3	>150 PSI	480
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	250
Sample NH3 Temperature	TC2	760°C	760
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	7.3
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	7.4
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	9.2
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	6.9
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	X
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	X
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	70.5
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	X
Moisture Sensor B/Filter	MS-2		X
Operational Status of Sample Pumps (2)		Check if ok	X
Operational Status of Condensate Drain Pump		Check if ok	X
Check LED Status of Sample Cooler		Check if ok	X
NH3 Scrubber Drain	HV-4	Drain weekly	X
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	3.8
NOx Analyzer	FM-3	1.2 - 1.7 LPM	1.60
NOx Bypass	FM-4	1.2 - 1.7 LPM	1.45
CO Analyzer	FM-5	1.2 - 1.7 LPM	1.75
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	3.6
NOx/NH3 Analyzer	FM-8	1.5 LPM	1.55
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	1.35
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	X
Verify no Alarms in DAHS		Check if ok	X
Check printer status		Check if ok	X
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	X
No yellow "WARNING" status indicated?		Check if ok	X
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	N/A
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	N/A
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**11/13/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1820**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1890**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1880**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.0**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.3**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**9.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**7.1**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.6**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.75**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.55**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**X**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**11/18/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1560**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1600**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1500**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.0**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**9.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**7.1**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.6**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.55**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.75**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.55**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**11/26/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1090**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1090**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**980**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.1**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.5**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**9.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**7.1**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.60**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.80**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	**9.50**
System Flow	FM-7	3-5 LPM	**3.5**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.55**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**X**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**12/5/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**710**
NOX Low Span/CO Low Span	SV2	>150 PSI	**700**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**500**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.0**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.6**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**8.8**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**7.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**68.0**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**4.0**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.65**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.75**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.55**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**12/10/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1910**
NOX Low Span/CO Low Span	SV2	>150 PSI	**2030**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**2110**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.5**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.5**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**9.5**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**7.1**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.9**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.65**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.45**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.75**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.55**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**X**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**12/19/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1660**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1600**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1650**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.4**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.2**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**8.8**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**7.0**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**68.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.8**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.70**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.75**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.9**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.55**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**12/26/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1420**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1420**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1460**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**7.0**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.5**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**9.0**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**7.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**69.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.7**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.60**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.75**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.6**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.55**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Location: McGrath	**Tag ID**	**Limits**	**Date**
Technician's Name: Jason White			**12/30/2024**
Calibration Gas Pressures - Enter readings and submit an order as needed, no less than 2 spares, no more than 5 spares			
O2/CO High Span, NOX Zero	SV1	>150 PSI	**1390**
NOX Low Span/CO Low Span	SV2	>150 PSI	**1290**
NOX High Span, O2/CO Zero	SV3	>150 PSI	**1310**
Stack Sample Line - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Sample Line Temperature	TC1	250°F	**250**
Sample NH3 Temperature	TC2	760°C	**760**
Sample Line Pressure/Vacuum	PI-1	<10 TGT 6.0 "Hg	**6.9**
Sample Line Pressure/Vacuum	PI-2	3-10 TGT 8 PSI	**7.4**
Sample Line Pressure/Vacuum	PI-4	<10 TGT 7.5 "Hg	**8.8**
Sample Line Pressure	PI-5	3-10 TGT 8 PSI	**7.2**
Verify Functionality of Sample Pump A Flow Switch	FS-1	5-7 LPM (set point)	**X**
Verify Functionality of Sample Pump B Flow Switch	FS-2	5-7 LPM (set point)	**X**
Visual Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Room Enclosure Temperature	Check HVAC control	72 ± 5 °F	**67.5**
Moisture Sensor A/Filter	MS-1	Clean and dry, if filter shows buildup and flow levels are dropping, replace filter	**X**
Moisture Sensor B/Filter	MS-2		**X**
Operational Status of Sample Pumps (2)		Check if ok	**X**
Operational Status of Condensate Drain Pump		Check if ok	**X**
Check LED Status of Sample Cooler		Check if ok	**X**
NH3 Scrubber Drain	HV-4	Drain weekly	**X**
Sample Flow Meter Readings - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
System Flow	FM-1	3-5 LPM	**3.7**
NOx Analyzer	FM-3	1.2 - 1.7 LPM	**1.60**
NOx Bypass	FM-4	1.2 - 1.7 LPM	**1.40**
CO Analyzer	FM-5	1.2 - 1.7 LPM	**1.75**
Cal Gas Flow (**only during Calibration**)	FM-6	> than FM-1 plus FM-7	
System Flow	FM-7	3-5 LPM	**3.7**
NOx/NH3 Analyzer	FM-8	1.5 LPM	**1.55**
NOx/NH3 Analyzer Bypass	FM-9	1.2 - 1.5 LPM	**1.35**
DAHS Checks - Mark as either Acceptable "√", Corrective action Required "X", or Actual Readings, where required			
Check DAHS for normal operation. Is system logging data?		Check if ok	**X**
Verify no Alarms in DAHS		Check if ok	**X**
Check printer status		Check if ok	**X**
Check Analyzer calibration drift. Did all calibrations pass?		Check if ok	**X**
No yellow "WARNING" status indicated?		Check if ok	**X**
If necessary, perform manual calibration for each Analyzer, including NO first, before calibrating NOx on the NOx and NOx/NH3 Analyzers		Check if complete, or N/A	**N/A**
Perform a full "hands-off" calibration, as needed		Check if ok, or N/A	**N/A**
REMARKS: After changing a bottle,or any maintenance, such as changing a filter, etc., always perform a manual and "hands off" cal.			

Note: Report all discrepencies to the Control Operator immediately. Log corrective actions performed in the CEMS shelter log book.

Attachment 3

CEMS Calibrations Records

McGrath Calibration Checks

SCE McGrath Peaker

Cal Checks (Unit online) for 1/1/2024 thru 12/31/2024

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
1/14/2024 4:21 AM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/14/2024 4:21 AM	NOx ppm	High	Span	178.4 ppm	177.7 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/14/2024 4:21 AM	NOx ppm	Low	Zero	0.00 ppm	0.06 ppm	0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/14/2024 4:21 AM	NOx ppm	Low	Span	8.60 ppm	8.57 ppm	-0.03 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
1/14/2024 4:21 AM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/14/2024 4:21 AM	75-NOx ppm	High	Span	178.4 ppm	177.7 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/14/2024 4:21 AM	75-NOx ppm	Low	Zero	0.00 ppm	0.06 ppm	0.06 ppm	±5 ppm	10 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/14/2024 4:21 AM	75-NOx ppm	Low	Span	8.60 ppm	8.57 ppm	-0.03 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
1/14/2024 4:21 AM	CO ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/14/2024 4:21 AM	CO ppm	High	Span	181.2 ppm	181.7 ppm	0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/14/2024 4:21 AM	CO ppm	Low	Zero	0.00 ppm	-0.13 ppm	-0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/14/2024 4:21 AM	CO ppm	Low	Span	9.19 ppm	9.09 ppm	-0.1 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
1/14/2024 4:21 AM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
1/14/2024 4:21 AM	NH3/NOx ppm	High	Span	178.4 ppm	174.5 ppm	-3.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/14/2024 4:21 AM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.15 ppm	0.15 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/14/2024 4:21 AM	NH3/NOx ppm	Low	Span	8.60 ppm	8.65 ppm	0.05 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
1/14/2024 4:21 AM	O2 %	Single	Zero	0.00%	-0.06%	-0.06%	±1%	25%	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/14/2024 4:21 AM	O2 %	Single	Span	22.57%	22.56%	-0.01%	±1%	25%	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/14/2024 4:21 AM	75-O2 %	Single	Zero	0.00%	-0.06%	-0.06%	±1%	25%	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/14/2024 4:21 AM	75-O2 %	Single	Span	22.57%	22.56%	-0.01%	±1%	25%	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/15/2024 4:52 PM	NCx ppm	High	Zero	0.0 ppm	-0.6 ppm	-0.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/15/2024 4:52 PM	NCx ppm	High	Span	178.4 ppm	177.2 ppm	-1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/15/2024 4:52 PM	NCx ppm	Low	Zero	0.00 ppm	0.00 ppm	0 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/15/2024 4:52 PM	NCx ppm	Low	Span	8.60 ppm	8.49 ppm	-0.11 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
1/15/2024 4:52 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.6 ppm	-0.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/15/2024 4:52 PM	75-NOx ppm	High	Span	178.4 ppm	177.2 ppm	-1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/15/2024 4:52 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.00 ppm	0 ppm	±5 ppm	10 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/15/2024 4:52 PM	75-NOx ppm	Low	Span	8.60 ppm	8.49 ppm	-0.11 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
1/15/2024 4:52 PM	CO ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/15/2024 4:52 PM	CO ppm	High	Span	181.2 ppm	181.5 ppm	0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/15/2024 4:52 PM	CO ppm	Low	Zero	0.00 ppm	-0.13 ppm	-0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/15/2024 4:52 PM	CO ppm	Low	Span	9.19 ppm	9.01 ppm	-0.18 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
1/15/2024 4:52 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/15/2024 4:52 PM	NH3/NOx ppm	High	Span	178.4 ppm	173.6 ppm	-4.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/15/2024 4:52 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.12 ppm	0.12 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/15/2024 4:52 PM	NH3/NOx ppm	Low	Span	8.60 ppm	8.59 ppm	-0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
1/15/2024 4:52 PM	O2 %	Single	Zero	0.00%	-0.07%	-0.07%	±1%	25%	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/15/2024 4:52 PM	O2 %	Single	Span	22.57%	22.57%	0%	±1%	25%	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/15/2024 4:52 PM	75-O2 %	Single	Zero	0.00%	-0.07%	-0.07%	±1%	25%	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/15/2024 4:52 PM	75-O2 %	Single	Span	22.57%	22.57%	0%	±1%	25%	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/19/2024 4:37 PM	NOx ppm	High	Zero	0.0 ppm	-0.6 ppm	-0.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/19/2024 4:37 PM	NOx ppm	High	Span	178.4 ppm	177.1 ppm	-1.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/19/2024 4:37 PM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
1/19/2024 4:37 PM	NOx ppm	Low	Span	8.60 ppm	8.52 ppm	-0.08 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
1/19/2024 4:37 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.6 ppm	-0.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/19/2024 4:37 PM	75-NOx ppm	High	Span	178.4 ppm	177.1 ppm	-1.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/19/2024 4:37 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/19/2024 4:37 PM	75-NOx ppm	Low	Span	8.60 ppm	8.52 ppm	-0.08 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
1/19/2024 4:37 PM	CO ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/19/2024 4:37 PM	CO ppm	High	Span	181.2 ppm	182.4 ppm	1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/19/2024 4:37 PM	CO ppm	Low	Zero	0.00 ppm	-0.07 ppm	-0.07 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/19/2024 4:37 PM	CO ppm	Low	Span	9.19 ppm	9.14 ppm	-0.05 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
1/19/2024 4:37 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/19/2024 4:37 PM	NH3/NOx ppm	High	Span	178.4 ppm	178.5 ppm	0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/19/2024 4:37 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.09 ppm	0.09 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		
1/19/2024 4:37 PM	NH3/NOx ppm	Low	Span	8.60 ppm	8.52 ppm	-0.08 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC435071	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
1/19/2024 4:37 PM	O2 %	Single	Zero	0.00%	-0.06%	-0.06%	±1%	25%	Unit online; Passed
			CC38170	*8/7/2031*		*B32023*	*NO,NOX,BALN*		
1/19/2024 4:37 PM	O2 %	Single	Span	22.57%	22.57%	0%	±1%	25%	Unit online; Passed
			ALM056220	*9/25/2031*		*B72023*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
1/19/2024 4:37 PM	75-O2 %	Single	Zero *CC38170*	0.00% *8/7/2031*	-0.06%	-0.06% *B32023*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
1/19/2024 4:37 PM	75-O2 %	Single	Span *ALM056220*	22.57% *9/25/2031*	22.57%	0% *B72023*	±1% *CO,O2,BALN*	25%	Unit online; Passed
2/17/2024 4:35 PM	NOx ppm	High	Zero *ALM043825*	0.0 ppm *10/16/2031*	-0.5 ppm	-0.5 ppm *B32023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
2/17/2024 4:35 PM	NOx ppm	High	Span *ALM042232*	177.1 ppm *9/18/2031*	176.9 ppm	-0.2 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
2/17/2024 4:35 PM	NOx ppm	Low	Zero *ALM043825*	0.00 ppm *10/16/2031*	0.03 ppm	0.03 ppm *B32023*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
2/17/2024 4:35 PM	NOx ppm	Low	Span *CC276869*	8.39 ppm *9/22/2026*	8.30 ppm	-0.09 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
2/17/2024 4:35 PM	75-NOx ppm	High	Zero *ALM043825*	0.0 ppm *10/16/2031*	-0.5 ppm	-0.5 ppm *B32023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
2/17/2024 4:35 PM	75-NOx ppm	High	Span *ALM042232*	177.1 ppm *9/18/2031*	176.9 ppm	-0.2 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
2/17/2024 4:35 PM	75-NOx ppm	Low	Zero *ALM043825*	0.00 ppm *10/16/2031*	0.03 ppm	0.03 ppm *B32023*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
2/17/2024 4:35 PM	75-NOx ppm	Low	Span *CC276869*	8.39 ppm *9/22/2026*	8.30 ppm	-0.09 ppm *B32023*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
2/17/2024 4:35 PM	CO ppm	High	Zero *ALM042232*	0.0 ppm *9/18/2031*	-0.8 ppm	-0.8 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
2/17/2024 4:35 PM	CO ppm	High	Span *ALM043825*	180.9 ppm *10/16/2031*	180.5 ppm	-0.4 ppm *B32023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
2/17/2024 4:35 PM	CO ppm	Low	Zero *ALM042232*	0.00 ppm *9/18/2031*	0.01 ppm	0.01 ppm *B32023*	±0.5 ppm *NO,NOX,BALN*	10 ppm	Unit online; Passed
2/17/2024 4:35 PM	CO ppm	Low	Span *CC276869*	9.16 ppm *9/22/2026*	9.05 ppm	-0.11 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
2/17/2024 4:35 PM	NH3/NOx ppm	High	Zero *ALM043825*	0.0 ppm *10/16/2031*	-0.3 ppm	-0.3 ppm *B32023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
2/17/2024 4:35 PM	NH3/NOx ppm	High	Span *ALM042232*	177.1 ppm *9/18/2031*	175.4 ppm	-1.7 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
2/17/2024 4:35 PM	NH3/NOx ppm	Low	Zero *ALM043825*	0.00 ppm *10/16/2031*	0.22 ppm	0.22 ppm *B32023*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
2/17/2024 4:35 PM	NH3/NOx ppm	Low	Span *CC276869*	8.39 ppm *9/22/2026*	8.53 ppm	0.14 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
2/17/2024 4:35 PM	O2 %	Single	Zero *ALM042232*	0.00% *9/18/2031*	-0.07%	-0.07% *B32023*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
2/17/2024 4:35 PM	O2 %	Single	Span *ALM043825*	22.50% *10/16/2031*	22.51%	0.01% *B32023*	±1% *CO,O2,BALN*	25%	Unit online; Passed
2/17/2024 4:35 PM	75-O2 %	Single	Zero *ALM042232*	0.00% *9/18/2031*	-0.07%	-0.07% *B32023*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
2/17/2024 4:35 PM	75-O2 %	Single	Span *ALM043825*	22.50% *10/16/2031*	22.51%	0.01% *B32023*	±1% *CO,O2,BALN*	25%	Unit online; Passed
3/14/2024 6:08 AM	NCx ppm	High	Zero *ALM043825*	0.0 ppm *10/16/2031*	-0.5 ppm	-0.5 ppm *B32023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
3/14/2024 6:08 AM	NCx ppm	High	Span *ALM042232*	177.1 ppm *9/18/2031*	178.6 ppm	1.5 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
3/14/2024 6:08 AM	NCx ppm	Low	Zero *ALM043825*	0.00 ppm *10/16/2031*	0.06 ppm	0.06 ppm *B32023*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
3/14/2024 6:08 AM	NOx ppm	Low	Span *CC276869*	8.39 ppm *9/22/2026*	8.30 ppm	-0.09 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
3/14/2024 6:08 AM	75-NOx ppm	High	Zero *ALM043825*	0.0 ppm *10/16/2031*	-0.5 ppm	-0.5 ppm *B32023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
3/14/2024 6:08 AM	75-NOx ppm	High	Span *ALM042232*	177.1 ppm *9/18/2031*	178.6 ppm	1.5 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
3/14/2024 6:08 AM	75-NOx ppm	Low	Zero *ALM043825*	0.00 ppm *10/16/2031*	0.06 ppm	0.06 ppm *B32023*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
3/14/2024 6:08 AM	75-NOx ppm	Low	Span *CC276869*	8.39 ppm *9/22/2026*	8.30 ppm	-0.09 ppm *B32023*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
3/14/2024 6:08 AM	CO ppm	High	Zero	0.0 ppm	-0.9 ppm	-0.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM042232	*9/18/2031*		*B32023*	*NO,NOX,BALN*		
3/14/2024 6:08 AM	CO ppm	High	Span	180.9 ppm	182.1 ppm	1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		
3/14/2024 6:08 AM	CO ppm	Low	Zero	0.00 ppm	-0.08 ppm	-0.08 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM042232	*9/18/2031*		*B32023*	*NO,NOX,BALN*		
3/14/2024 6:08 AM	CO ppm	Low	Span	9.16 ppm	9.30 ppm	0.14 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC276869	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
3/14/2024 6:08 AM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		
3/14/2024 6:08 AM	NH3/NOx ppm	High	Span	177.1 ppm	177.7 ppm	0.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM042232	*9/18/2031*		*B32023*	*NO,NOX,BALN*		
3/14/2024 6:08 AM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.18 ppm	0.18 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		
3/14/2024 6:08 AM	NH3/NOx ppm	Low	Span	8.39 ppm	8.66 ppm	0.27 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC276869	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
3/14/2024 6:08 AM	O2 %	Single	Zero	0.00%	-0.04%	-0.04%	±1%	25%	Unit online; Passed
			ALM042232	*9/18/2031*		*B32023*	*NO,NOX,BALN*		
3/14/2024 6:08 AM	O2 %	Single	Span	22.50%	22.53%	0.03%	±1%	25%	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		
3/14/2024 6:08 AM	75-O2 %	Single	Zero	0.00%	-0.04%	-0.04%	±1%	25%	Unit online; Passed
			ALM042232	*9/18/2031*		*B32023*	*NO,NOX,BALN*		
3/14/2024 6:08 AM	75-O2 %	Single	Span	22.50%	22.53%	0.03%	±1%	25%	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		
3/15/2024 6:23 AM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		
3/15/2024 6:23 AM	NOx ppm	High	Span	177.1 ppm	178.0 ppm	0.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM042232	*9/18/2031*		*B32023*	*NO,NOX,BALN*		
3/15/2024 6:23 AM	NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
3/15/2024 6:23 AM	NOx ppm	Low	Span	8.39 ppm	8.22 ppm	-0.17 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC276869	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
3/15/2024 6:23 AM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		
3/15/2024 6:23 AM	75-NOx ppm	High	Span	177.1 ppm	178.0 ppm	0.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM042232	*9/18/2031*		*B32023*	*NO,NOX,BALN*		
3/15/2024 6:23 AM	75-NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±5 ppm	10 ppm	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		
3/15/2024 6:23 AM	75-NOx ppm	Low	Span	8.39 ppm	8.22 ppm	-0.17 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC276869	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
3/15/2024 6:23 AM	CO ppm	High	Zero	0.0 ppm	-0.8 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM042232	*9/18/2031*		*B32023*	*NO,NOX,BALN*		
3/15/2024 6:23 AM	CO ppm	High	Span	180.9 ppm	181.7 ppm	0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		
3/15/2024 6:23 AM	CO ppm	Low	Zero	0.00 ppm	-0.02 ppm	-0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM042232	*9/18/2031*		*B32023*	*NO,NOX,BALN*		
3/15/2024 6:23 AM	CO ppm	Low	Span	9.16 ppm	9.23 ppm	0.07 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC276869	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
3/15/2024 6:23 AM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		
3/15/2024 6:23 AM	NH3/NOx ppm	High	Span	177.1 ppm	177.1 ppm	0 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM042232	*9/18/2031*		*B32023*	*NO,NOX,BALN*		
3/15/2024 6:23 AM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.16 ppm	0.16 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		
3/15/2024 6:23 AM	NH3/NOx ppm	Low	Span	8.39 ppm	8.62 ppm	0.23 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC276869	*9/22/2026*		*B32023*	*CO,NO,NOX,BALN*		
3/15/2024 6:23 AM	O2 %	Single	Zero	0.00%	-0.02%	-0.02%	±1%	25%	Unit online; Passed
			ALM042232	*9/18/2031*		*B32023*	*NO,NOX,BALN*		
3/15/2024 6:23 AM	O2 %	Single	Span	22.50%	22.54%	0.04%	±1%	25%	Unit online; Passed
			ALM043825	*10/16/2031*		*B32023*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID		*Expiration Date*	*EPA Vendor ID*	*EPA Gas Type Codes*		
3/15/2024 6:23 AM	75-O2 %	Single	Zero	0.00%	-0.02%	-0.02%	±1%	25%	Unit online; Passed
			ALM042232		*9/18/2031*	*B32023*	*NO,NOX,BALN*		
3/15/2024 6:23 AM	75-O2 %	Single	Span	22.50%	22.54%	0.04%	±1%	25%	Unit online; Passed
			ALM043825		*10/16/2031*	*B32023*	*CO,O2,BALN*		
3/16/2024 6:08 AM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM043825		*10/16/2031*	*B32023*	*CO,O2,BALN*		
3/16/2024 6:08 AM	NOx ppm	High	Span	177.1 ppm	177.2 ppm	0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM042232		*9/18/2031*	*B32023*	*NO,NOX,BALN*		
3/16/2024 6:08 AM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM043825		*10/16/2031*	*B32023*	*CO,O2,BALN*		
3/16/2024 6:08 AM	NOx ppm	Low	Span	8.39 ppm	8.25 ppm	-0.14 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC276869		*9/22/2026*	*B32023*	*CO,NO,NOX,BALN*		
3/16/2024 6:08 AM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM043825		*10/16/2031*	*B32023*	*CO,O2,BALN*		
3/16/2024 6:08 AM	75-NOx ppm	High	Span	177.1 ppm	177.2 ppm	0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM042232		*9/18/2031*	*B32023*	*NO,NOX,BALN*		
3/16/2024 6:08 AM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			ALM043825		*10/16/2031*	*B32023*	*CO,O2,BALN*		
3/16/2024 6:08 AM	75-NOx ppm	Low	Span	8.39 ppm	8.25 ppm	-0.14 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC276869		*9/22/2026*	*B32023*	*CO,NO,NOX,BALN*		
3/16/2024 6:08 AM	CO ppm	High	Zero	0.0 ppm	-0.8 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM042232		*9/18/2031*	*B32023*	*NO,NOX,BALN*		
3/16/2024 6:08 AM	CO ppm	High	Span	180.9 ppm	182.0 ppm	1.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM043825		*10/16/2031*	*B32023*	*CO,O2,BALN*		
3/16/2024 6:08 AM	CO ppm	Low	Zero	0.00 ppm	0.11 ppm	0.11 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM042232		*9/18/2031*	*B32023*	*NO,NOX,BALN*		
3/16/2024 6:08 AM	CO ppm	Low	Span	9.16 ppm	9.14 ppm	-0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC276869		*9/22/2026*	*B32023*	*CO,NO,NOX,BALN*		
3/16/2024 6:08 AM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM043825		*10/16/2031*	*B32023*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
3/16/2024 6:08 AM	NH3/NOx ppm	High	Span *ALM042232*	177.1 ppm *9/18/2031*	176.1 ppm	-1 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
3/16/2024 6:08 AM	NH3/NOx ppm	Low	Zero *ALM043825*	0.00 ppm *10/16/2031*	0.11 ppm	0.11 ppm *B32023*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
3/16/2024 6:08 AM	NH3/NOx ppm	Low	Span *CC276869*	8.39 ppm *9/22/2026*	8.54 ppm	0.15 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
3/16/2024 6:08 AM	O2 %	Single	Zero *ALM042232*	0.00% *9/18/2031*	-0.03%	-0.03% *B32023*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
3/16/2024 6:08 AM	O2 %	Single	Span *ALM043825*	22.50% *10/16/2031*	22.53%	0.03% *B32023*	±1% *CO,O2,BALN*	25%	Unit online; Passed
3/16/2024 6:08 AM	75-O2 %	Single	Zero *ALM042232*	0.00% *9/18/2031*	-0.03%	-0.03% *B32023*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
3/16/2024 6:08 AM	75-O2 %	Single	Span *ALM043825*	22.50% *10/16/2031*	22.53%	0.03% *B32023*	±1% *CO,O2,BALN*	25%	Unit online; Passed
3/19/2024 5:53 AM	NCx ppm	High	Zero *CC287149*	0.0 ppm *12/8/2031*	-0.5 ppm	-0.5 ppm *B72023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
3/19/2024 5:53 AM	NCx ppm	High	Span *EB0065136*	176.9 ppm *11/7/2031*	176.8 ppm	-0.1 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
3/19/2024 5:53 AM	NOx ppm	Low	Zero *CC287149*	0.00 ppm *12/8/2031*	0.01 ppm	0.01 ppm *B72023*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
3/19/2024 5:53 AM	NOx ppm	Low	Span *CC307876*	9.09 ppm *10/28/2026*	8.96 ppm	-0.13 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
3/19/2024 5:53 AM	75-NOx ppm	High	Zero *CC287149*	0.0 ppm *12/8/2031*	-0.5 ppm	-0.5 ppm *B72023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
3/19/2024 5:53 AM	75-NOx ppm	High	Span *EB0065136*	176.9 ppm *11/7/2031*	176.8 ppm	-0.1 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
3/19/2024 5:53 AM	75-NOx ppm	Low	Zero *CC287149*	0.00 ppm *12/8/2031*	0.01 ppm	0.01 ppm *B72023*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
3/19/2024 5:53 AM	75-NOx ppm	Low	Span *CC307876*	9.09 ppm *10/28/2026*	8.96 ppm	-0.13 ppm *B32023*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
3/19/2024 5:53 AM	CO ppm	High	Zero	0.0 ppm	-0.8 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0065136	*11/7/2031*		*B32023*	*NO,NOX,BALN*		
3/19/2024 5:53 AM	CO ppm	High	Span	184.4 ppm	186.9 ppm	2.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
3/19/2024 5:53 AM	CO ppm	Low	Zero	0.00 ppm	-0.02 ppm	-0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0065136	*11/7/2031*		*B32023*	*NO,NOX,BALN*		
3/19/2024 5:53 AM	CO ppm	Low	Span	8.96 ppm	9.11 ppm	0.15 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC307876	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
3/19/2024 5:53 AM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
3/19/2024 5:53 AM	NH3/NOx ppm	High	Span	176.9 ppm	175.3 ppm	-1.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0065136	*11/7/2031*		*B32023*	*NO,NOX,BALN*		
3/19/2024 5:53 AM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.14 ppm	0.14 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
3/19/2024 5:53 AM	NH3/NOx ppm	Low	Span	9.09 ppm	9.34 ppm	0.25 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC307876	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
3/19/2024 5:53 AM	O2 %	Single	Zero	0.00%	-0.03%	-0.03%	±1%	25%	Unit online; Passed
			EB0065136	*11/7/2031*		*B32023*	*NO,NOX,BALN*		
3/19/2024 5:53 AM	O2 %	Single	Span	22.47%	22.50%	0.03%	±1%	25%	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
3/19/2024 5:53 AM	75-O2 %	Single	Zero	0.00%	-0.03%	-0.03%	±1%	25%	Unit online; Passed
			EB0065136	*11/7/2031*		*B32023*	*NO,NOX,BALN*		
3/19/2024 5:53 AM	75-O2 %	Single	Span	22.47%	22.50%	0.03%	±1%	25%	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
3/20/2024 8:37 AM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
3/20/2024 8:37 AM	NOx ppm	High	Span	176.9 ppm	176.7 ppm	-0.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0065136	*11/7/2031*		*B32023*	*NO,NOX,BALN*		
3/20/2024 8:37 AM	NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
3/20/2024 8:37 AM	NOx ppm	Low	Span *CC307876*	9.09 ppm *10/28/2026*	8.96 ppm	-0.13 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
3/20/2024 8:37 AM	75-NOx ppm	High	Zero *CC287149*	0.0 ppm *12/8/2031*	-0.5 ppm	-0.5 ppm *B72023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
3/20/2024 8:37 AM	75-NOx ppm	High	Span *EB0065136*	176.9 ppm *11/7/2031*	176.7 ppm	-0.2 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
3/20/2024 8:37 AM	75-NOx ppm	Low	Zero *CC287149*	0.00 ppm *12/8/2031*	0.02 ppm	0.02 ppm *B72023*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
3/20/2024 8:37 AM	75-NOx ppm	Low	Span *CC307876*	9.09 ppm *10/28/2026*	8.96 ppm	-0.13 ppm *B32023*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
3/20/2024 8:37 AM	CO ppm	High	Zero *EB0065136*	0.0 ppm *11/7/2031*	-0.8 ppm	-0.8 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
3/20/2024 8:37 AM	CO ppm	High	Span *CC287149*	184.4 ppm *12/8/2031*	184.7 ppm	0.3 ppm *B72023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
3/20/2024 8:37 AM	CO ppm	Low	Zero *EB0065136*	0.00 ppm *11/7/2031*	-0.03 ppm	-0.03 ppm *B32023*	±0.5 ppm *NO,NOX,BALN*	10 ppm	Unit online; Passed
3/20/2024 8:37 AM	CO ppm	Low	Span *CC307876*	8.96 ppm *10/28/2026*	9.03 ppm	0.07 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
3/20/2024 8:37 AM	NH3/NOx ppm	High	Zero *CC287149*	0.0 ppm *12/8/2031*	-0.4 ppm	-0.4 ppm *B72023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
3/20/2024 8:37 AM	NH3/NOx ppm	High	Span *EB0065136*	176.9 ppm *11/7/2031*	174.7 ppm	-2.2 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
3/20/2024 8:37 AM	NH3/NOx ppm	Low	Zero *CC287149*	0.00 ppm *12/8/2031*	0.09 ppm	0.09 ppm *B72023*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
3/20/2024 8:37 AM	NH3/NOx ppm	Low	Span *CC307876*	9.09 ppm *10/28/2026*	9.28 ppm	0.19 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
3/20/2024 8:37 AM	O2 %	Single	Zero *EB0065136*	0.00% *11/7/2031*	-0.03%	-0.03% *B32023*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
3/20/2024 8:37 AM	O2 %	Single	Span *CC287149*	22.47% *12/8/2031*	22.51%	0.04% *B72023*	±1% *CO,O2,BALN*	25%	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
3/20/2024 8:37 AM	75-O2 %	Single	Zero *EB0065136*	0.00% *11/7/2031*	-0.03%	-0.03% *B32023*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
3/20/2024 8:37 AM	75-O2 %	Single	Span *CC287149*	22.47% *12/8/2031*	22.51%	0.04% *B72023*	±1% *CO,O2,BALN*	25%	Unit online; Passed
4/10/2024 6:08 PM	NOx ppm	High	Zero *CC287149*	0.0 ppm *12/8/2031*	-0.4 ppm	-0.4 ppm *B72023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
4/10/2024 6:08 PM	NOx ppm	High	Span *EB0065136*	176.9 ppm *11/7/2031*	176.3 ppm	-0.6 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
4/10/2024 6:08 PM	NOx ppm	Low	Zero *CC287149*	0.00 ppm *12/8/2031*	0.03 ppm	0.03 ppm *B72023*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
4/10/2024 6:08 PM	NOx ppm	Low	Span *CC307876*	9.09 ppm *10/28/2026*	8.96 ppm	-0.13 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
4/10/2024 6:08 PM	75-NOx ppm	High	Zero *CC287149*	0.0 ppm *12/8/2031*	-0.4 ppm	-0.4 ppm *B72023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
4/10/2024 6:08 PM	75-NOx ppm	High	Span *EB0065136*	176.9 ppm *11/7/2031*	176.3 ppm	-0.6 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
4/10/2024 6:08 PM	75-NOx ppm	Low	Zero *CC287149*	0.00 ppm *12/8/2031*	0.03 ppm	0.03 ppm *B72023*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
4/10/2024 6:08 PM	75-NOx ppm	Low	Span *CC307876*	9.09 ppm *10/28/2026*	8.96 ppm	-0.13 ppm *B32023*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
4/10/2024 6:08 PM	CO ppm	High	Zero *EB0065136*	0.0 ppm *11/7/2031*	-0.8 ppm	-0.8 ppm *B32023*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
4/10/2024 6:08 PM	CO ppm	High	Span *CC287149*	184.4 ppm *12/8/2031*	187.1 ppm	2.7 ppm *B72023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
4/10/2024 6:08 PM	CO ppm	Low	Zero *EB0065136*	0.00 ppm *11/7/2031*	-0.03 ppm	-0.03 ppm *B32023*	±0.5 ppm *NO,NOX,BALN*	10 ppm	Unit online; Passed
4/10/2024 6:08 PM	CO ppm	Low	Span *CC307876*	8.96 ppm *10/28/2026*	8.80 ppm	-0.16 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
4/10/2024 6:08 PM	NH3/NOx ppm	High	Zero *CC287149*	0.0 ppm *12/8/2031*	-0.3 ppm	-0.3 ppm *B72023*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
4/10/2024 6:08 PM	NH3/NOx ppm	High	Span	176.9 ppm	174.5 ppm	-2.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0065136	*11/7/2031*		*B32023*	*NO,NOX,BALN*		
4/10/2024 6:08 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.23 ppm	0.23 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
4/10/2024 6:08 PM	NH3/NOx ppm	Low	Span	9.09 ppm	9.16 ppm	0.07 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC307876	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
4/10/2024 6:08 PM	O2 %	Single	Zero	0.00%	-0.02%	-0.02%	±1%	25%	Unit online; Passed
			EB0065136	*11/7/2031*		*B32023*	*NO,NOX,BALN*		
4/10/2024 6:08 PM	O2 %	Single	Span	22.47%	22.52%	0.05%	±1%	25%	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
4/10/2024 6:08 PM	75-O2 %	Single	Zero	0.00%	-0.02%	-0.02%	±1%	25%	Unit online; Passed
			EB0065136	*11/7/2031*		*B32023*	*NO,NOX,BALN*		
4/10/2024 6:08 PM	75-O2 %	Single	Span	22.47%	22.52%	0.05%	±1%	25%	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
4/24/2024 1:46 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
4/24/2024 1:46 PM	NOx ppm	High	Span	176.9 ppm	176.2 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0065136	*11/7/2031*		*B32023*	*NO,NOX,BALN*		
4/24/2024 1:46 PM	NOx ppm	Low	Zero	0.00 ppm	0.03 ppm	0.03 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
4/24/2024 1:46 PM	NOx ppm	Low	Span	9.09 ppm	9.00 ppm	-0.09 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC307876	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
4/24/2024 1:46 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
4/24/2024 1:46 PM	75-NOx ppm	High	Span	176.9 ppm	176.2 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0065136	*11/7/2031*		*B32023*	*NO,NOX,BALN*		
4/24/2024 1:46 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.03 ppm	0.03 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC287149	*12/8/2031*		*B72023*	*CO,O2,BALN*		
4/24/2024 1:46 PM	75-NOx ppm	Low	Span	9.09 ppm	9.00 ppm	-0.09 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC307876	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID		*Expiration Date*	*EPA Vendor ID*	*EPA Gas Type Codes*		
4/24/2024 1:46 PM	CO ppm	High	Zero	0.0 ppm	-0.8 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0065136		*11/7/2031*	*B32023*	*NO,NOX,BALN*		
4/24/2024 1:46 PM	CO ppm	High	Span	184.4 ppm	185.5 ppm	1.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC287149		*12/8/2031*	*B72023*	*CO,O2,BALN*		
4/24/2024 1:46 PM	CO ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0065136		*11/7/2031*	*B32023*	*NO,NOX,BALN*		
4/24/2024 1:46 PM	CO ppm	Low	Span	8.96 ppm	8.67 ppm	-0.29 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC307876		*10/28/2026*	*B32023*	*CO,NO,NOX,BALN*		
4/24/2024 1:46 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC287149		*12/8/2031*	*B72023*	*CO,O2,BALN*		
4/24/2024 1:46 PM	NH3/NOx ppm	High	Span	176.9 ppm	175.5 ppm	-1.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0065136		*11/7/2031*	*B32023*	*NO,NOX,BALN*		
4/24/2024 1:46 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.21 ppm	0.21 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC287149		*12/8/2031*	*B72023*	*CO,O2,BALN*		
4/24/2024 1:46 PM	NH3/NOx ppm	Low	Span	9.09 ppm	9.30 ppm	0.21 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC307876		*10/28/2026*	*B32023*	*CO,NO,NOX,BALN*		
4/24/2024 1:46 PM	O2 %	Single	Zero	0.00%	-0.03%	-0.03%	±1%	25%	Unit online; Passed
			EB0065136		*11/7/2031*	*B32023*	*NO,NOX,BALN*		
4/24/2024 1:46 PM	O2 %	Single	Span	22.47%	22.51%	0.04%	±1%	25%	Unit online; Passed
			CC287149		*12/8/2031*	*B72023*	*CO,O2,BALN*		
4/24/2024 1:46 PM	75-O2 %	Single	Zero	0.00%	-0.03%	-0.03%	±1%	25%	Unit online; Passed
			EB0065136		*11/7/2031*	*B32023*	*NO,NOX,BALN*		
4/24/2024 1:46 PM	75-O2 %	Single	Span	22.47%	22.51%	0.04%	±1%	25%	Unit online; Passed
			CC287149		*12/8/2031*	*B72023*	*CO,O2,BALN*		
5/25/2024 10:00 AM	NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			XC017533B		*2/26/2032*	*B72024*	*CO,O2,BALN*		
5/25/2024 10:00 AM	NOx ppm	High	Span	180.0 ppm	178.8 ppm	-1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC185575		*2/14/2032*	*B32024*	*NO,NOX,BALN*		
5/25/2024 10:00 AM	NOx ppm	Low	Zero	0.00 ppm	0.14 ppm	0.14 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XC017533B		*2/26/2032*	*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
5/25/2024 10:00 AM	NOx ppm	Low	Span *CC328174*	9.11 ppm *10/28/2026*	9.10 ppm	-0.01 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
5/25/2024 10:00 AM	75-NOx ppm	High	Zero *XC017533B*	0.0 ppm *2/26/2032*	-0.4 ppm	-0.4 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
5/25/2024 10:00 AM	75-NOx ppm	High	Span *CC185575*	180.0 ppm *2/14/2032*	178.8 ppm	-1.2 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
5/25/2024 10:00 AM	75-NOx ppm	Low	Zero *XC017533B*	0.00 ppm *2/26/2032*	0.14 ppm	0.14 ppm *B72024*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
5/25/2024 10:00 AM	75-NOx ppm	Low	Span *CC328174*	9.11 ppm *10/28/2026*	9.10 ppm	-0.01 ppm *B32023*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
5/25/2024 10:00 AM	CO ppm	High	Zero *CC185575*	0.0 ppm *2/14/2032*	-0.3 ppm	-0.3 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
5/25/2024 10:00 AM	CO ppm	High	Span *XC017533B*	183.3 ppm *2/26/2032*	183.3 ppm	0 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
5/25/2024 10:00 AM	CO ppm	Low	Zero *CC185575*	0.00 ppm *2/14/2032*	0.12 ppm	0.12 ppm *B32024*	±0.5 ppm *NO,NOX,BALN*	10 ppm	Unit online; Passed
5/25/2024 10:00 AM	CO ppm	Low	Span *CC328174*	8.98 ppm *10/28/2026*	8.90 ppm	-0.08 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
5/25/2024 10:00 AM	NH3/NOx ppm	High	Zero *XC017533B*	0.0 ppm *2/26/2032*	-0.3 ppm	-0.3 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
5/25/2024 10:00 AM	NH3/NOx ppm	High	Span *CC185575*	180.0 ppm *2/14/2032*	178.2 ppm	-1.8 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
5/25/2024 10:00 AM	NH3/NOx ppm	Low	Zero *XC017533B*	0.00 ppm *2/26/2032*	0.26 ppm	0.26 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
5/25/2024 10:00 AM	NH3/NOx ppm	Low	Span *CC328174*	9.11 ppm *10/28/2026*	9.21 ppm	0.1 ppm *B32023*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
5/25/2024 10:00 AM	O2 %	Single	Zero *CC185575*	0.00% *2/14/2032*	-0.02%	-0.02% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
5/25/2024 10:00 AM	O2 %	Single	Span *XC017533B*	22.45% *2/26/2032*	22.47%	0.02% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
5/25/2024 10:00 AM	75-O2 %	Single	Zero	0.00%	-0.02%	-0.02%	±1%	25%	Unit online; Passed
			CC185575	*2/14/2032*		*B32024*	*NO,NOX,BALN*		
5/25/2024 10:00 AM	75-O2 %	Single	Span	22.45%	22.47%	0.02%	±1%	25%	Unit online; Passed
			XC017533B	*2/26/2032*		*B72024*	*CO,O2,BALN*		
6/6/2024 7:38 AM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/6/2024 7:38 AM	NOx ppm	High	Span	172.4 ppm	171.6 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/6/2024 7:38 AM	NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/6/2024 7:38 AM	NOx ppm	Low	Span	9.02 ppm	8.96 ppm	-0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/6/2024 7:38 AM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/6/2024 7:38 AM	75-NOx ppm	High	Span	172.4 ppm	171.6 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/6/2024 7:38 AM	75-NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/6/2024 7:38 AM	75-NOx ppm	Low	Span	9.02 ppm	8.96 ppm	-0.06 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/6/2024 7:38 AM	CO ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/6/2024 7:38 AM	CO ppm	High	Span	182.7 ppm	182.8 ppm	0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/6/2024 7:38 AM	CO ppm	Low	Zero	0.00 ppm	0.12 ppm	0.12 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/6/2024 7:38 AM	CO ppm	Low	Span	9.16 ppm	8.98 ppm	-0.18 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/6/2024 7:38 AM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.2 ppm	-0.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
6/6/2024 7:38 AM	NH3/NOx ppm	High	Span	172.4 ppm	173.1 ppm	0.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/6/2024 7:38 AM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.33 ppm	0.33 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/6/2024 7:38 AM	NH3/NOx ppm	Low	Span	9.02 ppm	9.28 ppm	0.26 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/6/2024 7:38 AM	O2 %	Single	Zero	0.00%	-0.01%	-0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/6/2024 7:38 AM	O2 %	Single	Span	22.55%	22.47%	-0.08%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/6/2024 7:38 AM	75-O2 %	Single	Zero	0.00%	-0.01%	-0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/6/2024 7:38 AM	75-O2 %	Single	Span	22.55%	22.47%	-0.08%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/21/2024 6:38 PM	NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/21/2024 6:38 PM	NOx ppm	High	Span	172.4 ppm	171.5 ppm	-0.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/21/2024 6:38 PM	NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/21/2024 6:38 PM	NOx ppm	Low	Span	9.02 ppm	9.00 ppm	-0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/21/2024 6:38 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/21/2024 6:38 PM	75-NOx ppm	High	Span	172.4 ppm	171.5 ppm	-0.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/21/2024 6:38 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/21/2024 6:38 PM	75-NOx ppm	Low	Span	9.02 ppm	9.00 ppm	-0.02 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
6/21/2024 6:38 PM	CO ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/21/2024 6:38 PM	CO ppm	High	Span	182.7 ppm	183.1 ppm	0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/21/2024 6:38 PM	CO ppm	Low	Zero	0.00 ppm	-0.16 ppm	-0.16 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/21/2024 6:38 PM	CO ppm	Low	Span	9.16 ppm	9.29 ppm	0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/21/2024 6:38 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/21/2024 6:38 PM	NH3/NOx ppm	High	Span	172.4 ppm	170.1 ppm	-2.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/21/2024 6:38 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.26 ppm	0.26 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/21/2024 6:38 PM	NH3/NOx ppm	Low	Span	9.02 ppm	9.33 ppm	0.31 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/21/2024 6:38 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/21/2024 6:38 PM	O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/21/2024 6:38 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/21/2024 6:38 PM	75-O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/22/2024 6:08 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/22/2024 6:08 PM	NOx ppm	High	Span	172.4 ppm	170.9 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/22/2024 6:08 PM	NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
6/22/2024 6:08 PM	NOx ppm	Low	Span	9.02 ppm	8.89 ppm	-0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/22/2024 6:08 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/22/2024 6:08 PM	75-NOx ppm	High	Span	172.4 ppm	170.9 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/22/2024 6:08 PM	75-NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/22/2024 6:08 PM	75-NOx ppm	Low	Span	9.02 ppm	8.89 ppm	-0.13 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/22/2024 6:08 PM	CO ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/22/2024 6:08 PM	CO ppm	High	Span	182.7 ppm	182.7 ppm	0 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/22/2024 6:08 PM	CO ppm	Low	Zero	0.00 ppm	-0.13 ppm	-0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/22/2024 6:08 PM	CO ppm	Low	Span	9.16 ppm	9.14 ppm	-0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/22/2024 6:08 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/22/2024 6:08 PM	NH3/NOx ppm	High	Span	172.4 ppm	169.3 ppm	-3.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/22/2024 6:08 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.23 ppm	0.23 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/22/2024 6:08 PM	NH3/NOx ppm	Low	Span	9.02 ppm	9.29 ppm	0.27 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/22/2024 6:08 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/22/2024 6:08 PM	O2 %	Single	Span	22.55%	22.45%	-0.1%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
6/22/2024 6:08 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/22/2024 6:08 PM	75-O2 %	Single	Span	22.55%	22.45%	-0.1%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/23/2024 6:38 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/23/2024 6:38 PM	NOx ppm	High	Span	172.4 ppm	170.6 ppm	-1.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/23/2024 6:38 PM	NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/23/2024 6:38 PM	NOx ppm	Low	Span	9.02 ppm	8.87 ppm	-0.15 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/23/2024 6:38 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/23/2024 6:38 PM	75-NOx ppm	High	Span	172.4 ppm	170.6 ppm	-1.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/23/2024 6:38 PM	75-NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/23/2024 6:38 PM	75-NOx ppm	Low	Span	9.02 ppm	8.87 ppm	-0.15 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/23/2024 6:38 PM	CO ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/23/2024 6:38 PM	CO ppm	High	Span	182.7 ppm	182.4 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/23/2024 6:38 PM	CO ppm	Low	Zero	0.00 ppm	-0.13 ppm	-0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/23/2024 6:38 PM	CO ppm	Low	Span	9.16 ppm	9.19 ppm	0.03 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/23/2024 6:38 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
6/23/2024 6:38 PM	NH3/NOx ppm	High	Span	172.4 ppm	168.8 ppm	-3.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/23/2024 6:38 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.20 ppm	0.2 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/23/2024 6:38 PM	NH3/NOx ppm	Low	Span	9.02 ppm	9.24 ppm	0.22 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/23/2024 6:38 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/23/2024 6:38 PM	O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/23/2024 6:38 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/23/2024 6:38 PM	75-O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/24/2024 2:54 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/24/2024 2:54 PM	NOx ppm	High	Span	172.4 ppm	171.0 ppm	-1.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/24/2024 2:54 PM	NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/24/2024 2:54 PM	NOx ppm	Low	Span	9.02 ppm	8.81 ppm	-0.21 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/24/2024 2:54 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/24/2024 2:54 PM	75-NOx ppm	High	Span	172.4 ppm	171.0 ppm	-1.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/24/2024 2:54 PM	75-NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/24/2024 2:54 PM	75-NOx ppm	Low	Span	9.02 ppm	8.81 ppm	-0.21 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
6/24/2024 2:54 PM	CO ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/24/2024 2:54 PM	CO ppm	High	Span	182.7 ppm	182.3 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/24/2024 2:54 PM	CO ppm	Low	Zero	0.00 ppm	-0.17 ppm	-0.17 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/24/2024 2:54 PM	CO ppm	Low	Span	9.16 ppm	9.21 ppm	0.05 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/24/2024 2:54 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/24/2024 2:54 PM	NH3/NOx ppm	High	Span	172.4 ppm	168.9 ppm	-3.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/24/2024 2:54 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.13 ppm	0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/24/2024 2:54 PM	NH3/NOx ppm	Low	Span	9.02 ppm	9.16 ppm	0.14 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/24/2024 2:54 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/24/2024 2:54 PM	O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/24/2024 2:54 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/24/2024 2:54 PM	75-O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/25/2024 6:38 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/25/2024 6:38 PM	NOx ppm	High	Span	172.4 ppm	170.3 ppm	-2.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/25/2024 6:38 PM	NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
6/25/2024 6:38 PM	NOx ppm	Low	Span	9.02 ppm	8.84 ppm	-0.18 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/25/2024 6:38 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/25/2024 6:38 PM	75-NOx ppm	High	Span	172.4 ppm	170.3 ppm	-2.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/25/2024 6:38 PM	75-NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/25/2024 6:38 PM	75-NOx ppm	Low	Span	9.02 ppm	8.84 ppm	-0.18 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/25/2024 6:38 PM	CO ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/25/2024 6:38 PM	CO ppm	High	Span	182.7 ppm	181.4 ppm	-1.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/25/2024 6:38 PM	CO ppm	Low	Zero	0.00 ppm	-0.12 ppm	-0.12 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/25/2024 6:38 PM	CO ppm	Low	Span	9.16 ppm	9.22 ppm	0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/25/2024 6:38 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/25/2024 6:38 PM	NH3/NOx ppm	High	Span	172.4 ppm	171.0 ppm	-1.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/25/2024 6:38 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.22 ppm	0.22 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/25/2024 6:38 PM	NH3/NOx ppm	Low	Span	9.02 ppm	9.24 ppm	0.22 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/25/2024 6:38 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/25/2024 6:38 PM	O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
6/25/2024 6:38 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/25/2024 6:38 PM	75-O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/28/2024 7:08 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/28/2024 7:08 PM	NOx ppm	High	Span	172.4 ppm	171.2 ppm	-1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/28/2024 7:08 PM	NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/28/2024 7:08 PM	NOx ppm	Low	Span	9.02 ppm	8.90 ppm	-0.12 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/28/2024 7:08 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/28/2024 7:08 PM	75-NOx ppm	High	Span	172.4 ppm	171.2 ppm	-1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/28/2024 7:08 PM	75-NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/28/2024 7:08 PM	75-NOx ppm	Low	Span	9.02 ppm	8.90 ppm	-0.12 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/28/2024 7:08 PM	CO ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/28/2024 7:08 PM	CO ppm	High	Span	182.7 ppm	182.5 ppm	-0.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/28/2024 7:08 PM	CO ppm	Low	Zero	0.00 ppm	-0.16 ppm	-0.16 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/28/2024 7:08 PM	CO ppm	Low	Span	9.16 ppm	9.20 ppm	0.04 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/28/2024 7:08 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.2 ppm	-0.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
6/28/2024 7:08 PM	NH3/NOx ppm	High	Span	172.4 ppm	171.2 ppm	-1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/28/2024 7:08 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.29 ppm	0.29 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/28/2024 7:08 PM	NH3/NOx ppm	Low	Span	9.02 ppm	9.28 ppm	0.26 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
6/28/2024 7:08 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/28/2024 7:08 PM	O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
6/28/2024 7:08 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
6/28/2024 7:08 PM	75-O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/5/2024 6:23 PM	NCx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/5/2024 6:23 PM	NOx ppm	High	Span	172.4 ppm	171.0 ppm	-1.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/5/2024 6:23 PM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/5/2024 6:23 PM	NOx ppm	Low	Span	9.02 ppm	8.95 ppm	-0.07 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/5/2024 6:23 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/5/2024 6:23 PM	75-NOx ppm	High	Span	172.4 ppm	171.0 ppm	-1.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/5/2024 6:23 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/5/2024 6:23 PM	75-NOx ppm	Low	Span	9.02 ppm	8.95 ppm	-0.07 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/5/2024 6:23 PM	CO ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/5/2024 6:23 PM	CO ppm	High	Span	182.7 ppm	182.8 ppm	0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/5/2024 6:23 PM	CO ppm	Low	Zero	0.00 ppm	-0.10 ppm	-0.1 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/5/2024 6:23 PM	CO ppm	Low	Span	9.16 ppm	9.22 ppm	0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/5/2024 6:23 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/5/2024 6:23 PM	NH3/NOx ppm	High	Span	172.4 ppm	171.0 ppm	-1.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/5/2024 6:23 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.19 ppm	0.19 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/5/2024 6:23 PM	NH3/NOx ppm	Low	Span	9.02 ppm	9.15 ppm	0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/5/2024 6:23 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/5/2024 6:23 PM	O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/5/2024 6:23 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/5/2024 6:23 PM	75-O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/8/2024 5:23 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/8/2024 5:23 PM	NOx ppm	High	Span	172.4 ppm	170.7 ppm	-1.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/8/2024 5:23 PM	NOx ppm	Low	Zero	0.00 ppm	0.00 ppm	0 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/8/2024 5:23 PM	NOx ppm	Low	Span	9.02 ppm	8.89 ppm	-0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/8/2024 5:23 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/8/2024 5:23 PM	75-NOx ppm	High	Span	172.4 ppm	170.7 ppm	-1.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/8/2024 5:23 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.00 ppm	0 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/8/2024 5:23 PM	75-NOx ppm	Low	Span	9.02 ppm	8.89 ppm	-0.13 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/8/2024 5:23 PM	CO ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/8/2024 5:23 PM	CO ppm	High	Span	182.7 ppm	180.7 ppm	-2 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/8/2024 5:23 PM	CO ppm	Low	Zero	0.00 ppm	-0.02 ppm	-0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/8/2024 5:23 PM	CO ppm	Low	Span	9.16 ppm	9.26 ppm	0.1 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/8/2024 5:23 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/8/2024 5:23 PM	NH3/NOx ppm	High	Span	172.4 ppm	170.3 ppm	-2.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/8/2024 5:23 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.19 ppm	0.19 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/8/2024 5:23 PM	NH3/NOx ppm	Low	Span	9.02 ppm	9.10 ppm	0.08 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/8/2024 5:23 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/8/2024 5:23 PM	O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/8/2024 5:23 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/8/2024 5:23 PM	75-O2 %	Single	Span	22.55%	22.46%	-0.09%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/9/2024 4:53 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/9/2024 4:53 PM	NOx ppm	High	Span	172.4 ppm	170.7 ppm	-1.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/9/2024 4:53 PM	NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/9/2024 4:53 PM	NOx ppm	Low	Span	9.02 ppm	8.89 ppm	-0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/9/2024 4:53 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/9/2024 4:53 PM	75-NOx ppm	High	Span	172.4 ppm	170.7 ppm	-1.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/9/2024 4:53 PM	75-NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/9/2024 4:53 PM	75-NOx ppm	Low	Span	9.02 ppm	8.89 ppm	-0.13 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/9/2024 4:53 PM	CO ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/9/2024 4:53 PM	CO ppm	High	Span	182.7 ppm	182.4 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/9/2024 4:53 PM	CO ppm	Low	Zero	0.00 ppm	-0.06 ppm	-0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/9/2024 4:53 PM	CO ppm	Low	Span	9.16 ppm	9.30 ppm	0.14 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/9/2024 4:53 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/9/2024 4:53 PM	NH3/NOx ppm	High	Span	172.4 ppm	170.2 ppm	-2.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/9/2024 4:53 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.19 ppm	0.19 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/9/2024 4:53 PM	NH3/NOx ppm	Low	Span	9.02 ppm	9.10 ppm	0.08 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/9/2024 4:53 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/9/2024 4:53 PM	O2 %	Single	Span	22.55%	22.47%	-0.08%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/9/2024 4:53 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/9/2024 4:53 PM	75-O2 %	Single	Span	22.55%	22.47%	-0.08%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/10/2024 5:24 PM	NCx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/10/2024 5:24 PM	NCx ppm	High	Span	172.4 ppm	170.9 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/10/2024 5:24 PM	NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/10/2024 5:24 PM	NOx ppm	Low	Span	9.02 ppm	8.83 ppm	-0.19 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/10/2024 5:24 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/10/2024 5:24 PM	75-NOx ppm	High	Span	172.4 ppm	170.9 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/10/2024 5:24 PM	75-NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/10/2024 5:24 PM	75-NOx ppm	Low	Span	9.02 ppm	8.83 ppm	-0.19 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/10/2024 5:24 PM	CO ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/10/2024 5:24 PM	CO ppm	High	Span	182.7 ppm	182.6 ppm	-0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/10/2024 5:24 PM	CO ppm	Low	Zero	0.00 ppm	-0.06 ppm	-0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/10/2024 5:24 PM	CO ppm	Low	Span	9.16 ppm	9.38 ppm	0.22 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/10/2024 5:24 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/10/2024 5:24 PM	NH3/NOx ppm	High	Span	172.4 ppm	170.0 ppm	-2.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/10/2024 5:24 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.19 ppm	0.19 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/10/2024 5:24 PM	NH3/NOx ppm	Low	Span	9.02 ppm	9.07 ppm	0.05 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC452296	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
7/10/2024 5:24 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/10/2024 5:24 PM	O2 %	Single	Span	22.55%	22.48%	-0.07%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/10/2024 5:24 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			SG9112092BAL	*12/22/2031*		*B32023*	*NO,NOX,BALN*		
7/10/2024 5:24 PM	75-O2 %	Single	Span	22.55%	22.48%	-0.07%	±1%	25%	Unit online; Passed
			EB0086831	*4/1/2032*		*B72024*	*CO,O2,BALN*		
7/18/2024 6:08 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/18/2024 6:08 PM	NOx ppm	High	Span	175.2 ppm	173.5 ppm	-1.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/18/2024 6:08 PM	NOx ppm	Low	Zero	0.00 ppm	0.00 ppm	0 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/18/2024 6:08 PM	NOx ppm	Low	Span	9.10 ppm	8.90 ppm	-0.2 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/18/2024 6:08 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/18/2024 6:08 PM	75-NOx ppm	High	Span	175.2 ppm	173.5 ppm	-1.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/18/2024 6:08 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.00 ppm	0 ppm	±5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/18/2024 6:08 PM	75-NOx ppm	Low	Span	9.10 ppm	8.90 ppm	-0.2 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/18/2024 6:08 PM	CO ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/18/2024 6:08 PM	CO ppm	High	Span	182.0 ppm	181.9 ppm	-0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/18/2024 6:08 PM	CO ppm	Low	Zero	0.00 ppm	0.03 ppm	0.03 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/18/2024 6:08 PM	CO ppm	Low	Span	8.99 ppm	8.78 ppm	-0.21 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/18/2024 6:08 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/18/2024 6:08 PM	NH3/NOx ppm	High	Span	175.2 ppm	174.3 ppm	-0.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/18/2024 6:08 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.24 ppm	0.24 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/18/2024 6:08 PM	NH3/NOx ppm	Low	Span	9.10 ppm	9.31 ppm	0.21 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/18/2024 6:08 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/18/2024 6:08 PM	O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/18/2024 6:08 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/18/2024 6:08 PM	75-O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/19/2024 5:08 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/19/2024 5:08 PM	NOx ppm	High	Span	175.2 ppm	173.7 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/19/2024 5:08 PM	NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/19/2024 5:08 PM	NOx ppm	Low	Span	9.10 ppm	8.87 ppm	-0.23 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/19/2024 5:08 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/19/2024 5:08 PM	75-NOx ppm	High	Span	175.2 ppm	173.7 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/19/2024 5:08 PM	75-NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/19/2024 5:08 PM	75-NOx ppm	Low	Span	9.10 ppm	8.87 ppm	-0.23 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/19/2024 5:08 PM	CO ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/19/2024 5:08 PM	CO ppm	High	Span	182.0 ppm	181.7 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/19/2024 5:08 PM	CO ppm	Low	Zero	0.00 ppm	-0.08 ppm	-0.08 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/19/2024 5:08 PM	CO ppm	Low	Span	8.99 ppm	8.79 ppm	-0.2 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/19/2024 5:08 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/19/2024 5:08 PM	NH3/NOx ppm	High	Span	175.2 ppm	174.5 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/19/2024 5:08 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.19 ppm	0.19 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/19/2024 5:08 PM	NH3/NOx ppm	Low	Span	9.10 ppm	9.30 ppm	0.2 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/19/2024 5:08 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/19/2024 5:08 PM	O2 %	Single	Span	22.54%	22.48%	-0.06%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/19/2024 5:08 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/19/2024 5:08 PM	75-O2 %	Single	Span	22.54%	22.48%	-0.06%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/20/2024 5:23 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/20/2024 5:23 PM	NOx ppm	High	Span	175.2 ppm	174.0 ppm	-1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/20/2024 5:23 PM	NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/20/2024 5:23 PM	NOx ppm	Low	Span	9.10 ppm	8.83 ppm	-0.27 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/20/2024 5:23 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/20/2024 5:23 PM	75-NOx ppm	High	Span	175.2 ppm	174.0 ppm	-1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/20/2024 5:23 PM	75-NOx ppm	Low	Zero	0.00 ppm	-0.01 ppm	-0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/20/2024 5:23 PM	75-NOx ppm	Low	Span	9.10 ppm	8.83 ppm	-0.27 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/20/2024 5:23 PM	CO ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/20/2024 5:23 PM	CO ppm	High	Span	182.0 ppm	182.6 ppm	0.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/20/2024 5:23 PM	CO ppm	Low	Zero	0.00 ppm	-0.06 ppm	-0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/20/2024 5:23 PM	CO ppm	Low	Span	8.99 ppm	8.84 ppm	-0.15 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/20/2024 5:23 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/20/2024 5:23 PM	NH3/NOx ppm	High	Span	175.2 ppm	174.8 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/20/2024 5:23 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.18 ppm	0.18 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/20/2024 5:23 PM	NH3/NOx ppm	Low	Span	9.10 ppm	9.27 ppm	0.17 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/20/2024 5:23 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/20/2024 5:23 PM	O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/20/2024 5:23 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/20/2024 5:23 PM	75-O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/23/2024 4:38 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/23/2024 4:38 PM	NOx ppm	High	Span	175.2 ppm	173.3 ppm	-1.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/23/2024 4:38 PM	NOx ppm	Low	Zero	0.00 ppm	0.00 ppm	0 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/23/2024 4:38 PM	NOx ppm	Low	Span	9.10 ppm	8.87 ppm	-0.23 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/23/2024 4:38 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/23/2024 4:38 PM	75-NOx ppm	High	Span	175.2 ppm	173.3 ppm	-1.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/23/2024 4:38 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.00 ppm	0 ppm	±5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/23/2024 4:38 PM	75-NOx ppm	Low	Span	9.10 ppm	8.87 ppm	-0.23 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/23/2024 4:38 PM	CO ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/23/2024 4:38 PM	CO ppm	High	Span	182.0 ppm	181.6 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/23/2024 4:38 PM	CO ppm	Low	Zero	0.00 ppm	-0.03 ppm	-0.03 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/23/2024 4:38 PM	CO ppm	Low	Span	8.99 ppm	8.83 ppm	-0.16 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/23/2024 4:38 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/23/2024 4:38 PM	NH3/NOx ppm	High	Span	175.2 ppm	173.9 ppm	-1.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/23/2024 4:38 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.24 ppm	0.24 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/23/2024 4:38 PM	NH3/NOx ppm	Low	Span	9.10 ppm	9.31 ppm	0.21 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/23/2024 4:38 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/23/2024 4:38 PM	O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/23/2024 4:38 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/23/2024 4:38 PM	75-O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/31/2024 5:23 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/31/2024 5:23 PM	NOx ppm	High	Span	175.2 ppm	173.7 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/31/2024 5:23 PM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/31/2024 5:23 PM	NOx ppm	Low	Span	9.10 ppm	9.14 ppm	0.04 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/31/2024 5:23 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/31/2024 5:23 PM	75-NOx ppm	High	Span	175.2 ppm	173.7 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/31/2024 5:23 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/31/2024 5:23 PM	75-NOx ppm	Low	Span	9.10 ppm	9.14 ppm	0.04 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/31/2024 5:23 PM	CO ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/31/2024 5:23 PM	CO ppm	High	Span	182.0 ppm	181.3 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/31/2024 5:23 PM	CO ppm	Low	Zero	0.00 ppm	-0.16 ppm	-0.16 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/31/2024 5:23 PM	CO ppm	Low	Span	8.99 ppm	8.57 ppm	-0.42 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/31/2024 5:23 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.2 ppm	-0.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
7/31/2024 5:23 PM	NH3/NOx ppm	High	Span	175.2 ppm	173.0 ppm	-2.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/31/2024 5:23 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.28 ppm	0.28 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/31/2024 5:23 PM	NH3/NOx ppm	Low	Span	9.10 ppm	9.30 ppm	0.2 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
7/31/2024 5:23 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/31/2024 5:23 PM	O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
7/31/2024 5:23 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
7/31/2024 5:23 PM	75-O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/1/2024 4:08 PM	NCx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/1/2024 4:08 PM	NCx ppm	High	Span	175.2 ppm	172.8 ppm	-2.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/1/2024 4:08 PM	NCx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/1/2024 4:08 PM	NOx ppm	Low	Span	9.10 ppm	9.09 ppm	-0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/1/2024 4:08 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/1/2024 4:08 PM	75-NOx ppm	High	Span	175.2 ppm	172.8 ppm	-2.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/1/2024 4:08 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/1/2024 4:08 PM	75-NOx ppm	Low	Span	9.10 ppm	9.09 ppm	-0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
8/1/2024 4:08 PM	CO ppm	High	Zero	0.0 ppm	0.1 ppm	0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/1/2024 4:08 PM	CO ppm	High	Span	182.0 ppm	181.2 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/1/2024 4:08 PM	CO ppm	Low	Zero	0.00 ppm	-0.02 ppm	-0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/1/2024 4:08 PM	CO ppm	Low	Span	8.99 ppm	8.84 ppm	-0.15 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/1/2024 4:08 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/1/2024 4:08 PM	NH3/NOx ppm	High	Span	175.2 ppm	174.0 ppm	-1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/1/2024 4:08 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.20 ppm	0.2 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/1/2024 4:08 PM	NH3/NOx ppm	Low	Span	9.10 ppm	9.19 ppm	0.09 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/1/2024 4:08 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/1/2024 4:08 PM	O2 %	Single	Span	22.54%	22.48%	-0.06%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/1/2024 4:08 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/1/2024 4:08 PM	75-O2 %	Single	Span	22.54%	22.48%	-0.06%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/2/2024 6:08 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/2/2024 6:08 PM	NOx ppm	High	Span	175.2 ppm	172.7 ppm	-2.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/2/2024 6:08 PM	NOx ppm	Low	Zero	0.00 ppm	0.00 ppm	0 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
8/2/2024 6:08 PM	NOx ppm	Low	Span	9.10 ppm	9.04 ppm	-0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/2/2024 6:08 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/2/2024 6:08 PM	75-NOx ppm	High	Span	175.2 ppm	172.7 ppm	-2.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/2/2024 6:08 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.00 ppm	0 ppm	±5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/2/2024 6:08 PM	75-NOx ppm	Low	Span	9.10 ppm	9.04 ppm	-0.06 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/2/2024 6:08 PM	CC ppm	High	Zero	0.0 ppm	0.2 ppm	0.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/2/2024 6:08 PM	CO ppm	High	Span	182.0 ppm	181.6 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/2/2024 6:08 PM	CO ppm	Low	Zero	0.00 ppm	0.04 ppm	0.04 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/2/2024 6:08 PM	CO ppm	Low	Span	8.99 ppm	8.92 ppm	-0.07 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/2/2024 6:08 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/2/2024 6:08 PM	NH3/NOx ppm	High	Span	175.2 ppm	173.8 ppm	-1.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/2/2024 6:08 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.19 ppm	0.19 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/2/2024 6:08 PM	NH3/NOx ppm	Low	Span	9.10 ppm	9.16 ppm	0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/2/2024 6:08 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/2/2024 6:08 PM	O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
8/2/2024 6:08 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/2/2024 6:08 PM	75-O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/5/2024 5:24 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/5/2024 5:24 PM	NOx ppm	High	Span	175.2 ppm	173.6 ppm	-1.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/5/2024 5:24 PM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/5/2024 5:24 PM	NOx ppm	Low	Span	9.10 ppm	9.08 ppm	-0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/5/2024 5:24 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/5/2024 5:24 PM	75-NOx ppm	High	Span	175.2 ppm	173.6 ppm	-1.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/5/2024 5:24 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/5/2024 5:24 PM	75-NOx ppm	Low	Span	9.10 ppm	9.08 ppm	-0.02 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/5/2024 5:24 PM	CO ppm	High	Zero	0.0 ppm	0.0 ppm	0 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/5/2024 5:24 PM	CO ppm	High	Span	182.0 ppm	182.8 ppm	0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/5/2024 5:24 PM	CO ppm	Low	Zero	0.00 ppm	-0.18 ppm	-0.18 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/5/2024 5:24 PM	CO ppm	Low	Span	8.99 ppm	8.75 ppm	-0.24 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/5/2024 5:24 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
8/5/2024 5:24 PM	NH3/NOx ppm	High	Span	175.2 ppm	174.0 ppm	-1.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/5/2024 5:24 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.23 ppm	0.23 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/5/2024 5:24 PM	NH3/NOx ppm	Low	Span	9.10 ppm	9.19 ppm	0.09 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/5/2024 5:24 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/5/2024 5:24 PM	O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/5/2024 5:24 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/5/2024 5:24 PM	75-O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/19/2024 6:09 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/19/2024 6:09 PM	NOx ppm	High	Span	175.2 ppm	174.4 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/19/2024 6:09 PM	NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/19/2024 6:09 PM	NOx ppm	Low	Span	9.10 ppm	9.12 ppm	0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/19/2024 6:09 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/19/2024 6:09 PM	75-NOx ppm	High	Span	175.2 ppm	174.4 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/19/2024 6:09 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/19/2024 6:09 PM	75-NOx ppm	Low	Span	9.10 ppm	9.12 ppm	0.02 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
8/19/2024 6:09 PM	CO ppm	High	Zero	0.0 ppm	0.0 ppm	0 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/19/2024 6:09 PM	CO ppm	High	Span	182.0 ppm	182.4 ppm	0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/19/2024 6:09 PM	CO ppm	Low	Zero	0.00 ppm	-0.21 ppm	-0.21 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/19/2024 6:09 PM	CO ppm	Low	Span	8.99 ppm	8.92 ppm	-0.07 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/19/2024 6:09 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/19/2024 6:09 PM	NH3/NOx ppm	High	Span	175.2 ppm	173.2 ppm	-2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/19/2024 6:09 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.25 ppm	0.25 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/19/2024 6:09 PM	NH3/NOx ppm	Low	Span	9.10 ppm	9.34 ppm	0.24 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/19/2024 6:09 PM	O2 %	Single	Zero	0.00%	-0.01%	-0.01%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/19/2024 6:09 PM	O2 %	Single	Span	22.54%	22.50%	-0.04%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/19/2024 6:09 PM	75-O2 %	Single	Zero	0.00%	-0.01%	-0.01%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/19/2024 6:09 PM	75-O2 %	Single	Span	22.54%	22.50%	-0.04%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/20/2024 6:39 AM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/20/2024 6:39 AM	NOx ppm	High	Span	175.2 ppm	173.4 ppm	-1.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/20/2024 6:39 AM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
8/20/2024 6:39 AM	NOx ppm	Low	Span	9.10 ppm	9.06 ppm	-0.04 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/20/2024 6:39 AM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/20/2024 6:39 AM	75-NOx ppm	High	Span	175.2 ppm	173.4 ppm	-1.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/20/2024 6:39 AM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/20/2024 6:39 AM	75-NOx ppm	Low	Span	9.10 ppm	9.06 ppm	-0.04 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/20/2024 6:39 AM	CO ppm	High	Zero	0.0 ppm	0.1 ppm	0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/20/2024 6:39 AM	CO ppm	High	Span	182.0 ppm	181.9 ppm	-0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/20/2024 6:39 AM	CO ppm	Low	Zero	0.00 ppm	-0.08 ppm	-0.08 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/20/2024 6:39 AM	CO ppm	Low	Span	8.99 ppm	8.96 ppm	-0.03 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/20/2024 6:39 AM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/20/2024 6:39 AM	NH3/NOx ppm	High	Span	175.2 ppm	172.4 ppm	-2.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/20/2024 6:39 AM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.13 ppm	0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/20/2024 6:39 AM	NH3/NOx ppm	Low	Span	9.10 ppm	9.24 ppm	0.14 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC327927	*10/28/2026*		*B32023*	*CO,NO,NOX,BALN*		
8/20/2024 6:39 AM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/20/2024 6:39 AM	O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
8/20/2024 6:39 AM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC281065	*3/1/2032*		*B32024*	*NO,NOX,BALN*		
8/20/2024 6:39 AM	75-O2 %	Single	Span	22.54%	22.49%	-0.05%	±1%	25%	Unit online; Passed
			XCO34400B	*5/13/2032*		*B72024*	*CO,O2,BALN*		
8/27/2024 7:38 AM	NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
8/27/2024 7:38 AM	NOx ppm	High	Span	179.1 ppm	178.2 ppm	-0.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
8/27/2024 7:38 AM	NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
8/27/2024 7:38 AM	NOx ppm	Low	Span	9.11 ppm	9.12 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
8/27/2024 7:38 AM	75-NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
8/27/2024 7:38 AM	75-NOx ppm	High	Span	179.1 ppm	178.2 ppm	-0.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
8/27/2024 7:38 AM	75-NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
8/27/2024 7:38 AM	75-NOx ppm	Low	Span	9.11 ppm	9.12 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
8/27/2024 7:38 AM	CO ppm	High	Zero	0.0 ppm	0.0 ppm	0 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
8/27/2024 7:38 AM	CO ppm	High	Span	182.7 ppm	181.9 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
8/27/2024 7:38 AM	CO ppm	Low	Zero	0.00 ppm	-0.11 ppm	-0.11 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
8/27/2024 7:38 AM	CO ppm	Low	Span	9.19 ppm	9.22 ppm	0.03 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
8/27/2024 7:38 AM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
8/27/2024 7:38 AM	NH3/NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	178.9 ppm	-0.2 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
8/27/2024 7:38 AM	NH3/NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.18 ppm	0.18 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
8/27/2024 7:38 AM	NH3/NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.28 ppm	0.17 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
8/27/2024 7:38 AM	O2 %	Single	Zero *CC435236*	0.00% *3/20/2032*	0.00%	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
8/27/2024 7:38 AM	O2 %	Single	Span *CC400501*	22.54% *6/24/2032*	22.54%	0% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
8/27/2024 7:38 AM	75-O2 %	Single	Zero *CC435236*	0.00% *3/20/2032*	0.00%	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
8/27/2024 7:38 AM	75-O2 %	Single	Span *CC400501*	22.54% *6/24/2032*	22.54%	0% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
9/3/2024 6:07 PM	NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.5 ppm	-0.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/3/2024 6:07 PM	NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	178.5 ppm	-0.6 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/3/2024 6:07 PM	NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.01 ppm	0.01 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/3/2024 6:07 PM	NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.06 ppm	-0.05 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/3/2024 6:07 PM	75-NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.5 ppm	-0.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/3/2024 6:07 PM	75-NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	178.5 ppm	-0.6 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/3/2024 6:07 PM	75-NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.01 ppm	0.01 ppm *B72024*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/3/2024 6:07 PM	75-NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.06 ppm	-0.05 ppm *B32024*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
9/3/2024 6:07 PM	CO ppm	High	Zero *CC435236*	0.0 ppm *3/20/2032*	-0.1 ppm	-0.1 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/3/2024 6:07 PM	CO ppm	High	Span *CC400501*	182.7 ppm *6/24/2032*	180.1 ppm	-2.6 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/3/2024 6:07 PM	CO ppm	Low	Zero *CC435236*	0.00 ppm *3/20/2032*	-0.19 ppm	-0.19 ppm *B32024*	±0.5 ppm *NO,NOX,BALN*	10 ppm	Unit online; Passed
9/3/2024 6:07 PM	CO ppm	Low	Span *CC156901*	9.19 ppm *2/28/2027*	9.20 ppm	0.01 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/3/2024 6:07 PM	NH3/NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.2 ppm	-0.2 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/3/2024 6:07 PM	NH3/NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	178.3 ppm	-0.8 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/3/2024 6:07 PM	NH3/NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.29 ppm	0.29 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/3/2024 6:07 PM	NH3/NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.30 ppm	0.19 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/3/2024 6:07 PM	O2 %	Single	Zero *CC435236*	0.00% *3/20/2032*	0.00%	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
9/3/2024 6:07 PM	O2 %	Single	Span *CC400501*	22.54% *6/24/2032*	22.55%	0.01% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
9/3/2024 6:07 PM	75-O2 %	Single	Zero *CC435236*	0.00% *3/20/2032*	0.00%	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
9/3/2024 6:07 PM	75-O2 %	Single	Span *CC400501*	22.54% *6/24/2032*	22.55%	0.01% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
9/4/2024 4:22 PM	NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.5 ppm	-0.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/4/2024 4:22 PM	NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	178.1 ppm	-1 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/4/2024 4:22 PM	NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.00 ppm	0 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
9/4/2024 4:22 PM	NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.03 ppm	-0.08 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/4/2024 4:22 PM	75-NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.5 ppm	-0.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/4/2024 4:22 PM	75-NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	178.1 ppm	-1 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/4/2024 4:22 PM	75-NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.00 ppm	0 ppm *B72024*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/4/2024 4:22 PM	75-NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.03 ppm	-0.08 ppm *B32024*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/4/2024 4:22 PM	CC ppm	High	Zero *CC435236*	0.0 ppm *3/20/2032*	0.0 ppm	0 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/4/2024 4:22 PM	CC ppm	High	Span *CC400501*	182.7 ppm *6/24/2032*	181.3 ppm	-1.4 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/4/2024 4:22 PM	CO ppm	Low	Zero *CC435236*	0.00 ppm *3/20/2032*	-0.10 ppm	-0.1 ppm *B32024*	±0.5 ppm *NO,NOX,BALN*	10 ppm	Unit online; Passed
9/4/2024 4:22 PM	CO ppm	Low	Span *CC156901*	9.19 ppm *2/28/2027*	9.00 ppm	-0.19 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/4/2024 4:22 PM	NH3/NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.3 ppm	-0.3 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/4/2024 4:22 PM	NH3/NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	177.7 ppm	-1.4 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/4/2024 4:22 PM	NH3/NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.25 ppm	0.25 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/4/2024 4:22 PM	NH3/NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.27 ppm	0.16 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/4/2024 4:22 PM	O2 %	Single	Zero *CC435236*	0.00% *3/20/2032*	0.00%	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
9/4/2024 4:22 PM	O2 %	Single	Span *CC400501*	22.54% *6/24/2032*	22.54%	0% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
9/4/2024 4:22 PM	75-O2 %	Single	Zero *CC435236*	0.00% *3/20/2032*	0.00%	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
9/4/2024 4:22 PM	75-O2 %	Single	Span *CC400501*	22.54% *6/24/2032*	22.54%	0% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
9/5/2024 2:22 PM	NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.5 ppm	-0.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/5/2024 2:22 PM	NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	177.6 ppm	-1.5 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/5/2024 2:22 PM	NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.01 ppm	0.01 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/5/2024 2:22 PM	NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.03 ppm	-0.08 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/5/2024 2:22 PM	75-NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.5 ppm	-0.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/5/2024 2:22 PM	75-NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	177.6 ppm	-1.5 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/5/2024 2:22 PM	75-NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.01 ppm	0.01 ppm *B72024*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/5/2024 2:22 PM	75-NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.03 ppm	-0.08 ppm *B32024*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/5/2024 2:22 PM	CO ppm	High	Zero *CC435236*	0.0 ppm *3/20/2032*	-0.3 ppm	-0.3 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/5/2024 2:22 PM	CO ppm	High	Span *CC400501*	182.7 ppm *6/24/2032*	181.9 ppm	-0.8 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/5/2024 2:22 PM	CO ppm	Low	Zero *CC435236*	0.00 ppm *3/20/2032*	-0.39 ppm	-0.39 ppm *B32024*	±0.5 ppm *NO,NOX,BALN*	10 ppm	Unit online; Passed
9/5/2024 2:22 PM	CO ppm	Low	Span *CC156901*	9.19 ppm *2/28/2027*	9.18 ppm	-0.01 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/5/2024 2:22 PM	NH3/NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.3 ppm	-0.3 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
9/5/2024 2:22 PM	NH3/NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	177.0 ppm	-2.1 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/5/2024 2:22 PM	NH3/NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.19 ppm	0.19 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/5/2024 2:22 PM	NH3/NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.22 ppm	0.11 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/5/2024 2:22 PM	O2 %	Single	Zero *CC435236*	0.00% *3/20/2032*	0.01%	0.01% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
9/5/2024 2:22 PM	O2 %	Single	Span *CC400501*	22.54% *6/24/2032*	22.54%	0% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
9/5/2024 2:22 PM	75-O2 %	Single	Zero *CC435236*	0.00% *3/20/2032*	0.01%	0.01% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
9/5/2024 2:22 PM	75-O2 %	Single	Span *CC400501*	22.54% *6/24/2032*	22.54%	0% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
9/6/2024 2:37 PM	NCx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.5 ppm	-0.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/6/2024 2:37 PM	NCx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	178.4 ppm	-0.7 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/6/2024 2:37 PM	NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.01 ppm	0.01 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/6/2024 2:37 PM	NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.04 ppm	-0.07 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/6/2024 2:37 PM	75-NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.5 ppm	-0.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/6/2024 2:37 PM	75-NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	178.4 ppm	-0.7 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/6/2024 2:37 PM	75-NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.01 ppm	0.01 ppm *B72024*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/6/2024 2:37 PM	75-NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.04 ppm	-0.07 ppm *B32024*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID		*Expiration Date*	*EPA Vendor ID*	*EPA Gas Type Codes*		
9/6/2024 2:37 PM	CO ppm	High	Zero *CC435236*	0.0 ppm	-0.2 ppm *3/20/2032*	-0.2 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/6/2024 2:37 PM	CO ppm	High	Span *CC400501*	182.7 ppm	181.2 ppm *6/24/2032*	-1.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/6/2024 2:37 PM	CO ppm	Low	Zero *CC435236*	0.00 ppm	-0.24 ppm *3/20/2032*	-0.24 ppm *B32024*	±0.5 ppm *NO,NOX,BALN*	10 ppm	Unit online; Passed
9/6/2024 2:37 PM	CO ppm	Low	Span *CC156901*	9.19 ppm	9.11 ppm *2/28/2027*	-0.08 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/6/2024 2:37 PM	NH3/NOx ppm	High	Zero *CC400501*	0.0 ppm	-0.3 ppm *6/24/2032*	-0.3 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/6/2024 2:37 PM	NH3/NOx ppm	High	Span *CC435236*	179.1 ppm	177.8 ppm *3/20/2032*	-1.3 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/6/2024 2:37 PM	NH3/NOx ppm	Low	Zero *CC400501*	0.00 ppm	0.20 ppm *6/24/2032*	0.2 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/6/2024 2:37 PM	NH3/NOx ppm	Low	Span *CC156901*	9.11 ppm	9.23 ppm *2/28/2027*	0.12 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/6/2024 2:37 PM	O2 %	Single	Zero *CC435236*	0.00%	0.00% *3/20/2032*	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
9/6/2024 2:37 PM	O2 %	Single	Span *CC400501*	22.54%	22.55% *6/24/2032*	0.01% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
9/6/2024 2:37 PM	75-O2 %	Single	Zero *CC435236*	0.00%	0.00% *3/20/2032*	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
9/6/2024 2:37 PM	75-O2 %	Single	Span *CC400501*	22.54%	22.55% *6/24/2032*	0.01% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
9/9/2024 5:07 PM	NOx ppm	High	Zero *CC400501*	0.0 ppm	-0.5 ppm *6/24/2032*	-0.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/9/2024 5:07 PM	NOx ppm	High	Span *CC435236*	179.1 ppm	178.1 ppm *3/20/2032*	-1 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/9/2024 5:07 PM	NOx ppm	Low	Zero *CC400501*	0.00 ppm	0.02 ppm *6/24/2032*	0.02 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
9/9/2024 5:07 PM	NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.06 ppm	-0.05 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/9/2024 5:07 PM	75-NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.5 ppm	-0.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/9/2024 5:07 PM	75-NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	178.1 ppm	-1 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/9/2024 5:07 PM	75-NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.02 ppm	0.02 ppm *B72024*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/9/2024 5:07 PM	75-NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.06 ppm	-0.05 ppm *B32024*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/9/2024 5:07 PM	CO ppm	High	Zero *CC435236*	0.0 ppm *3/20/2032*	-0.1 ppm	-0.1 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/9/2024 5:07 PM	CO ppm	High	Span *CC400501*	182.7 ppm *6/24/2032*	182.3 ppm	-0.4 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/9/2024 5:07 PM	CO ppm	Low	Zero *CC435236*	0.00 ppm *3/20/2032*	-0.14 ppm	-0.14 ppm *B32024*	±0.5 ppm *NO,NOX,BALN*	10 ppm	Unit online; Passed
9/9/2024 5:07 PM	CO ppm	Low	Span *CC156901*	9.19 ppm *2/28/2027*	8.97 ppm	-0.22 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/9/2024 5:07 PM	NH3/NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.3 ppm	-0.3 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
9/9/2024 5:07 PM	NH3/NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	177.2 ppm	-1.9 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
9/9/2024 5:07 PM	NH3/NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.14 ppm	0.14 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
9/9/2024 5:07 PM	NH3/NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.20 ppm	0.09 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
9/9/2024 5:07 PM	O2 %	Single	Zero *CC435236*	0.00% *3/20/2032*	0.00%	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
9/9/2024 5:07 PM	O2 %	Single	Span *CC400501*	22.54% *6/24/2032*	22.55%	0.01% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
9/9/2024 5:07 PM	75-O2 %	Single	Zero *CC435236*	0.00% *3/20/2032*	0.00%	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
9/9/2024 5:07 PM	75-O2 %	Single	Span *CC400501*	22.54% *6/24/2032*	22.55%	0.01% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
10/6/2024 5:08 PM	NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.4 ppm	-0.4 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
10/6/2024 5:08 PM	NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	178.1 ppm	-1 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
10/6/2024 5:08 PM	NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.02 ppm	0.02 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
10/6/2024 5:08 PM	NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.07 ppm	-0.04 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
10/6/2024 5:08 PM	75-NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.4 ppm	-0.4 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
10/6/2024 5:08 PM	75-NOx ppm	High	Span *CC435236*	179.1 ppm *3/20/2032*	178.1 ppm	-1 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
10/6/2024 5:08 PM	75-NOx ppm	Low	Zero *CC400501*	0.00 ppm *6/24/2032*	0.02 ppm	0.02 ppm *B72024*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
10/6/2024 5:08 PM	75-NOx ppm	Low	Span *CC156901*	9.11 ppm *2/28/2027*	9.07 ppm	-0.04 ppm *B32024*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
10/6/2024 5:08 PM	CO ppm	High	Zero *CC435236*	0.0 ppm *3/20/2032*	-0.3 ppm	-0.3 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
10/6/2024 5:08 PM	CO ppm	High	Span *CC400501*	182.7 ppm *6/24/2032*	180.8 ppm	-1.9 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
10/6/2024 5:08 PM	CO ppm	Low	Zero *CC435236*	0.00 ppm *3/20/2032*	-0.04 ppm	-0.04 ppm *B32024*	±0.5 ppm *NO,NOX,BALN*	10 ppm	Unit online; Passed
10/6/2024 5:08 PM	CO ppm	Low	Span *CC156901*	9.19 ppm *2/28/2027*	8.57 ppm	-0.62 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Fail Below; Fail OOC
10/6/2024 5:08 PM	NH3/NOx ppm	High	Zero *CC400501*	0.0 ppm *6/24/2032*	-0.3 ppm	-0.3 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
10/6/2024 5:08 PM	NH3/NOx ppm	High	Span	179.1 ppm	178.3 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:08 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.26 ppm	0.26 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:08 PM	NH3/NOx ppm	Low	Span	9.11 ppm	9.28 ppm	0.17 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/6/2024 5:08 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:08 PM	O2 %	Single	Span	22.54%	22.56%	0.02%	±1%	25%	Unit online; Passed
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:08 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:08 PM	75-O2 %	Single	Span	22.54%	22.56%	0.02%	±1%	25%	Unit online; Passed
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:25 PM	NCx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:25 PM	NCx ppm	High	Span	179.1 ppm	177.4 ppm	-1.7 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:25 PM	NCx ppm	Low	Zero	0.00 ppm	0.12 ppm	0.12 ppm	±0.5 ppm	10 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:25 PM	NCx ppm	Low	Span	9.11 ppm	9.20 ppm	0.09 ppm	±0.5 ppm	10 ppm	Unit online; Passed; Manual
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/6/2024 5:25 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:25 PM	75-NOx ppm	High	Span	179.1 ppm	177.4 ppm	-1.7 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:25 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.12 ppm	0.12 ppm	±5 ppm	10 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:25 PM	75-NOx ppm	Low	Span	9.11 ppm	9.20 ppm	0.09 ppm	±5 ppm	10 ppm	Unit online; Passed; Manual
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
10/6/2024 5:25 PM	CO ppm	High	Zero	0.0 ppm	-0.7 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:25 PM	CO ppm	High	Span	182.7 ppm	185.0 ppm	2.3 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:25 PM	CO ppm	Low	Zero	0.00 ppm	-0.51 ppm	-0.51 ppm	±0.5 ppm	10 ppm	Unit online; Fail Below; Fail OOC; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:25 PM	CO ppm	Low	Span	9.19 ppm	8.71 ppm	-0.48 ppm	±0.5 ppm	10 ppm	Unit online; Passed; Manual
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/6/2024 5:25 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:25 PM	NH3/NOx ppm	High	Span	179.1 ppm	178.3 ppm	-0.8 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:25 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.23 ppm	0.23 ppm	±0.5 ppm	10 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:25 PM	NH3/NOx ppm	Low	Span	9.11 ppm	9.27 ppm	0.16 ppm	±0.5 ppm	10 ppm	Unit online; Passed; Manual
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/6/2024 5:25 PM	O2 %	Single	Zero	0.00%	0.02%	0.02%	±1%	25%	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:25 PM	O2 %	Single	Span	22.54%	22.55%	0.01%	±1%	25%	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:25 PM	75-O2 %	Single	Zero	0.00%	0.02%	0.02%	±1%	25%	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:25 PM	75-O2 %	Single	Span	22.54%	22.55%	0.01%	±1%	25%	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:54 PM	NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:54 PM	NOx ppm	High	Span	179.1 ppm	177.6 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
10/6/2024 5:54 PM	NOx ppm	Low	Zero	0.00 ppm	0.04 ppm	0.04 ppm	±0.5 ppm	10 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:54 PM	NOx ppm	Low	Span	9.11 ppm	9.15 ppm	0.04 ppm	±0.5 ppm	10 ppm	Unit online; Passed; Manual
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/6/2024 5:54 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:54 PM	75-NOx ppm	High	Span	179.1 ppm	177.6 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:54 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.04 ppm	0.04 ppm	±5 ppm	10 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:54 PM	75-NOx ppm	Low	Span	9.11 ppm	9.15 ppm	0.04 ppm	±5 ppm	10 ppm	Unit online; Passed; Manual
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/6/2024 5:54 PM	CO ppm	High	Zero	0.0 ppm	-0.7 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:54 PM	CO ppm	High	Span	182.7 ppm	182.9 ppm	0.2 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:54 PM	CO ppm	Low	Zero	0.00 ppm	-0.51 ppm	-0.51 ppm	±0.5 ppm	10 ppm	Unit online; Fail Below; Fail OOC; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:54 PM	CO ppm	Low	Span	9.19 ppm	8.44 ppm	-0.75 ppm	±0.5 ppm	10 ppm	Unit online; Fail Below; Fail OOC; Manual
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/6/2024 5:54 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:54 PM	NH3/NOx ppm	High	Span	179.1 ppm	178.4 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:54 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.24 ppm	0.24 ppm	±0.5 ppm	10 ppm	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:54 PM	NH3/NOx ppm	Low	Span	9.11 ppm	9.27 ppm	0.16 ppm	±0.5 ppm	10 ppm	Unit online; Passed; Manual
			CC156901	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
10/6/2024 5:54 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:54 PM	O2 %	Single	Span	22.54%	22.55%	0.01%	±1%	25%	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/6/2024 5:54 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed; Manual
			CC435236	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/6/2024 5:54 PM	75-O2 %	Single	Span	22.54%	22.55%	0.01%	±1%	25%	Unit online; Passed; Manual
			CC400501	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/7/2024 3:54 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/7/2024 3:54 PM	NOx ppm	High	Span	180.8 ppm	179.3 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/7/2024 3:54 PM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/7/2024 3:54 PM	NOx ppm	Low	Span	9.06 ppm	9.07 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/7/2024 3:54 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/7/2024 3:54 PM	75-NOx ppm	High	Span	180.8 ppm	179.3 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/7/2024 3:54 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/7/2024 3:54 PM	75-NOx ppm	Low	Span	9.06 ppm	9.07 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/7/2024 3:54 PM	CO ppm	High	Zero	0.0 ppm	0.7 ppm	0.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/7/2024 3:54 PM	CO ppm	High	Span	183.2 ppm	182.3 ppm	-0.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/7/2024 3:54 PM	CO ppm	Low	Zero	0.00 ppm	0.18 ppm	0.18 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
10/7/2024 3:54 PM	CO ppm	Low	Span	9.20 ppm	9.05 ppm	-0.15 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/7/2024 3:54 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/7/2024 3:54 PM	NH3/NOx ppm	High	Span	180.8 ppm	179.3 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/7/2024 3:54 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.24 ppm	0.24 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/7/2024 3:54 PM	NH3/NOx ppm	Low	Span	9.06 ppm	9.26 ppm	0.2 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/7/2024 3:54 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/7/2024 3:54 PM	O2 %	Single	Span	22.49%	22.50%	0.01%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/7/2024 3:54 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/7/2024 3:54 PM	75-O2 %	Single	Span	22.49%	22.50%	0.01%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/31/2024 8:16 AM	NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/31/2024 8:16 AM	NOx ppm	High	Span	180.8 ppm	179.8 ppm	-1 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/31/2024 8:16 AM	NOx ppm	Low	Zero	0.00 ppm	0.03 ppm	0.03 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/31/2024 8:16 AM	NOx ppm	Low	Span	9.06 ppm	9.07 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/31/2024 8:16 AM	75-NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/31/2024 8:16 AM	75-NOx ppm	High	Span	180.8 ppm	179.8 ppm	-1 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
10/31/2024 8:16 AM	75-NOx ppm	Low	Zero	0.00 ppm	0.03 ppm	0.03 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/31/2024 8:16 AM	75-NOx ppm	Low	Span	9.06 ppm	9.07 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/31/2024 8:16 AM	CO ppm	High	Zero	0.0 ppm	-0.1 ppm	-0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/31/2024 8:16 AM	CO ppm	High	Span	183.2 ppm	185.8 ppm	2.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/31/2024 8:16 AM	CO ppm	Low	Zero	0.00 ppm	-0.07 ppm	-0.07 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/31/2024 8:16 AM	CO ppm	Low	Span	9.20 ppm	8.96 ppm	-0.24 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/31/2024 8:16 AM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/31/2024 8:16 AM	NH3/NOx ppm	High	Span	180.8 ppm	180.5 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/31/2024 8:16 AM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.20 ppm	0.2 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/31/2024 8:16 AM	NH3/NOx ppm	Low	Span	9.06 ppm	9.29 ppm	0.23 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
10/31/2024 8:16 AM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/31/2024 8:16 AM	O2 %	Single	Span	22.49%	22.47%	-0.02%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
10/31/2024 8:16 AM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
10/31/2024 8:16 AM	75-O2 %	Single	Span	22.49%	22.47%	-0.02%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/5/2024 2:33 PM	NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/5/2024 2:33 PM	NOx ppm	High	Span	180.8 ppm	180.1 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/5/2024 2:33 PM	NOx ppm	Low	Zero	0.00 ppm	0.05 ppm	0.05 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/5/2024 2:33 PM	NOx ppm	Low	Span	9.06 ppm	9.07 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/5/2024 2:33 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/5/2024 2:33 PM	75-NOx ppm	High	Span	180.8 ppm	180.1 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/5/2024 2:33 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.05 ppm	0.05 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/5/2024 2:33 PM	75-NOx ppm	Low	Span	9.06 ppm	9.07 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/5/2024 2:33 PM	CC ppm	High	Zero	0.0 ppm	0.3 ppm	0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/5/2024 2:33 PM	CC ppm	High	Span	183.2 ppm	186.8 ppm	3.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/5/2024 2:33 PM	CO ppm	Low	Zero	0.00 ppm	0.47 ppm	0.47 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/5/2024 2:33 PM	CO ppm	Low	Span	9.20 ppm	9.64 ppm	0.44 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/5/2024 2:33 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.2 ppm	-0.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/5/2024 2:33 PM	NH3/NOx ppm	High	Span	180.8 ppm	180.1 ppm	-0.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/5/2024 2:33 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.33 ppm	0.33 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/5/2024 2:33 PM	NH3/NOx ppm	Low	Span	9.06 ppm	9.38 ppm	0.32 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/5/2024 2:33 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/5/2024 2:33 PM	O2 %	Single	Span	22.49%	22.48%	-0.01%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/5/2024 2:33 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/5/2024 2:33 PM	75-O2 %	Single	Span	22.49%	22.48%	-0.01%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/7/2024 12:39 PM	NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/7/2024 12:39 PM	NOx ppm	High	Span	180.8 ppm	180.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/7/2024 12:39 PM	NOx ppm	Low	Zero	0.00 ppm	0.03 ppm	0.03 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/7/2024 12:39 PM	NOx ppm	Low	Span	9.06 ppm	9.16 ppm	0.1 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/7/2024 12:39 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/7/2024 12:39 PM	75-NOx ppm	High	Span	180.8 ppm	180.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/7/2024 12:39 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.03 ppm	0.03 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/7/2024 12:39 PM	75-NOx ppm	Low	Span	9.06 ppm	9.16 ppm	0.1 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/7/2024 12:39 PM	CO ppm	High	Zero	0.0 ppm	0.3 ppm	0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/7/2024 12:39 PM	CO ppm	High	Span	183.2 ppm	187.6 ppm	4.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/7/2024 12:39 PM	CO ppm	Low	Zero	0.00 ppm	0.34 ppm	0.34 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/7/2024 12:39 PM	CO ppm	Low	Span	9.20 ppm	9.14 ppm	-0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/7/2024 12:39 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/7/2024 12:39 PM	NH3/NOx ppm	High	Span	180.8 ppm	180.2 ppm	-0.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/7/2024 12:39 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.13 ppm	0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/7/2024 12:39 PM	NH3/NOx ppm	Low	Span	9.06 ppm	9.19 ppm	0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/7/2024 12:39 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/7/2024 12:39 PM	O2 %	Single	Span	22.49%	22.48%	-0.01%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/7/2024 12:39 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/7/2024 12:39 PM	75-O2 %	Single	Span	22.49%	22.48%	-0.01%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/8/2024 3:09 AM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/8/2024 3:09 AM	NOx ppm	High	Span	180.8 ppm	179.7 ppm	-1.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/8/2024 3:09 AM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/8/2024 3:09 AM	NOx ppm	Low	Span	9.06 ppm	9.06 ppm	0 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/8/2024 3:09 AM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/8/2024 3:09 AM	75-NOx ppm	High	Span	180.8 ppm	179.7 ppm	-1.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/8/2024 3:09 AM	75-NOx ppm	Low	Zero *CC208368*	0.00 ppm *6/24/2032*	0.01 ppm	0.01 ppm *B72024*	±5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
11/8/2024 3:09 AM	75-NOx ppm	Low	Span *CC208640*	9.06 ppm *2/28/2027*	9.06 ppm	0 ppm *B32024*	±5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
11/8/2024 3:09 AM	CO ppm	High	Zero *SG9167829BAL*	0.0 ppm *3/20/2032*	-0.1 ppm	-0.1 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
11/8/2024 3:09 AM	CO ppm	High	Span *CC208368*	183.2 ppm *6/24/2032*	184.2 ppm	1 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
11/8/2024 3:09 AM	CO ppm	Low	Zero *SG9167829BAL*	0.00 ppm *3/20/2032*	-0.05 ppm	-0.05 ppm *B32024*	±0.5 ppm *NO,NOX,BALN*	10 ppm	Unit online; Passed
11/8/2024 3:09 AM	CO ppm	Low	Span *CC208640*	9.20 ppm *2/28/2027*	9.18 ppm	-0.02 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
11/8/2024 3:09 AM	NH3/NOx ppm	High	Zero *CC208368*	0.0 ppm *6/24/2032*	-0.3 ppm	-0.3 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed
11/8/2024 3:09 AM	NH3/NOx ppm	High	Span *SG9167829BAL*	180.8 ppm *3/20/2032*	179.6 ppm	-1.2 ppm *B32024*	±10 ppm *NO,NOX,BALN*	200 ppm	Unit online; Passed
11/8/2024 3:09 AM	NH3/NOx ppm	Low	Zero *CC208368*	0.00 ppm *6/24/2032*	0.13 ppm	0.13 ppm *B72024*	±0.5 ppm *CO,O2,BALN*	10 ppm	Unit online; Passed
11/8/2024 3:09 AM	NH3/NOx ppm	Low	Span *CC208640*	9.06 ppm *2/28/2027*	9.20 ppm	0.14 ppm *B32024*	±0.5 ppm *CO,NO,NOX,BALN*	10 ppm	Unit online; Passed
11/8/2024 3:09 AM	O2 %	Single	Zero *SG9167829BAL*	0.00% *3/20/2032*	0.00%	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
11/8/2024 3:09 AM	O2 %	Single	Span *CC208368*	22.49% *6/24/2032*	22.48%	-0.01% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
11/8/2024 3:09 AM	75-O2 %	Single	Zero *SG9167829BAL*	0.00% *3/20/2032*	0.00%	0% *B32024*	±1% *NO,NOX,BALN*	25%	Unit online; Passed
11/8/2024 3:09 AM	75-O2 %	Single	Span *CC208368*	22.49% *6/24/2032*	22.48%	-0.01% *B72024*	±1% *CO,O2,BALN*	25%	Unit online; Passed
11/9/2024 4:09 PM	NOx ppm	High	Zero *CC208368*	0.0 ppm *6/24/2032*	-0.5 ppm	-0.5 ppm *B72024*	±10 ppm *CO,O2,BALN*	200 ppm	Unit online; Passed

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/9/2024 4:09 PM	NOx ppm	High	Span	180.8 ppm	179.9 ppm	-0.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/9/2024 4:09 PM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/9/2024 4:09 PM	NOx ppm	Low	Span	9.06 ppm	9.09 ppm	0.03 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/9/2024 4:09 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/9/2024 4:09 PM	75-NOx ppm	High	Span	180.8 ppm	179.9 ppm	-0.9 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/9/2024 4:09 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/9/2024 4:09 PM	75-NOx ppm	Low	Span	9.06 ppm	9.09 ppm	0.03 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/9/2024 4:09 PM	CO ppm	High	Zero	0.0 ppm	0.1 ppm	0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/9/2024 4:09 PM	CO ppm	High	Span	183.2 ppm	187.9 ppm	4.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/9/2024 4:09 PM	CO ppm	Low	Zero	0.00 ppm	0.14 ppm	0.14 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/9/2024 4:09 PM	CO ppm	Low	Span	9.20 ppm	9.56 ppm	0.36 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/9/2024 4:09 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/9/2024 4:09 PM	NH3/NOx ppm	High	Span	180.8 ppm	179.3 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/9/2024 4:09 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.14 ppm	0.14 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/9/2024 4:09 PM	NH3/NOx ppm	Low	Span	9.06 ppm	9.19 ppm	0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/9/2024 4:09 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/9/2024 4:09 PM	O2 %	Single	Span	22.49%	22.49%	0%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/9/2024 4:09 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/9/2024 4:09 PM	75-O2 %	Single	Span	22.49%	22.49%	0%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/10/2024 4:24 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/10/2024 4:24 PM	NOx ppm	High	Span	180.8 ppm	179.3 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/10/2024 4:24 PM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/10/2024 4:24 PM	NOx ppm	Low	Span	9.06 ppm	9.03 ppm	-0.03 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/10/2024 4:24 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/10/2024 4:24 PM	75-NOx ppm	High	Span	180.8 ppm	179.3 ppm	-1.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/10/2024 4:24 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/10/2024 4:24 PM	75-NOx ppm	Low	Span	9.06 ppm	9.03 ppm	-0.03 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/10/2024 4:24 PM	CO ppm	High	Zero	0.0 ppm	0.0 ppm	0 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/10/2024 4:24 PM	CO ppm	High	Span	183.2 ppm	188.4 ppm	5.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/10/2024 4:24 PM	CO ppm	Low	Zero	0.00 ppm	0.08 ppm	0.08 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/10/2024 4:24 PM	CO ppm	Low	Span	9.20 ppm	9.32 ppm	0.12 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/10/2024 4:24 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/10/2024 4:24 PM	NH3/NOx ppm	High	Span	180.8 ppm	178.7 ppm	-2.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/10/2024 4:24 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.16 ppm	0.16 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/10/2024 4:24 PM	NH3/NOx ppm	Low	Span	9.06 ppm	9.15 ppm	0.09 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC208640	*2/28/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/10/2024 4:24 PM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/10/2024 4:24 PM	O2 %	Single	Span	22.49%	22.48%	-0.01%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/10/2024 4:24 PM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			SG9167829BAL	*3/20/2032*		*B32024*	*NO,NOX,BALN*		
11/10/2024 4:24 PM	75-O2 %	Single	Span	22.49%	22.48%	-0.01%	±1%	25%	Unit online; Passed
			CC208368	*6/24/2032*		*B72024*	*CO,O2,BALN*		
11/12/2024 4:24 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/12/2024 4:24 PM	NOx ppm	High	Span	178.7 ppm	177.4 ppm	-1.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/12/2024 4:24 PM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/12/2024 4:24 PM	NOx ppm	Low	Span	8.94 ppm	8.88 ppm	-0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/12/2024 4:24 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/12/2024 4:24 PM	75-NOx ppm	High	Span	178.7 ppm	177.4 ppm	-1.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/12/2024 4:24 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/12/2024 4:24 PM	75-NOx ppm	Low	Span	8.94 ppm	8.88 ppm	-0.06 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/12/2024 4:24 PM	CO ppm	High	Zero	0.0 ppm	0.0 ppm	0 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/12/2024 4:24 PM	CO ppm	High	Span	181.7 ppm	180.0 ppm	-1.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/12/2024 4:24 PM	CO ppm	Low	Zero	0.00 ppm	-0.15 ppm	-0.15 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/12/2024 4:24 PM	CO ppm	Low	Span	9.00 ppm	8.81 ppm	-0.19 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/12/2024 4:24 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/12/2024 4:24 PM	NH3/NOx ppm	High	Span	178.7 ppm	176.6 ppm	-2.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/12/2024 4:24 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.14 ppm	0.14 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/12/2024 4:24 PM	NH3/NOx ppm	Low	Span	8.94 ppm	8.96 ppm	0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/12/2024 4:24 PM	O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/12/2024 4:24 PM	O2 %	Single	Span	22.66%	22.68%	0.02%	±1%	25%	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/12/2024 4:24 PM	75-O2 %	Single	Zero	0.00%	0.00%	0%	±1%	25%	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/12/2024 4:24 PM	75-O2 %	Single	Span	22.66%	22.68%	0.02%	±1%	25%	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/14/2024 8:39 AM	NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/14/2024 8:39 AM	NOx ppm	High	Span	178.7 ppm	178.2 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/14/2024 8:39 AM	NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/14/2024 8:39 AM	NOx ppm	Low	Span	8.94 ppm	8.87 ppm	-0.07 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/14/2024 8:39 AM	75-NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/14/2024 8:39 AM	75-NOx ppm	High	Span	178.7 ppm	178.2 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/14/2024 8:39 AM	75-NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/14/2024 8:39 AM	75-NOx ppm	Low	Span	8.94 ppm	8.87 ppm	-0.07 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/14/2024 8:39 AM	CO ppm	High	Zero	0.0 ppm	-0.1 ppm	-0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/14/2024 8:39 AM	CO ppm	High	Span	181.7 ppm	181.8 ppm	0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/14/2024 8:39 AM	CO ppm	Low	Zero	0.00 ppm	-0.25 ppm	-0.25 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/14/2024 8:39 AM	CO ppm	Low	Span	9.00 ppm	8.82 ppm	-0.18 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/14/2024 8:39 AM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/14/2024 8:39 AM	NH3/NOx ppm	High	Span	178.7 ppm	177.0 ppm	-1.7 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/14/2024 8:39 AM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.09 ppm	0.09 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/14/2024 8:39 AM	NH3/NOx ppm	Low	Span	8.94 ppm	8.95 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/14/2024 8:39 AM	O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/14/2024 8:39 AM	O2 %	Single	Span	22.66%	22.69%	0.03%	±1%	25%	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/14/2024 8:39 AM	75-O2 %	Single	Zero	0.00%	0.01%	0.01%	±1%	25%	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/14/2024 8:39 AM	75-O2 %	Single	Span	22.66%	22.69%	0.03%	±1%	25%	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/19/2024 8:39 AM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/19/2024 8:39 AM	NOx ppm	High	Span	178.7 ppm	178.2 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/19/2024 8:39 AM	NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/19/2024 8:39 AM	NOx ppm	Low	Span	8.94 ppm	8.86 ppm	-0.08 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/19/2024 8:39 AM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/19/2024 8:39 AM	75-NOx ppm	High	Span	178.7 ppm	178.2 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/19/2024 8:39 AM	75-NOx ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/19/2024 8:39 AM	75-NOx ppm	Low	Span	8.94 ppm	8.86 ppm	-0.08 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/19/2024 8:39 AM	CO ppm	High	Zero	0.0 ppm	0.0 ppm	0 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/19/2024 8:39 AM	CO ppm	High	Span	181.7 ppm	177.5 ppm	-4.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/19/2024 8:39 AM	CO ppm	Low	Zero	0.00 ppm	0.01 ppm	0.01 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/19/2024 8:39 AM	CO ppm	Low	Span	9.00 ppm	8.63 ppm	-0.37 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/19/2024 8:39 AM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/19/2024 8:39 AM	NH3/NOx ppm	High	Span	178.7 ppm	176.6 ppm	-2.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/19/2024 8:39 AM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.10 ppm	0.1 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/19/2024 8:39 AM	NH3/NOx ppm	Low	Span	8.94 ppm	8.92 ppm	-0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/19/2024 8:39 AM	O2 %	Single	Zero	0.00%	0.02%	0.02%	±1%	25%	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/19/2024 8:39 AM	O2 %	Single	Span	22.66%	22.69%	0.03%	±1%	25%	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/19/2024 8:39 AM	75-O2 %	Single	Zero	0.00%	0.02%	0.02%	±1%	25%	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/19/2024 8:39 AM	75-O2 %	Single	Span	22.66%	22.69%	0.03%	±1%	25%	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/29/2024 3:24 PM	NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/29/2024 3:24 PM	NOx ppm	High	Span	178.7 ppm	178.1 ppm	-0.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/29/2024 3:24 PM	NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/29/2024 3:24 PM	NOx ppm	Low	Span	8.94 ppm	8.88 ppm	-0.06 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/29/2024 3:24 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.5 ppm	-0.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/29/2024 3:24 PM	75-NOx ppm	High	Span	178.7 ppm	178.1 ppm	-0.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
11/29/2024 3:24 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.02 ppm	0.02 ppm	±5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/29/2024 3:24 PM	75-NOx ppm	Low	Span	8.94 ppm	8.88 ppm	-0.06 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/29/2024 3:24 PM	CO ppm	High	Zero	0.0 ppm	-0.6 ppm	-0.6 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/29/2024 3:24 PM	CO ppm	High	Span	181.7 ppm	183.8 ppm	2.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/29/2024 3:24 PM	CO ppm	Low	Zero	0.00 ppm	-0.36 ppm	-0.36 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/29/2024 3:24 PM	CO ppm	Low	Span	9.00 ppm	9.11 ppm	0.11 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/29/2024 3:24 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/29/2024 3:24 PM	NH3/NOx ppm	High	Span	178.7 ppm	178.9 ppm	0.2 ppm	±10 ppm	200 ppm	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/29/2024 3:24 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.13 ppm	0.13 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/29/2024 3:24 PM	NH3/NOx ppm	Low	Span	8.94 ppm	9.18 ppm	0.24 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC323570	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
11/29/2024 3:24 PM	O2 %	Single	Zero	0.00%	0.07%	0.07%	±1%	25%	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/29/2024 3:24 PM	O2 %	Single	Span	22.66%	22.75%	0.09%	±1%	25%	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
11/29/2024 3:24 PM	75-O2 %	Single	Zero	0.00%	0.07%	0.07%	±1%	25%	Unit online; Passed
			CC48857	*5/14/2032*		*B32024*	*NO,NOX,BALN*		
11/29/2024 3:24 PM	75-O2 %	Single	Span	22.66%	22.75%	0.09%	±1%	25%	Unit online; Passed
			ALM018596	*8/2/2032*		*B72024*	*CO,O2,BALN*		
12/18/2024 12:39 PM	NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0094160	*9/16/2032*		*B72024*	*CO,O2,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID	*Expiration Date*		*EPA Vendor ID*	*EPA Gas Type Codes*		
12/18/2024 12:39 PM	NOx ppm	High	Span	180.3 ppm	180.0 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM033538	*8/13/2032*		*B32024*	*NO,NOX,BALN*		
12/18/2024 12:39 PM	NOx ppm	Low	Zero	0.00 ppm	0.04 ppm	0.04 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0094160	*9/16/2032*		*B72024*	*CO,O2,BALN*		
12/18/2024 12:39 PM	NOx ppm	Low	Span	8.95 ppm	8.84 ppm	-0.11 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC284977	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
12/18/2024 12:39 PM	75-NOx ppm	High	Zero	0.0 ppm	-0.4 ppm	-0.4 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0094160	*9/16/2032*		*B72024*	*CO,O2,BALN*		
12/18/2024 12:39 PM	75-NOx ppm	High	Span	180.3 ppm	180.0 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM033538	*8/13/2032*		*B32024*	*NO,NOX,BALN*		
12/18/2024 12:39 PM	75-NOx ppm	Low	Zero	0.00 ppm	0.04 ppm	0.04 ppm	±5 ppm	10 ppm	Unit online; Passed
			EB0094160	*9/16/2032*		*B72024*	*CO,O2,BALN*		
12/18/2024 12:39 PM	75-NOx ppm	Low	Span	8.95 ppm	8.84 ppm	-0.11 ppm	±5 ppm	10 ppm	Unit online; Passed
			CC284977	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
12/18/2024 12:39 PM	CC ppm	High	Zero	0.0 ppm	0.1 ppm	0.1 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM033538	*8/13/2032*		*B32024*	*NO,NOX,BALN*		
12/18/2024 12:39 PM	CO ppm	High	Span	182.0 ppm	183.8 ppm	1.8 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0094160	*9/16/2032*		*B72024*	*CO,O2,BALN*		
12/18/2024 12:39 PM	CO ppm	Low	Zero	0.00 ppm	0.10 ppm	0.1 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			ALM033538	*8/13/2032*		*B32024*	*NO,NOX,BALN*		
12/18/2024 12:39 PM	CO ppm	Low	Span	9.00 ppm	8.98 ppm	-0.02 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC284977	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		
12/18/2024 12:39 PM	NH3/NOx ppm	High	Zero	0.0 ppm	-0.3 ppm	-0.3 ppm	±10 ppm	200 ppm	Unit online; Passed
			EB0094160	*9/16/2032*		*B72024*	*CO,O2,BALN*		
12/18/2024 12:39 PM	NH3/NOx ppm	High	Span	180.3 ppm	177.8 ppm	-2.5 ppm	±10 ppm	200 ppm	Unit online; Passed
			ALM033538	*8/13/2032*		*B32024*	*NO,NOX,BALN*		
12/18/2024 12:39 PM	NH3/NOx ppm	Low	Zero	0.00 ppm	0.20 ppm	0.2 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			EB0094160	*9/16/2032*		*B72024*	*CO,O2,BALN*		
12/18/2024 12:39 PM	NH3/NOx ppm	Low	Span	8.95 ppm	9.06 ppm	0.11 ppm	±0.5 ppm	10 ppm	Unit online; Passed
			CC284977	*5/30/2027*		*B32024*	*CO,NO,NOX,BALN*		

Date/Time	Parameter	Analyzer Scale	Test Level	Reference Value	Measured Value	Actual Drift	Allowable Drift	Instrument Span	Results
			Cylinder ID		*Expiration Date*	*EPA Vendor ID*	*EPA Gas Type Codes*		
12/18/2024 12:39 PM	O2 %	Single	Zero	0.00%	0.04%	0.04%	±1%	25%	Unit online; Passed
			ALM033538		*8/13/2032*	*B32024*	*NO,NOX,BALN*		
12/18/2024 12:39 PM	O2 %	Single	Span	22.52%	22.63%	0.11%	±1%	25%	Unit online; Passed
			EB0094160		*9/16/2032*	*B72024*	*CO,O2,BALN*		
12/18/2024 12:39 PM	75-O2 %	Single	Zero	0.00%	0.04%	0.04%	±1%	25%	Unit online; Passed
			ALM033538		*8/13/2032*	*B32024*	*NO,NOX,BALN*		
12/18/2024 12:39 PM	75-O2 %	Single	Span	22.52%	22.63%	0.11%	±1%	25%	Unit online; Passed
			EB0094160		*9/16/2032*	*B72024*	*CO,O2,BALN*		

Attachment 4

SCR and CO Catalyst Temperature and Pressure Devices Calibrations Records

Instrumentation Calibration Record
McGrath Peaker

46

Peaker & Solar Generation Division

Instrument Number	PDIT-402
Instrument Name	Co Catalyst Pres Drop Transmitter W/ Ind (B-255-PDIT-402)

Zero	0	Span	5	Units	"WG

Alarm 1 Setpoint		Alarm 2 Setpoint	
Alarm 1 Inc/Dec		Alarm 2 Inc/Dec	

◎ Span Calibration- Found	0%	4.02	25	8.03	50%	12.02	75%	16.06	100%	20.02
◎ Span Calibration- Left	0%	4.02	25	8.03	50%	12.02	75%	16.06	100%	20.02

○ Switch Calibration	Setpoint Found		Setpoint Left

System	NH3 System
Location	NH3 Service Platform

Technician	S. Akers	Completion Date	5-24-24

Manufacturer	Emerson	Manufacturer	Mariam
Model	475 FC	Model	M2 Series
Serial Number	1111234	Serial Number	0842102 463
Calibration Due Date		Calibration Due Date	2-14-25

Instrumentation Calibration Record
McGrath Peaker

4/8

Peaker & Solar Generation Division

Instrument Number	PDIT-403
Instrument Name	SCR Catalyst Pres Drop Transmitter W/ Ind (B-255-PDIT-403)

Zero	0	Span	10	Units	"WG
Alarm 1 Setpoint			Alarm 2 Setpoint		
Alarm 1 Inc/Dec			Alarm 2 Inc/Dec		

	0%	25	50%	75%	100%
◎ Span Calibration- Found	4.00	8.00	12.00	16.04	20.04
◎ Span Calibration- Left	4.00	8.00	12.00	16.04	20.04

○ Switch Calibration Setpoint Found _____ Setpoint Left _____

System	NH3 System
Location	NH3 Service Platform
Technician	S. Akers
Completion Date	5-24-24

Manufacturer	Emerson	Manufacturer	Meriam
Model	475 FC	Model	M2 Series
Serial Number	11112341	Serial Number	0842102463
Calibration Due Date		Calibration Due Date	2-14-25

Instrumentation Calibration Record
McGrath Peaker

T1

Peaker & Solar Generation Division

Instrument Number	TE-402A
Instrument Name	CO Catalyst Inlet Temp (B-255-TE-402A)

Zero	Amb T	Span	1000	Units °F
Alarm 1 Setpoint		Alarm 2 Setpoint		
Alarm 1 Inc/Dec		Alarm 2 Inc/Dec		

	0%	25	50%	75%	100%
	66.0	250	500	750	1000
○ Span Calibration-Found	66.3	250.9	501.3	750.4	1001.1
○ Span Calibration-Left	66.3	250.9	501.3	750.4	1001.1

○ Switch Calibration Setpoint Found _____ Setpoint Left _____

System	
Location	
Technician	KRAUSE / BAILEY
Completion Date	5-21-2024

Manufacturer	AMETEK	Manufacturer	FLUKE 9144
Model	JOFRA CSC 200	Model	9144
Serial Number	1057001	Serial Number	A86119
Calibration Due Date	2-21-2025	Calibration Due Date	2-09-2025

Instrumentation Calibration Record
McGrath Peaker

T2

Peaker & Solar Generation Division

Instrument Number	TE-402B
Instrument Name	CO Catalyst Inlet Temp (B-255-TE-402B)

Zero	AMB T	Span	1000	Units	°F
Alarm 1 Setpoint			Alarm 2 Setpoint		
Alarm 1 Inc/Dec			Alarm 2 Inc/Dec		

	0%	25	50%	75%	100%
○ Span Calibration- Found	66.0 / 66.1	250 / 250.8	500 / 500.8	750 / 750.1	1000 / 1000.6
○ Span Calibration- Left	66.1	250.3	500.8	750.1	1000.6

○ Switch Calibration Setpoint Found _____ Setpoint Left _____

System	
Location	
Technician	KRAUSE / BAILEY
Completion Date	5-21-2024

Manufacturer	AMETEK	Manufacturer	FLUKE
Model	JOFRA CSC 200	Model	9144
Serial Number	1057001	Serial Number	A86119
Calibration Due Date	2-21-2025	Calibration Due Date	2-09-2025

Instrumentation Calibration Record
McGrath Peaker

T3

Peaker & Solar Generation Division

Instrument Number	TE-403A
Instrument Name	McGrath Scr Catalyst Inlet Temp Element (B-255-TE-403A)

Zero	AMBIENT	Span	1000	Units	°F
Alarm 1 Setpoint			Alarm 2 Setpoint		
Alarm 1 Inc/Dec			Alarm 2 Inc/Dec		

	0%	25	50%	75%	100%
		66.0	250	500	750
Span Calibration-Found	66.6	251.8	501.8	751.9	1001.9
Span Calibration-Left	66.6	251.8	501.8	751.9	1001.9

Switch Calibration Setpoint Found | Setpoint Left

Program	Emmissions Reduction
Location	SCR Catalyst
Technician	KRAUSE/BAILEY
Completion Date	5-21-2024

Manufacturer	AMETEK	Manufacturer	FLUKE
Model	JOFRA CSC 200	Model	9144
Serial Number	1057001	Serial Number	A86119
Calibration Due Date	2-21-2025	Calibration Due Date	2-09-2025

Instrumentation Calibration Record
McGrath Peaker

T4

Peaker & Solar Generation Division

Instrument Number	TE-403B
Instrument Name	McGrath Scr Catalyst Inlet Temp Element (B-255-TE-403B)

Zero	AMBIENT	Span	1000	Units	°F
Alarm 1 Setpoint		Alarm 2 Setpoint			
Alarm 1 Inc/Dec		Alarm 2 Inc/Dec			

	0%	25	50%	75%	100%
	66.0	250	500	750	1000
Span Calibration-Found	65.5	251.2	501.3	751.2	1001.7
Span Calibration-Left	65.5	251.2	501.3	751.2	1001.7

Switch Calibration Setpoint Found: | Setpoint Left:

.em	Emmissions Reduction
Location	SCR Catalyst
Technician	KRAUSE/BAILEY
Completion Date	5-21-2024

Manufacturer	AMETEK	Manufacturer	FLUKE
Model	JOFRA CSC 200	Model	9144
Serial Number	1057001	Serial Number	A86119
Calibration Due Date	2-21-2025	Calibration Due Date	2-09-2025

Instrumentation Calibration Record
McGrath Peaker

TS

Peaker & Solar Generation Division

Instrument Number	TE-403C
Instrument Name	McGrath Scr Catalyst Inlet Temp Element (B-255-TE-403C)

Zero	AMBIENT	Span	1000	Units	°F
Alarm 1 Setpoint			Alarm 2 Setpoint		
Alarm 1 Inc/Dec			Alarm 2 Inc/Dec		

	0%	25	50%	75%	100%
	66.0	250	500	750	1000
Span Calibration-Found	66.2	251.1	501.5	751.8	1002.4
Span Calibration-Left	66.2	251.1	501.5	751.8	1002.4

Switch Calibration	Setpoint Found		Setpoint Left

.em	Emmissions Reduction
Location	SCR Catalyst
Technician	KRAUSE/BAILEY
Completion Date	5-21-2024

Manufacturer	AMETEK	Manufacturer	FLUKE
Model	JOFRA CSC 200	Model	9144
Serial Number	1057001	Serial Number	A86119
Calibration Due Date	2-21-2025	Calibration Due Date	2-09-2025

Instrumentation Calibration Record
McGrath Peaker

T6

Peaker & Solar Generation Division

Instrument Number	TE-403D
Instrument Name	McGrath Scr Catalyst Inlet Temp Element (B-255-TE-403D)

Zero	AMPIENT	Span	1000	Units	°F
Alarm 1 Setpoint			Alarm 2 Setpoint		
Alarm 1 Inc/Dec			Alarm 2 Inc/Dec		

	0%	25	50%	75%	100%
	66.0	250	500	750	1000
Span Calibration- Found	66.5	251.2	501.4	751.6	1001.7
Span Calibration- Left	66.5	251.2	501.4	751.6	1001.7

Switch Calibration Setpoint Found: | Setpoint Left:

.em	Emmissions Reduction
Location	SCR Catalyst
Technician	KRAUSE / BAILEY
Completion Date	5-21-2024

Manufacturer	AMETEK	Manufacturer	FLUKE
Model	JOFRA CSC 200	Model	9144
Serial Number	1057001	Serial Number	A86119
Calibration Due Date	2-21-2025	Calibration Due Date	2-09-2025

Instrumentation Calibration Record
McGrath Peaker

T 7

Peaker & Solar Generation Division

Instrument Number	TE-404A
Instrument Name	McGrath Scr Catalyst Outlet Temp Element (B-255-TE-404A)

Zero	AMBIENT	Span	1000	Units	°F
Alarm 1 Setpoint			Alarm 2 Setpoint		
Alarm 1 Inc/Dec			Alarm 2 Inc/Dec		

	0%	25	50%	75%	100%
	66.0	250	500	750	1000
Span Calibration-Found	66.2	251.1	501.3	751.5	1001.5
Span Calibration-Left	66.2	251.1	501.3	751.5	1001.5

Switch Calibration Setpoint Found | Setpoint Left

: .m	Emmissions Reduction
Location	SCR Catalyst
Technician	KRAUSE/BAILEY
Completion Date	5-21-2024

Manufacturer	AMETEK	Manufacturer	FLUKE
Model	JOFRA CSC 200	Model	9144
Serial Number	1057001	Serial Number	A86119
Calibration Due Date	2-21-2025	Calibration Due Date	2-09-2025

Instrumentation Calibration Record
McGrath Peaker

T 8

Peaker & Solar Generation Division

Instrument Number	TE-404B
Instrument Name	McGrath Scr Catalyst Outlet Temp Element (B-255-TE-404B)

Zero	AMBIENT	Span	1000	Units	°F
Alarm 1 Setpoint			Alarm 2 Setpoint		
Alarm 1 Inc/Dec			Alarm 2 Inc/Dec		

	0%	25	50%	75%	100%
	66.0	250	500	750	1000
Span Calibration-Found	66.1	251.1	501.8	751.8	1002.9
Span Calibration-Left	66.1	251.1	501.8	751.8	1002.9

Switch Calibration Setpoint Found: | Setpoint Left:

.em	Emmissions Reduction
Location	SCR Catalyst
Technician	KRAUSE/BAILEY
Completion Date	5-21-2024

Manufacturer	AMETEK	Manufacturer	FLUKE
Model	JOFRA CSC 200	Model	9144
Serial Number	1057001	Serial Number	A86119
Calibration Due Date	2-21-2025	Calibration Due Date	2-09-2025

Attachment 5

Gas Fuel and Ammonia Flow Meters Calibrations Records

Meter Maintenance & Controls Inc.
The Experts in Flow Control & Automation

1963 Essex Court
Redlands, CA 92373
(909)307-2295 Fax (909)307-2395
www.gommcl.com

Certificate of Calibration

Calibration Date:	5/13/2024
Calibration Due Date:	5/2025
Customer:	Southern California Edison Peaker Unit

Certificate Lot Number:	240513
Technician:	Jeremiah Dominguez
CA Weights & Measures ID:	1918-34086

Calibrated Instrument Data

Equipment ID:	FT-6246 (Sensor), FT-6246 (Flow Converter)	**Manufacturer:**	Yokogawa		
Location:	Unknown-Device shipped to MMCI headquarters for calibration.	**Model Number:**	DY050S1-NBLBA4-2N/L2/KF1/SCT (Sensor), DYAS1-D2N/KF1/SCT (Flow Converter)		
Calibration Description:	Gravimetric calibration with direct totalizer comparison from flow meter to calibration standard indicated below. Flow meter is a 2" vortex style with remote flow converter.	**Serial Number:**	S5G704028 727 (Sensor), S5G704033 727 (Flow Converter)		
			As Found		**As Left**
Notes:	NA	**Adjustment K**	1.0000		1.0000
		mA Output 1:	0 to 354 cf/min		0 to 345 cf/min
		K-Factor:	8.878 Pulses/l		8.878 Pulses/l

Calibration Performance

Status:	Found (Gravimetric calibration of flow meter with direct totalizer comparison to MMCI standard)	**Units:**	US Gallons
		Tolerance:	± 0.80%

Test Rate/min	Sensor Total	Standard	Error Sensor/Standard		Pass/Fail
50	203	204.35	-0.66%		Pass
100	301	302.28	-0.42%		Pass
200	303	304.46	-0.48%		Pass

Status:	Left (Gravimetric calibration of flow meter with direct totalizer comparison to MMCI standard)	**Units:**	US Gallons
		Tolerance:	± 0.80%

Test Rate/min	Sensor Total	Standard	Error Sensor/Standard		Pass/Fail

Calibration Standards

Standard 1:	Gravimetric Prover, MOD: 520, SN: 1329400009, Due: 4/2024, NIST: 220317001
Standard 2:	

Standard 3:	
Standard 4:	

Technician Signature _____

This device has been calibrated using standards traceable to the National Institute of Standards &Technology (NIST). This certificate shall not be reproduced in any form, except in full, without the expressed written consent of MMCI. Please refer to MMCI's contact information above regarding any questions associated with this certificate.

Meter Maintenance & Controls Inc.
The Experts in Flow Control & Automation

1963 Essex Court
Redlands, CA 92373
(909)307-2295 Fax (909)307-2395
www.gommci.com

Certificate of Calibration

Calibration Date:	5/13/2024
Calibration Due Date:	5/2025
Customer:	Southern California Edison Peaker Unit

Certificate Lot Number:	240513
Technician:	Jeremiah Dominguez
CA Weights & Measures ID:	1918-34086

Calibrated Instrument Data

Equipment ID:	FT-6246 (Sensor), FT-6246 (Flow Converter)	**Manufacturer:**		Yokogawa	
Location:	Unknown-Device shipped to MMCI headquarters for calibration.	**Model Number:**		DY050S1-NBLBA4-2N/L2/KF1/SCT (Sensor), DYAS1-D2N/KF1/SCT (Flow Converter)	
Calibration Description:	mA calibration of flow transmitter mA output #1	**Serial Number:**		S5G704028 727 (Sensor), S5G704033 727 (Flow Converter)	
			As Found		**As Left**
Notes:	NA	**Adjustment K**	1.0000		1.0000
		mA Output 1:	0 to 354 cf/min		0 to 345 cf/min
		K-Factor:	8.878 Pulses/l		8.878 Pulses/l

Calibration Performance

Status:	Found (mA calibration of flow transmitter mA output with direct comparison to MMCI standard)	**Units:**	mA
		Tolerance:	± 0.20%

Sensor Simulated mA	Standard Measured	Error Sensor/Standard			Pass/Fail
4.00	4.000	0.00%			Pass
8.00	7.999	0.01%			Pass
12.00	11.998	0.02%			Pass
16.00	15.998	0.01%			Pass
20.00	19.997	0.02%			Pass

Status:	Left (mA calibration of flow transmitter mA output with direct comparison to MMCI standard)	**Units:**	mA
		Tolerance:	± 0.20%

Sensor Simulated mA	Standard Measured	Error Sensor/Standard			Pass/Fail

Calibration Standards

Standard 1:	Druck PM620, SN: 11474184, Due: 6/23/2024, NIST: 19-D9L7X-40-1
Standard 2:	

Standard 3:	
Standard 4:	

Technician Signature 

Meter Maintenance & Controls Inc.
The Experts in Flow Control & Automation

1963 Essex Court
Redlands, CA 92373
(909)307-2295 Fax (909)307-2395
www.gommci.com

Certificate of Calibration

Calibration Date:	5/13/2024
Calibration Due Date:	5/2025
Customer:	Southern California Edison Peaker Unit

Certificate Lot Number:	240513
Technician:	Jeremiah Dominguez
CA Weights & Measures ID:	1918-34086

Calibrated Instrument Data

Equipment ID:	441370	**Manufacturer:**	Micro Motion		
Location:	Unknown	**Model Number:**	CMF025M313NQBUEZZZ (Sensor), 1700R11ABUEZZZ (Xmtr)		
Calibration Description:	Gravimetric calibration with direct totalizer comparison from flow meter to calibration standard indicated below. Flow meter is a 0.25" coriolis with remote transmitter.	**Serial Number:**	14197014 (Sensor), 3157270 (Xmtr)		
			As Found		**As Left**
Notes:	NA	**Flo Cal Factor:**	4.8549		4.8549
		mA Output 1:	0 to 150 lb/hr		0 to 150 lb/hr
		Pulse Out:	1500 pulses/lb		1500 pulses/lb

Calibration Performance

Status:	Found (Gravimetric calibration of flow meter with direct totalizer comparison to MMCI standard)	**Units:**	Pounds
		Tolerance:	± 0.50%

Test Rate/Hour	Sensor Total	Standard	Error Sensor/Standard		Pass/Fail
75	8.054	8.035	0.24%		Pass
100	10.078	10.055	0.23%		Pass
150	12.040	12.025	0.12%		Pass

Status:	Left (Gravimetric calibration of flow meter with direct totalizer comparison to MMCI standard)	**Units:**	Pounds
		Tolerance:	± 0.50%

Test Rate/Hour	Sensor Total	Standard	Error Sensor/Standard		Pass/Fail

Calibration Standards

Standard 1:	Torrey Scale, Mod: L-EQ 10/20, SN: I16-006363, Due: 4/2024, NIST: 220225002
Standard 2:	

Standard 3:	
Standard 4:	

Technician Signature 

This device has been calibrated using standards traceable to the National Institute of Standards &Technology (NIST). This certificate shall not be reproduced in any form, except in full, without the expressed written consent of MMCI. Please refer to MMCI's contact information above regarding any questions associated with this certificate.

Meter Maintenance & Controls Inc.
The Experts in Flow Control & Automation

1963 Essex Court
Redlands, CA 92373
(909)307-2295 Fax (909)307-2395
www.gommci.com

Certificate of Calibration

Calibration Date:	5/13/2024
Calibration Due Date:	5/2025
Customer:	Southern California Edison Peaker Unit

Certificate Lot Number:	240513
Technician:	Jeremiah Dominguez
CA Weights & Measures ID:	1918-34086

Calibrated Instrument Data

Equipment ID:	441370	**Manufacturer:**	Micro Motion		
Location:	Unknown	**Model Number:**	CMF025M313NQBUEZZZ (Sensor), 1700R11ABUEZZZ (Xmtr)		
Calibration Description:	Calibration of transmitter mA output	**Serial Number:**	14197014 (Sensor), 3157270 (Xmtr)		
			As Found		**As Left**
Notes:	NA	**Flo Cal Factor:**	4.8549		4.8549
		mA Output 1:	0 to 150 lb/hr		0 to 150 lb/hr
		Pulse Out:	1500 pulses/lb		1500 pulses/lb

Calibration Performance

Status:	Found (mA calibration of flow transmitter mA output with direct comparison to MMCI standard)	**Units:**	mA
		Tolerance:	± 0.20%

Sensor Simulated mA	Standard Measured	Error Sensor/Standard			Pass/Fail
4.00	3.999	0.03%			Pass
8.00	7.999	0.01%			Pass
12.00	11.998	0.02%			Pass
16.00	15.999	0.01%			Pass
20.00	19.997	0.02%			Pass

Status:	Left (mA calibration of flow transmitter mA output with direct comparison to MMCI standard)	**Units:**	mA
		Tolerance:	± 0.20%

Sensor Simulated mA	Standard Measured	Error Sensor/Standard			Pass/Fail

Calibration Standards

Standard 1:	Druck DPI620, SN: 5561562, Due: 2/28/2026, NIST: 20000371401
Standard 2:	

Standard 3:	
Standard 4:	

Technician Signature _____

Attachment 6

Generator and Engine Specifications

Waukesha VGF Series

A New Look At Reliable, Compact, Low Emission Gas Engines.

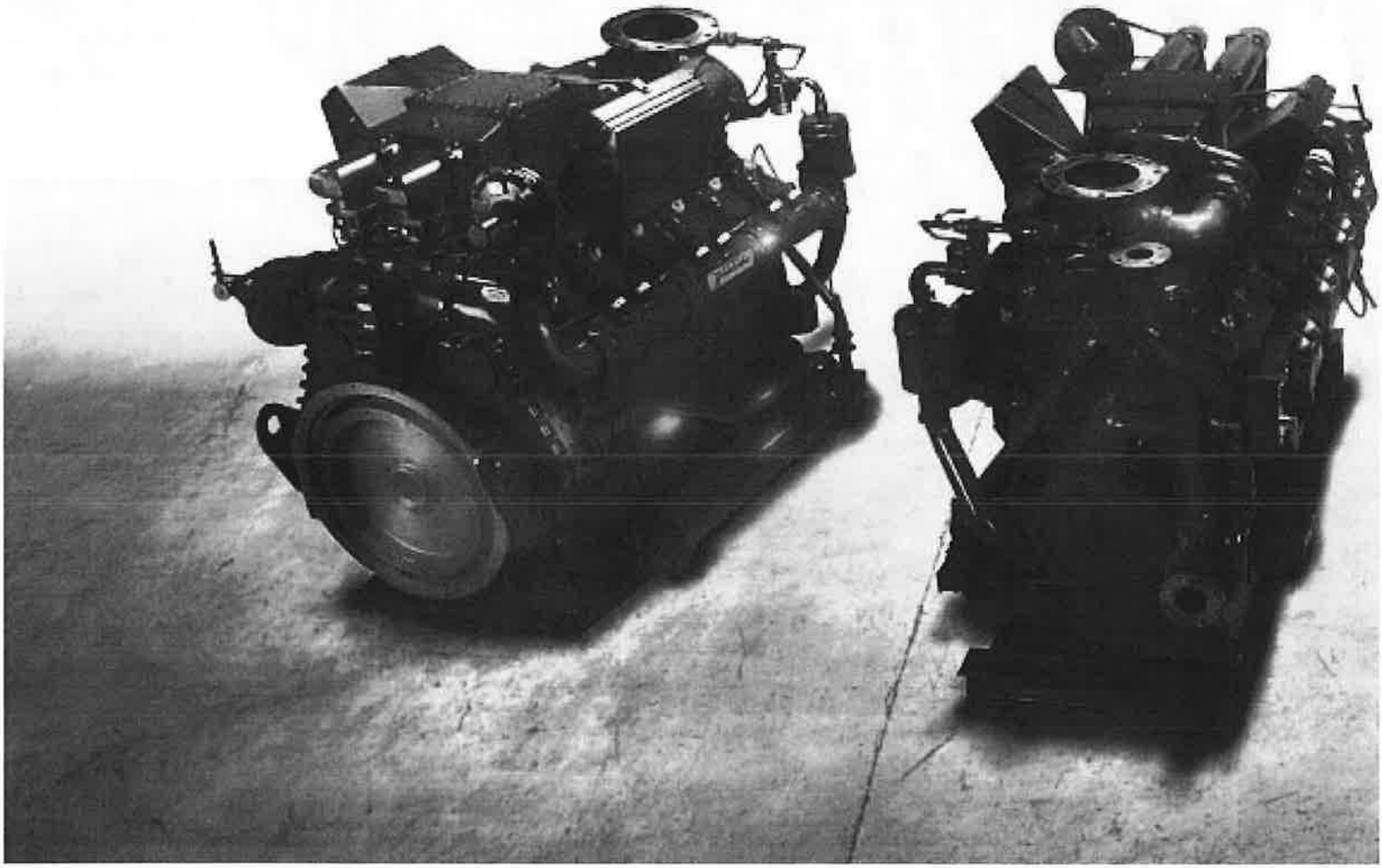
A Family of Compact Engines

Whether you're designing an engine package for a new installation or retrofitting an engine room, space is always an issue. Your customers want more power squeezed into smaller spaces. So, how do you reconcile the need for more power and limited space? Simple, size up the Waukesha VGF family of gas engines. This series of compact, fuel efficient, low emission gas engines comes in 6, 8, 12 and 16 cylinder outputs with both inline and vee configurations to meet almost any installation requirements.

Driving Down the Cost of Horsepower.

This compact engine is purposely designed from the ground up for stationary, spark ignited, gaseous fuel applications. The VGF is not limited to weight-sensitive mobile equipment requirements. Its high weight-to-power ratio provides a solid foundation for years of consistent and dependable operation. For the size and price of other high speed engines, the VGF provides full power around the clock, with substantially reduced maintenance and operating costs. You get more engine, more reliability, more performance, more uptime, and more value – at less cost.

Because of their size to power ratio and high speed continuous-duty capability, VGF engines are remarkably cost-effective to



their "clean" design requires less piping.

Strong Resemblance.

The VGF Series reflects Waukesha's usual robust structural strength, along with sophisticated engineering features. Derived from the design and manufacturing integrity of the classic Waukesha VHP, these engines have inherently long component life. So overhaul intervals will be few and far between. The performance and durability of the VGF Series make this engine line a design classic in itself.

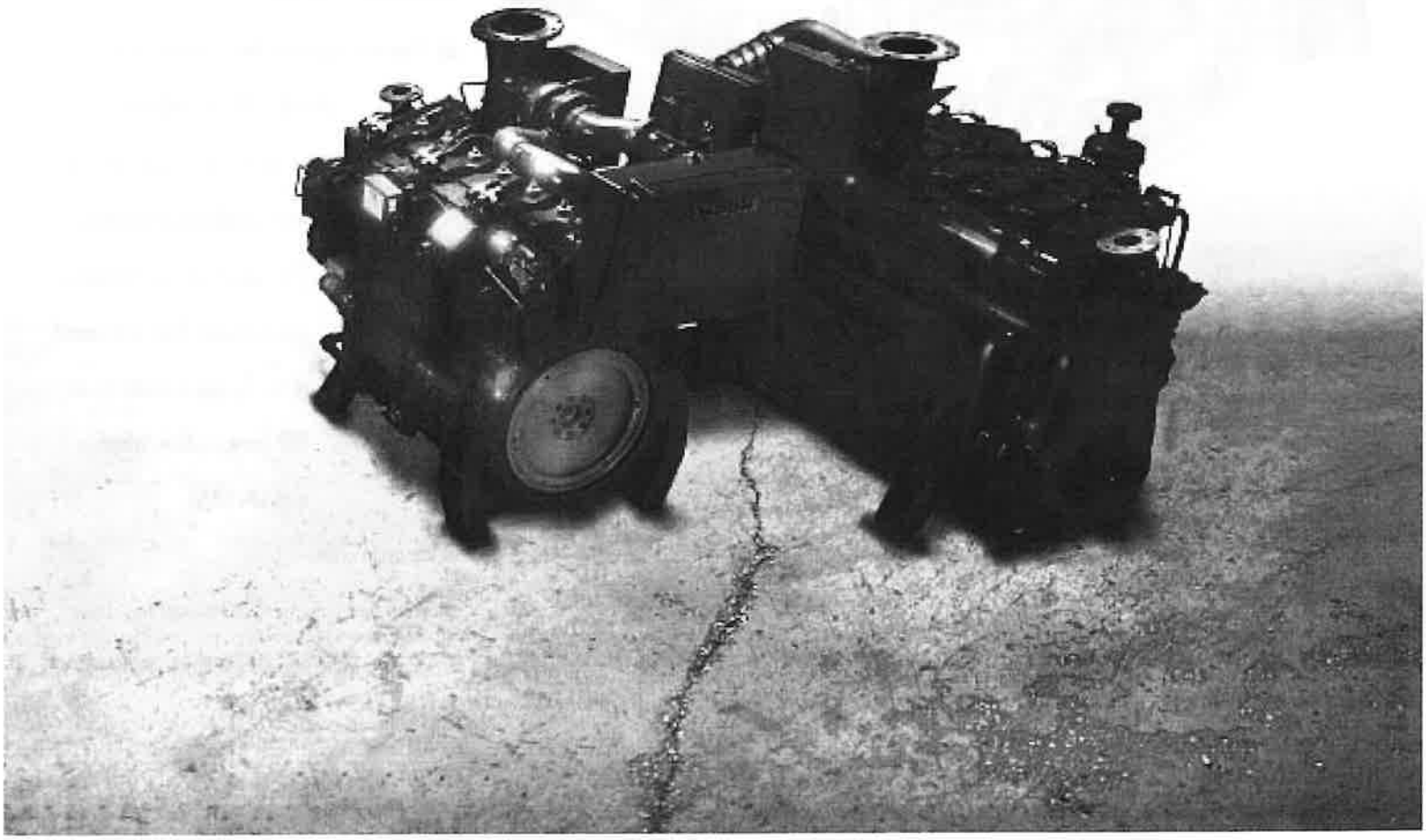
Fast and Lean.

VGF engines lead a clean life, thanks to Waukesha's lean burn technology. Our patented combustion system allows the VGF engine to meet clean air standards throughout the world. (Consult your distributor for site specific requirements.) Both GL (Gas Lean Burn) and GLD (Gas Lean Burn Draw Thru) models are available as standard engines. They are designed to run efficiently with high *or* low fuel pressure systems for maximum application flexibility.

The VGF is also available in a rich burn naturally aspirated version (G) for applications where less horsepower is required or a 3-way catalyst is desired.

The Waukesha VGF Series. Simple to buy. Simple to install. Simple to run. Simple to meet emissions requirements. Simple to maintain. How much simpler can we make your engine choice?

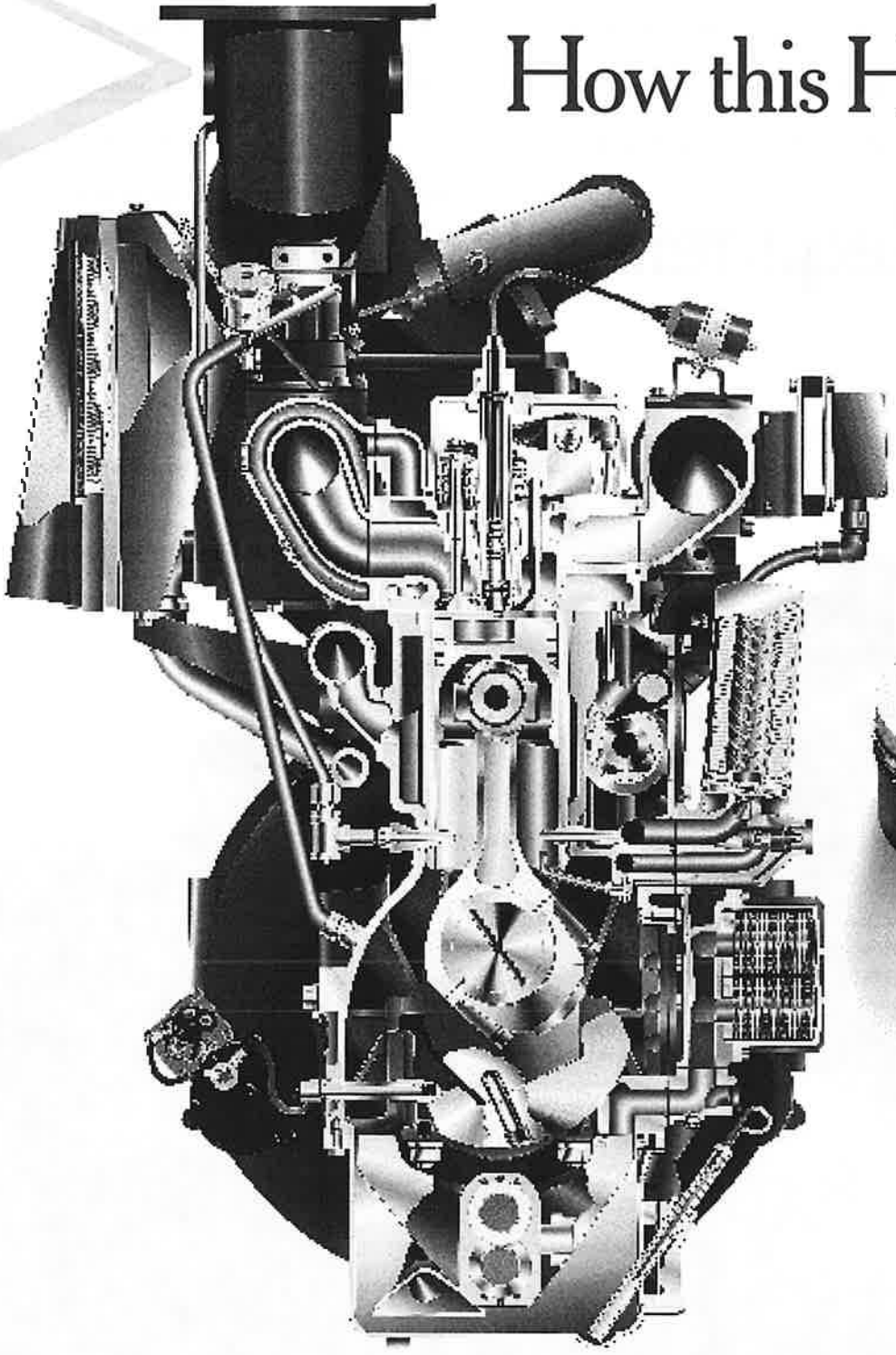
to Fit Your Requirements.



VGF

First of all, we need to drive home a simple point. This is not a warmed over automotive engine designed for occasional rpm spikes. The VGF is industrial strength continuous high rpm horsepower in a range from 160 BHP (120 KWb) to 1065 BHP (800 KWb).

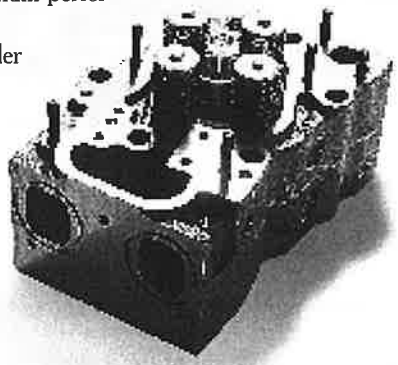
How this Hard-Working



- The *GL (Lean Burn) fuel system and high turbulence combustion chamber* provide excellent fuel efficiency and optimum combustion stability.
- VGF's *optimum BMEP* results in better service life for key components and long maintenance intervals.
- *Patented high turbulence combustion chamber* allows ability to burn lean air fuel mixtures with an open combustion chamber. This produces low emissions across engine load and speed range. It also provides lower fuel consumption, which is typically 91% of life cycle costs.

- *Low fuel pressure GLD model* has draw-thru carburetion capability which increases application potential. It allows operation with

■ *Individual, four valve, water cooled cylinder heads* ensure optimum performance and reliability. Cooler cylinder head operation results in longer valve train component life and lower maintenance cost.



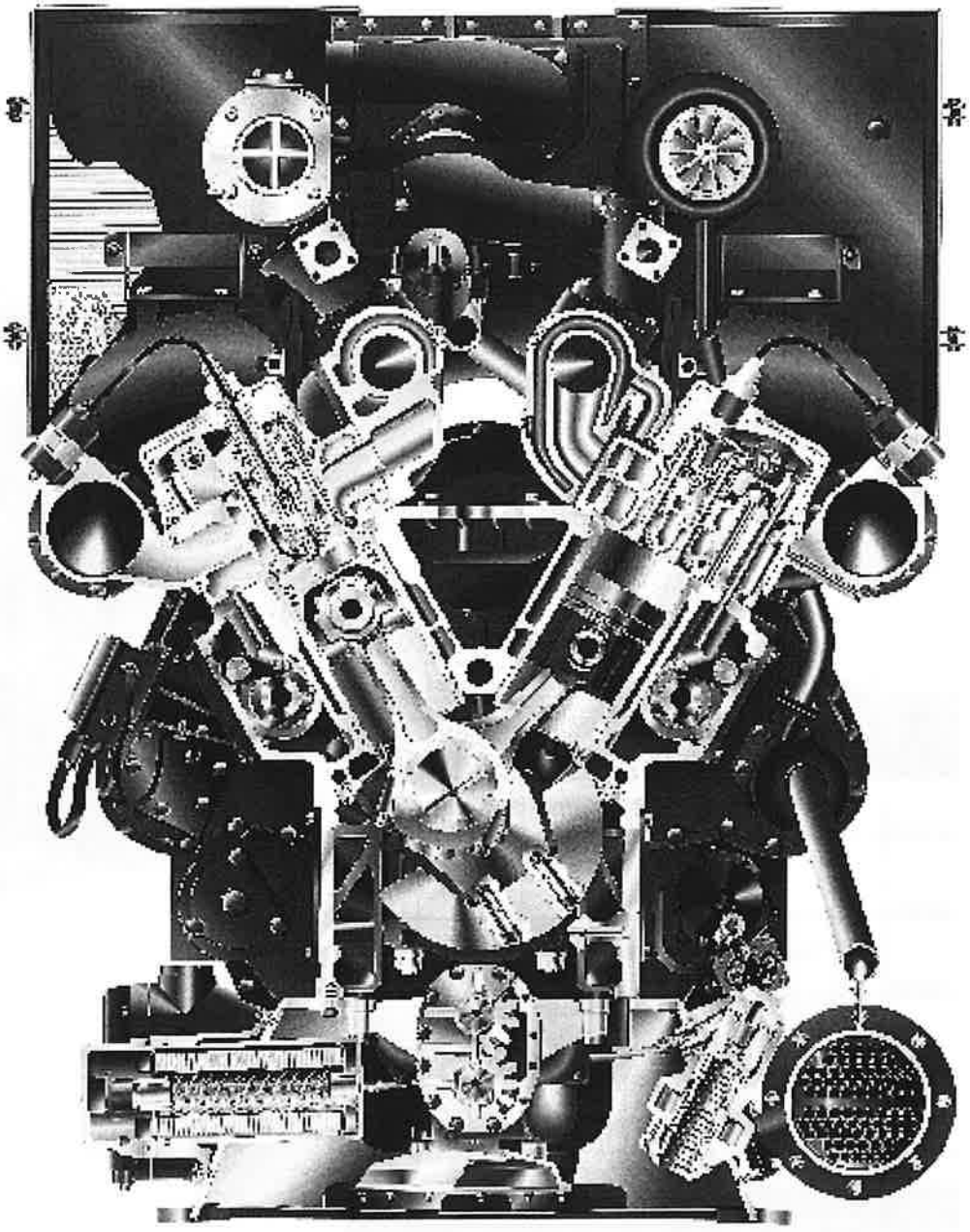
Engine Works so Well.

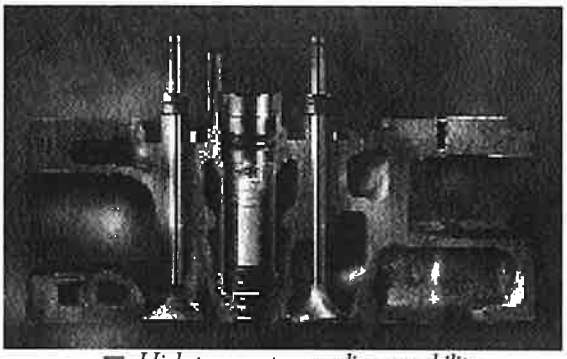
■ Waukesha's *multi-fuel capability* means you have various options for primary fuel requirements – unlike typical dual fuel systems where one fuel is used for primary requirements and the second fuel as back-up. The VGF is adaptable to natural gas and propane as well as digester gas and even landfill gas.

■ Standard *Custom Engine Control*® (CEC) Ignition Module provides precise timing and control for reduced emissions and fuel costs. No wearing parts means consistent ignition performance and lower maintenance costs.

■ Because of the *tremendous torque* of VGF engines, RPMs can be turned down to reduce fuel consumption and still maintain constant torque capability.

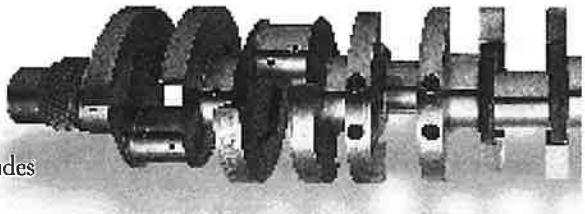
■ When required by local restrictions, the VGF can be ordered in a *rich burn draw*





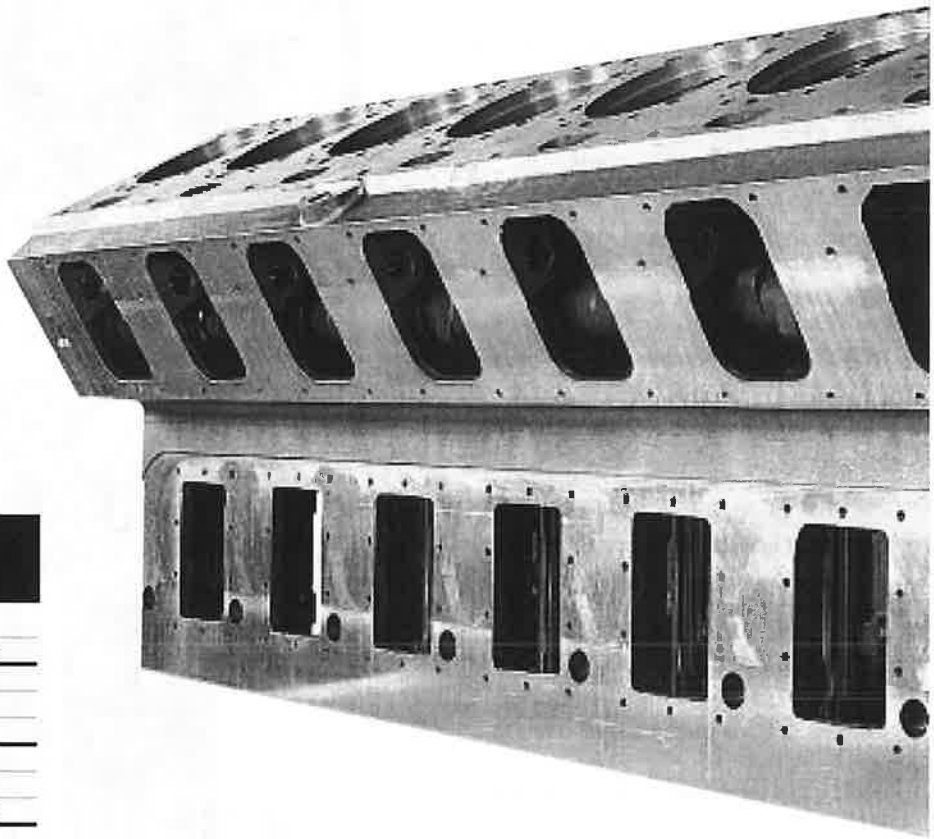
■ *High temperature cooling capability* increases heat recovery opportunities, making the VGF a better fit for chiller or cogeneration applications.

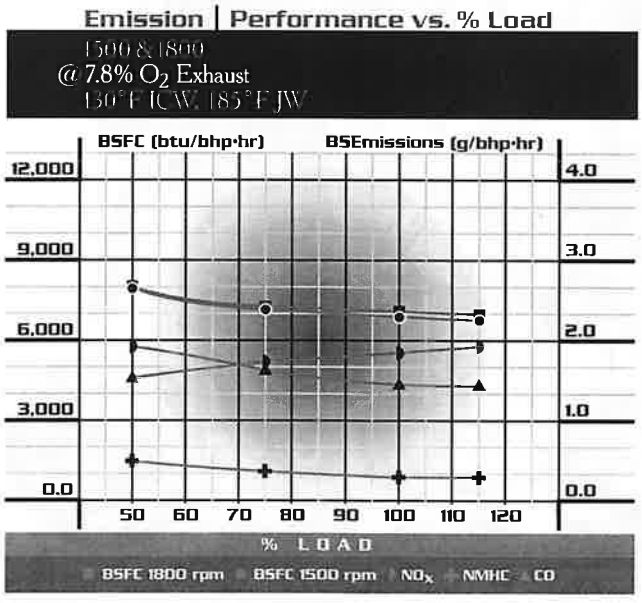
■ Virtually all *wearing components* of the VGF series are *interchangeable* across the VGF engine series. This includes major components – pistons, rings, sleeves, connrods, cylinder heads, bearings and valve train parts. So not only do you have proven component reliability, you have lower parts inventory requirement even if you're running different models of the VGF.

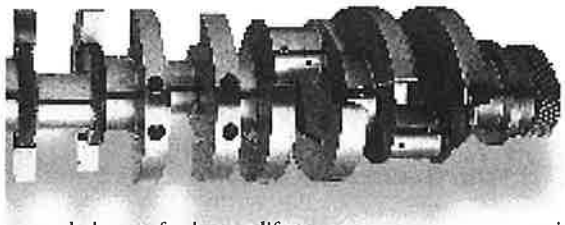


■ *A fully counterweighted crankshaft* helps prevent engine vibration for a smoother running package. It minimizes main and rod bearing loads and maximizes component life. VGF shafts are T-drilled for continuous lubrication of main bearings, keeping them cooler

Engine Performance Refle







and cleaner for longer life.

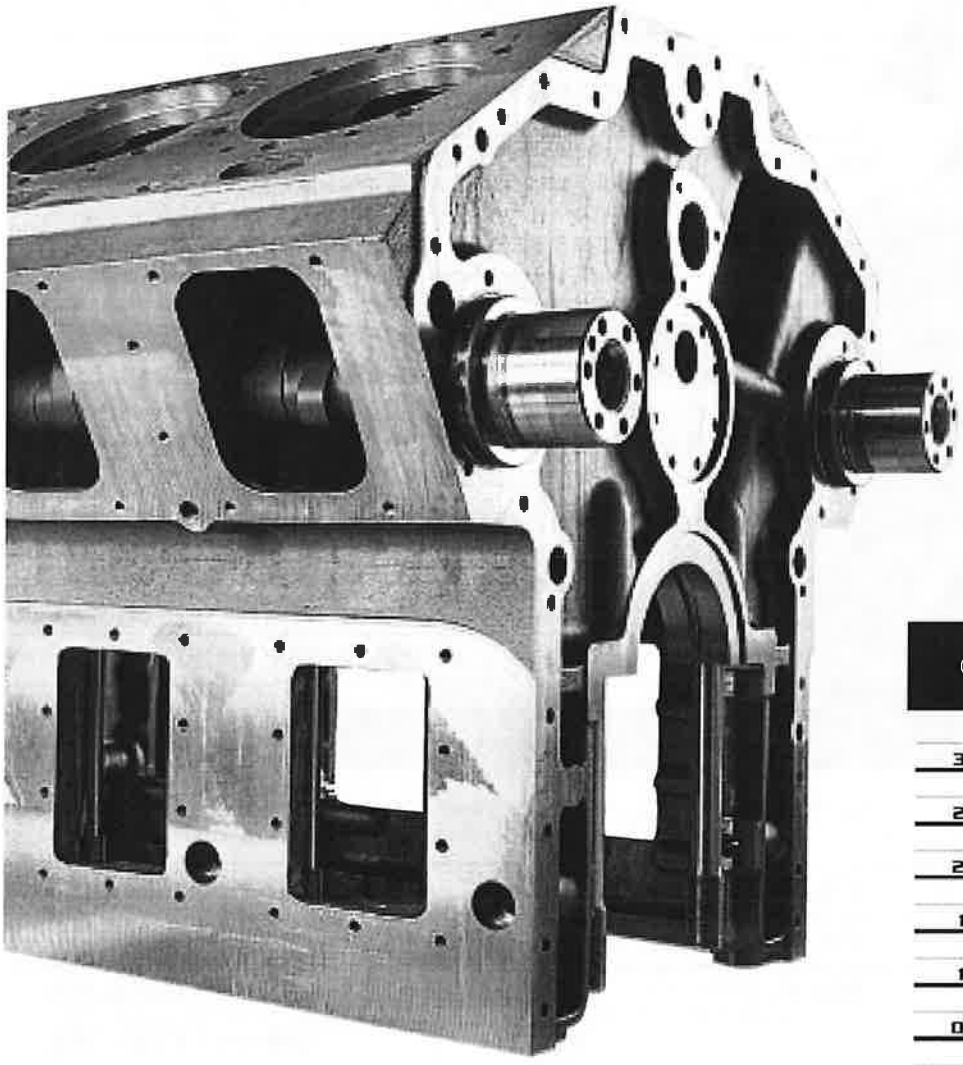
■ *Flanged connection points* make installation and alignment easy. Compact packaging simplifies set-up and adjustments for reduced costs.

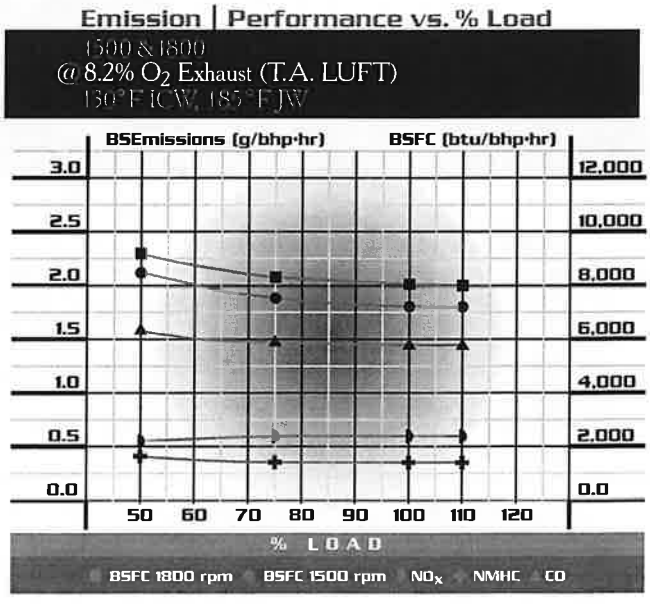
■ *Maintenance is simplified* because the size of the engine and the thoughtful location of service points and controls places everything conveniently within the technician's reach. The VGF engine series allows *complete in-place maintenance and in-frame overhaul.* All VGFs have camshaft and connrod/crankshaft inspection doors. Vee engines have a base-type oil pan with inspection doors.

All these features point to the fact that the VGF is intelligently designed and quality built to provide you with a compact, high speed gas engine in the Waukesha tradition of rugged reliability. This is an engine that will work long and hard for you. And it will have overhaul intervals so far apart you'll forget the meaning of downtime.

When it comes to life cycle numbers, the Waukesha VGF adds up to be the right choice.

cts Company Performance.

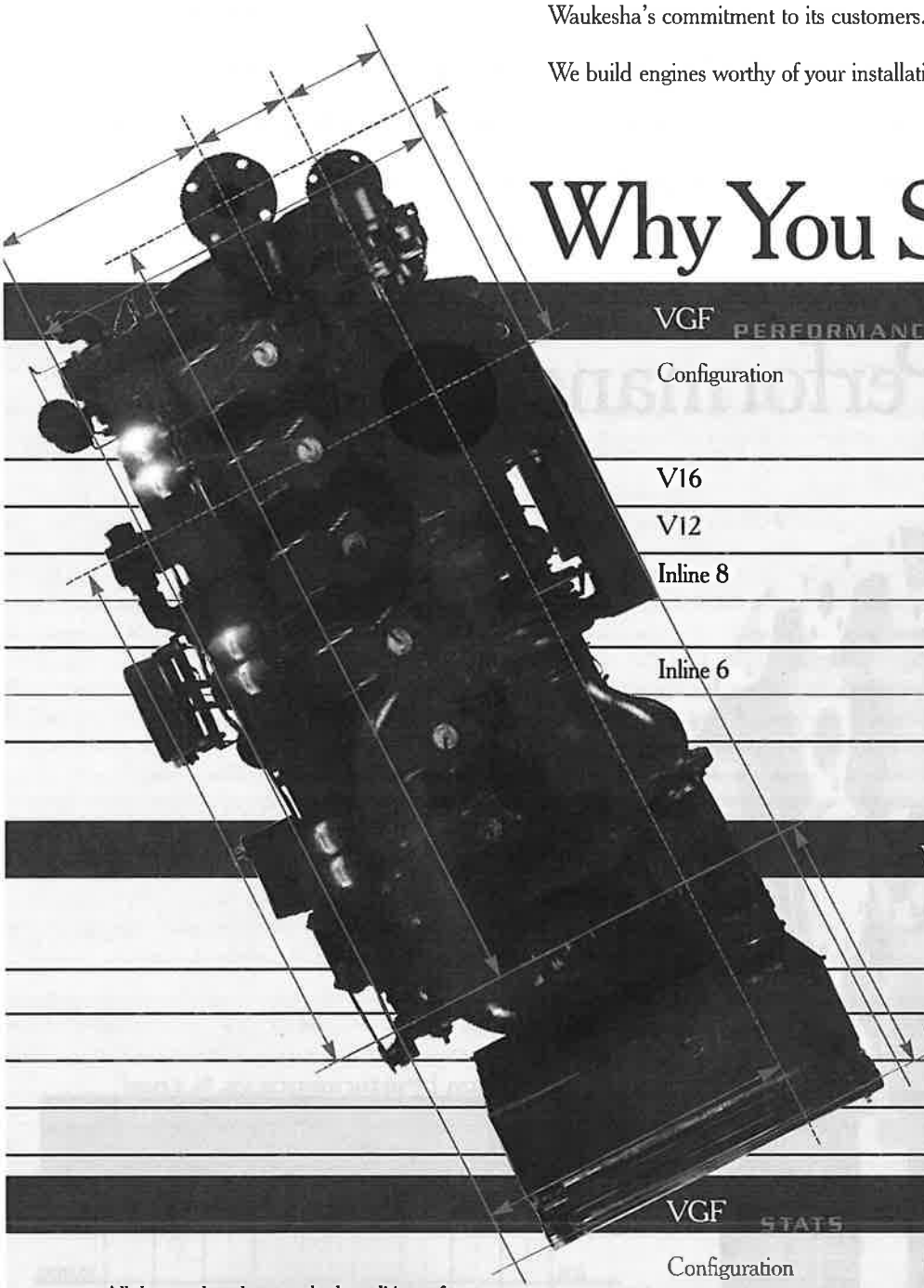




From design and development to manufacturing to total aftermarket support, the VGF family of engines symbolizes Waukesha's commitment to its customers. We build engines worthy of your installation and your investment. And we stand behind them with a worldwide distributor network.

The Best in the Business.

The VGF line is backed by the best warranty of any industrial engine manufacturer. On



Why You Should Specify

VGF PERFORMANCE

Configuration	Engine Model	Intercooler Water Temperature °F (°C)
V16	P48GL/GLD	130° (54°)
V12	L36GL/GLD	130° (54°)
Inline 8	H24GL/GLD	130° (54°)
	H24G	
Inline 6	F18GL/GLD	130° (54°)
	F18G	

VGF STANDBY RATINGS

Configuration	Engine Model
V16	P48GL/GLD
V12	L36GL/GLD
Inline 8	H24GL/GLD
Inline 6	F18GL/GLD

VGF STATS

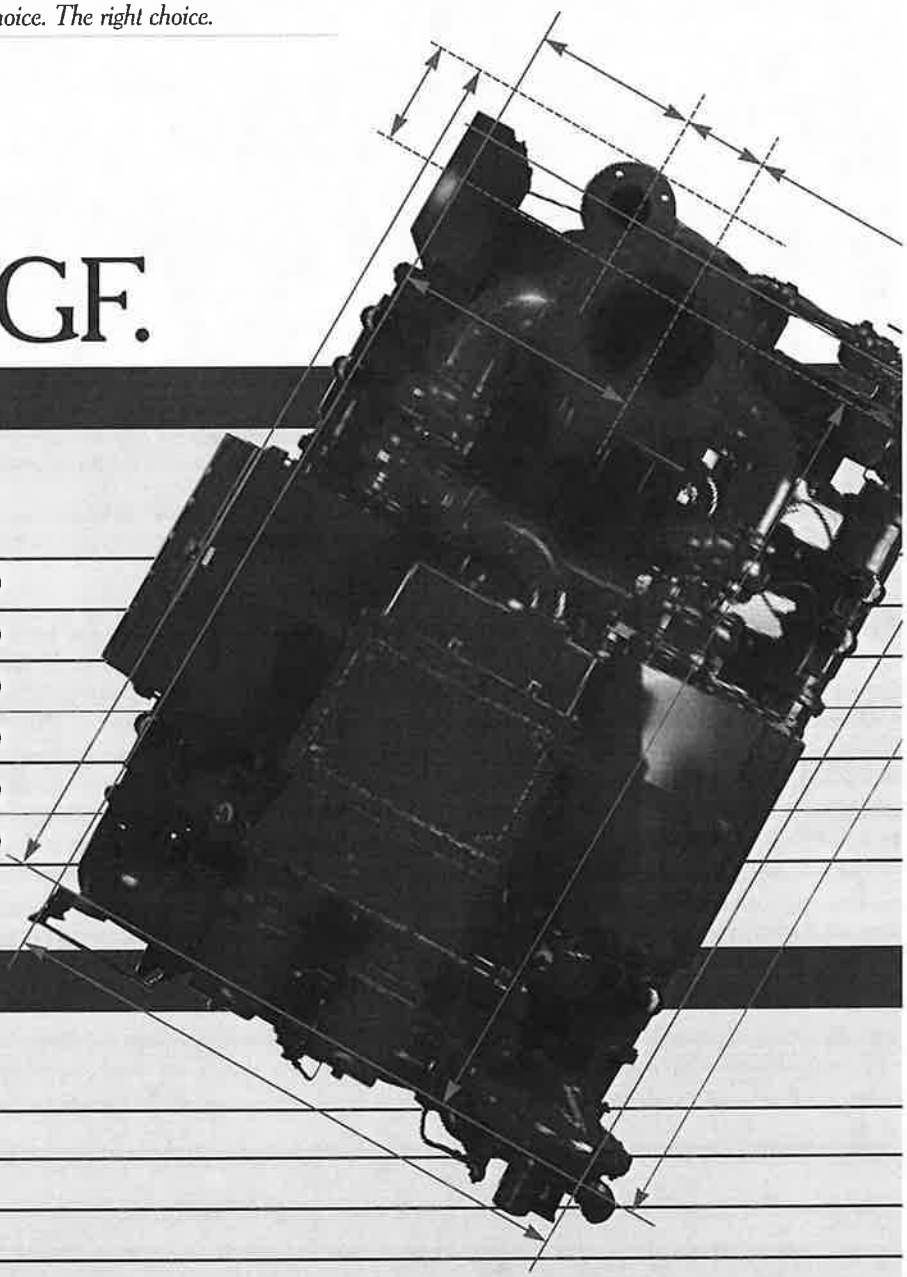
All data are based on standard conditions of 29.54 inches Hg. (100 kPa) barometric pressure, 77°F (25°C) ambient and induction air temperature, 30% relative humidity at 0.3 inches Hg. (1 kPa) water vapor pressure, 185° F (85° C) engine jacket water outlet temperature. Rating fuel standard: Commercial quality dry natural gas.

Configuration	Engine Model	Bore x Stroke in (mm)
V16	P48GL/GLD	5.98 x 6.5 (152 x 165)
V12	L36GL/GLD	5.98 x 6.5 (152 x 165)
Inline 8	H24GL/GLD	5.98 x 6.5 (152 x 165)
	H24G	5.98 x 6.5 (152 x 165)
Inline 6	F18GL/GLD	5.98 x 6.5 (152 x 165)
	F18G	5.98 x 6.5 (152 x 165)

new engines, all parts and labor are covered for one full year. Five years on major forgings and castings. New service parts are warranted for one year along with the labor costs to replace them.

We built and backed this engine so you can be sure. The Waukesha VGF is the easy choice. The smart choice. The right choice.

the Waukesha VGF.



Continuous Brake Horsepower (kWb) at Indicated RPM

1200 rpm		1500 rpm		1800 rpm	
710	(530)	885	(660)	1065	(800)
530	(400)	665	(500)	800	(600)
355	(265)	445	(330)	530	(400)
215	(160)	265	(200)	320	(240)
265	(200)	330	(250)	400	(300)
160	(120)	200	(150)	240	(180)

Brake Horsepower (kW/b) at Indicated RPM

1500 rpm (50 Hz)		1800 rpm (60 Hz)	
1025	(765)	1230	(918)
770	(574)	920	(686)
510	(380)	615	(460)
385	(285)	460	(345)

Displacement cu in	(liters)	Weight lbs	(Kgs)	Height in	(mm)	Length in	(mm)	Width in	(mm)
2924	(48)	14,900	(6,759)	75.5	(1918)	106.5	(2705)	62.0	(1574)
2193	(36)	11,525	(5,228)	75.5	(1918)	88.0	(2235)	62.0	(1574)
1462	(24)	7,200	(3,265)	68.0	(1727)	94.5	(2395)	50.0	(1264)
1462	(24)	7,200	(3,265)	68.0	(1727)	94.5	(2395)	50.0	(1264)
1096	(18)	5,500	(2,495)	68.0	(1727)	80.5	(2043)	50.0	(1264)
1096	(18)	5,500	(2,495)	68.0	(1727)	80.5	(2043)	50.0	(1264)

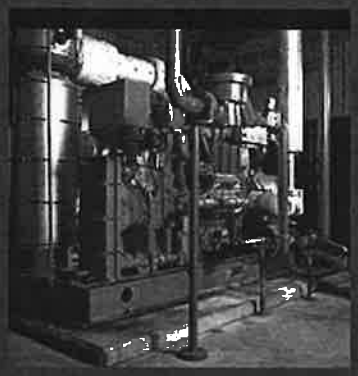
University of Illinois in Chicago installed an L36GL standby set.

A landfill at Vlagheide in Schijndel, The Netherlands, has five H24GLDs efficiently generating electricity from low BTU landfill gas.

Strong Work Ethic.

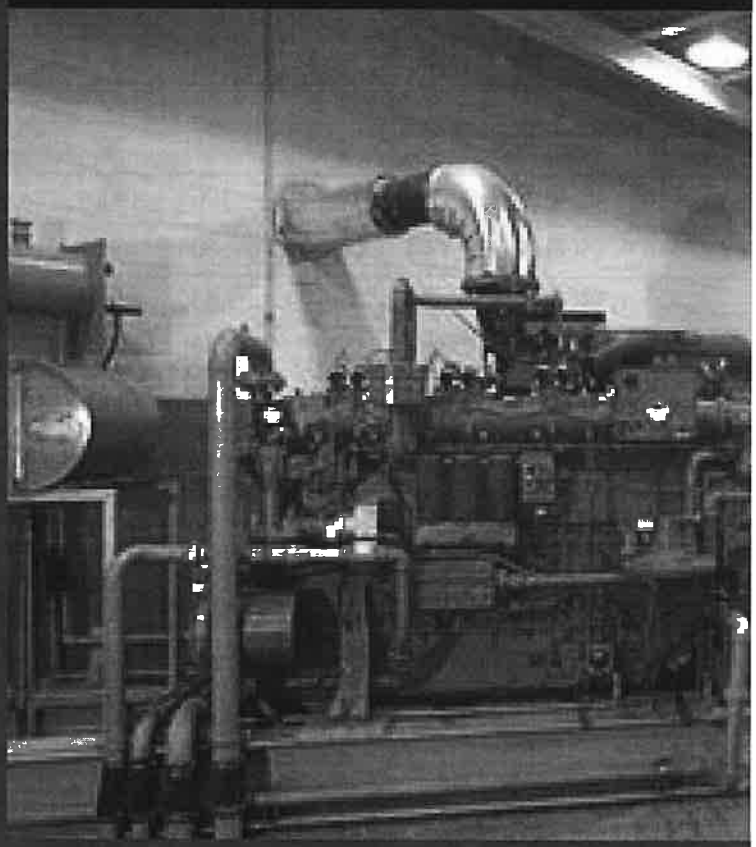
Waukesha has nearly a century of stationary gas engine experience in rugged applications all over the world. Simply put, Waukesha engines are built to work. The VGF continues that heritage.

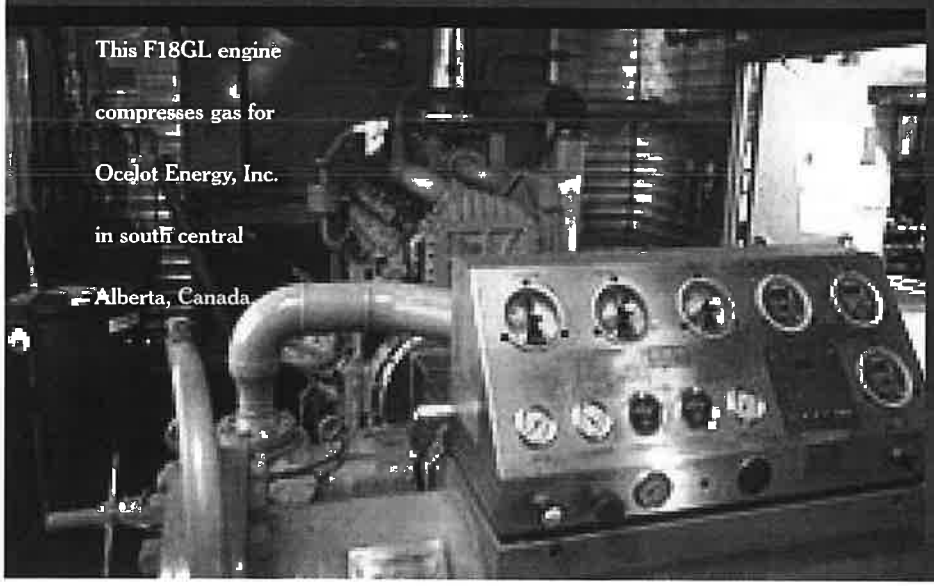
The VGF is the perfect blend of compact size, brute strength and the right technology. No wasted weight, space or hardware. The result is an engine of timely design



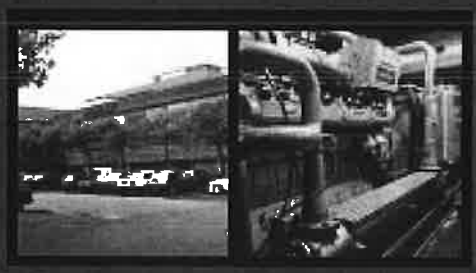
Waukesha VGF F18G drives 90 kW induction generator in parallel with utility for Canonsburg, Pennsylvania, wastewater treatment plant. Recovered heat is used to maintain temperature in digesters.

The Proof is in





This F18GL engine compresses gas for Ocelot Energy, Inc. in south central Alberta, Canada.



Elkerliek Hospital in The Netherlands uses a P48GLD and an H24GLD for standby power and cogeneration.

and enduring reliability. It is economical to own and operate. And it lends itself to extraordinary installation versatility.

The VGF is manufactured in the USA at Waukesha Engine Division in Wisconsin and in Europe at Waukesha Engine Division, Appingedam, The Netherlands.

Nearly one thousand VGF engines have been installed since product introduction in 1987.

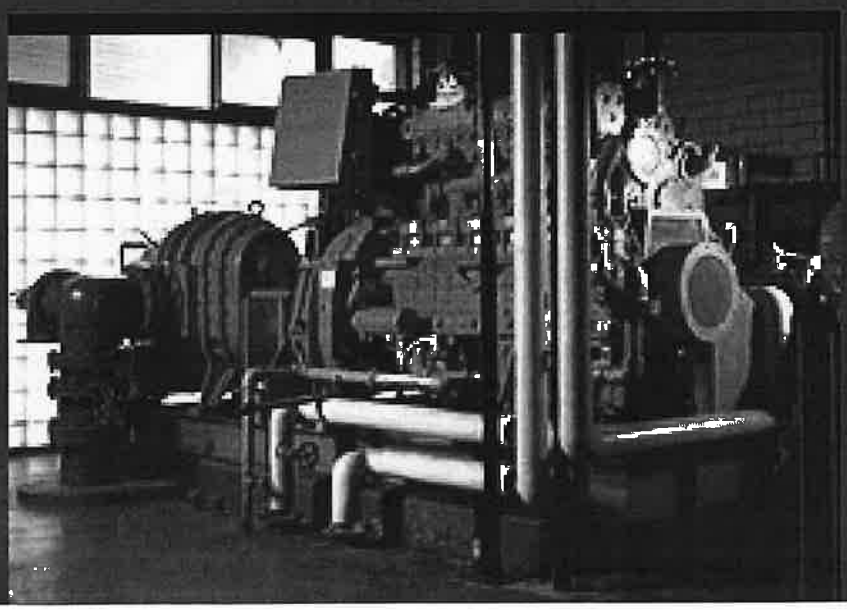
A 700 kW VGF P48GL cogen system generates electricity and warehouse heat for this grain drying operation in Dungannon, Ontario.

the Performance.

CNG Transmission Corp. in Utica, NY, has a VGF H24GL driving a 375 kW generator for standby electrical power at a compressor station.

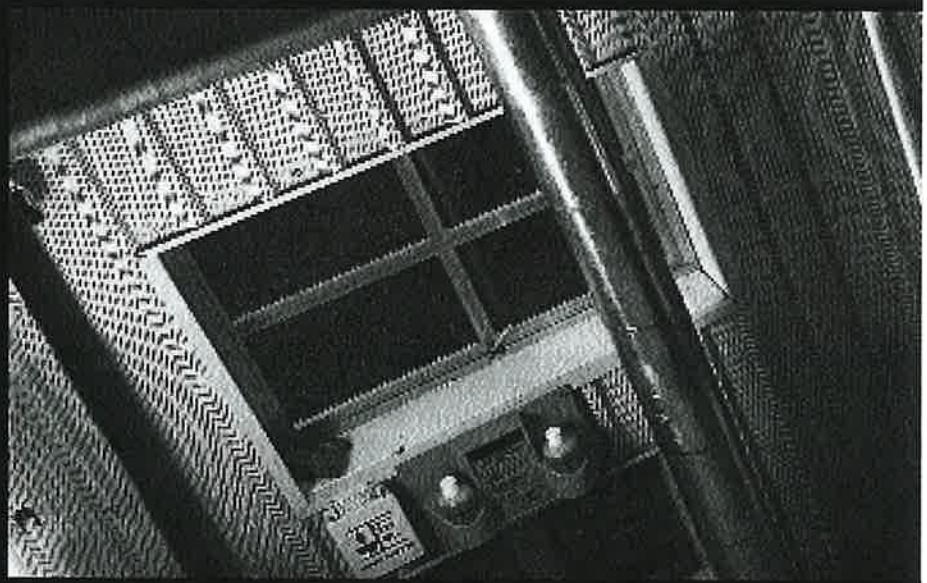
This greenhouse in Antwerpen, Holland, obtains electricity and heat from an F18GLD cogeneration system.

A VGF H24GL genset rated at 350 kWe is used for peak shaving at Lethbridge Regional Hospital in Alberta, Canada. Exhaust heat is converted to steam via a waste heat boiler.



Greensburg Sewer Authority, Greensburg, PA, uses a digester gas powered VGF F18G for aeration in wastewater treatment. Recovered engine heat maintains temperature in digesters.

The Stegeman Meat Factory in Deventer, The Netherlands, has an L36GLD cogen system supplying electricity as well as hot water for absorption cooling.



DRESSER
Waukesha

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(262) 547-3311
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CLIFFORD
Power Systems, Inc.

101 Industrial Blvd.
Mansfield, TX 76063-3611
Phone (817) 640-5544
Fax (817) 453-0219
Toll Free 1-800-888-5557

Equipment Proposed:

Kohler 625 KW Standby Generator
Model Number 600RZW
Engine Waukesha VGF L36GLD Lean-Burn
- Natural Gas Fueled
- Isochronous Governor
- Heavy duty dry type air filters
- Lube oil filters and drain connections to skid
- Unit mounted radiator with shell and fan guard
- 24-volt starter and alternator
- Battery with cables and mounting tray
- Battery charger 10 amp with charge rate meter
- Muffler critical type with flex connector

Engine block heater thermostatically controlled
Generator: 1800 RPM, PMG type excitation, 60 Hz, 3 phase, 480 volt, .25% constant voltage regulator, Class H insulation, direct flex disc drive, 10 or 12 lead reconnectable
Decision-Maker 550 Digital Generator Controller
Detailed Specs Included at end of this document
All weather outdoor sound attenuated generator enclosure rated 85 dba @ 1 meter with interior lighting
1000 amp 100% rated main line circuit breaker mounted in connection box with GFI
Spring isolators
Dry contacts
Alternator heater
Woodward speed controller
Marathon DVR2000EC voltage regulator
Natural gas regulator 8" W.C.-2.5psig
Natural gas solenoid valve

Project Management Services
- Start-up, three up to 8-hour days including travel
- Training of owner's personnel at time of start up
- Operation of equipment at Wedlake Manufacturing in Tulsa, OK
- Factory load bank testing
- Submittal drawings
  - Dimensional drawings, Electrical drawings, Product specifications
- Production testing
- Technical assistance
- Operation and maintenance manuals for engine, generator and controls
- One (1) year warranty

Decision-Maker 550 Controller Details

Standards:
- NFPA 99
- NFPA 110, Level 1
- UL-508 (pending)

Hardware Features
- Alarm horn
- Battery circuits are fuse protected
- Controller mounts in four orientations locally or remotely up to a distance of 12 m (40 ft.)
- Five LED status indicating lights
- Latch-type emergency stop switch
- Vacuum fluorescent display
- Terminals for remote annunciator
- Three-position (run, off/reset, auto) selector switch

Shutdown Functions
Engine functions:

- Air damper fault, if equipped
- High coolant temperature
- High oil temperature
- Low coolant level
- Low oil pressure
- Overcrank
- Overspeed
- General functions:
- Auxiliary—(up to 7 analog inputs each with a high and low programmable shutdown level). NOTE: Non-ECM models have 5 programmable shutdowns)
- Auxiliary—Digital (up to 21 programmable shutdowns)
- ECM communications loss (ECM models only)
- Emergency stop
- Internal fault
- Master switch in off/reset position
- Master switch error
- Master switch open
- NFPA 110 fault

Generator functions:

- Alternator protection against overload and short circuits
- Locked rotor (failed to crank)
- Over AC output voltage
- Overfrequency
- Under AC output voltage
- Underfrequency

Warning Functions

Engine functions:

- Coolant temperature signal loss
- High battery voltage
- High coolant temperature
- Low battery voltage
- Low coolant temperature
- Low fuel (level or pressure)*
- Low oil pressure
- Oil pressure signal loss
- Speed sensor fault
- Starting aid fault
- Weak battery

General functions:

- Auxiliary—(up to 7 analog inputs each with a high and low programmable warning level). NOTE: Non-ECM models have 5 programmable warnings)
- Auxiliary—Digital (up to 21 programmable warnings)
- Battery charger fault*
- Emergency power system (EPS) supplying load
- Engine cooldown delay
- Engine start delay
- Load shed kW overload
- Load shed underfrequency
- Master switch not in auto
- NFPA-110 fault
- System ready

Generator functions:

- AC sensing loss
- Generator running
- Ground fault*
- Overcurrent
- Underfrequency
- Requires optional input sensors.

User-Defined Common Faults

The user customizes outputs through a menu of shutdowns and warnings.
User defines up to 21 relay driver outputs (RDOs), (relays not included) from the following list of functions:
Engine functions:

- Air damper fault, if equipped
- Coolant temperature signal loss
- High battery voltage
- High coolant temperature shutdown
- High coolant temperature warning
- High oil temperature (ECM models only)
- Low battery voltage

- Low coolant level
- Low coolant temperature
- Low fuel (level or pressure)*
- Low oil pressure shutdown
- Low oil pressure warning
- Oil pressure signal loss
- Overcrank
- Overspeed
- Speed sensor fault
- Starting aid
- System ready
- Weak battery

General functions:

- Battery charger fault*
- ECM communications loss (ECM models only)
- EEPROM write failure
- Emergency stop
- Engine cooldown delay
- Engine start delay
- EPS supplying load
- Internal fault
- Load shed kW overload
- Load shed underfrequency
- Master switch error
- Master switch not in auto
- Master switch to off
- NFPA 110 common alarm fault

Generator functions:

- AC sensing loss
- Alternator protection against overload and short circuits
- Generator running
- Ground fault
- Locked rotor (failed to crank)
- Overcurrent
- Overfrequency
- Overvoltage
- Underfrequency
- Undervoltage

* Requires optional input sensors.

NFPA-110 Common Alarms

Additional annunciated alarms including NFPA 110 alarms.

Engine functions:

- High battery voltage
- High coolant temperature shutdown
- High coolant temperature warning
- Low battery voltage
- Low coolant temperature warning
- Low fuel (level or pressure)*
- Low oil pressure shutdown
- Low oil pressure warning
- Overcrank
- Overspeed

General functions:

- Battery charger fault*
- Master switch not in auto
- NFPA 110 common alarm

*Requires optional input sensors.

Monitoring

Standard Equipment and Features

Alarm horn

Indicators:

- Not in auto (yellow)
- Program mode (yellow)
- System ready (green)
- System shutdown (red)
- System warning (yellow)
- Switches and standard features:
- Keypad, 16-button multi-function soft-membrane environmentally sealed
- Lamp test

CLIFFORD POWER SYSTEMS, INC. IS COMMITTED TO BE THE PREFERRED LEADER IN THE POWER GENERATION INDUSTRY. WE WILL FULFILL THIS MISSION BY PROVIDING OUR CUSTOMERS WITH SERVICE ABOVE AND BEYOND THEIR EXPECTATIONS.

- Switch, auto/off-reset/run (engine start)
- Switch, emergency stop (normally closed contacts)
- Vacuum fluorescent display with two lines of 20 characters

Displays

Some engine displays are dependent upon enhanced electronic engine control availability.

Engine monitoring (metric or English units):

- Ambient temperature (ECM models only)
- Battery voltage
- Coolant—pressure, temperature, and level (ECM models only)
- Engine start countdown
- Fuel—pressure, temperature, fuel rate, amount of fuel used during last run (ECM models only)
- Oil—pressure, temperature, level, and crankcase pressure
- RPM

Generator monitoring:

- Current (L1, L2, L3), _ 0.25% accuracy
- Frequency, _ 0.5% accuracy
- Kilowatts, total per phase (L1, L2, L3), _ 0.5% accuracy
- KVA, total per phase (L1, L2, L3), _ 0.5% accuracy
- KVAR, total absorbing/generating per phase (L1, L2, L3), _ 0.5% accuracy
- Percent alternator duty level (actual load kW/standby kW rating)
- Power factor per phase, leading/absorbing
- Voltage (line-to-line, line-to-neutral for all phases), _ 0.25% accuracy

Operational records:

- Event history (stores up to 100 system events)
- Last start date
- Number of starts
- Number of starts since last maintenance
- Operating days since last maintenance
- Operating mode—standby or prime power
- Run time (total, loaded and unloaded hours, and total kW hours)
- Run time since maintenance (total, loaded, and unloaded hours and total kW hours)
- System shutdowns
- System warnings
- Time, date, and day of week

Time delays:

- Crank cycles for on/pause
- Crank cycles for overcrank shutdown
- Engine cooldown
- Engine start
- Load shed
- Voltage, over- and under-
- Starting aid

System parameters:

- Current, rated
- ECM serial number (ECM models only)
- Engine model number
- Engine serial number
- Frequency
- Generator set model number
- Generator set serial number
- Generator set spec number
- kW Rating
- Phase, single and three
- Unit number
- Voltage
- Voltage configuration, wye or delta

Inputs

Customer and remote inputs:

- Analog inputs 0–5 VDC (up to 7 user-defined analog inputs with multiple shutdown and warning levels). NOTE: Non-ECM models have 4 programmable shutdowns)
- Digital contact (up to 21 user-defined digital inputs with shutdown or warning levels).
- Ground fault detector*
- Remote emergency stop
- Remote reset
- Remote 2-wire start

Digital inputs:

- Air damper fault, if equipped
- Battery charger fault*
- Emergency stop

Model: 600RZW

KOHLER POWER SYSTEMS

190–600 V **Gas**

ISO 9001 KOHLER POWER SYSTEMS NATIONALLY REGISTERED

Ratings Range

		Lean-Burn GLD Engine		Rich-Burn GSID Engine	
		60 Hz	50 Hz	60 Hz	50 Hz
Standby:	kW	620–625	524–528	600	500–504
	kVA	775–781	655–660	750	625–630
Prime:	kW	510–600	428–504	510–540	428–456
	kVA	638–750	535–630	638–675	535–570

Generator Set Ratings

				Lean-Burn GLD Engine			Rich-Burn GSID Engine		
				130°C Rise Standby	105°C Rise Prime	80°C Rise Prime	130°C Rise Standby	105°C Rise Prime	80°C Rise Prime
Alternator	Voltage	Ph	Hz	kW/kVA	kW/kVA	kW/kVA	kW/kVA	kW/kVA	kW/kVA
5M4032	120/208	3	60	620/775	590/738	570/713	600/750	535/669	535/669
	127/220	3	60	620/775	590/738	580/738	600/750	535/669	535/669
	139/240	3	60	625/781	595/744	570/713	600/750	540/675	540/675
	240/416	3	60	620/775	590/738	570/713	600/750	535/669	535/669
	277/480	3	60	625/781	595/744	570/713	600/750	540/675	540/675
	110/190	3	50	524/655	500/625	488/610	500/625	456/570	456/570
	115/200	3	50	524/655	500/625	472/590	500/625	456/570	456/570
	120/208	3	50	524/655	500/625	440/550	500/625	456/570	440/550
	220/380	3	50	524/655	500/625	488/610	500/625	456/570	456/570
	230/400	3	50	524/655	500/625	472/590	500/625	456/570	456/570
	240/416	3	50	524/655	500/625	440/550	500/625	456/570	440/550
5M4034	120/208	3	60	625/781	595/744	590/738	600/750	540/675	540/675
	127/220	3	60	625/781	595/744	595/744	600/750	540/675	540/675
	139/240	3	60	625/781	595/744	585/731	600/750	540/675	540/675
	240/416	3	60	625/781	595/744	590/738	600/750	540/675	540/675
	277/480	3	60	625/781	595/744	585/731	600/750	540/675	540/675
	110/190	3	50	528/660	504/630	500/625	504/630	456/570	456/570
	115/200	3	50	528/660	504/630	472/590	504/630	456/570	456/570
	120/208	3	50	528/660	504/630	428/535	504/630	456/570	428/535
	220/380	3	50	528/660	504/630	500/625	504/630	456/570	456/570
	230/400	3	50	528/660	504/630	472/590	504/630	456/570	456/570
	240/416	3	50	528/660	504/630	428/535	504/630	456/570	428/535
→ 5M4036	120/208	3	60	625/781	595/744	600/750	600/750	540/675	540/675
	127/220	3	60	625/781	595/744	570/713	600/750	540/675	535/669
	139/240	3	60	625/781	595/744	585/744	600/750	540/675	540/675
	220/380	3	60	625/781	595/744	595/744	600/750	540/675	540/675
	240/416	3	60	625/781	595/744	600/750	600/750	540/675	540/675
	277/480	3	60	625/781	595/744	595/744	600/750	540/675	540/675
	110/190	3	50	528/660	504/630	504/630	504/630	456/570	456/570
	115/200	3	50	528/660	504/630	504/630	504/630	456/570	456/570
	120/208	3	50	528/660	504/630	480/600	504/630	456/570	456/570
	220/380	3	50	528/660	504/630	504/630	504/630	456/570	456/570
	230/400	3	50	528/660	504/630	504/630	504/630	456/570	456/570
	240/416	3	50	528/660	504/630	480/600	504/630	456/570	456/570
5M4164	220/380	3	60	625/781	595/744	510/638	600/750	540/675	510/638
5M4166	220/380	3	60	625/781	595/744	595/744	600/750	540/675	540/675
5M4274	347/600	3	60	625/781	595/744	530/663	600/750	535/669	530/663
5M4276	347/600	3	60	625/781	595/744	585/706	600/750	540/675	540/675

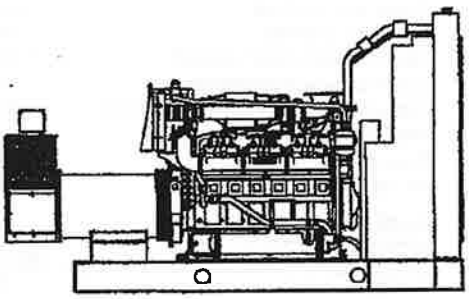
RATINGS: All three-phase units are rated at 0.8 power factor. *Standby Ratings:* Standby ratings apply to installations served by a reliable utility source. The standby rating is applicable to varying loads for the duration of a power outage. There is no overload capability for this rating. Ratings are in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271. *Prime Power Ratings:* Prime power ratings apply to installations where utility power is unavailable or unreliable. At varying load, the number of generator set operating hours is unlimited. *Rich Burn:* A 10% overload capacity is available for one hour in twelve. *Lean Burn:* A 5% overload capacity is available for one hour in twelve. Ratings are in accordance with ISO-8528/1, overload power in accordance with ISO-3046/1, BS 5514, AS 2789, and DIN 6271. For limited running time and base load ratings, consult the factory. Obtain the technical information bulletin (TIB-101) on ratings guidelines for the complete ratings definitions. The generator set manufacturer reserves the right to change the design or specifications without notice and without any obligation or liability whatsoever. GENERAL GUIDELINES FOR DERATION: *Altitude:* Deduct 1% for each 150 m (492 ft.) elevation above 500 m (1640 ft.). *Temperature:* Derate 2% for each 10°C (18°F) temperature above 35°C (100°F).

G4-91 (600RZW) 1/06e

Standard Features

- Kohler Co. provides one-source responsibility for the generating system and accessories.
- The generator set and its components are prototype-tested, factory-built, and production-tested.
- The generator set complies with ISO 8528-5, Class G4 requirements for transient performance. *
- A one-year limited warranty covers all systems and components. Two-, five-, and ten-year extended warranties are also available.
- Alternator features:
  - The brushless, rotating-field alternator has broadrange reconnectability.
  - The pilot-excited, permanent-magnet (PM) alternator provides superior short-circuit capability.
- Other features:
  - The low coolant level shutdown prevents overheating (standard on radiator models only).
  - The generator set is direct-mounted to the skid.
  - An electronic, isochronous governor delivers precise frequency regulation.
  - Electronic engine controls manage the engine.
  - Lean-burn natural gas technology provides maximum power and fuel efficiency.
  - Rich-burn natural gas technology reduces harmful exhaust emissions when used with a catalytic converter.

* This generator set does not meet NFPA 110 requirements for the one-step load acceptance and the 10-second start sequence.



Alternator Specifications

Specifications	Alternator
Type	4-Pole, Rotating-Field
Exciter type	Brushless, Permanent-Magnet, Pilot Exciter
Voltage regulator	Solid State, Volts/Hz
Insulation:	NEMA MG1
Material	Class H, Synthetic, Nonhygroscopic
Temperature rise	130°C, 150°C, Standby
Bearing: quantity, type	1, Sealed
Coupling	Flexible Disc
Amortisseur windings	Full
Rotor balancing	125% (60 Hz), 150% (50 Hz)
Voltage regulation, no-load to full-load (with <0.5% drift due to temp. variation)	3-phase, ±0.25%
Unbalanced load capability	100% of Rated Standby Current
Peak motor starting kVA:	(35% dip for voltages below)
480 V/380 V 5M4032 (10 lead)	2200 (60Hz), 1375 (50Hz)
480 V/380 V 5M4034 (10 lead)	2600 (60Hz), 1750 (50Hz)
480 V/380 V 5M4036 (10 lead)	3150 (60Hz), 2100 (50Hz)
380 V 5M4164 (4 lead)	2250 (60Hz)
380 V 5M4166 (4 lead)	2750 (60Hz)
600 V 5M4274 (4 lead)	1545 (60Hz)
600 V 5M4276 (4 lead)	2800 (60Hz)

- NEMA MG1, IEEE, and ANSI standards compliance for temperature rise and motor starting.
- Sustained short-circuit current of up to 300% of the rated current for up to 10 seconds.
- Sustained short-circuit current enabling downstream circuit breakers to trip without collapsing the alternator field.
- Self-ventilated and dripproof construction.
- Superior voltage waveform from two-thirds pitch windings and skewed stator.
- Digital solid-state, volts-per-hertz voltage regulator with ±0.25% no-load to full-load regulation.
- Brushless alternator with brushless pilot exciter for excellent load response.

Application Data

Engine

Engine Specifications	60 Hz	50 Hz
Manufacturer	Waukesha Engine	
Engine model		
Lean-Burn GLD Engine	VGF L36GLD, 4-Cycle	
Rich-Burn GSID Engine	VGF L36GSID, 4-Cycle	
Engine type	Turbocharged, Intercooled	
Cylinder arrangement	12 V	
Displacement, L (cu. in.)	36 (2198)	
Bore and stroke, mm (in.)	152 x 165 (5.98 x 6.5)	
Compression ratio		
Lean-Burn GLD Engine	11:1	
Rich-Burn GSID Engine	8.7:1	
Piston speed, m/min. (ft./min.)	594 (1950)	495 (1625)
Main bearings: quantity, type	7, Half Shell	
Rated rpm	1800	1500
Max. power at rated rpm, kWm (BHP)		
Lean-Burn GLD Engine	690 (925)	574 (770)
Rich-Burn GSID Engine	656 (880)	548 (735)
Cylinder head material	Cast Iron	
Piston: type, material	Aluminum Alloy	
Crankshaft material	Forged Steel	
Valve material, intake/exhaust:	Hard-Faced Steel	
Governor: type, make/model	Electronic	
Frequency regulation, no-load to full-load	Isochronous	
Frequency regulation, steady state	±0.50%	
Frequency	Field-Convertible	
Air cleaner type, all models	Dry	

Fuel

Fuel System	60 Hz	50 Hz
Fuel type	Natural Gas	
Fuel supply line inlet, mm (in.)	50.8 (2) ANSI 125 lb. Flange	
Natural gas fuel supply pressure, measured at the generator set fuel inlet after any fuel system equipment accessories, kPa (oz./in.^{2})	2-34 (4.6-80)	
Particulate filter requirement, mm (in.)	0.005 (0.0002)	

Exhaust

Exhaust System	60 Hz	50 Hz
Exhaust flow at rated kW, m^3/min. (cfm)		
Lean-Burn GLD Engine	135 (4765)	108 (3816)
Rich-Burn GSID Engine	106 (3755)	84 (2962)
Exhaust temperature at rated kW, dry exhaust, °C (°F)		
Lean-Burn GLD Engine	450 (843)	427 (800)
Rich-Burn GSID Engine	600 (1114)	579 (1074)
Maximum allowable back pressure, kPa (in. Hg)	3.73 (1.1)	
Engine exhaust outlet size, mm (in.)	See ADV Drawing	

Engine Electrical

Engine Electrical System	60 Hz	50 Hz
Ignition system	Electronic	
Battery charging, min.	Requires Float/Equalizer Battery Charger, 24 V, 10 A	
Starter motor rated voltage (DC)	24	
Battery, recommended cold cranking amps (CCA):		
Qty., CCA rating	2, 1150	
Battery voltage (DC)	12	

Lubrication

Lubricating System	60 Hz	50 Hz
Type	Full Pressure	
Oil pan capacity, L (qt.)	—	
Oil pan capacity with filter, L (gal.)	163 (43)	
Oil filter: quantity, type	2, Cartridge	
Oil cooler	Water-Cooled	
Oil requirements	SAE40 Allowable Sulfated Ash Content by Weight 0.5-1.0% (GLD) 0.35-0.5% (GSID)	

Application Data

Cooling

Radiator System	60 Hz	50 Hz
Ambient temperature, °C (°F)	38 (100)	
Engine jacket water capacity, L (gal.)	166 (44)	
Engine auxiliary water capacity, L (gal.)	57 (15)	
Radiator jacket water capacity, including engine, L (gal.)	357 (94)	
Radiator auxiliary water capacity, including engine, L (gal.)	224 (59)	
Minimum engine jacket water flow, Lpm (gpm)		
Lean-Burn GLD Engine	825 (218)	697 (184)
Rich-Burn GSID Engine	997 (263)	841 (222)
Minimum engine auxiliary water flow, Lpm (gpm)	235 (62)	197 (52)
Heat rejected to cooling water at standby rated kW, wet exhaust, kW (Btu/min.)		
Lean-Burn GLD Engine	649 (36920)	401 (22780)
Rich-Burn GSID Engine	574 (32670)	476 (27080)
Heat rejected to auxiliary cooling water at standby rated kW, wet exhaust, kW (Btu/min.)		
Lean-Burn GLD Engine	182 (10370)	128 (7300)
Rich-Burn GSID Engine	131 (7470)	102 (5800)
Water pump type	Centrifugal	
Fan diameter, including blades, mm (in.)	1829 (72)	
Fan, kWm (HP)	31 (42)	19 (25)
Max. restriction of cooling air, intake and discharge side of radiator, kPa (in. H_2O)	0.125 (0.5)	

Operation Requirements

Air Requirements	60 Hz	50 Hz
Radiator-cooled cooling air, m^3/min. (scfm)*	1690 (59700)	1410 (49800)
Combustion air, m^3/min. (scfm)		
Lean-Burn GLD Engine	52 (1820)	42 (1485)
Rich-Burn GSID Engine	33 (1180)	27 (965)
Heat rejected to ambient air, kW (Btu/min.):		
Lean-Burn GLD Engine	34 (1933)	31 (1783)
Rich-Burn GSID Engine	42 (2383)	39 (2233)
Alternator	42 (2383)	35 (1960)

* Air density = 1.20 kg/m^3 (0.075 lbm/ft^3)

Fuel Consumption†	60 Hz		50 Hz	
Natural Gas, m^3/hr. (cfh) at % load	Lean-Burn Standby Rating			
100%	202	(7153)	164	(5794)
75%	159	(5603)	128	(4533)
50%	115	(4054)	93	(3271)
25%	71	(2504)	57	(2010)
Natural Gas, m^3/hr. (cfh) at % load	Lean-Burn Prime Rating			
100%	194	(6851)	157	(5549)
75%	152	(5377)	123	(4348)
50%	111	(3903)	89	(3146)
25%	69	(2429)	55	(1948)
Natural Gas, m^3/hr. (cfh) at % load	Rich-Burn Standby Rating			
100%	201	(7106)	165	(5819)
75%	159	(5602)	129	(4569)
50%	116	(4098)	94	(3319)
25%	73	(2594)	59	(2070)
Natural Gas, m^3/hr. (cfh) at % load	Rich-Burn Prime Rating			
100%	186	(6559)	152	(5364)
75%	147	(5192)	120	(4228)
50%	108	(3825)	88	(3092)
25%	70	(2458)	55	(1956)

† Fuel energy content = 35.38 MJ/m^3 (900 Btu/scft) saturated lower heating value.

Controller

Decision-Maker™ 550 Controller
Audiovisual annunciation.
Programmable microprocessor logic and digital display features.
Alternator safeguard circuit protection.
24-volt engine electrical system capability.
Remote start, remote annunciation, and remote communication options.
Refer to G6-46 for additional controller features and accessories.

KOHLER CO., Kohler, Wisconsin 53044 USA
Phone 920-565-3381, Fax 920-459-1646
For the nearest sales and service outlet in the US and Canada, phone 1-800-544-2444
KohlerPowerSystems.com

Kohler Power Systems
Asia Pacific Headquarters
7 Jurong Pier Road
Singapore 619159
Phone (65) 6264-6422, Fax (65) 6264-6455

Standard Features and Accessories

Standard Features

- Air Cleaner, Heavy Duty
- Air Cleaner Restriction Indicator
- Alternator Protection
- Oil Drain Extension
- Operation and Installation Literature
- Radiator Duct Flange

Accessories

Enclosed Unit

- [x] Sound Enclosure ~~(with enclosed critical silencer)~~
- [ ] Weather Enclosure (with enclosed critical silencer)

~~Open Unit~~

- [x] Exhaust Silencer, Critical, Lean-Burn GLD Engine: 60 Hz kit: PA-354896; 50 Hz kit: PA-354894
- [ ] Exhaust Silencer, Critical, Rich-Burn GSID Engine: Kit: PA-354894
- [ ] Exhaust Silencer, Residential, Kit: PA-354892
- [x] Flexible Exhaust Connector, Stainless Steel

Cooling System

- [x] Block Heater
- [ ] Remote Radiator Cooling

Fuel System

- [x] Air/Fuel Ratio Controller
- [x] Gas Regulator
- [ ] Natural Gas Filter
- [x] Gas Solenoid Valve

Electrical System

- [x] Battery
- [x] Battery Charger, Equalize/Float Type
- [ ] Battery Heater
- [x] Battery Rack and Cables

Engine and Alternator

- [ ] Bus Bar Kits
- [ ] CSA Certification
- [x] Alternator Strip Heater
- [x] Line Circuit Breaker (NEMA1 enclosure) 100% rated
- [ ] Line Circuit Breaker with Shunt Trip (NEMA1 enclosure)
- [x] Optional Alternators
- [ ] Pre-Lube Pumps
- [ ] Pre-Lube Pumps with Heaters
- [x] Rated Power Factor Testing
- [x] Remote Voltage Adjust Control
- [x] Spring Isolators

Maintenance and Literature

- [ ] General Maintenance Literature Kit
- [ ] Maintenance Kit (includes air, oil, and fuel filters)
- [ ] Overhaul Literature Kit
- [ ] Production Literature Kit

Controller

- [x] Common Failure Relay Kit
- [ ] Communications Products and PC Software
- [x] Customer Connection Kit
- [x] Dry Contact Kit (isolated alarm)
- [ ] Remote Annunciator Panel
- [ ] Remote Audiovisual Alarm Panel
- [ ] Remote Emergency Stop Kit
- [ ] Remote Mounting Cable
- [x] Run Relay Kit

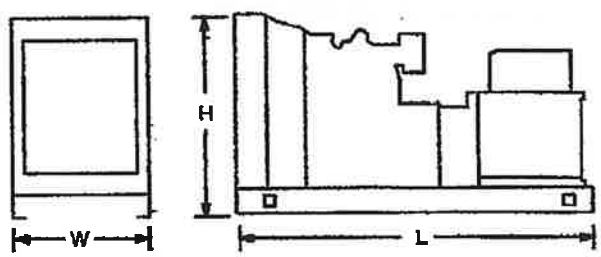
Miscellaneous Accessories

- [x] Woodward Controller
- [x] Marathon DVR 2000EC
- [ ] ____________________
- [ ] ____________________
- [ ] ____________________
- [ ] ____________________
- [ ] ____________________
- [ ] ____________________
- [ ] ____________________

Dimensions and Weights

Overall Size, L x W x H, mm (in.): 4924 x 2416 x 3111 (193.8 x 95.1 x 122.5)

Weight (radiator model), wet, kg (lb.): 10750 (23700)



NOTE: This drawing is provided for reference only and should not be used for planning installation. Contact your local distributor for more detailed information.

DISTRIBUTED BY:

Attachment 7

Generator Engine Operating Log

Black Start Internal Combustion Engine Monthly Operating Log

Site: ***McGrathBeach Peaker***
Facility ID: 7891
BHP: 924 HP
Device ID:

Model: Waukesha, Model VGF36 GL/GLD
Fuel Type Natural Gas

Permit Conditions:

Operator shall limit the operating time to no more than 200 hours in any one year.

Operator shall install and maintain non-resettable totalizing time meter to indicate elapsed operating time of engine.
The engine shall only be operated during utility failure periods (except for maintenance).

Emissions factor 1.25 grms NOx/BHP-hr

Date	Timer Reading (Start)	Timer Reading (End of run)	Total Hours Operated	Reason for Operation	Emergency Operation Hours	Maintenance and Testing Hours	Rolling Hours	Operator Initial
1/30/2024	106.8	107.3	0.5	Monthly Test		0.5		CRC
3/13/2024	107.3	109.0	1.7	Annual Test		1.7		CRC
4/15/2024	109.0	109.1	0.1	T&D Instability (Car Crash)	0.1			CRC
7/2/2024	109.1	109.6	0.5	Monthly Test		0.5		CRC
8/13/2024	109.6	110.1	0.5	Monthly Test		0.5		CRC
8/20/2024	110.1	110.5	0.4	Visual Emissions Test		0.4		CRC
9/20/2024	110.5	111.0	0.5	Monthly Test		0.5		CRC
11/20/2024	111.0	111.6	0.6	Monthly Test		0.6		CRC
12/17/2024	111.6	112.2	0.6	Monthly Test		0.6		CRC

Total Emergency Use Hours (hours/year)	Total Maintenance and Testing Hours (hours/year)	Total Hours (hours/year)	NOx Emissions (lbs)
0.1	5.3	5.4	13.75

Revised: 12/15/2014

Attachment 8

Ammonia Tank PSV Calibrations Records

BASIN VALVE
A member of the PRD Technologies family of companies

QC-02 PSV Test (Inspection) Report

1500 Burnett Street, Signal Hill, California 90755

Company Name	Tag Number	PO Number	Sales Order Number
SOUTHERN CALIFORNIA EDISON COMPANY-	PSV-201-B-D		223938-10

Work Order#	Date Completed	PPRD Location	Work Type
	05-15-2024	Signal Hill	T/O / Test Only - Set Pressure, Back Pressure, Seat Leak

Previous Repair Tag

Previous Repair Tag	VR Stamp	Date	VR Shop	Unique VR Identifier
Yes	Yes	1/27/2016	Basin Valve Co.	176478

Name Plate Information

Manufacturer	Model Number	Size	Set Pressure	BP Const.	BP Var.	Op Temp	CDTP
Crosby	JLT-JOS-E-15-OR-J	3 K 4	50 PSIG	0 PSIG	0 PSIG		50 PSIG

Service	Capacity	Capacity Unit	Serial Number	Code Symbol
Liquid	383	GPM - Water@10%	HS06/55273	UV

Valve Detail

Inlet Size	Inlet Rating	Inlet Connection	Outlet Size	Outlet Rating	Outlet Connection
3	150	RF	4	150	RF

Style	Bonnet	Cap Type
Flg-Conv.	Closed	Screwed

Test

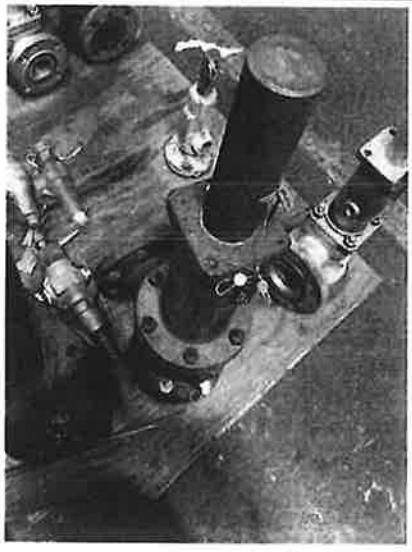
Test Type	Media	Gauge	Opening Pressure Average	Closing Pressure Test Average	Test Result	Test @ PSIG for Back Pressure	Back Pressure Test Result	Seat Tightness Test Type	Seat Tightness Result	Comments	Test Completed By	Date / Time Completed
T/O / Test Only - Set Pressure, Back Pressure, Seat Leak	Water	D-9 / D-4	50 PSIG	PSIG	Pass	30	Pass	90% of Set	Pass		Herman Lyde	04-22-2024 06:38 PM

Stamps & Seals

Sealed	Test Nameplate Installed, T/O Inspection OK: Sealed, Visual & Code Stamped	Stamps Applied
Yes	Yes	No

Final Inspection:
Chris Bordewich

Images

Image Type	Image Display
Overall - As Received	

BASIN VALVE
A member of the PRD Technologies family of companies

QC-02 PSV Test (Inspection) Report

1500 Burnett Street, Signal Hill, California 90755

Company Name	Tag Number	PO Number	Sales Order Number
SOUTHERN CALIFORNIA EDISON COMPANY-	PSV-201-A		223938-5

Work Order#	Date Completed	PPRD Location	Work Type
	05-15-2024	Signal Hill	T/O / Test Only - Set Pressure, Back Pressure, Seat Leak

Previous Repair Tag

Previous Repair Tag	VR Stamp	Date	VR Shop	Unique VR Identifier
Yes	Yes	11/21/2019	BASIN VALVE CO	196857

Name Plate Information

Manufacturer	Model Number	Size	Set Pressure	BP Const.	BP Var.	Op Temp	CDTP
Crosby	JLT-JOS-E-OR-15-J	3 K 4	50 PSIG	0 PSIG	0 PSIG		50 PSIG

Service	Capacity	Capacity Unit	Serial Number	Code Symbol
Liquid	383	GPM - Water@10%	BV11-24614	UV

Valve Detail

Inlet Size	Inlet Rating	Inlet Connection	Outlet Size	Outlet Rating	Outlet Connection
3	150	RF	4	150	RF

Style	Bonnet	Cap Type
Flg-Conv.	Closed	Screwed

Test

Test Type	Media	Gauge	Opening Pressure Average	Closing Pressure Test Average	Test Result	Test @ PSIG for Back Pressure	Back Pressure Test Result	Seat Tightness Test Type	Seat Tightness Result	Comments	Test Completed By	Date / Time Completed
T/O / Test Only - Set Pressure, Back Pressure, Seat Leak	Water	D-9 / D-4	49.3 PSIG	PSIG	Pass	30	Pass	90% of Set	Pass		Herman Lyde	04-22-2024 05:50 PM

Stamps & Seals

Sealed	Test Nameplate Installed, T/O Inspection OK: Sealed, Visual & Code Stamped	Stamps Applied
Yes	Yes	No

Final Inspection:
Chris Bordewich

Images

Image Type	Image Display
Overall - As Received	

Attachment 9

VOC Emissions Log of Coating, Solvent, and Aerosol Spray

COATING, ADHESIVE, and SOLVENT USAGE CHART

COMPANY NAME: So Cal Edison McGrath Peaker
ADDRESS: 251 N Harbor Blvd Oxnard CA 93035
TELEPHONE NUMBER: (805)-673-7228
PERIOD: FROM January THROUGH December 20 24
Maintain daily logs and submit copies monthly to Ali Aleshaiker (ali.aleshaiker@sce.com). Call 909.353.9609 for assiatance.

PERMIT NUMBER: 7891
PREPARED BY (Print Name:) Ali Aleshaiker
SIGNATURE:
TITLE: Environmental Science Advisor

COATING/AEROSOL/SOLVENT USAGE LOG

DATE	NAME, NUMBER, COLOR	COATING CATEGORY	MANUFACTURER	SIZE	QUANTITY USED	ROG CONTENT (lb/gal)	ROG (lb)	
	COATINGS							
10/01-12/31	Steel-Seam - Gray	Industrial Maintenance Coating	Sherwin Williams	GAL	3	1.67000	0.62625	
10/01-12/31	Macropoxy 646 - White	Industrial Maintenance Coating	Sherwin Williams	GAL	5	0.83000	0.51875	
10/01-12/31	Sherloxane 800 - White	Industrial Maintenance Coating	Sherwin Williams	GAL	5	0.77000	0.48125	
	SEALANT							
01/01-12/31	Glycerin	Applied to seals (o-rings) on Reverse Osmosis units	PTI	GAL	1	10.34266	10.34266	
	AEROSOL SPRAY							
01/01-12/31	Electrical Contact Cleaner		CRC	14 oz	2	7.76025	1.69755	
01/01-12/31	Cold Galvanized Corrosion Inhibitor		LPS	14 oz	11	2.80370	3.37321	
01/01-12/31	Kroil		Kano Laboratories	8 oz	1	2.29530	0.14346	
01/01-12/31	WD-40		WD-40 Company	11 oz	1	1.64901	0.14171	
Total VOC Emissions (Pounds)							17.32484	

FORM 109-1 (1/17/92)

Attachment 10

Opacity Survey for Turbine Engine and Blackstart Generator Engine

VISIBLE EMISSION OBSERVATION DATA SHEET

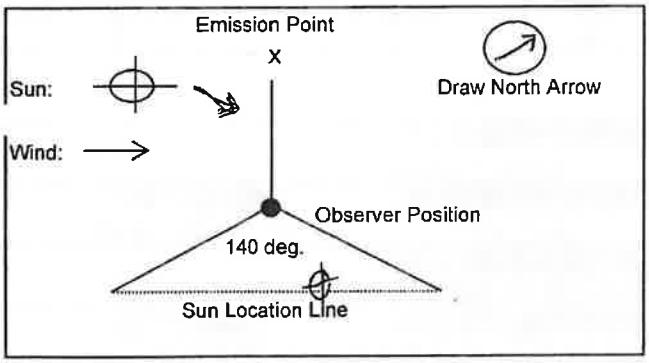
Facility Name:		
SCE McGrath Peaker Facility		
Street Address		
251 N. Harbor Blvd		
City	State	Zip
Oxnard	CA	93036
Phone		

Process Equipment:	Operating Mode:
Turbine	on
Control Equipment:	Operating Mode:

Describe Emission Point:	
stack exit	
Ht. Above Ground Level:	Ht. Rel. to Observer:
60'	60'
Dist. from Observer:	Dir. from Observer:
200'	NW

Describe Emissions			
Start:	None	End:	None
Emission Color:			
Start:	N/A	End:	N/A
Water Plume Present?	No		
Point in the Plume at which Opacity was Determined:			
stack exit			

Describe Plume Background:			
sky			
Background Color:			
Start:	Blue	End:	Blue
Sky Conditions:			
Start:	CLR	End:	CLR
Wind Speed:			
Start:	8 mph	End:	8 mph
Wind Direction:			
Start:	SW	End:	SW
Ambient Temperature:			
Start:	73	End:	73



Observation Date:	Start Time	End Time:
08/20/2024	1056	1116

	Seconds			
Minute	0	15	30	45
1	0	0	0	0
2	0	0	0	0
3	0	0	0	0
4	0	0	0	0
5	0	0	0	0
6	0	0	0	0
7				
8	0	0	0	0
9	0	0	0	0
10	0	0	0	0
11	0	0	0	0
12	0	0	0	0
13	0	0	0	0
14				
15	0	0	0	0
16	0	0	0	0
17	0	0	0	0
18	0	0	0	0
19	0	0	0	0
20	0	0	0	0
21				
22				
23				
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33				
34				
35				
36				
37				
38				
39				
40				

Observers Name:	
Josh Suzuki	
Observers Signature:	Date:
	08/20/2024
Company Name	
Montrose Air Quality Services	
Certified By:	Date:
Cal. Air Resources Board	07/30/2024

VISIBLE EMISSION OBSERVATION DATA SHEET

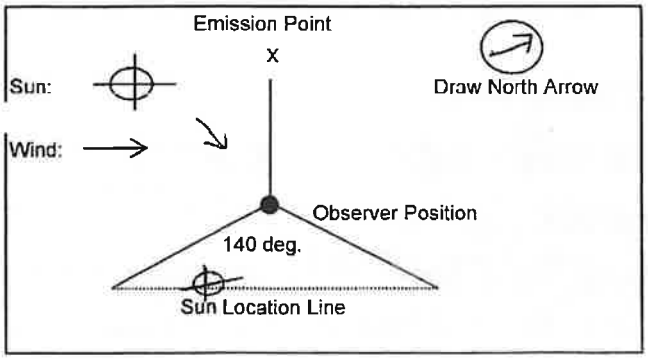
Facility Name:		
SCE McGrath Peaker Facility		
Street Address		
251 N. Harbor Blvd		
City	State	Zip
Oxnard	CA	93035
Phone		

Process Equipment:	Operating Mode:
Blackstart Generator	on
Control Equipment:	Operating Mode:

Describe Emission Point:	
Stack exit	
Ht. Above Ground Level:	Ht. Rel. to Observer:
20'	20'
Dist. from Observer:	Dir. from Observer:
60'	N

Describe Emissions			
Start:	None	End:	None
Emission Color:			
Start:	N/A	End:	N/A
Water Plume Present?	No		
Point in the Plume at which Opacity was Determined:			
stack exit			

Describe Plume Background:			
Sky			
Background Color:			
Start:	Blue	End:	Blue
Sky Conditions:			
Start:	CLR	End:	CLR
Wind Speed:			
Start:	5mph	End:	5mph
Wind Direction:			
Start:	SW	End:	SW
Ambient Temperature:			
Start:	74°	End:	74°



Observation Date:	Start Time	End Time:
8/20/2024	1353	1413

	Seconds			
Minute	0	15	30	45
1	O	O	O	O
2	O	O	O	O
3	O	O	O	O
4	O	O	O	O
5	O	O	O	O
6	O	O	O	O
7				
8	O	O	O	O
9	O	O	O	O
10	O	O	O	O
11	O	O	O	O
12	O	O	O	O
13	O	O	O	O
14				
15	O	O	O	O
16	O	O	O	O
17	O	O	O	O
18	O	O	O	O
19	O	O	O	O
20	O	O	O	O
21				
22				
23				
24				
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26				
27				
28				
29				
30				
31				
32				
33				
34				
35				
36				
37				
38				
39				
40				

Observers Name:	
Josh Suzuki	
Observers Signature:	Date:
	08/20/2024
Company Name	
Montrose Air Quality Services	
Certified By:	Date:
Cal. Air Resources Board	07/30/2019

CALIFORNIA
AIR RESOURCES BOARD

Air Quality Training Program

Awards This Certificate To

Josh Suzuki

For Completion Of

MM106 - Visible Emissions Evaluation: Day Certification

In
Long Beach

On
Tuesday, July 30, 2024

This certificate expires six months after the evaluation completion date.

Heather L Quiros

Heather Quiros, Chief
Enforcement Division